Abstracts

OHBM2012
Beijing, China

June 10-14, 2012

China National Convention Center (CNCC)

18th Annual Meeting
of the Organization for Human Brain Mapping

OHBM2012 Beijing, China

Organization for
Human Brain Mapping

www.humanbrainmapping.org/OHBM2012

POSTER KEY

All posters will be displayed for 2 days, either Monday/Tuesday or Wednesday/Thursday.

For Monday and Tuesday posters, even numbered posters will stand-by on Monday, June 11 and odd numbered posters will stand-by on Tuesday, June 12.

For Wednesday and Thursday posters, even numbered posters will stand-by on Wednesday, June 13 and odd numbered posters will stand-by on Thursday, June 14. See daily poster stand-by session times below.

Daily Poster Stand-By Session Times

Monday, June 11: 13:30 – 15:30 (even numbers)
Tuesday, June 12: 13:30 – 15:30 (odd numbers)
Wednesday, June 13: 13:30 – 15:30 (even numbers)
Thursday, June 14: 10:45 – 12:45 (odd numbers)

Wine Reception in the Poster Hall

There will be a wine reception held in the poster hall on Tuesday, June 12 from 18:00-19:30. Posters being presented that day are encouraged to stand by your poster and present.

MONDAY AND TUESDAY POSTERS

Categories/Subcategories	Poster Numbers
Disorders of the Nervous System	
Alzheimer's Disease and Other Dementias	1-67
Epilepsy	68-118
Stroke	119-146
Traumatic Brain Injury	147-167
Emotion and Motivation	
Emotional Learning	168-184
Emotional Perception	185-229
Reward and Punishment	230-248
Sexual Behavior	249-251
Language	
Language Acquisition	252-259
Language Comprehension and Semantics	260-297
Reading and Writing	298-325
Speech Perception	326-359
Speech Production	

Categories/Subcategories	Poster Numbers
Modeling and Analysis Methods	
Bayesian Modeling	360-363
Classification and Predictive Modeling	364-400
Diffusion MRI Modeling and Analysis	401-428
EEG/MEG Modeling and Analysis	429-464
Exploratory Modeling and Artifact Removal	465-472
fMRI Connectivity and Network Modeling	473-592
Image Registration and Computational Anatomy	593-614
Motion Correction and Preprocessing	615-623
Multivariate Modeling	624-642
Other Methods	643-662
PET Modeling and Analysis	663-665
Segmentation and Parcellation	666-684
Task-Independent and Resting-State Analysis	685-757
Univariate Modeling	758-763

POSTER KEY, CONTINUED

MONDAY AND TUESDAY POSTERS, CONTINUED

Categories/Subcategories	Poster Numbers
Motor Behavior	
Brain Machine Interface	764-784
Mirror System	785-792
Motor Planning and Execution	793-812
Visuo-Motor Functions	813-816
Neuroanatomy	
Anatomy and Function	817-845
Brain Networks	846-882
Cortical Anatomy and Segregation	883-898
Subcortical Structures	899-901
White Matter Anatomy, Fiber Pathways and Connectivity	902-922
Perception and Attention	
Attention: Auditory/Tactile/Motor	923-926
Attention: Visual	927-948
Chemical Senses: Olfaction, Taste	949-954
Consciousness and Awareness	955-975
Perception: Auditory/ Vestibular	976-985
Perception: Multisensory and Crossmodal	986-1005
Perception: Pain and Visceral	1006-1026
Perception: Tactile/Somatosensory	1027-1045
Perception: Visual	1046-1099
Sleep and Wakefulness	1100-1111
Social Neuroscience	
Social Cognition	1112-1113

WEDNESDAY AND THURSDAY POSTERS

Categories/Subcategories	Poster Numbers
Brain Stimulation Methods	
Deep Brain Stimulation	1-8
Direct Electrical/Optogenetic Stimulation	9-10
TDCS	11-24
TMS	25-38
Disorders of the Nervous System	
Addictions	39-75
Autism	76-94
Developmental Disorders	95-130
Mood and Anxiety Disorders	131-203
Obsessive-Compulsive Disorder and Tourette Syndrome	204-213
Other Disorders	214-264
Parkinson's Disease and Movement Disorders	265-292
Schizophrenia and Psychotic Disorders	293-355
Sleep Disorders	356-357
Genetics	
Genetic Association Studies	358-379
Genetic Modeling and Analysis Methods	380-389
Neurogenetic Syndromes	390
Higher Cognitive Functions	
Decision Making	391-444
Executive Function	445-475
Imagery	476-480
Music	481-491
Reasoning and Problem Solving	492-505
Space, Time and Number Coding	506-517

POSTER KEY, CONTINUED

WEDNESDAY AND THURSDAY POSTERS, CONTINUED

Categories/Subcategories	Poster Numbers
Imaging Methods	
Anatomical MRI	518-545
BOLD fMRI	546-637
Diffusion MRI	638-686
EEG	687-705
MEG	706-715
MR Spectroscopy	716-731
Multi-Modal Imaging	732-755
Non-BOLD fMRI	756-764
Optical Imaging/NIRS	765-787
PET	788-792
Informatics	
Atlases	793-800
Databasing and Data Sharing	801-809
Pipelines	810-818
Learning and Memory	
Implicit Memory	819-821
Long-Term Memory (Episodic and Semantic)	822-846
Neural Plasticity and Recovery of Function	847-860
Skill Learning	861-874
Working Memory	875-909

Categories/Subcategories	Poster Numbers
Lifespan Development	
Aging	910-956
Normal Brain Development: Fetus to Adolescence	957-983
Physiology, Metabolism and Neurotransmission	
Cerebral Metabolism and Hemodynamics	984-997
Neurophysiology of Imaging Signals	998-1002
Pharmacology and Neurotransmission	1003-1011
Social Neuroscience	
Self Processes	1012-1026
Social Cognition	1027-1079
Social Interaction	1080-1107

SCHEDULE OF POSTER PRESENTATIONS

Monday, June 11, 2012 and Tuesday, June 12, 2012

* Indicates poster will also be presented during an Oral Session. The oral session number is indicated in parantheses after the poster title.

** Indicates poster will also be presented during an Interactive Poster (I-Poster) Session. Please check the Program Book for I-Poster Presentation times.

Information listed, including author affiliations, appear as submitted.

DISORDERS OF THE NERVOUS SYSTEM

Alzheimer's Disease and Other Dementias

1 MT Cortical Differences Analysis with Multivariate Tensor-Based Morphometry in 829 ADNI subjects
Xing An[1,2], Jie Shi[2], Yalin Wang[2], The ADNI[3]
[1]Beijing Institute of Technology, Beijing, China, [2]Arizona State University, Tempe, AZ, [3]The Alzheimer's Disease Neuroimaging Initiative, San Francisco, United States

2 MT Unbiased sparse longitudinal cortical analysis improves detection power in CSF-confirmed AD and FTD
Brian Avants[1], Corey McMillan[2], Murray Grossman[2]
[1]University of Pennsylvania, Philadelphia, United States, [2]University of Pennsylvania, Philadelphia, PA

3 MT Long-term test-retest reproducibility of resting-state networks in healthy subjects and MCI patients
Albert Berman[1], Janusch Blautzik[1], Daniel Keeser[1,2], Marco Paolini[1], Kirsch Valerie[1], Sophia Mueller[3], Ute Coates[1], Maximilian Reiser[1], Stefan Teipel[4], Thomas Meindl[1]
[1]Institute of Clinical Radiology, Ludwig-Maximilian University, Munich, Germany, [2]Department of Psychiatry and Psychotherapy, Ludwig-Maximilian University, Munich, Germany, [3]Harvard University, Cambridge, MA, [4]Department of Psychiatry, University of Rostock, and DZNE, German Center for Neurodegenerative Disor, Rostock, Germany

4 MT Combined MRI and PET coherence analysis in early and prodromal AD subjects
Paolo Bosco[1], Andrea Chincarini[1], Mario Esposito[2], Luca Rei[2], Francesco Sensi[1], Ilaria Solano[2], Gianluca Gemme[1], Sandro Squarcia[1], Renata Longo[3], Roberto Bellotti[4]
[1]INFN, Genova, Italy, [2]Università degli studi di Genova, Genova, Italy, [3]INFN, Trieste, Italy, [4]INFN, Bari, Italy

5 MT A Meta-Analysis of FMRI Biomarkers for Alzheimer's Disease
Ali Bourisly[1], Alexandre Savio[2], Manuel Grana[2]
[1]Department of Physiology, Faculty of Medicine, Kuwait University, Jabriya, Kuwait, [2]Grupo de Inteligencia Computacional, UPV/EHU, San Sebastian, Spain

6 MT Combined cognitive training and rTMS in patients with Alzheimer's Disease
Anna-Katharine Brem[1], Lukas Schilberg[2], Catarina Freitas[2], Natasha Atkinson[2], Leonie Asboth[2], Christina Carbone[2], Ilya Vidrin[2], Alvaro Pascual-Leone[2]
[1]Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, United States, [2]Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

7 MT Increased Amygdala Functional Connectivity during Working Memory in Mild Cognitive Impairment
Lucas Broster[1], Ruolei Gu[2,1], Sarah Wing[1], Chunyan Guo[3,1], Jessica Clark[4,5], McKinley Heflin[1], Gregory Jicha[6,7], Yang Jiang[1,7]
[1]Department of Behavioral Science, University of Kentucky College of Medicine, Lexington, KY, [2]Institute of Brain and Cognitive Science, Beijing Normal University, Beijing, China, [3]Capital Normal University, Beijing, China, [4]National Rehabilitation Hospital, Washington DC, United States, [5]Department of Psychology, University of Kentucky College of Medicine, Lexington, KY, [6]Department of Neurology, University of Kentucky College of Medicine, Lexington, KY, [7]Sanders-Brown Center on Aging, Lexington, KY

8 MT Tract-Specific Study of Semantic, NonFluent and Logopenic Variants of Primary Progressive Aphasia
Caroline Brun[1], James Gee[2], Murray Grossman[2], Corey McMillan[2], John Powers[2], Paul Yushkevich[2]
[1]University of Pennsylvania, N/A, [2]University of Pennsylvania, Philadelphia, PA

9 **MT** **Corpus callosum degeneration in mild cognitive impairment and Alzheimer's disease**

Ni Jung Chang[1], Kun-Hsien Chou[2], Pei-Ning Wang[3], Jiing-Feng Lirng[4], Ker-Neng Lin[3], Wei-Ta Chen[3], Gong-Yau Lan[5], Ching-Po Lin[6]
[1]Department of Biomedical Imaging and Radiological Sciences (BIRS), National Yang-Ming University, New Taipei City, Chinese Taipei, [2]National Yang Ming University, [3]Department of Neurology, National Yang-Ming University School of Medicine, Taipei, Chinese Taipei, [4]Department of Radiology, National Yang-Ming University School of Medicine, Taipei, Chinese Taipei, [5]Department of Medical Imaging, Cheng-Hsin Hospital, Taipei, Chinese Taipei, [6]National Yang-Ming University, Taipei, Chinese Taipei

10 **MT** **Gender Modulates the APOE ε4 Effect in Healthy Older Controls**

Jessica Damoiseaux[1], William Seeley[2], Juan Zhou[3], William Shirer[4], Giovanni Coppola[5], Anna Karydas[6], Howard Rosen[6], Bruce Miller[6], Joel Kramer[6], Michael Greicius[7]
[1]Stanford University School of Medicine, Stanford, United States, [2]University of California San Francisco, San Francisco, United States, [3]Duke-NUS Graduate Medical School, Singapore, Singapore, [4]Stanford University, Stanford, CA, [5]University of California, Los Angeles, Los Angeles, CA, [6]University of California San Francisco, San Francisco, CA, [7]Stanford University, Stanford, United States

11 **MT** **Functional Connectivity within the Medial Temporal Lobe Increases in amnesic MCI**

Sandhitsu Das[1], Dasha Kliot[1], Lauren Mancuso[1], Sylvia Orozco[1], John Pluta[1], Paul Yushkevich[1], David Wolk[1]
[1]University of Pennsylvania, Philadelphia, PA

12 **MT** **Intensive Cognitive Stimulation Enhances Activity in Posterior Areas of the Default Mode Network**

Matteo De Marco[1], Francesca Meneghello[2], Davide Duzzi[2], Luca Ghezzo[2], Luciano Foscolo[2], Annalena Venneri[1]
[1]University of Sheffield, Sheffield, United Kingdom, [2]IRCCS Ospedale San Camillo, Venice, Italy

13 **MT** **Impaired frontal-striatal function in antiretroviral naïve HIV positive South African Xhosa subjects**

Stéfan Du Plessis[1], Matthijs Vink[2], Bruce Spottiswoode[3,4], Carsten Scheller[5], Eleni Koutsilieri[5], John Joska[6], Dan Stein[7,8], Robin Emsley[1]
[1]Department of Psychiatry, University of Stellenbosch, Cape Town, South Africa, [2]Rudolf Magnus Institute of Neuroscience, Utrecht, Netherlands, [3]MRC/UCT Medical Imaging Research Unit, Department of Human Biology, University of Cape Town, Cape Town, South Africa, [4]Division of Radiology, University of Stellenbosch, Cape Town, South Africa, [5]Institute for Virology and Immunobiology, University of Würzburg, Würzburg, Germany, [6]Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa, [7]Medical Research Council (Unit on Anxiety and Stress Disorders), Cape Town, South Africa, [8]Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa

14 **MT** **Integrative FDG-PET and MRI Model of Aging and Disease Progression in Alzheimer's Disease**

Juergen Dukart[1], Ferath Kherif[2], Karsten Müller[3], Matthias Schroeter[4], Richard Frackowiak[5], Bogdan Draganski[6]
[1]Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland, [2]LREN, CHUV, DNC university lausanne, Lausanne, Switzerland, [3]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [4]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [5]LREN, Département des Neurosciences Cliniques, CHUV, Université de Lausanne, Lausanne, Switzerland, Lausanne, Switzerland, [6]LREN, Département des neurosciences cliniques - CHUV, Lausanne, Switzerland

15 **MT** **Longitudinal patterns of BrainAGE in normal aging, MCI, and AD**

Katja Franke[1], Christian Gaser[1]
[1]Structural Brain Mapping Group, Department of Psychiatry, University Hospital, Jena, Germany

16 **MT** **Lesion mapping in relation to cognition & treatment responsiveness in vascular or mixed dementia**

Fuqiang Gao[1,2], Gregory Szilagyi[1], Kevin Shield[3], Alex Kiss[4], Kenneth Rockwood[5], Sandra Black[1,2,6]
[1]L.C. Campbell Cognitive Neurology, Sunnybrook Research Institute, University of Toronto, Toronto, Canada, [2]Heart and Stroke Centre for Stroke Recovery, Sunnybrook Health Sciences Centre, Toronto, Canada, [3]Department of Epidemiology, University of Toronto, Toronto, Canada, [4]Evaluative Clinical Sciences, Brain Sciences Program, Sunnybrook Health Sciences Centre, Toronto, Canada, [5]Geriatric Medicine and Neurology, Dalhousie University, Halifax, Canada, [6]Division of Neurology, Department of Medicine, University of Toronto, Toronto, Canada

17 MT **Self-appraisal and medial prefrontal activation in early stage Alzheimer's disease**
Sarah Genon[1], Fabienne Collette[1], Lucie Angel[2], Eric Salmon[1], Christine Bastin[1]
[1]Cyclotron Research Centre, LIEGE, Belgium, [2]François-Rabelais University, TOURS, France

18 MT **SVM-based Markers Yield Outcome Measures for Neuroimaging Clinical Trials of Alzheimer's Disease**
Chris Hinrichs[1], Moo Chung[2], Sterling Johnson[3], Vikas Singh[3]
[1]University of Wisconsin - Madison, Madison, United States, [2]University of Wisconsin, Madison, WI, [3]University of Wisconsin – Madison, Madison, WI

19 MT **Attenuated theta phase locking during auditory change detection processing in early-stage AD**
Fu-Jung Hsiao[1,2], Chia-Hsiung Cheng[1], Wei-Ta Chen[3], Yung-Yang Lin[1]
[1]Institute of Brain Science, National Yang Ming University, Taipei, Chinese Taipei, [2]Department of education and research, Taipei city hospital, Taipei, Chinese Taipei, [3]Department of Neurology, National Yang-Ming University School of Medicine, Taipei, Chinese Taipei

20 MT **Longitudinal changes of neuropsychiatric symptoms in normal aging, MCI and AD patients: a VBM study**
Xiaochen Hu[1], Dix Meiberth[1], Beate Newport[2], Frank Jessen[1]
[1]Department of Psychiatry and Psychotherapy, University of Bonn, Bonn, Germany, [2]German Center for Neurodegenerative Diseases, University of Bonn, Bonn, Germany

21 MT **Detection of Dementia using Arterial Spin Labeling Perfusion MRI**
Wei Huang[1], Yanbo Wang[2], Mei-Yee Tang[1], Ramani Venketasubramanian[3], Christopher Chen[4], Anqi Qiu[2], Kai-Hsiang Chuang[1]
[1]Laboratory of Molecular Imaging, Singapore Bioimaging Consortium, Singapore, Singapore, [2]National University of Singapore, Singapore, Singapore, [3]Division of Neurology, National University Hospital, Singapore, Singapore, Singapore, [4]Department of Pharmacology, National University of Singapore, Singapore, Singapore, Singapore

22 MT **Mismatch negativity: distinct patterns of effective connectivity in bvFTD and PSP**
Laura Hughes[1,2], Boyd Ghosh[2], james rowe[2,1]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom, [2]Department of Clinical Neurosciences, University of Cambridge, Cambridge, United Kingdom

23 MT **Different Network Structure and Complex Network Properties in Brain Image of Developing AD**
Hyoungkyu Kim[1], Jaeseung Jeong[2]
[1]KAIST, Deajon, Korea, Republic of, [2]KAIST, Daejeon, Korea, Republic of

***24** MT **C9ORF72 gene mutation increases functional connectivity in FTLD (O-M1)**
Vesa Kiviniemi[1], Riikka Rytty[2], Juha Nikkinen[1], Osmo Tervonen[1], Anne Remes[2]
[1]Department of Diagnostic Radiology, Oulu University Hospital, Oulu, Finland, [2]Department of Neurology, Oulu University Hospital, Oulu, Finland

25 MT **Accelerated Brain Atrophy Mapped in Carriers of Multiple AD Risk Genes: Empowering Clinical Trials**
Omid Kohannim[1], Xue Hua[1], Priya Rajagopalan[1], Derrek Hibar[1], Neda Jahanshad[1], Arthur Toga[1], Clifford Jack[2], Michael Weiner[3], Paul Thompson[1]
[1]Laboratory of Neuro Imaging, UCLA, Los Angeles, CA, USA, [2]Department of Radiology, Mayo Clinic, Rochester, MN, USA, [3]Departments of Radiology and Biomedical Imaging, Psychiatry and Medicine, UCSF School of Medicine, San Francisco, CA, USA

26 MT **Annual brain volume changes in MCI and dementia: A Voxel-Guided Morphometry study**
Matthias Kraemer[1], Andreas Dabringhaus[2], Martha Dlugaj[3], Thorsten Schormann[4], Christian Weimar[3]
[1]Neurologisches Therapiecentrum, Cologne, Germany, [2]St. Mauritius Therapieklinik, Meerbusch, Germany, [3]Department of Neurology, University Hospital, Essen, Germany, [4]Institute for Anatomy, Duesseldorf, Germany

27 MT **Default mode network connectivity in Alzheimer's disease and Parkinson's disease dementia**
Lenka Krajcovicova[1], Michal Mikl[1], Radek Mareček[1], Irena Rektorova[1]
[1]Central European Institute of Technology, CEITEC, Masaryk University, Brno, Czech Republic

28 MT **Perceptual encoding in persons with mild cognitive impairment: An ERP study**
Michael Kuo[1], Karen Liu[1], Evan Gao[1], Chetwyn Chen[1]
[1]Hong Kong Polytechnic University, Hong Kong, Hong Kong

29 MT **Neuropsychological Correlates of P300 in Patients with Alzheimer's Disease**
Moon-Soo Lee[1], Seung-Hwan Lee[2,3], Eunok Moon[3], Yoon-Jae Moon[3], Sangrae Kim[3], Seung-Hyun Kim[1], In-Kwa Jung[1]
[1]Department of psychiatry, Korea University, College of Medicine, Seoul, Korea, Republic of, [2]2Psychiatry Department, Ilsan Paik Hospital, Inje University, Goyang, Korea, Republic of, [3]Clinical Emotion and Cognition Research Laboratory, Goyang, Korea, Republic of

30 MT Differentiations between MCI and normal older adults: An ERP study on working memory decline
Juan Li[1], Lucas Broster[2], Charles Smith[3], Gregory Jicha[4], Yang Jiang[5]
[1]Key laboratory of Mental Health, Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]Department of Behavioral Science, University of Kentucky College of Medicine, Lexington, KY, [3]Department of Neurology, University of Kentucky College of Medicine, Lexington, KY, [4]Department of Neurology, University of Kentucky College of Medicine, LEX, KY, [5]Department of Behavioral Science, University of Kentucky College of Medicine, LEX, KY

31 MT Spontaneous Brain Activity in Subtypes of Amnestic MCI: a Resting-State fMRI Study
Xin Li[1], Miao Cao[1], Junying Zhang[1], Chao Ma[1], Yaojing Chen[1], Xiaoqing Zhou[1], Yong He[1], Zhanjun Zhang[1]
[1]State key laboratory of cognitive neuroscience and learning, Beijing Normal University, Beijing, China

32 MT DTI with Tract-based Spatial Statistics (TBSS) Reveals Heterogeneity in Different aMCI Subtypes
Ying Liang[1], He Li[2], Ni Shu[1], Junying Zhang[1], Xin Li[1], Zhanjun Zhang[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Institute of Basic Research In Clinical Medicine, China Academy of Chinese Medical Sciences, Beijing, China

33 MT Morphological and functional brain alterations associated with Alzheimer's disease
Linwen Liu[1], Yong Fan[2]
[1]National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China, [2]Institute of Automation, Chinese Academy of Sciences, Beijing, China

34 MT Abnormalities of Cortical Sulci in Early Stage Alzheimer's disease
Tao Liu[1,2,3], Darren Lipnicki[1], Wanlin Zhu[1], Dacheng Tao[2], Chengqi Zhang[2], Yue Cui[3], Jesse Jin[2,3], Jiyang Jiang[1], Perminder Sachdev[1], Wei Wen[1]
[1]University of New South Wales, Sydney, Australia, [2]University of Technology Sydney, Sydney, Australia, [3]the University of Newcastle, Sydney, Australia

35 MT Impaired Long Distance Connectivity and Weighted Network Architecture in Alzheimer's disease
Yong Liu[1,2], Xinqing Zhang[3], Jieqiong Liu[3], Yunyun Duan[4], Aaron F. Alexander-Bloch[2], Bing Liu[1], Chunshui Yu[5], Tianzi Jiang[1], Edward Bullmore[2]
[1]CCM,National Laboratory of Pattern Recognition, Institute of Automation, Beijing, China, [2]Brain Mapping Unit, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom, [3]Department of Neurology, Xuanwu Hospital of Capital Medical University, Beijing, China, [4]Department of Radiology, Xuanwu Hospital of Capital Medical University, Beijing, China, [5]Department of Radiology, Tianjin Medical University General Hospital, Tianjin, China

36 MT Disrupted Organization of White Matter Network in Alzheimer's Disease and Mild Cognitive Impairment
Chun-Yi Lo[1], Pei-Ning Wang[2], Kun-Hsien Chou[1], Wang Jinhui[3], Yong He[4], Ching-Po Lin[5]
[1]National Yang Ming University, [2]Department of Neurology, National Yang-Ming University School of Medicine, Taipei, Chinese Taipei, [3]State Key laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [4]State key laboratory of cognitive neuroscience and learning, Beijing Normal University, Beijing, China, [5]National Yang-Ming University, Taipei, Chinese Taipei

37 MT Multivariate indexed regional laterality differentiates mild cognitive impairment from healthy aging
Xiaojing Long[1], Lijuan Zhang[1], Weiqi Liao[1], Chunxiang Jiang[1], Bensheng Qiu[1]
[1]Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China

38 MT Asymptomatic MRI lesion load is predicted by a EEG-Source/Cognitive MVPA in hypertensive subjects
Yenisleidy Lorenzo-Ceballos[1], Juan Antonio Samper-Noa[1], Gertrudis de los Angeles Hernández-González[1], Jorge Bosch-Bayard[1], Pedro A. Valdes-Sosa[1], Lídice Galán-García[1]
[1]Cuban Neuroscience Center, Ciudad Habana, Cuba

39 MT ASL Measurements of Precuneus CBF in Dementia with Vascular Disease and Alzheimer's Disease
Wen-Ming Luh[1], Belen Pascual[2], Joseph Masdeu[2]
[1]National Institutes of Health, Bethesda, MD, United States, [2]University of Navarra, Pamplona, Spain

40 MT Emotional Processing Differentiates Amnestic Cognitive Impairment and Late-Life Depression
Linda Mah[1], Cheryl Grady[2], Nicole Anderson[2], Bruce Pollock[3]
[1]Rotman Research Institute, Baycrest, University of Toronto, Toronto, Canada, [2]Rotman Research Institute, Baycrest, University of Toronto, Toronto, Ontario, [3]Centre for Addiction and Mental Health, Department of Psychiatry, University of Toronto, Toronto, Ontario

41 MT Withdrawn

42 MT Frontal atrophy and executive dysfunction in APOE E4 non-carriers converting to Alzheimer's dementia

Katrin E Morgen[1], Lutz Froelich[1], Heike Tost[1], Michael Plichta[1], Johannes Kornhuber[2], Harald Hampel[3], Stefan Teipel[4], Michael Ewers[5], Frank Jessen[6], Oliver Peters[7], Holger Jahn[8], Christian Luckhaus[9], Michael Huell[10], Hermann-Josef Gertz[11], Johannes Schroeder[12], Johannes Pantel[3], Isabella Heuser[7], Jens Wiltfang[13], Eckart Ruether[14], Wolfgang Maier[15], Andreas Meyer-Lindenberg[1]
[1]Central Institute of Mental Health, Mannheim, Germany, [2]Department of Psychiatry and Psychotherapy, University of Erlangen, Erlangen, Germany, [3]Department of Psychiatry and Psychotherapy, University of Frankfurt, Frankfurt, Germany, [4]Department of Psychiatry and Psychotherapy, University of Rostock, Rostock, Germany, [5]Department of Psychiatry and Psychotherapy, Technical University München, München, Germany, [6]Department of Psychiatry and Psychotherapy, University of Bonn, Bonn, Germany, [7]Department of Psychiatry and Psychotherapy, Charite, Berlin, Germany, [8]Department of Psychiatry and Psychotherapy, University Hospital Hamburg-Eppendorf, Hamburg, Germany, [9]Department of Psychiatry and Psychotherapy, University of Düsseldorf, Düsseldorf, Germany, [10]Department of Psychiatry and Psychotherapy, University of Freiburg, Freiburg, Germany, [11]Department of Psychiatry and Psychotherapy, University of Leipzig, Leipzig, Germany, [12]Department of Psychiatry and Psychotherapy, University of Heidelberg, Heidelberg, Germany, [13]Department of Psychiatry and Psychotherapy, University of Duisburg-Essen, Essen, Germany, [14]Department of Psychiatry and Psychotherapy, University of Goettingen, Goettingen, Germany, [15]University of Bonn, Bonn, Germany

43 MT Amyloid load has network- and hub-specific effects on connectivity in default and attention networks

Nicholas Myers[1], Jens Göttler[2], Valentin Riedl[3], Stefan Förster[4], Timo Grimmer[2], Afra Wohlschläger[5], Alexander Drzezga[2], Christian Sorg[6]
[1]Oxford University, Oxford, United Kingdom, [2]Technische Universität München, Munich, Germany, [3]Department of Neuroradiology and Neurology, Technische Universität München, Munich, Germany, [4]Departments of Neuroradiology and Nuclear Medicine, Technische Universität München, Munich, Germany, [5]Department of Neuroradiology, Technische Universität München, Munich, Germany, [6]Department of Psychiatry, Neuroradiology and Nuclear Medicine, Technische Universität München, Munich, Germany

44 MT Anatomical Network Measures Predict Future Decline in People With Mild Cognitive Impairment

Talia Nir[1], Neda Jahanshad[1], Arthur Toga[1], Bret Borowski[2], Matt Bernstein[2], Clifford Jack[2], Michael Weiner[3], Paul Thompson[1]
[1]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA, United States, [2]Department of Radiology, Mayo Clinic and Foundation, Rochester, MN, United States, [3]Department of Radiology and Biomedical Imaging, UCSF School of Medicine, San Francisco, CA, United States

45 MT Binding of α4β2 nicotinic acetylcholine receptor and cognition in normal subjects

Yasuomi Ouchi[1], Tatsuhiro Terada[1], Shunsuke Yagi[1], Yumi Oboshi[1], Etsuji Yoshikawa[2], Masami Futatsubashi[2], Toshihiko Kanno[3], Mikako Ogawa[4], asuhiro Magata[4]
[1]Dept of Biofunctional Imaging, Hamamatsu University School of Medicine, Hamamatsu, Japan, [2]Hamamatsu Photonics KK, Hamamatsu, Japan, [3]Hamamatsu Medical Center, Hamamatsu, Japan, [4]Dept of Molecular Imaging, Hamamatsu University School of Medicine, Hamamatsu, Japan

46 MT Functional alterations in task-induced BOLD activity as an early biomarker of cognitive decline

Judy Pa[1], Jacob Bollinger[1], Nicole Yee[1], Julene Johnson[1,2], Adam Gazzaley[1]
[1]University of California, San Francisco, Department of Neurology, San Francisco, CA, [2]University of California, San Francisco, Institute for Health and Aging, Department of Social and Behavioral Sciences, San Francisco, CA

47 MT Changes in specific brain networks correlate with cognitive and motor function in PSP and CBD

Timothy Rittman[1], Boyd Ghosh[1], William Shirer[2], Michael Greicius[2], james rowe[1]
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48 MT Diffusivity and anisotropy as indicative for white matter differences in Alzheimer Disease

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49 MT Sensory-motor cortex reorganization in Alzheimer's disease: an MEG study
Carlo Salustri[1], Franca Tecchio[2], Filippo Zappasodi[3], Leo Tomasevic[2], Matilde Ercolani[4], Filomena Moffa[4], Emanuele Cassetta[4], Rosanna Squitti[5], Paolo Maria Rossini[6]
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50 MT Individual Structural Connectivity Networks Enable Automated Prediction of AD in Subjects at Risk
Junming Shao[1], Nicholas Myers[2], Qinli Yang[3], Chun Meng[4], Valentin Riedl[5], Afra Wohlschläger[1], Christian Sorg[6]
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51 MT Surface Fluid Registration and Its Application to Human Brain Mapping
Jie Shi[1], Paul Thompson[2], Yuting Wang[3], Boris Gutman[4], Yalin Wang[5], The ADNI[6]
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52 MT An fMRI study in MCI patients and healthy adults shows age-related changes in brain activity
Christian Siedentopf[1], Anja Ischebeck[2], Werner Jaschke[1], Florian Koppelstaetter[1], Bernd Krause[3], Giorgi Kuchukhidze[1], Matthias Starzinger[1], Michael Verius[1], Elisabeth Weiss[4]
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53 MT Changes of intrinsic brain networks are regionally consistent and related to local amyloid in AD
christian sorg[1], Nicholas Myers[2], Jens Göttler[1], Timo Grimmer[1], Valentin Riedl[1], Alexander Drzezga[1], Afra Wohlschläger[1]
[1]Technische Universität München, Munich, Germany, [2]Oxford University, Oxford, United Kingdom

54 MT Focal hypoperfusion in early dementia as assessed by arterial spin labeling magnetic resonance (MR)
Rebecca Steketee[1], Sophie Ooms[1], Maartje Luijten[2], Gavin Houston[3], John van Swieten[1], Marion Smits[1]
[1]Erasmus MC - University Medical Center Rotterdam, Rotterdam, Netherlands, [2]Erasmus University Rotterdam, Rotterdam, Netherlands, [3]Applied Science Lab, GE Healthcare, Den Bosch, Netherlands

55 MT Functional hippocampal changes within the working memory network in patients with amnestic MCI
Max Toepper[1], Hans Markowitsch[2], Helge Gebhardt[3], Thomas Beblo[1], Christine Thomas[4], Stefan Kreisel[4], Kirsten Labudda[2], Markus Mertens[5], Friedrich Wörmann[5], Martin Driessen[1], Bernd Gallhofer[3], Gebhard Sammer[3]
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56 MT White Matter Changes in Chinese Patients with Alzheimer's Disease Revealed by DTI
Defeng Wang[1,2], Lin Shi[1,3], Likun Han[4], Steve Hui[1], Winnie Chu[1], Yumei Zhang[5], Yilong Wang[5], Anil Ahuja[1], Yongjun Wang[5]
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57 MT Disruption of the functional brain connectome in individuals at risk for Alzheimer's disease
Jinhui Wang[1], Xi-Nian Zuo[2], Zheng-Jia Dai[1], Ming-Rui Xia[1], Zhi-Lian Zhao[3], Xiao-Ling Zhao[4], Jian-Ping Jia[4], Ying Han[4], Yong He[1]
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58 MT Cortical Thickness of the Cingulate Gyrus in Memory & Ageing Study
Jacqueline Wentz[1], Lei Wang[2], Mirza Faisal Beg[3], Wei Wen[4], Perminder Sachdev[5], Julian Trollor[6], Tilak Ratnanather[7]
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59 MT Lower Amyloid Burden in Early Mild Cognitive Impairment (MCI) compared to Late MCI
Liyong Wu[1,2,3], jared Rowley[1], Sara Mohades[1], Marina Tedeschi Dauar[1], Monica Shin[1], Antoine Leuzy[1], Vladimir Fonov[1], Serge Gauthier[1,3], Pedro Rosa-Neto[1,3]
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60 MT FMRI Congruous Word Repetition Effects Show Loss of Hemispheric Encoding/Retrieval Asymmetry in MCI
Jinchen Yang[1], Jason Taylor[2], Shiao-hui Chan[3], David Salmon[4], Vicente Iragui-Madoz[5], Marta Kutas[6], John Olichney[7]
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61 MT Impaired Amygdala Connectivity Pattern in Alzheimer's disease Revealed by Resting state fMRI
Hongxiang Yao[1], Yong Liu[2], Bo Zhou[3], Zengqiang Zhang[3], Xi Zhang[3], Tianzi Jiang[2]
[1]Department of Radiology, Chinese PLA General Hospital, Beijing, China, [2]Institute Of Automation, Chinese Academy Of Sciences, Beijing, China, [3]Department of Neurology, Chinese PLA General Hospital, Beijing, China

62 MT The Association of Amyloid Burden with Glucose Metabolism and Cortical Volume in Alzheimer's Disease
Eun Jin Yoon[1], Yu Kyeong Kim[1], Il Han Choo[2], Dong Young Lee[2], Sang Eun Kim[1]
[1]Department of Nuclear Medicine, Seoul National University Bungdang Hospital, Seoul, Korea, Republic of, [2]Department of Neuropsychiatry, Seoul National University Hospital, Seoul, Korea, Republic of

63 MT Feature selection and SVM classification of multiple modality images for predicting MCI
Hao Zhang[1,2], Linwen Liu[2], Hong Wu[1], Yong Fan[2]
[1]School of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu, China, [2]National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China

64 MT The analysis of the conflict resolution in Alzheimer's disease and mild cognitive impairment
Xin Zhang[1], Pan Wang[2], Yong Liu[1], Xi Zhang[2], Tianzi Jiang[1], Yong Fan[1]
[1]Institute of Automation, Chinese Academy of Sciences, Beijing, China, [2]Department of Neurology, Chinese PLA General Hospital, Beijing, China

65 MT Functional Connectivity of New Supplement of Limbic System, Marginal Division, Affected in Alzheimer
Zengqiang Zhang[1], Yong Liu[2], Bo Zhou[1], Hongxiang Yao[3], Pan Wang[1], Ningyu An[3], Siyun Shu[4], Xi Zhang[1], Luning Wang[1], Tianzi Jiang[2]
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66 MT Memory impairments in amnestic-type mild cognitive impairment are reflected in atrophic hippocampus
Zhi-Lian Zhao[1], Feng-Mei Fan[2,3,4], Jie Lu[1], Jian-Ping Jia[5], Kun-Cheng Li[1], Ying Han[5], Xi-Nian Zuo[2,3,6]
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67 **MT** **Personality factors and cognitive scores modulate structural brain changes in MCI**
Valérie Zufferey[1], Alessia Donati[2], Armen von Gunten[2], Ferath Kherif[1]
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DISORDERS OF THE NERVOUS SYSTEM

Epilepsy

68 **MT** **Thalamocortical connectivity in children with epilepsy: A DTI tractography study**
Ishmael Amarreh[1], Jack Renfrew[2], Bruce Hermann[2], Mary Meyerand[3]
[1]University of Wisconsin-Madison, Madison, United States, [2]University of Wisconsin-Madison, Madison, WI, [3]UW-Madison, Madison, WI

69 **MT** **FMRI Study of Psychogenic Non-epileptic Seizures using fALFF Analysis**
Dongmei An[1], Jurong Ding[2], Sihan Chen[1], Bo Yan[1], Jiajia Fang[1], Huafu Chen[2], Dong Zhou[1]
[1]Department of Neurology, West China Hospital, Sichuan University, Chengdu, China, [2]School of Life Science and Technology, University of Electronic Science and Technology of China, Chengdu, China

70 **MT** **Gray Matter Reduction in MTL Epilepsy—A Quantitative Meta-Analysis of VBM Studies**
Daniel Barron[1], Mickle Fox[2], Jennifer Robinson[3], Angela laird[1], Peter Fox[2]
[1]UTHSCSA, San Antonio, United States, [2]UTHSCSA, San Antonio, TX, [3]Scott and White Memorial Hospital, Temple, TX

71 **MT** **BOLD signal preceding electrographic seizures in simultaneous EEG-fMRI recording**
Guilherme Beltramini[1], Ana Carolina Coan[1], Brunno Machado de Campos[1], Fernando Cendes[1], Roberto Covolan[1]
[1]University of Campinas - UNICAMP, Campinas, Brazil

72 **MT** **Aberrant sensorimotor – language connectivity in Rolandic epilepsy using fMRI**
René Besseling[1], Anton de Louw[2], Saskia Ebus[2], Jacobus Jansen[3], Geke Overvliet[3], Johannes Vles[3], Sylvie van der Kruijs[4], paul hofman[5], Bert Aldenkamp[2], Walter Backes[5]
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73 **MT** **Pretermed cortical thinning in children with Rolandic epilepsy**
René Besseling[1], Geke Overvliet[2], Jacobus Jansen[2], Sylvie van der Kruijs[3], Johannes Vles[2], paul hofman[4], Saskia Ebus[5], Anton de Louw[5], Bert Aldenkamp[5], Walter Backes[4]
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74 **MT** **The structural anatomy of nonpathological déjà vu**
Milan Brázdil[1], Radek Mareček[1], Tomas Urbanek[2], Tomáš Kašpárek[3], Michal Mikl[4], Ivan Rektor[3], Adam Zeman[5]
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75 **MT** **Intracranial EEG-fMRI in epilepsy: A preliminary investigion of modeling frequent spike discharges**
David Carmichael[1], Li Hu[2], Umair Chaudhary[3], Giandominico Iannetti[4], Serge Vulliemoz[5], Rachel Thornton[3], Roman Rodionov[3], Louis Lemieux[3]
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76 **MT** **Grey matter volume changes in the piriform cortex of patients with frontal lobe epilepsy**
Maria Centeno[1], Vollmar Christian[2], Jason Stretton[3], Jonathan O'Muircheartaigh[4], Mark Symms[3], Gareth Barker[5], Pamela Thompson[6], Veena Kumari[7], John Duncan[3], Mark Richardson[7], Matthias Koepp[6]
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77 **MT** **An fMRI study on epilepsy patients with depressive symptoms**
Sihan Chen[1]
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78 MT Single-subject Classification of Epilepsy Patients Based on Resting-state fMRI Data

Wei Cheng[1,2], Jianfeng Feng[1], Guangming Lu[3], Zhengge Wang[4], Xuejuan Zhang[5], Jie Zhang[6], Zhiqiang Zhang[3]
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79 MT Functional and structural network in left medial temporal lobe epilepsy using graph filtration

Jarang Hahm[1], Hyekyoung Lee[1], Hyejin Kang[1], Yu-Kyeong Kim[1], Sang-Kun Lee[1], Dong Soo Lee[1]
[1]Seoul National University College of Medicine, Seoul, Korea, Republic of

80 MT MRI-based cortical thickness analysis in drug-resistant extra-temporal focal epilepsy

SeokJun Hong[1], Boris Bernhardt[1,2], Dewi Schrader[1], Ho-sung Kim[1], Neda Bernasconi[3], Andrea Bernasconi[3]
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81 MT Neuronal networks associated with atypical benign partial epilepsy

Imke Ick[1], Jan Moehring[1], Rainer Boor[1], Ulrich Stephani[1], Michael Siniatchkin[1]
[1]University of Kiel, Kiel, Germany

82 MT EEG-MREG detects spike-related epileptogenic networks with high sensitivity

Julia Jacobs[1], Julia Stich[1], Georgia Ramantani[1], Hansjörg Mast[1], Rudolf Korinthenberg[1], Andreas Schulze-Bonhage[1], Jürgen Hennig[1], Pierre LeVan[1]
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83 MT Functional Brain Connectivity in patients with Photoparoxysmal Response

Natia Japaridze[1], Andreas Galka[2], Moeller Friederike[2], Moehring jan[2], Stephani Urlich[2], Michael Siniatchkin[2]
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84 MT MEG interictal spike clustering in relation with surgical outcome of cortical dysplasia

Woorim Jeong[1], Chun Kee Chung[1], June Sic Kim[1]
[1]MEG Center, Department of Neurosurgery, Seoul National University Hospital, Seoul, Korea, Republic of

85 MT Granger Causality Analysis in Mesial Temporal Lobe Epilepsy: A Resting-State fMRI Study

Gongjun Ji[1], Zhiqiang Zhang[2], Han Zhang[3], Dongqiang Liu[3], Jue Wang[3], Wei Liao[3], Guangming Lu[2], Yufeng Zang[3,1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]JinLing Hospital of Nanjing, Nanjing, China, [3]Center for Cognition and Brain Disorder, Hangzhou Normal University, Hangzhou, China

86 MT Altered Default Mode Network Connectivity in Idiopathic Generalized Epilepsy

Benjamin Kay[1], Mark DiFrancesco[2], Scott Holland[2], Jerzy Szaflarski[1]
[1]University of Cincinnati, Cincinnati, Ohio, [2]Cincinnati Children's Hospital, Cincinnati, Ohio

87 MT Differentiation of interictal events based on spatio-temporal correlation in EEG for ESI-fMRI

Stephan Lau[1,2], Simon Vogrin[3], Wendyl D'Souza[4], Jens Haueisen[2], Mark Cook[3,4]
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88 MT Resting State fMRI Functional Connectivity Between Hemispheres in Medial Temporal Lobe Epilepsy

Hyang Woon Lee[1,2], Jagriti Arora[3], F. Scott Winstanley[4], Hye-Sun Hong[5], Song Kim[5], Ji-Young Kim[6], Yongmin Chang[7], Dennis Spencer[8], R Constable[9]
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89 **MT** **EEG spectrum - BOLD correlations in epilepsy**
Marco Leite[1], Umair Chaudhary[2], Roman Rodionov[2], David Carmichael[2], Louis Lemieux[3], Patrícia Figueiredo[1]
[1]Institute for Systems and Robotics / Instituto Superior Técnico, Lisbon, Portugal, [2]UCL Institute of Neurology, London, United Kingdom, [3]Institute of Neurology, London, United Kingdom

***90** **MT** **EEG-fMRI using the ultra-fast MREG sequence allows the single-trial localization of epileptic spikes (O-M1)**
Pierre LeVan[1], Julia Jacobs[1], Julia Stich[1], Benjamin Zahneisen[2], Thimo Hugger[1], Jakob Assländer[1], Andreas Schulze-Bonhage[1], Jürgen Hennig[1]
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91 **MT** **Altered Whole Brain Functional Connectivity in the Idiopathic Generalized Epilepsy**
Huandong Li[1], Hanjian Du[2], Yong Liu[1], Jian Wang[3], Feng Hua[2], Tianzi Jiang[1,4,5]
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92 **MT** **Altered Functional Covariance Networks in Idiopathic Generalized Epilepsy**
Wei Liao[1], Zhiqiang Zhang[2], Qiang Xu[3], Ju-Rong Ding[3], Guo-Rong Wu[3,4], Huafu Chen[3], Yufeng Zang[1,5], Guangming Lu[2]
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93 **MT** **Optimizing Tractography of the Anterior Extent of the Optic Radiation**
Ylva Lilja[1], Maria Ljungberg[2], Kristina Malmgren[2], Daniel Nilsson[2], Bertil Rydhagen[2], Goran Starck[2]
[1]Inst of Neuroscience and Physiology, Gothenburg, Sweden, [2]Institute of Neuroscience and Physiology, Gothenburg, Sweden

94 **MT** **Identification of epileptiform networks using functional MRI: Model- vs data-driven approach**
Pauly Ossenblok[1], Petra van Houdt[2], Debby Klooster[1], Albert Colon[1], Peter Hilbers[3], Natal van Riel[3], Wim Corbijn van Willenswaard[4], Jan de Munck[5]
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95 **MT** **Dysfunctions in frontal circuitries during empathy for pain in juvenile myoclonic epilepsy (JME)**
Frieder Paulus[1], Marius Blanke[2], Soeren Krach[1,3], Marcus Belke[3], Christine Roth[3], Felix Rosenow[3], Katja Menzler[3], Jens Sonntag[3], Jens Sommer[1], Tilo Kircher[1], Andreas Jansen[1], Frank Bremmer[4], Wolfgang Einhäuser[4], Susanne Knake[3]
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96 **MT** **Abnormal Integrity of Short Subcortical Fibers is Fundamental in Patients with Nonlesional Epilepsy**
Syu-Jyun Peng[1], Changwei Wu[2], Yue Hsin[3], Jang Tsai[1]
[1]Department of Electrical Engineering, National Central University, Taoyuan, Chinese Taipei, [2]Graduate Institute of Biomedical Engineering, National Central University, Taoyuan, Chinese Taipei, [3]Epilepsy Center, Buddhist Tzu Chi General Hospital, Hualien, Chinese Taipei

97 **MT** **TCA and functional connectivity analysis using Resting fMRI in Epilepsy patients**
Ricardo Pizarro[1], Ryan Holdsworth[2], Mary Meyerand[2], Veena Nair[2], Vivek Prabhakaran[2], Paul Rutecki[2], Karl Sillay[2], Evelyn Tunnel[2]
[1]UW-Madison, Madison, United States, [2]UW-Madison, Madison, WI

98 **MT** **Diffusivity properties of different motor tracts and functional impairment after hemispherectomy**
Theodor Ruber[1], Robert Lindenberg[2], Marec von Lehe[3], Bernd Weber[4], Christian Elger[5], Jan-Christoph Schoene-Bake[4]
[1]Department of Epileptology; Bonn University Hospital, Bonn, Germany, [2]Charite University Medicine, Berlin, Germany, [3]Department of Neurosurgery; Bonn University Hospital, Bonn, Germany, [4]Department of NeuroCognition Imaging, Life & Brain Center, University of Bonn, Bonn, Germany, [5]Dept. of Epileptology, Univ. of Bonn, Bonn, Germany

99 **MT** **White matter affections in different types of temporal lobe epilepsy (O-M1)**
Jan-Christoph Schoene-Bake[1], Jan Wagner[1], Peter Trautner[2], Michael Malter[1], Christian Elger[1], Bernd Weber[1]
[1]University of Bonn Medical Center, Bonn, Germany, [2]Life & Brain Center, Bonn, Germany

100 MT Lateralization of mTLE: A multimode neuroimaging study combining resting-state fMRI and PASL
lianfang shen[1], Zhiqiang Zhang[1], Zhengge Wang[1], cuiping yuan[1], Guangming Lu[1]
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101 MT Frontal lobe activity during memory encoding in Temporal Lobe Epilepsy
Meneka Sidhu[1], Jason Stretton[1], Gavin Winston[1], Mark Symms[1], Pamela Thompson[1], Matthias Koepp[1], John Duncan[1]
[1]UCL, Institute of Neurology, London, United Kingdom

102 MT Spike and Wave Discharge Generators are Different between Valproate Refractory and Responsive IGEs
Jerzy Szaflarski[1], Benjamin Kay[1], Mark DiFrancesco[2], Michael Privitera[1], Scott Holland[2]
[1]University of Cincinnati, Cincinnati, OH, [2]Cincinnati Children's Hospital, Cincinnati, OH

103 MT Abnormal modular organization of functional networks in pediatric frontal lobe epilepsy
Maarten Vaessen[1], Hilde Braakman[2], Jorn Heerink[1], jaap jansen[1], Mariette Debeij-van Hall[2], paul hofman[1], Bert Aldenkamp[2], Walter Backes[1]
[1]Maastricht UMC+, Maastricht, Netherlands, [2]Epilepsy Center Kempenhaeghe, Heeze, Netherlands

104 MT Partial epilepsy in children can be predicted with functional network characteristics
Eric van Diessen[1], Kees Braun[1], Floor Jansen[1], Wim Otte[1], Cornelis Stam[2]
[1]Rudolf Magnus Institute of Neuroscience, Utrecht, Netherlands, [2]Department of Clinical Neurophysiology, VU University Medical Centre, Amsterdam, Netherlands

105 MT Language deficits in Epilepsy, an fMRI study
Helene van Ettinger-Veenstra[1], Helena Gauffin[2], Anita McAllister[3], Peter Lundberg[4], Daniel Ulrici[5], Anne-Marie Landtblom[6], Thomas Karlsson[7], Maria Engstrom[1]
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106 MT Intracranial EEG connectivity analysis improves the ictal onset zone identification in patients
Pieter van Mierlo[1], Hans Hallez[2,1], Evelien Carrette[3], Steven Staelens[4], Paul Boon[3]
[1]MEDISIP, Ghent University - IBBT, Ghent, Belgium, [2]Catholic University College of Bruges-Ostend, Ostend, Belgium, [3]LKEN, Ghent University Hospital, Ghent, Belgium, [4]MICA, Antwerp University - IBBT, Antwerp, Belgium

107 MT Visual and computer-aided SPM analysis of FDG-PET in the pre-operative workup for epilepsy surgery
Maryse van 't Klooster[1], Geertjan Huiskamp[1], Frans Leijten[1], René Debets[2], Emile Comans[3], Sandrine Bouvard[4], Philippe Ryvlin[5]
[1]Department of Neurology and Neurosurgery,Rudolf Magnus Insititute, University Medical Center Utrecht, Utrecht, Netherlands, [2]Department of Neurology, Epilepsy Institute of The Netherlands Foundation (SEIN) Heemstede, Heemstede, Netherlands, [3]Department of Nuclear Medicine and PET Research, VU University Medical Center, Amsterdam, Netherlands, [4]CERMEP—Imagerie du Vivant, Lyon, France, Lyon, France, [5]IDEE, Hospices Civils de Lyon, Lyon, France; TIGER; Inserm U1028; CNRS UMR5292, Lyon, France

108 MT Automated classification of interictal epileptic EEG abnormalities and related hemodynamic changes
Anna Elisabetta Vaudano[1,2], Carlos Pedreira[3], Rachel Thornton[4], Umair Chaudhary[4], Serge Vulliemoz[5], Helmut Laufs[6], Roman Rodionov[7], Rodrigo Quian Quiroga[8], Louis Lemieux[9]
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***109 MT Structural Substrates for resting network disruption in temporal lobe epilepsy (O-M1)**
Natalie Voets[1], Christian Beckmann[2], David Cole[3], SeokJun Hong[4], Andrea Bernasconi[4], Neda Bernasconi[4]
[1]University of Oxford, Oxford, United Kingdom, [2]University of Twente, Enschede, Netherlands, [3]Imperial College London, London, United Kingdom, [4]Neuroimaging of Epilepsy Laboratory and Brain Imaging Centre, MNI, McGill University, Montreal, Canada

110 MT Whole-brain structural connectivity in temporal lobe epilepsy: a Diffusion Spectrum Imaging study
Serge Vulliemoz[1], Alia Lemkaddem[2], Alessandra Griffa[2], Alessandro Daducci[2], François Lazeyras[3], Margitta Seeck[4], Jean-Philippe Thiran[2]
[1]University Hospital and Faculty of Medicine, Geneva, Switzerland, [2]Ecole Polytechnique Fédérale, Lausanne, Switzerland, [3]Department of Radiology & CIBM, University of Geneva, Geneva, Switzerland, [4]University Hospital, Geneva, Switzerland

111 MT Impaired default mode network in different epilepsy types: a resting-state fMRI study
Maoxue Wang[1], Zhiqiang Zhang[2], Zhengge Wang[3], Guangming Lu[4]
[1]Department of Medical Imaging, Jinling Hospital, Clinical School of Medical College, Nanjing Univers, Nanjing, China, [2]Jinling Hospital, Clinical School of Medical College, Nanjing University, Nanjing, China, [3]Nanjing Jinling Hospital, Nanjing, China, [4]Dept. Med. Img., Jinling Hospital, Nanjing, China

112 MT Structural and functional impairments of thalamocortical network in generalized tonic clonic seizure
Zhengge Wang[1], Zhiqiang Zhang[2], Wei Liao[3], Qiang Xu[3], Guangming Lu[2]
[1]Department of Radiology, Jinling Hospital, Nanjing University School of Medicine, Nanjing, China, [2]JinLing Hospital of Nanjing, Nanjing, China, [3]University of Electronic Science and Technology of China, Chengdu, China

113 MT Full frequency oscillation in GTCS epilepsy patients' brain: A resting state fMRI study
Zhengge Wang[1], Zhiqiang Zhang[2], Qiang Xu[3], Wei Liao[3], Guangming Lu[2]
[1]Nanjing Jinling Hospital, Nanjing, China, [2]JinLing Hospital of Nanjing, Nanjing, China, [3]University of Electronic Science and Technology of China, Chengdu, China

114 MT Structural Correlates of Impaired Working Memory in Temporal Lobe Epilepsy using VBM and DTI
Gavin Winston[1], Jason Stretton[1], Meneka Sidhu[1], Mark Symms[1], John Duncan[1]
[1]UCL Institute of Neurology, London, United Kingdom

115 MT Pharmaco-fmri in epilepsy: effects of topiramate on cognitive fMRI
clarissa yasuda[1], Maria Centeno[2], Vollmar Christian[3], Jason Stretton[4], Mark Symms[4], Fernando Cendes[1], Mitul Mehta[5], Pamela Thompson[6], John Duncan[4], Matthias Koepp[6]
[1]university of campinas, campinas, Brazil, [2]University College of London, London, United Kingdom, [3]UCL, Institue of Neurology, London, United Kingdom, [4]UCL Institute of Neurology, London, United Kingdom, [5]King´s College London, London, United Kingdom, [6]UCL, Institute of Neurology, London, United Kingdom

116 MT Alterations of Intrinsic Connectivity Networks Implicate Loss of Consciousness during Absence Seizur
Zhiqiang Zhang[1], Wei Liao[2], Guangming Lu[3], Zhengge Wang[4]
[1]Dept. of Med. Img., JinLing Hospital, Nanjing, China, [2]Center for Cognition and Brain Disorders and the Affiliated Hospital, Hangzhou, China, [3]Dept. Med. Img., Jinling Hospital, Nanjing, China, [4]Dept. of Med. Img., Jinling Hospital, Nanjing, China

117 MT Decreased Coupling between task- and resting-state brain activities in medial temporal lobe epilepsy
Zhiqiang Zhang[1], cuiping yuan[2], Guangming Lu[3]
[1]JinLing Hospital of Nanjing, Nanjing, China, [2]Department of Radiology, Jinling Hospital, Nanjing, nanjing, China, [3]Dept. Med. Img., Jinling Hospital, Nanjing, China

118 MT Functional and Structural connectivity of Periventricular Nodular Heterotopia with epilepsy
Xiangwen Zhu[1], Zhiqiang Zhang[2], Zhengge Wang[3], Guangming Lu[4]
[1]Dept. of Radiology, Jinling Hospital, Nanjing University School of Medicine., Nanjing, China, [2]Jinling Hospital, Clinical School of Medical College, Nanjing University, Nanjing, China, [3]Dept. of Med. Img., Jinling Hospital, Nanjing, China, [4]Dept. Med. Img., Jinling Hospital, Nanjing, China

DISORDERS OF THE NERVOUS SYSTEM

Stroke

***119 MT Daily tDCS induces persistent functional and structural cortical changes in chronic stroke patients (O-Th1)**
Ugwechi Amadi[1], Claire Allman[1], Charlotte Stagg[1], Heidi Johansen-Berg[1]
[1]Nuffield Department of Clinical Neurosciences, FMRIB, University of Oxford, Oxford, United Kingdom

120 MT Automatic pipeline for acute stroke infarct core and penumbra segmentation using diffusion weighted
Yohan Attal[1], Charlotte Rosso[2], Yves Samson[3], Sylvain Baillet[4]
[1]CRICM - CNRS UMR7225, Paris, France, [2]Institut du Cerveau et de la Moelle épinière, Paris, France, [3]AP-HP, Urgences Cérébro-Vasculaires, La pitié-Salpêtrière Hospital, Paris, France, [4]Medical college of Wisconsin, Milwaukee, WI

121 MT Bilateral white matter integrity predicts motor recovery and skill learning in chronic stroke
Michael Borich[1], Kate Brown[1], Cameron Mang[1], Lara Boyd[1]
[1]University of British Columbia, Vancouver, British Columbia

122 MT Cingulate and premotor cortical thickness changes may reflect post-stroke plasticity
Amy Brodtmann[1], Toby Cumming[1], Qi Li[1], Renee Lichter[1], Leif Ostergaard[2], Heath Pardoe[3]
[1]Florey Neuroscience Institutes, Melbourne, Australia, [2]Aarhus University, Aarhus, Denmark, [3]Florey Neuroscience Institutes, Melbourne, Victoria

123 MT Imaging neuroplasticity of touch after stroke: training-facilitated changes following intervention
Leeanne Carey[1,2], David Abbott[1,3], Gemma Lamp[1], Aina Puce[4], Rudiger Seitz[5], Geoffrey Donnan[1,3]
[1]Florey Neuroscience Institutes, Melbourne, Vic, Australia, [2]Latrobe University, Melbourne, Vic, Australia, [3]University of Melbourne, Melbourne, Vic, Australia, [4]Indiana University, Bloomington, IN, USA, [5]Heinrich-Heine-University Dusseldorf, Düsseldorf, Germany

124 MT Is the rescued penumbra capable of neuronal activation despite selective neuronal loss?
emmanuel carrera[1], Rhiannon Morris[2], F Aigbirhio[3], Josef Alawneh[3], jean-claude BARON[3], T Carpenter[3], V Ferrari[3], T Fryer[3], Y Hong[4], P. Simon Jones[5], Tulasi Marrapu[3], E Warburton[3]
[1]university of lausanne, lausanne, Switzerland, [2]Unversity of Cambrdige, cambridge, United Kingdom, [3]university of cambridge, cambridge, United Kingdom, [4]university of cambridge, c, United Kingdom, [5]University of cambridge, cambridge, United Kingdom

125 MT Post-stroke brain excitability of contralesional motor representations depends on lesion location
Marco Curado[1,2], Fabrício Brasil[1,2], Bálint Varkuti[2], Manuel Agostini[2], Eliana Cossio[1,2], Giulia Liberati[3,4], Simon Richter[1], Matthias Witkowski[1], Niels Birbaumer[2,5], Surjo Soekadar[1]
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126 MT Quantitative Assessment of Collateral from External Carotid in Patients with Cerebrovascular Disease
Yi Dang[1], Bing Wu[2], Ying Sun[3], Dapeng Mo[4], Xiaoying Wang[1,2], Jue Zhang[1,3], Jing Fang[1,3]
[1]Academy for Advanced Interdisciplinary Studies, Peking University, Beijing, China, [2]Dept. of Radiology, Peking University First Hospital, Beijing, China, [3]College of Engineering, Peking University, Beijing, China, [4]Dept. of Neurosurgery, Peking University First Hospital, Beijing, China

127 MT Lateralization of the arcuate fasciculus predicts aphasia recovery at 6 month
Stephanie Forkel[1], Flavio Dell'Acqua[2], Lalit Kalra[3], Steve Williams[2], Marco Catani[4]
[1]Institute of Psychiatry - King's College London, London, United Kingdom, London, United Kingdom, [2]King's College London, London, United Kingdom, [3]King's College Hospital, London, United Kingdom, [4]Institute of Psychiatry - King's College London, London, United Kingdom

128 MT The role of the left and right inferior frontal gyrus (IFG) in language recovery in aphasia
Peter Glynn[1], Swathi Kiran[1], Chaleece Sandberg[1]
[1]Boston University, Boston, MA

129 MT Cortical compensation supports motor recovery following cerebellar stroke
Assia JAILLARD HOMMEL[1], Marc HOMMEL[1], Jean François LeBas[1], Thomas Zeffiro[2]
[1]University Hospital, Grenoble, France, [2]Massachusetts General Hospital, Boston, MA

130 MT Dislocation of hand motor area in M1 of the stroke patients. Evaluation with navigated TMS
HIROKAZU KAWANO[1], Takafumi Matsuzaki[2], Kazuhito Tsuruta[2], Kazuhiro Yagi[2]
[1]JUNWAKAI MEMORIAL HOSPITAL, MIYAZAKI, Japan, [2]Junwakai Memorial Hospital, Miyazaki, Japan

131 MT Long-period rTMS therapy on M1 with navigation for the severely affected stroke patients
HIROKAZU KAWANO[1], Miki Hakukawa[2], Fumiko Nagano[2], Kazuhito Tsuruta[2]
[1]JUNWAKAI MEMORIAL HOSPITAL, MIYAZAKI, Japan, [2]Junwakai Memorial Hospital, Miyazaki, Japan

132 MT Resting State Functional Connectivity and Spontaneous BOLD Fluctuation Disturbed in Stroke patients
Christian La[1], Veena Nair[1], Vivek Prabhakaran[1], Mary Meyerand[1]
[1]UW-Madison, Madison, WI

133 MT Cerebellum involvement in post-stroke depression: a combined ecological and MRI study
Saioa Lassalle-Lagadec[1], Gwénaëlle Catheline[1,2], Willy Mayo[1], Olivier Fleury[3], Bixente Dilharreguy[1], Pauline Renou[3], Michèle Allard[1,2], Joel Swendsen[1], Igor Sibon[1,3]
[1]Université Bordeaux, INCIA, UMR 5287, Bordeaux, France, [2]EPHE, Paris, France, [3]CHU Bordeaux, Pôle de Neurosciences Cliniques, Hôpital Pellegrin, Bordeaux, France

134 MT Comparison of longitudinal cortical thickness measurement methods in a stroke population
Qi Li[1], Heath Pardoe[1], Toby Cumming[1], Renee Lichter[1], Leif Ostergaard[2], Amy Brodtmann[1]
[1]Florey Neuroscience Institutes, Melbourne, Australia, [2]Aarhus University, Aarhus, Denmark

135 MT Electrical Neuroimaging in Acute Stroke: A Pilot Study
Virginia Liu[1], William Winter[2], Jennifer Wu[3], Ramesh Srinivasan[4], Steven Cramer[5]
[1]University of California-Irvine, Irvine, United States, [2]UCI Irvine School of Medicine, Irvine, CA, [3]University of California-Irvine, N/A, [4]UC Irvine, Irvine, CA, [5]University of California, Irvine, Orange, United States

136 MT Withdrawn

137 MT Relative contribution of the right hemisphere to language recovery in chronic aphasia
Carolina Mendez Orellana[1,2], Evy Visch-Brink[1], Marjolein de Jong-Hagelstein[1], Peter Koudstaal[1], Aad van der Lugt[2], Marion Smits[2]
[1]Erasmus MC - University Medical Centre, Department of Neurology, Rotterdam, Netherlands, [2]Erasmus MC - Medical Centre, Department of Radiology, Rotterdam, Netherlands

138 MT A Preliminary Study of Functional Connectivity in Post-Stroke Depression using resting-state fMRI
Ding Nan[1], Peiyao Zhang[2], Huicong Shen[2], Ai Lin[2], Yuejia Luo[1], Jun Wang[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Department of Radiology, Tiantan Hospital of Capital Medical University, Beijing, China

139 MT Brain topological changes after stroke in motor performance
Chang-hyun Park[1], Marie-Hélène Boudrias[1], Nick Ward[1]
[1]UCL Institute of Neurology, London, United Kingdom

140 MT Investigating Cortical Thinning of the Motor Cortex following Pyramidal Tract Stroke
Basia Radlinska[1], Peter Zepper[2], Alexander Thiel[1]
[1]McGill University, Montreal, Canada, [2]SMBD Jewish General Hospital, Montreal, Canada

141 MT Effects of early focal lesions on the modular organization of the developing brain
Anjali Raja Beharelle[1], Anthony McIntosh[1], Steven Small[2]
[1]Rotman Research Institute of Baycrest Centre, Toronto, ON, [2]University of California Irvine, Irvine, CA

***142 MT Mapping Associations between Kidney Biomarkers, Brain Atrophy and Cognition in ADNI: An N=701 study (O-M1)**
Priya Rajagopalan[1], Helga Refsum[2], Xue Hua[1], Arthur Toga[3], Clifford R. Jack Jack[4], Michael Weiner[5], Paul Thompson[1], The ADNI[6]
[1]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA, [2]University of Oslo, Oslo, Norway, [3]UCLA, Los Angeles, CA, [4]Department of Radiology, Mayo Clinic and Foundation, Rochester, MN, [5]Department of Radiology and Biomedical Imaging, UCSF School of Medicine, San Francisco, CA, [6]The Alzheimer's Disease Neuroimaging Initiative, San Francisco, United States

143 MT CST damage in acute stroke patients: tract-specific analysis versus CST template segmentation
Charlotte Rosso[1,2], Patricia Vargas[3], Romain Valabrègue[4], Marie Gaudron[3], Eric Bertasi[4], Frederic Humbert[4], Lehéricy Stéphane[4], Yves Samson[5]
[1]Institut du Cerveau et de la Moelle épinière, Paris, France, [2]COGIMAGE, Centre de Recherche de l'Institut du Cerveau et de la Moelle épinière, UPMC Paris 6, Inserm, U975, CNRS, UMR 7225, Paris, France, [3]COGIMAGE, CR-ICM épinière, Inserm, U975, CNRS, UMR 7225, Paris, France, [4]Centre de Neuro-Imagerie de Recherche (CENIR), CR-ICM, Inserm, U975, CNRS, UMR 7225, Paris, France, [5]AP-HP, Urgences Cérébro-Vasculaires, La pitié-Salpêtrière Hospital, Paris, France

144 **MT** **Remapping of cortical language in LMCA stroke patients with good vs. poor language recovery**
Jerzy Szaflarski[1], Jane Allendorfer[1], Jennifer Vannest[2], Scott Holland[3]
[1]University of Cincinnati, Cincinnati, United States, [2]Cincinnati Children's Hospital Medical Center, Cincinnati, OH, [3]Cincinnati Children's Hospital Research Foundation, Cincinnati, OH

***145** **MT** **The Pattern of Regional Homogeneity Determining Outcome of Hand Function after Subcortical Stroke (O-M1)**
Dazhi Yin[1], Fan Song[2], Bradley S Peterson[3], Limin Sun[2], Weiwei Men[1], Xu Yan[1], Xiaozheng Liu[1], Mingxia Fan[1], Dongrong Xu[3]
[1]Key Laboratory of Brain Functional Genomics, Shanghai Key Laboratory of Magnetic Resonance, ECNU, Shanghai, China, [2]Department of Rehabilitation, Huashan Hospital of Fudan University, Shanghai, China, [3]MRI unit, Columbia University Department of Psychiatry, & New York State Psychiatric Institute, New York, United States

146 **MT** **Cognitive dysfunction in patients with white matter lesion: Proton magnetic resonance spectroscopy**
Junliang YUAN[1], Wenli HU*[2], Andrew CHEN*[3]
[1]Beijing Chaoyang Hospital, Capital Medical University, Beijing, China, [2]Beijing Chaoyang Hospital, Capital Medical University, Beijing, China, [3]Center for Higher Brain Functions, Capital Medical University, Beijing, China

DISORDERS OF THE NERVOUS SYSTEM

Traumatic Brain Injury

147 **MT** **Functional Connectivity differences in Blast-Induced vs. non-Blast-Induced Traumatic Brain Injury**
Erik Beall[1], Stephen Rao[1], Micheal Phillips[1], Mark Lowe[1]
[1]Cleveland Clinic, Cleveland, OH

148 **MT** **Diffusion tensor imaging of the impact of sports-related concussion on the adolescent brain**
Michael Borich[1], Lara Boyd[1], Nadia Makan[1], Carolyn Emery[2], Naznin Virji-Babul[1]
[1]University of British Columbia, Vancouver, British Columbia, Canada, [2]University of Calgary, Calgary, Alberta, Canada

149 **MT** ***White Matter Disruption in Language Network After Mild Traumatic Brain Injury***
Yu-Chen Chang[1], Fan-pei Yang[2], Kailyn Bradley[3], Brain Dorner[3], Claire Simpson[3], Daniel Krawczyk[3,4]
[1]National Tsing Hua University, Hsinchu, [2]National Tsing Hua University, Hsichu, [3]Center for Brain Health, University of Texas at Dallas, Dallas, TX, [4]Southwestern Medical Center, University of Texas Southwestern, Dallas, TX

150 **MT** **Global DTI histograms for disorders of consciousness characterization**
Francisco Gómez[1], Andrea Soddu[1], Quentin Noirhomme[1], Luaba Tshibanda[2], Audrey Vanhaudenhuyse[1], Natasha Lepore[3], Steven Laureys[1]
[1]Cyclotron Research Center, University of Liège, Liège, Belgium, [2]Department of Radiology, CHU Sart Tilman Hospital, University of Liège, Liège, Belgium, [3]USC Keck School of Medicine, Los Angeles, USA

151 **MT** **MEG Low-Frequency Source Imaging for Detecting Injuries in Mild and Moderate TBI**
Mingxiong Huang[1], Sharon Nichols[2], Ashley Robb[3], Annemarie Angeles[3], Angela Drake[4], Won Chun[3], Michael Levy[5], Tao Song[6], Dewleen Baker[3], Paul Hammer[7], Robert McLay[7], Rebecca Theilmann[8], Raul Coimbra[2], Mithun Diwakar[2], Thomas Liu[1], Jennifer Webb-Murphy[9], Roxanna Farinpour[7], Catherine Cheung[7], Roland Lee[2]
[1]Univ California, San Diego, San Diego, CA, [2]University of California at San Diego, San Diego, CA, [3]VA San Diego Healthcare System, San Diego, CA, [4]National University, San Diego, CA, [5]Rady Children's Hospital San Diego, San Diego, CA, [6]University of California at San DIego, San Diego, CA, [7]Naval Medical Center San Diego, San Diego, CA, [8]Department of Radiology, UC San Diego, La Jolla, CA, [9]Naval Medical Center San Diego, San Diego, United States

152 MT Connectome-level evaluation of neurodegeneration caused by traumatic brain injury
Andrei Irimia[1], John Van Horn[1], Micah Chambers[1], Bo Wang[2], Marcel Prastawa[2], Sylvain Gouttard[2], Paul Vespa[1], David Hovda[1], Jeffry Alger[3], Sonia Pujol[4], Guido Gerig[2], Stephen Aylward[5], Arthur Toga[6], Ron Kikinis[4]
[1]University of California, Los Angeles, Los Angeles, CA, [2]University of Utah, Salt Lake City, UT, [3]David Geffen School of Medicine at UCLA, Los Angeles, United States, [4]Harvard Medical School, Boston, MA, [5]Kitware, Inc. and University of North Carolina, Chapel Hill, NC, [6]University of California - Los Angeles, Los Angeles, CA

153 MT Weaker Interaction of Functional Brain Sub-Networks in TBI quantified by Graph Theoretical Analysis
Christof Karmonik[1], Jessica Clark[2], Steve Fung[1], Robert Grossman[1], Walter High[3], Yang Jiang[3]
[1]The Methodist Hospital Neurological Institute, Houston, TX, United States, [2]National Rehabilitation Hospital, Washington DC, United States, [3]University of Kentucky, Lexington, KY, United States

154 MT Mild head injury demonstrates impaired brain tissue viability in thalamus at the acute stage
Zhifeng Kou[1], Randall Benson[2], Hardik Doshi[2], Ramtilak Gattu[2], E Mark Haacke[2], Grace Ma[2], Valerie Mika[2], Robert Welch[2], Jie Yang[2]
[1]Wayne State University, Detroit, United States, [2]Wayne State University, Detroit, MI

155 MT Altered Resting State Functional Connectivity One Month after Mild Traumatic Brain Injury
Yi-Ou Li[1], Sara LaHue[1], Roger Chen[1], Shelly Cooper[1], John Yue[1], Geoffrey Manley[1], Pratik Mukherjee[1]
[1]University of California San Francisco, San Francisco, United States

156 MT Source-Based Analysis of DTI Reveals Disrupted White Matter Integrity in Mild Traumatic Brain Injury
Yi-Ou Li[1], Charvi Shetty[1], Julia Owen[1], Sara LaHue[1], Shelly Cooper[1], Jamshid Ghajar[2], Geoffrey Manley[1], Pratik Mukherjee[1]
[1]University of California San Francisco, San Francisco, United States, [2]Brain Trauma Foundation, New York, NY

157 MT Making every word count: intuitive and robust communication without a behavioural response
Lorina Naci[1], Rhodri Cusack[1], Vivian Jia[1], Adrian M Owen[1]
[1]University of Western Ontario, London, Canada

158 MT Working Memory function after Drowning: a fMRI study
Mariana Nucci-da-Silva[1], Lukasova katerina[1], João Ricardo Sato[2], Edson Amaro Junior[1]
[1]NIF-HCFMUSP, University of São Paulo, São Paulo, Brazil, [2]ABC Federal University, Santo André, Brazil

159 MT MRI volume and diffusion measures indicate fight exposure-related damage to white matter in fighters
Wanyong Shin[1], Blessy Mathew[1], Sarah Banks[2], Mark Lowe[1], Michael Phillips[1], Michael Modic[1], Charles Bernick[2]
[1]Cleveland Clinic, Cleveland, United States, [2]Cleveland Clinic, Las Vegas, United States

160 MT Automatic discriminating Conscious States in Non-Communicative Patients, going beyond the clinics ?
Jacobo Sitt[1,2], Jean-Remi King[1,2], Frederic FAUGERAS[2,3], Benjamin Rohaut[2,3], imen El Karoui[2,4], Laurent Cohen[2,3,5], Stanislas Dehaene[1,6,7], Lionel Naccache[2,3,5]
[1]Unicog, CEA/Saclay, Saclay, France, [2]ICM Res.Center, UMRS 975, INSERM, Paris, France, [3]Dept. of Neurol., AP-HP,Groupe hospitalier Pitié-Salpêtrière, Paris, France, [4]Ecole Normale Supérieure, Paris, France, [5]Faculté de Médecine Pitié- Salpêtrière, Univ. Paris 6, Paris, France, [6]Univ. Paris-sud 11, Orsay, France, [7]Col. de France, Paris, France

161 MT Simulating metabolic activity out of resting state functional connectivity
Andrea Soddu[1], Francisco Gomez[1], Henning Voss[2], Marie-Aurélie Bruno[3], Audrey Vanhaudenhuyse[4], Athena Demertzi[5], Camille Chatelle[6], Julie Truong[7], Vanessa Charland[4], Quentin Noirhomme[8], Luaba Tshibanda[9], Eric Salmon[10], Nicholas Shiff[2], Steven Laureys[1]
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162 MT Structure and Function in Severe TBI
Chandler Sours[1], Jacqueline Janowich[2], Jiachen Zhuo[2], Kathirkamanthan Shanmuganathan[2], Rao Gullapalli[2]
[1]University of Maryland at Baltimore, Baltimore, MD, [2]University of Maryland School of Medicine, Baltimore, United States

163 MT Cerebral glucose metabolism in the minimally conscious and vegetative states
Johan Stender[1], Camille Chatelle[2], Aurore Thibaut[3], Marie-Aurélie Bruno[4], Erik Ziegler[5], Ron Kupers[6], Albert gjedde[1], Steven Laureys[5]
[1]University of Copenhagen, Copenhagen, Denmark, [2]University of Liège, Liège, Belgium, [3]Coma Sicence Group, Cyclotron Research Centre, University of Liège, Liège, Belgium, [4]Coma Science Group, Cyclotron Research Centre, University of Liège., Liège, Belgium, [5]Université de Liège, Liège, Belgium, [6]Institute for Neuroscience and Pharmacology, Panum Institute, University of Copenhagen, Copenhagen, Denmark

164 MT Lesion-based Language Deficit Localization and Prediction Using Partial Least Square (PLS) Analysis
Ze Wang[1], Olufunsho Faseyitan[2], Daniel Kimberg[3], H Coslett[2], Myrna Schwartz[4]
[1]University of Pennsylvania, N/A, [2]University of Pennsylvania, Philadelphia, PA, [3]Google Inc, Redwood, CA, [4]Moss Rehabilitation Research Institute, Philadelphia, PA

165 MT Altered Network Centrality Predicts the Consciousness Level and Recovery Outcome in Brain Injury
Xuehai Wu[1], Qihong Zou[2], Ying Mao[1], Weijun Tang[1], Liang Gao[1], Jianghong Zhu[1], Xing Wu[1], Yu-Feng Zang[3], Xuchu Weng[3], Jia-Hong Gao[2,4], Xi-Nian Zuo[5], Liangfu Zhou[1], Yong He[6], Yihong Yang[7]
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166 MT Thalamic gray matter antrophy and hypometabolism in mTBI: a combined VBM and MRSI study
Xiaodan Yan[1]
[1]New York University, New York, USA

167 MT Correlations of Diffusion Kurtosis Parameters and Cognitive Functions in Mild Traumatic Brain Injury
Jiachen Zhuo[1], Jesse Stokum[1], Chandler Sours[2], Jacqueline Janowich[1], Rao Gullapalli[1]
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EMOTION AND MOTIVATION

Emotional Learning

168 MT No link between amygdala reactivity to emotional faces and fear conditioning
Thomas Ågren[1], Jonas Engman[1], Andreas Frick[1], Vanda Faria[2], Tomas Furmark[1], Mats Fredrikson[2]
[1]Uppsala University, Uppsala, Sweden, [2]Dept. of Psychology Uppsala University, Uppsala, Sweden

169 MT FMRI-based social neurofeedback of the ACC specifically modulates cognitive interference processing
Eliza M. Alawi[1,2], Krystyna A. Mathiak[1,2,3], Yury Koush[1,2], Miriam Dyck[1,2], Julia Cordes[1,2], Saurabh Bhavsar[1,2], Tilman Gaber[3], Florian Zepf[3], Mikhail Zvyagintsev[1,2], Klaus Mathiak[1,2,4]
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170 MT Behavioral and amygdala BOLD responses in psychopaths during fear conditioning
Nicholas Balderston[1], Doug Schultz[1], Joseph Newman[2], Christine Larson[1,3], Fred Helmstetter[1,3]
[1]University of Wisconsin-Milwaukee, Milwaukee, WI, [2]University of Wisconsin-Madison, Madison, WI, [3]Medical College of Wisconsin, Milwaukee, WI

171 MT The influence of cognitive emotion regulation on effective connectivity during emotion learning
Marie-Luise Brandi[1,2], Satja Mulej Bratec[1,2], Valentin Riedl[1], Verena Krupp[1], Afra Wohlschläger[1], Christian Sorg[1]
[1]Klinikum Rechts der Isar TUM, Munich, Germany, [2]Ludwig Maximilian University, Munich, Germany

172 MT Interactions Between Emotional Processing and Sleep Electrophysiology in Healthy Subjects
Marieke de Boer[1], Laura Bringmann[1], Winni Hofman[1], Lucia Talamini[1]
[1]University of Amsterdam, Amsterdam, Netherlands

173 MT Emotional context modulates ventral striatal reward predicition error
Lorenz Deserno[1], Robert C. Lorenz[1], Simone Kühn[1], Torsten Wüstenberg[1], Michael Rapp[1], Werner Sommer[2], Jürgen Gallinat[1], Florian Schlagenhauf[1,3]
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174 MT Memory bias and structural differences in high and low trait-anxious individuals
Annuschka Eden[1,2], Jan Schreiber[3], Kati Keuper[1], Peter Zwanzger[4], Inga Laeger[4], Christian Dobel[1]
[1]Institute for Biomagnetism and Biosignalanalysis, Muenster, Germany, [2]Otto Creutzfeldt Center for Cognitive and Behavioural Neuroscience, Muenster, Germany, [3]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [4]Department of Psychiatry and Psychotherapy, Muenster, Germany

175 MT Neural Correlates of Eye Movement Desensitization and Reprocessing
Geraldine Gvozdanovic[1], Roberto Goya-Maldonado[1], Michael Czisch[1], Victor Spoormaker[1]
[1]Max Planck Institute of Psychiatry, Munich, Germany

176 MT Dopamine D2/D3 Receptor Availability and Instrumental Learning : An [18F]Fallypride PET Study
Dawoon Jung[1], Hyeon Min An[1], Sang-Hyun Baik[1], Sang Hee Kim[1]
[1]Department of Brain and Cognitive Engineering, Korea University, Seoul, Korea, Republic of

177 MT The role of gene-environment interaction in neural correlates of human fear learning
Tim Klucken[1], Nina Alexander[2], Jan Schweckendiek[1], Christian Merz[1], Juergen Hennig[3], Dieter Vaitl[1], Rudolf Stark[1]
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178 MT Spatio-Temporal Mapping of Salience Attribution Using Olfactory-Trigeminal Aversive Conditioning
Carolin Moessnang[1], Thilo Kellermann[2], Katharina Pauly[2], Jörn Krämer[2], Andreas Finkelmeyer[3], Frank Schneider[2], Thomas Hummel[4], Ute Habel[2]
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179 MT Differences in emotion regulation in skydivers in relation to experience: Training the amygdala
Carmen Morawetz[1,2,3], Stefan Bode[4], Juergen Baudewig[5,6], Hauke Heekeren[3,5,6]
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180 MT Cognitive emotion regulation suppresses the adaptive effects of negative emotions
Satja Mulej Bratec[1,2], Valentin Riedl[1], Verena Krupp[1], Marie-Luise Brandi[1,2], Afra Wohlschläger[1], Christian Sorg[1]
[1]Klinikum Rechts der Isar TUM, Munich, Germany, [2]Ludwig Maximilian University, Munich, Germany

181 MT Self-regulation of Amygdala Activation with Real-Time fMRI Neurofeedback in MDD Patients
Raquel Phillips[1], Kymberly Young[1], Vadim Zotev[1], Wayne Drevets[1], Jerzy Bodurka[1]
[1]Laureate Institute for Brain Research, Tulsa, OK

182 MT When disgust is rewarding: Neural correlates of counterconditioning
Jan Schweckendiek[1], Tim Klucken[1], Christian Merz[1], Dieter Vaitl[1], Rudolf Stark[1]
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183 MT The Role of Arousal in Affective Priming: Behavioral and Electrophysiological Evidence
Qin Zhang[1], Yang Jiang[2], Lingyue Kong[3]
[1]Departmenr of Psychology, Capital Normal University, Beijing, China, [2]Behavioral Science Department, University of Kentucky College of Medicine, Lexington, KY, [3]International College for Chinese Language Study, Peking University, Beijing, China

184 MT Real-Time fMRI Neurofeedback Modulates Brain Networks: Insights from Granger Causality Analysis
Vadim Zotev[1], Raquel Phillips[1], Kymberly Young[1], Wayne Drevets[1], Jerzy Bodurka[1]
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EMOTION AND MOTIVATION

Emotional Perception

185 MT Using morphed vocal expressions to disentangle valence and arousal effects on neural activity
Patricia E. G. Bestelmeyer[1], Sonja Kotz[2], Pascal Belin[3]
[1]Bangor University, Bangor, Gwynedd, United Kingdom, [2]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [3]Institute of Neuroscience and Psychology, University of Glasgow, Glasgow, United Kingdom

186 MT The inner theater: decoding emotional vocal signals described in literary texts
Carolin Brück[1,2], Benjamin Kreifelts[1], Christina Gößling-Arnold[3,2], Jürgen Wertheimer[3,2], Dirk Wildgruber[1,2]
[1]Eberhard Karls University, Department of Psychiatry and Psychotherapy, Tübingen, Germany, [2]Werner Reichardt Centre for Integrative Neuroscience (CIN), Tübingen, Germany, [3]Eberhard Karls University, Department of Comparative Literature (International Literature), Tübingen, Germany

187 MT Brain activity underlying the emotional states of stimuli during a cognitive conflict task
Ji-Won Chun[1,2], Il-Ho Park[3], Hae-Jeong Park[4], Eo Su Kim[1,5], Jae-Jin Kim[1,5]
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188 MT As bad as it looks? Modulating effects of situation type on brain responses to cognitive reappraisal
Ioana Cristea[1], Claudio Gentili[2], Emiliano Ricciardi[3], Daniel David[4], Pietro Pietrini[5], Mario Guazzelli[6]
[1]Babes-Bolyai University, Cluj-Napoca, Romania, [2]Chair of clinical pschology and department of psychiatry, university of Pisa, Pisa, Italy, [3]Laboratory of Clinical Biochemistry and Molecular Biology, University of Pisa, Pisa, Italy, [4]Clinical Psychology Chair, Department of Psychiatry, Neurobiology, Pharmacology and Biotechnologies, Cluj-Napoca, Romania, [5]University of Pisa Medical School, Pisa, Italy, [6]Clinical Psychology Chair, Department of Psychiatry, Neurobiology, Pharmacology and Biotechnologies, Pisa, Italy

189 MT Culture but not gender modulates amygdala activation during explicit emotion recognition
Birgit Derntl[1], Ute Habel[1], Simon Robinson[2], Christian Windischberger[3], Ilse Kryspin-Exner[4], Ruben Gur[5], Ewald Moser[6]
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190 MT Longitudinal Decrease in Amygdala Response to Emotional Stimuli after Eight-Week Meditation Training
Gaelle Desbordes[1], Lobsang Negi[2], Charles Raison[3], Eric Schwartz[1]
[1]Boston University, Boston, MA, [2]Emory University, Atlanta, GA, [3]University of Arizona, Tucson, AZ

191 MT Automatic Control of Emotion: Validation of a Novel fMRI Task
Eric Fakra[1,2], Magali Comte[2], Emmanuelle Reynaud[3], Eric Guedj[3], Bruno Wicker[4], Jean-Luc Anton[5], Pilar Salgado-Pineda[6], Jennifer Coull[7], Olivier Blin[3]
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192 MT Effects of intranasal oxytocin on implicit emotion regulation and associated brain activity
Melanie Feeser[1], Karin Pestke[2], Yan Fan[1], Simone Grimm[1,3], Malek Bajbouj[1,4]
[1]Cluster Languages of Emotion, Freie Universität Berlin, Berlin, Germany, [2]Freie Universität Berlin, Berlin, Germany, [3]Clinic for Affective Disorders and General Psychiatry, Psychiatric University Hospital Zürich, Zürich, Switzerland, [4]Department of Psychiatry, Charité-Universitätsmedizin Berlin, Berlin, Germany

193 MT Neural Markers of Anger and Mindfulness and Using rsfMRI
Carl Fulwiler[1], Jean King[2], Nanyin Zhang[2]
[1]University of Massachusetts Medical School, Worcester, United States, [2]University of Massachusetts Medical School, Worcester, MA

194 MT Functional Connectivity of The Cortical-limbic and Motor Systems of Athletes under Distress
Chao-Yi Ho[1], Henry Davis IV[2], Georg Northoff[3]
[1]Institute of Mental Health Research, University of Ottawa, Ottawa, Canada, [2]Swimmer Canada, Calgary, Alberta, [3]Institute of Mental Health Research, Ottawa, Canada

195 MT Effects of Visibility on the Processing of Emotional Words
Shen-Mou Hsu[1], William Hetrick[2], Luiz Pessoa[3], Yu-Fang Yang[1]
[1]Research Center for Mind, Brain and Learning, National Chengchi University, Taipei, Chinese Taipei, [2]Indiana University, Bloomington, IN, [3]Department of Psychology, University of Maryland, College Park, MD

196 MT Empathy for other's pain was modulated by acute alcohol intoxication: An fMRI study
Yang Hu[1], Mingxia Fan[2], Zhuoya Cui[1], Yuwei Jiang[2], Zhaoxin Wang[1,2]
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197 MT Neural Correlates of Understanding Another Person's Happy Emotion
Tetsuya Iidaka[1], Tokiko Harada[2], Norihiro Sadato[3]
[1]Nagoya University, Nagoya, Japan, [2]Nagoya University, Nagoya, Japan, [3]National Institute for Physiological Sciences, Okazaki, Japan

198 MT Midbrain Presynaptic Dopamine Tunes Sustained and Transient Neural Response to Emotional Salience
Mbemba Jabbi[1], Tiffany Nash[2], Philip Kohn[3], Angela Ianni[3], Daniel Rubinstein[4], Tom Holroyd[3], Frederick Carver[3], Stephen Robinson[3], Jonathan Kippenhan[3], Joseph Masdeu[3], Richard Coppola[5], Karen Berman[3]
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199 MT Effects of Working Memory Load on Affective Processing: An Event-related Potentials Study
Junghee Kim[1], Taejin Park[1]
[1]Department of Psychology, Chonnam National University, Gwangju, Korea, Republic of

200 MT Another sublime—Aesthetic experience of perceptual novelty: an fMRI study
Momo Kim[1], Eunae Lee[1], Jungwoo Son[2], Seungbok Lee[1]
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201 MT **Withdrawn**

202 MT **Salience processing in subjective Perception, objective Behaviour and the Neuroanatomical Correlates**
Anna Linda Krause[1], Coraline Metzger[1,2], Johann Steiner[1], Joern Kaufmann[3], Axel Genz[1], Bernhard Bogerts[1], Martin Walter[1,2]
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203 MT **Emotion Communication Training Induces Specific Changes in Brain Function and Structure**
Benjamin Kreifelts[1], Heike Jacob[1], Carolin Brück[1], Michael Erb[2], Dirk Wildgruber[1]
[1]Dpt. of Psychiatry, University of Tuebingen, Tuebingen, Germany, [2]Dpt. of Neuroimaging and MR-Physics, University of Tuebingen, Tuebingen, Germany

204 MT **Sex Matters: Gender-Specific Neural Correlates of Laughter Perception**
Benjamin Kreifelts[1], Diana Szameitat[1], Carolin Brück[1], Thomas Ethofer[1], Kai Alter[2], Dirk Wildgruber[1]
[1]Dpt. of Psychiatry and Psychotherapy, University of Tuebingen, Tuebingen, Germany, [2]Institute of Neuroscience, University of Newcastle, Newcastle upon Tyne, United Kingdom

205 MT **A neuroaestheic study on the "perceptual novelty" and the education effect**
eunae lee[1], Momo Kim[2], Seungbok Lee[2], Son Jungwoo[3]
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206 MT **Imaging brain dynamics of emotional-perceptual processing by Granger causality analysis: a MEG study**
Tai-Ying Liu[1], Li-Fen Chen[2,3], Yong-Sheng Chen[4], Jen-Chuen Hsieh[2,5]
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207 MT **The Distinct Effect of Emotional Valence and Arousal on Working Memory — an fMRI Study**
Xiaonan Liu[1], Greg Siegle[2]
[1]Carnegie Mellon University, Pittsburgh, PA, [2]University of Pittsburgh, Pittsburgh, PA

208 MT **The neural correlates of limb-specific emotionally charged images: a spinal fMRI study**
Theresa McIver[1], Jennifer Kornelsen[1], Stephen D Smith[2], Randy Summers[1], Boguslaw Tomanek[1]
[1]National Research Council Canada Institute for Biodiagnostics, Winnipeg, Canada, [2]University of Winnipeg, Winnipeg, Canada

209 MT **Embodying the nation: Collective emotions and national identification during the 2010 FIFA World Cup**
Carmen Morawetz[1,2], Peter Mohr[3], Sven Ismer[1], Juergen Baudewig[4,5], Christian von Scheve[1], Hauke Heekeren[3,4,5]
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210 MT **Face processing in the amygdala & FFA: why to consider stimulus history & individual variability**
Anwar Nunez-Elizalde[1], Geoffrey Aguirre[2], Sonia Bishop[3]
[1]UC Berkeley, Berkeley, CA, [2]University of Pennsylvania, Philadelphia, PA, [3]UC Berkeley, Berkeley, United States

211 MT **Interaction of Affective Valence and Perceptual Complexity in the Affective Picture Processing**
Taejin Park[1], Minkyu Ahn[2], Sung Chan Jun[2], Soodam Park[1]
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212 MT Induction of positive and negative emotional states bias later amygdala sensitivity to fearful faces
Swann Pichon[1], Ewa Miendlarzewska[1], Hamdi Eryilmaz[1], Patrik Vuilleumier[1]
[1]University of Geneva, Geneva, Switzerland

213 MT The impact of social sharing on the processing of emotional stimuli
Kristin Prehn[1,2], Christoph Korn[3,4], Malek Bajbouj[5,1,2], Gisela Klann-Delius[1,6], Winfried Menninghaus[1,7], Arthur Jacobs[1,3,2], Hauke Heekeren[3,1,2,4]
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214 MT Neural correlates of voluntary and spontaneous regulation of emotion
Ignazio Puzzo[1], Birthe Henne[1], Tom Johnstone[1]
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215 MT Emotional Conflict in Cinematic Experience: An fMRI study
Christiane Rohr[1,2], Carolina Solms-Baruth[1,2], Maurice Hollmann[1], Arno Villringer[1,2], Daniel Margulies[1,2], Hadas Okon-Singer[1,2]
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216 MT Oral Fat Texture Representation in the Orbitofrontal Cortex, Taste Insula, and Somatosensory Cortex
Edmund Rolls[1], Fabian Grabenhorst[2], Tian Ge[3], Jianfeng Feng[3]
[1]University of Warwick, Coventry, United Kingdom, [2]University of Cambridge, Cambridge, United Kingdom, [3]Centre for Computational Systems Biology, School of Mathematical Sciences, Fudan University, Shanghai, China

217 MT Stress effect on central and autonomic nervous system responses when driving on a driving-simulator
Emilie SALVIA[1], Claude DELPUECH[2], Sébastien DALIGAULT[2], Aymeric GUILLOT[3], Robert MARTIN[3], Christian COLLET[3]
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218 MT Decoding Valence across Picture and Sound Stimuli from fMRI Data
Svetlana Shinkareva[1], Jing Wang[1], Jongwan Kim[1], Matthew Facciani[1], Laura Baucom[1], Douglas Wedell[1]
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***219 MT Oxytocin enhances encoding of emotional faces under conditions of limited awareness (O-M2)**
Manuela Sibold[1], Markus Heinrichs[1], Gregor Domes[1]
[1]University of Freiburg, Freiburg, Germany

220 MT Parietal activation to suppressed fearful faces in adolescents
Vanessa Troiani[1], Robert Schultz[2]
[1]University of Pennsylvania, Philadelphia, United States, [2]Children's Hospital of Philadelphia, University of Pennsylvania, Philadelphia, PA

221 MT Emotion Processing in the Sleeping Brain
Shun-Ju Tsai[1], Chenyi Chen[1], Shin-Yi Lee[1], Jia-Ying Sung[2], Yawei Cheng[1,3]
[1]Institute of Neuroscience, National Yang-Ming University, Taipei, Chinese Taipei, [2]Center of Sleep Medicine, Wan Fang Hospital, Taipei, Chinese Taipei, [3]Department of Rehabilitation, National Yang-Ming University Hospital, Yilan, Chinese Taipei

222 MT Serotonin Transporter Genetic Variation and Children's Brain and Behavioral Response to Face Emotion
Angela Tseng[1], Kathleen Thomas[2]
[1]College of Physicians and Surgeons and the New York State Psychiatric Institute, Columbia University, New York, United States, [2]Institute of Child Development, University of Minnesota, Minneapolis, MN

223 MT The Brain on Art: Intense Aesthetic Experience Activates the Default Mode Network
Edward Vessel[1], G Starr[2], Nava Rubin[2]
[1]New York University, New York, United States, [2]New York University, New York, NY

224 MT What's so important about Salience?
Toby Winton-Brown[1], Jonathan Roiser[2], Nico Bunzeck[3], Emrah Duzel[2], Shitij Kapur[4], Philip McGuire[1]
[1]Institute of Psychiatry, London, United Kingdom, [2]Institute of Cognitive Neuroscience, UCL, London, United Kingdom, [3]Department of Systems Neuroscience, University Medical Center Hamburg, London, United Kingdom, [4]King's College London, London, United Kingdon

225 MT Emotional responsiveness related to visual processing as revealed by EEG component clustering
Miroslaw Wyczesany[1], Szczepan Grzybowski[1]
[1]Psychophysiology Lab, Jagiellonian University, Krakow, Poland

***226 MT Heart Rate Deceleration Predicts BOLD Activity in Default Mode Regions during Emotion Processing (O-M2)**
Xiao-Fei Yang[1], Savio Wong[2], Mary Helen Immordino-Yang[1]
[1]University of Southern California, Los Angeles, CA, United States, [2]The Hong Kong Institute of Education, Hong Kong, Hong Kong

227 MT Positive emotion facilitates Task Switching: a fMRI study
wang yanmei[1], Yue zhu[2], Guo Jun[3]
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228 MT Effects of Menstrual Cycle on Facial Expressions Recognition: Evidences From ERPs
Wenjuan Zhang[1], Renlai Zhou[1,2]
[1]Beijing Key Lab of Applied Experimental Psychology, Beijing Normal University, Beijing, China, [2]State Key laboratory of Cognitive Neuroscience and learning, Beijing Normal University, Beijing, China

229 MT Personal Experiences Reduce Racial Bias in Neural Responses to the Suffering of Others
Xiangyu Zuo[1], Shihui Han[1]
[1]Peking University, Beijing, China

EMOTION AND MOTIVATION

Reward and Punishment

230 MT Personality traits are associated with neural responses during reward and punishment learning
Hyeon Min An[1], Heung Sik Yoon[1], Hyeon Guk Kang[1], Hackjin Kim[1], Sang Hee Kim[1]
[1]Department of Brain and Cognitive Engineering, Korea University, Seoul, Korea, Republic of

231 MT NEURAL RESPONSES TO ACUTE IV ALCOHOL IN HEALTHY MODERATE DRINKERS
Emma Childs[1], Sean O'Connor[1], Jia-Hong Gao[1], Elliot Stein[2], Harriet de Wit[1]
[1]The University of Chicago, Chicago, IL, USA, [2]NIH, Baltimore, MD, USA

***232 MT Dopamine-dependent cortico-subcortical network functional connectivity: association with impulsivity (O-M2)**
David Cole[1], Nicole Oei[2], Roelof Soeter[3], Stephanie Both[2], Joop van Gerven[4], Serge Rombouts[3], Christian Beckmann[5]
[1]Imperial College London, London, United Kingdom, [2]Leiden University Medical Center, Leiden, Netherlands, [3]Leiden Institute for Brain and Cognition, Leiden, Netherlands, [4]Center for Human Drug Research, Leiden, Netherlands, [5]University of Twente, Enschede, Netherlands

***233 MT Loss aversion is under the control of dopaminergic signaling (O-M2)**
Alain Dagher[1], Sylvia Cox[1], Crystal Erickson[2], Marco Leyton[3], Kevin Larcher[4]
[1]McGill University, Montreal, Quebec, [2]N/A, Montreal, Canada, [3]McGill University, Montréal, Quebec, [4]Montréal Neurological Institute, Montréal, Quebec

234 MT Does similar neurocircuitry underlie beneficial placebo effects on pain and pleasantness perception?
Dan Mikael Ellingsen[1], Siri Leknes[2], Jaquette Liljencrantz[1], Tor Endestad[2], Håkan Olausson[3], Johan Wessberg[1]
[1]Institute of Neuroscience and Physiology, University of Gothenburg, Gothenburg, Sweden, [2]Department of Psychology, University of Oslo, Oslo, Norway, [3]Institute of Neuroscience and Physiology, University of Gothenburg, Gothenburg, Sweden

235 MT Acute Dopamine changes & D2 receptor binding predict differences in avoidance learning: a PET study
Crystal Erickson[1], Kevin Larcher[1], Lauren Templeton[1], Michael Frank[2], Marco Leyton[3], Alain Dagher[1]
[1]Montréal Neurological Institute, Montréal, Quebec, [2]Brown University, Providence, RI, [3]McGill University, Montréal, Quebec

236 MT Global Dimensions of Impulsivity Modulate Brain Responses to Reinforcing Stimuli
Ruolei Gu[1], Yang Jiang[2], Seth Kiser[3], Chelsea Black[4], Yue-jia Luo[5], Thomas Kelly[2]
[1]Institute of Brain and Cognitive Science, Beijing Normal University, Beijing, China, [2]Department of Behavioral Science, University of Kentucky College of Medicine, Lexington, KY, [3]Department of Psychology, The Catholic University of America, Washington, WA, [4]Department of Psychology, Temple University, Philadelphia, PA, [5]Institute of Brain and Cognitive Science, Beijing, China

237 MT Neural implementation of Gray's BIS varies with genotype-dependent serotonergic neurotransmission
Tim Hahn[1], Sebastian Heinzel[2], Thomas Dresler[2], Andreas Reif[3], Klaus-Peter Lesch[3], Peter Jakob[4], Karolien Notebaert[5], Sabine Windmann[1], Andreas Fallgatter[2]
[1]Department of Cognitive Psychology II, Johann Wolfgang Goethe University, Frankfurt, Germany, [2]University of Tuebingen, Department of Psychiatry and Psychotherapy, Tübingen, Germany, [3]University of Wuerzburg, Department of Psychiatry, Psychosomatics and Psychotherapy, Würzburg, Germany, [4]University of Wuerzburg, Department of Experimental Physics V, Würzburg, Germany, [5]Katholieke Universiteit Leuven, Leuven, Belgium

238 MT Overlapping and Distinct Neural Representations of Anticipating and Consuming Taste Rewards
John Ingeholm[1], W. Kyle Simmons[2], Kristina Rapuano[1], Seth Kallman[1], Kevin Hall[3], Alex Martin[1]
[1]National Institute of Mental Health, Bethesda, MD, [2]Laureate Institute for Brain Research, Tulsa, OK, [3]National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD

239 MT Amygdala response to masked negative faces is associated with childhood maltreatment
Harald Kugel[1], Franziska Huber[2], Anja Stuhrmann[2], Dominik Grotegerd[2], Katharina Dohm[2], Christina Sehlmeyer[2], Volker Arolt[2], Walter Heindel[1], Pienie Zwitserlood[3], Thomas Suslow[2,4], Udo Dannlowski[2,5]
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240 MT Habenula responses to primary and secondary aversive stimuli in humans: a high-resolution fMRI study
Rebecca Lawson[1], Ben Seymour[2], Eleanor Loh[2], Antoine Lutti[2], David Thomas[3], Raymond Dolan[2], Peter Dayan[4], Nikolaus Weiskopf[2], Jonathan Roiser[1]
[1]Institute of Cognitive Neuroscience, University College London, London, United Kingdom, [2]Wellcome Trust Centre for Neuroimaging, University College London, London, United Kingdom, [3]Department of Brain Repair and Rehabilitation, Institute of Neurology, UCL, London, United Kingdom, [4]Gatsby Computational Neuroscience Unit, University College London, London, United Kingdom

241 MT Correlation between testosterone levels and reward-induced activity in orbitofrontal cortex in men
Yansong Li[1,2], Guillaume Sescousse[1,2], Jean-Claude Dreher[1,2]
[1]Center for Cognitive Neuroscience, Reward and Decision Making Group, CNRS, UMR 5229, 69675, Bron, France, [2]Université Lyon 1, 69003, Lyon, France

***242 MT Reward risk coding in the orbitofrontal cortex: An intracranial recording study in humans (O-M2)**
Yansong Li[1,2], Giovanna Vanni-Mercier[1,2], François Mauguière[2,3], Jean-Claude Dreher[1,2]
[1]Center for Cognitive Neuroscience, Reward and Decision Making Group, CNRS, UMR 5229, 69675, Bron, France, [2]Université Lyon 1, 69003, Lyon, France, [3]Neurological Hospital, 69675, Bron, France

243 MT Novelty affects reinforcement learning mechanism in midbrain and striatum
Robert Lorenz[1], Audrey Houllion[2], Wendelin Böhmer[2], Torsten Wüstenberg[1], Florian Schlagenhauf[1], Simone Kühn[1], Björn Schott[1], Michael Rapp[1], Andreas Heinz[1], Klaus Obermayer[2], Juergen GALLINAT[1]
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244 **MT** **Withdrawn**

245 **MT** **Neural correlates of sensitivity to punishment in adolescent with excess weight**
Laura Moreno-Lopez[1], Carles Soriano-Mas[2], Elena Delgado-Rico[3], Miguel Pérez-García[3], Antonio Verdejo-García[3]
[1]Deparment of Personality, Evaluation and Psychological Treatment, University of Granada, Granada, Spain, [2]Instituto de Salud Carlos III. Neuroscience Group, Bellvitge Biomedical Research Institute, Barcelona, Spain, [3]Department of Personality, Evaluation and Psychological Treatment, University of Granada, Granada, Spain

246 **MT** **The neural underpinnings of gambling near misses**
Juergen Pripfl[1], Mikhail Votinov[1], Patrick Markey[1], Eva Maria Link[1], Christian Windischberger[2], Ewald Moser[2], Uta Sailer[1], Claus Lamm[1]
[1]SCAN-Unit, Faculty of Psychology, University of Vienna, Vienna, Austria, [2]Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria

247 **MT** **Ghrelin modulates the computation of food value in the human brain**
Deborah Tang[1], Jung Eun Han[2], Lesley Fellows[2], Antonio Rangel[3], Alain Dagher[2]
[1]McGill University, Montreal, Canada, [2]McGill University, Montreal, Quebec, [3]Caltech, Pasadena, CA

248 **MT** **Effects of Real and Hypothetical Monetary Rewards on Risk Taking: An ERP Study on the BART**
sihua xu[1,2], Zhe Qu[1], Yuling Su[1], You Wang[1], Yulong Ding[1], Hengyi Rao[1,3]
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EMOTION AND MOTIVATION

Sexual Behavior

249 **MT** **Dopamine modulates reward system activity during subconscious processing of sexual stimuli**
Nicole Oei[1,2], Serge Rombouts[2,3,1], Roelof Soeter[2,3,1], Joop van Gerven[4], Stephanie Both[1,2]
[1]Leiden University Medical Center, Leiden, Netherlands, [2]Leiden Institute for Brain and Cognition, Leiden, Netherlands, [3]Leiden University, Leiden, Netherlands, [4]Center for Human Drug Research, Leiden, Netherlands

250 **MT** **Meta-analysis of neuroimaging findings on the neural correlates of male sexual arousal**
Timm B Poeppl[1], Berthold Langguth[1], Simon Eickhoff[2]
[1]University of Regensburg, Regensburg, Germany, [2]Research Center Jülich, Jülich, Germany

251 **MT** **SSRI-related sexual dysfunction is predicted by pre-treatment resting state functional connectivity**
Martin Walter[1], Coraline Metzger[2], Georg Groen[3], Heiko Graf[4], Birgit Abler[3]
[1]Clinical Affective Neuroimaging Laboratory, Magdeburg, Germany, [2]Department of Psychiatry and Psychotherapy, Otto-von-Guericke University, Magdeburg, Germany, [3]University of Ulm, Ulm, Germany, [4]Ulm University, Germany

LANGUAGE

Language Acquisition

252 MT A Developmental fMRI Study on the Processing of Complex Syntax
Jens Brauer[1], Kodjo Vissiennon[1], Angela Friederici[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

253 MT Morphosyntactic processing in late bilinguals: A cross-language event-related potential study
Bing Cheng[1], Yang Zhang[2], Tess Koerner[2], Jenifer Windsor[2]
[1]School of Foreign Studies, Xi'an Jiaotong University, Xi'an, China, [2]Department of Speech-Language-Hearing Sciences, University of Minnesota, Minneapolis, MN

254 MT On the road to being a biliterate : Reading networks in Hindi-English children
Sarika Cherodath[1], T Sumathi[1], Chaitra Rao[2], Nandini Singh[1]
[1]National Brain Research Centre, Manesar, India, [2]National Brain Research Centre, N/A

255 MT Anatomical connectivity changes in the bilingual brain
Lorna Garcia Penton[1], Yasser Iturria Medina[2], Alejandro Perez Fernandez[1], Manuel Carreiras[1]
[1]Basque Center on Cognition, Brain and Language (BCBL), Donostia, Spain, [2]Cuban Neuroscience Center, La Habana, Cuba

256 MT Second Language at Low and High Proficiency Levels: A Functional Connectivity Study
Ladan Ghazi Saidi[1,2], Vincent Perlbarg[3], Guillaume Marrelec[2], melanie pelegrini-issac[4], Habib Benali[5], Ana-Ines Ansaldo[2,1]
[1]University of Montreal, Montreal, Canada, [2]CRIUGM, Montreal, Canada, [3]INSERM / UPMC Univ. Paris 06, UMR_S678, LIF, Paris, France, [4]inserm, N/A, [5]INSERM, Paris, France

257 MT The Neural Correlates of Phonological Transfer Effects across Distant Languages
Ladan Ghazi Saidi[1], Ana-Ines Ansaldo[2]
[1]University of Montreal, N/A, [2]CRIUGM, Montreal, Canada

258 MT Modulation of Prelexical Processing of Pseudowords in response to Lexico-Semantic Training
Sonja Rossi[1,2], Rüdiger Wolf[1], Paula Hillebrand[1], Hellmuth Obrig[1,2]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Faculty of Medicine, University of Leipzig, Leipzig, Germany

259 MT Neural Changes Underlying Short-Term Language Training: An fMRI Study
Jing Yang[1], Ping Li[2]
[1]Pennsylvania State University, State College, PA, [2]Department of Psychology, Pennsylvania State University, University Park, PA

LANGUAGE

Language Comprehension and Semantics

260 MT Neural correlates of perceptual and semantic processing during visual object recognition
Francesco Barban[1], Giovanni Carlesimo[2], Emiliano Macaluso[1], Carlo Caltagirone[2], Francesco Scalici[1], Gian Daniele Zannino[1]
[1]IRCCS Santa Lucia Foundation, Rome, Italy, [2]University of Rome "Tor Vergata", IRCCS Santa Lucia Foundation, Rome, Italy

261 IMT dentity coding in right fusiform gyrus is invariant for location, size and color
Rose Bruffaerts[1,2], Patrick Dupont[1], Ronald Peeters[2], simon de deyne[1], Gerrit Storms[1], Rik Vandenberghe[1,2]
[1]KU Leuven, Leuven, Belgium, [2]University Hospitals Leuven, Leuven, Belgium

262 MT Withdrawn

263 MT Linking the structure of semantic meaning to the structure of information in ventral temporal cortex
Thomas Carlson[1], Ryan Simmons[1], Nikolaus Kriegeskorte[2], Robert Slevc[1]
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264 MT Neural substrates of humor incongruity and resolution: An fMRI study
Hsueh-Chih Chen[1], Yu-Chen Chan[2], Tai-Li Chou[3], Kuo-En Chang[4], Yuejia Luo[5]
[1]Department of Educational Psychology and Counseling, National Taiwan Normal University, Tiapei, Chinese Taipei, [2]Department of Educational Psychology and Counseling, National Taiwan Normal University, Taipei, Chinese Taipei, [3]Department of Psychology, National Taiwan University, Taipei, Chinese Taipei, [4]Graduate Institute of Information and Computer Education, National Taiwan Normal University, Taipei, Chinese Taipei, [5]College of Brain & Cognitive Science, Beijing Normal University, Beijing, China

265 MT **The centro-parietal N200 is sensitive to orthographic manipulations**
Huixian Chen[1], Zude Zhu[2], Suiping Wang[2], John Xuexin Zhang[3]
[1]Shantou University, Shantou University, China, [2]South China Normal University, Guangzhou, China, [3]Chinese Univ. of Hong Kong, Hong Kong, China

266 MT **Local and inter-regional neural synchrony in gamma-band during judgment of autobiographic facts**
Jeong Woo Choi[1], Jong Ku Lee[1], Kyung Hwan Kim[1]
[1]Yonsei University, Wonju, Korea

267 MT **Neural correlates of narrative speech processing in second language**
Hia Datta[1], Jason Zevin[2]
[1]Molloy College & Sackler Institute for Developmental Psychobiology, New York, United States, [2]Sackler Institute for Developmental Psychobiology, New York, United States

268 MT **Bilingual word reading depends on basic statistical regularities: ERP evidence from masked priming**
Jon Andoni Dunabeitia[1], Aina Casaponsa[1]
[1]Basque Center on Cognition, Brain and Language (BCBL), Donostia, Spain

269 MT **A unifying view of semantic network revealed by task-free fMRI**
Christine Guo[1], Benno Gesierich[1], Maria Luisa Gorno Tempini[1], Maya Henry[1], Kate Rankin[1], Tal Shany-Ur[1], AndreW Trujillo[1], William Seeley[1]
[1]University of California San Francisco, San Francisco, United States

270 MT **Word Class Effect on Neural Processing of Semantic Relatedness: Spatiotemporal Investigation of ERPs**
Masahiro Hata[1], Hidekazu Yarimizu[1], Lisa Sugiura[1], Fumitaka Homae[1], Hiroko Hagiwara[1]
[1]Tokyo Metropolitan University, Tokyo, Japan

271 MT **Reaching the semantic hub in 240 ms: The spatio-temporal dynamics of written word processing**
Olaf Hauk[1], Elisa Cooper[1], Gemma Evans[2], Yuanyuan Chen[1], Karalyn Patterson[1], Anna Woollams[2]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom, [2]University of Manchester, School of Psychological Sciences, Manchester, United Kingdom

272 MT **Resolving lexico-semantic interference during word retrieval**
Ilona Henseler[1,2], Andreas Mädebach[3], Hellmuth Obrig[1,2], Sonja Kotz[1], Arno Villringer[1], Jörg Jescheniak[3]
[1]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Day Clinic for Cognitive Neurology, Leipzig, Germany, [3]Department of Psychology, University of Leipzig, Leipzig, Germany

273 MT **The cerebral networks of emotional speech comprehension**
Pierre-Yves Hervé[1], Annick Razafimandimby[2], Mathieu Vigneau[3], Bernard Mazoyer[1], Nathalie Tzourio-Mazoyer[1]
[1]GIN UMR5296 CNRS CEA University Bordeaux Segalen, Bordeaux, France, [2]ISTPCT UMR 6301 CNRS CEA Université de Caen, Caen, France, [3]FRE 3481 CNRS URCA équipe MéDIAN, Faculté de Médecine de Reims, Reims, France

274 MT **Hearing about others: an fMRI study of theory-of-mind sentence comprehension**
Pierre-Yves Hervé[1], Gael Jobard[1], Emmanuel Mellet[1], Laure Zago[1], Annick Razafimandimby[2], Mathieu Vigneau[3], Laurent Petit[1], Fabrice Crivello[1], Marc Joliot[1], Bernard Mazoyer[1], Nathalie Tzourio-Mazoyer[1]
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275 MT **Cerebellar internal models in language processing? An fMRI study of contextual priming**
Eva G. Hilland[1], Torgeir Moberget[1], Stein Andersson[2], Tor Endestad[1]
[1]Department of Psychology, University of Oslo, Oslo, Norway, [2]Department of Neuropsychiatry and Psychosomatic Medicine, Oslo University Hospital, Oslo, Norway

276 MT **Functional segregation of semantic processes at different level of syntactic hierarchy**
Xiaoming Jiang[1], Zheng Ye[1], Hongbo Yu[2], Xiaolin Zhou[1]
[1]Center for Brain and Cognitive Sciences and Department of Psychology, Beijing, China, [2]Center for Brain and Cognitive Sciences and Department of Psychology, Peking University, Beijing, China

277 MT **Mapping within- and cross-modality information content in human temporal cortex**
James Keidel[1], Nikolaas Oosterhof[1], Guillaume Thierry[1]
[1]Bangor University, Bangor, United Kingdom

278 MT Learning by Doing? Different Brain Regions Mediate Word Learning with Gestures and without Gestures
Klaus-Martin Krönke[1], Karsten Müller[1], Angela Friederici[1], Hellmuth Obrig[1,2]
[1]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Clinic for Cognitive Neurology, University Hospital Leipzig, Leipzig, Germany

279 MT Concreteness Effects on Theta and Upper Alpha EEG Coherence
Kevin Lai[1], Hsiao-Ching She[1], Sheng-Chang Chen[1], Tzyy-Ping Jung[2]
[1]Institute of Education, National Chiao-Tung University, Hsinchu, Chinese Taipei, [2]Institute for Neural Computation, University of California, San Diego, California, United States

280 MT Neural basis of processing conventional implicature in sentence comprehension
Sai Li[1], Xiaoming Jiang[1], Hongbo Yu[1], Xiaolin Zhou[2]
[1]Center for Brain and Cognitive Sciences and Department of Psychology, Peking University, Beijing, China, [2]Center for Brain and Cognitive Sciences and Department of Psychology, Beijing, China

281 MT Recognition potential differentiates semantic processing of emotional words in L1 and L2
Siyao Li[1,2], Wuwei Fan[2], Taomei Guo[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]School of Psychology, Beijing Normal University, Beijing, China

282 MT The role of accentuation in conveying semantic meaning and in modulating attention allocation
Xiaoqing Li[1]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China

283 MT The role of right hemisphere in the processing of Chinese idioms: an fMRI study
Youyi Liu[1], Jie Yang[1,2], Xiaoping Fang[1], Ping Li[3], Hua Shu[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Sackler Institute, Department of Psychiatry, Weill Cornell Medical College, NY, United States, [3]Department of Psychology, Pennsylvania State University, PA, United States

284 MT Regression shows inverse relationship between gamma-band and N400 responses during semantic priming
Monika Mellem[1,2], Rhonda Friedman[2], Andrei V. Medvedev[1]
[1]Center for Functional and Molecular Imaging, Georgetown University, Washington, DC, [2]Center for Aphasia Research and Rehabilitation, Georgetown University, Washington, DC

285 MT Oscillatory dynamics related to Agreement and Unagreement in Spanish
Alejandro Perez Fernandez[1], Nicola Molinaro[1], Simona Mancini[1], Paulo Barraza[1], Manuel Carreiras[1]
[1]BCBL - Basque Center on Cognition, Brain and Language, Donostia, Spain

286 MT The anterior temporal lobes support residual comprehension in Wernicke's aphasia: A fMRI study
holly robson[1], Richard Binney[1], James Keidel[2], Matthew Lambon Ralph[1], Karen Sage[1], Roland Zahn[1]
[1]University of Manchester, Manchester, United Kingdom, [2]University of Bangor, Bangor, United Kingdom

287 MT Inferior Frontal Gyrus Subserves Context-Dependent Comprehension of Spoken Narrative
Dmitry Smirnov[1], Enrico Glerean[1], Juha Lahnakoski[1], Juha Salmi[1], Iiro Jääskeläinen[1], Mikko Sams[1,2], Lauri Nummenmaa[1,3,4]
[1]Brain and Mind Laboratory, BECS, School of Science, Aalto University, Espoo, Finland, [2]Advanced Magnetic Imaging Centre, School of Science, Aalto University, Espoo, Finland, [3]Turku PET Centre, Turku, Finland, [4]Brain Research Unit, O.V.Lounasmaa Laboratory, School of Science, Aalto University, Espoo, Finland

288 MT "Clitic agreement", an ERP study
Jui-Ju Su[1], Nicola Molinaro[2], Simona Mancini[3], Manuel Carreiras[1]
[1]Basque Center on Cognition, Brain and Language (BCBL), Donostia-San Sebastian, Spain, [2]Basque center on Cognition, Brain and Language (BCBL), Donostia-San Sebastian, Spain, [3]Basque Center on Cognition, Brain and Language (BCBL), Donostia-San Sebastian, Spain

289 MT Recognizing the Emotional Meaning of Person Names: An Event Related Potential Study
Lin Wang[1], Zude Zhu[2], Marcel Bastiaansen[3], Peter Hagoort[4], Suiping Wang[5], Yufang Yang[6]
[1]Institute of psychology, Chinese academy of sciences, Beijing, China, [2]Department of Psychology, South China Normal University, Guangzhou, China, [3]Max Planck Institute for Psycholinguistics, Nijmegen, Netherlands, [4]Donders Institute, Nijmegen, Netherlands, [5]South China Normal University, Guangzhou, China, [6]Institute of Psychology, Chinese Academy of Sciences, Beijing, China

290 MT An ERP investigation of semantic integration for Chinese noun-noun compounds
Jia xiaofei[1], Wang Suiping[2], zhang bao[3], zhang John X[4]
[1]Institute of Higher Education,Shantou University, Shantou, China, [2]Department of Psychology,South China Normal University, Guangzhou, China, [3]Department of Psychology,Guangzhou University, Guangzhou, China, [4]Institute of Higher Education,the Chinese University of Hong Kong, Hong Kong

291 MT Effects of topicalization on pronoun interpretation in Mandarin Chinese: An ERP investigation
xiaodong xu[1,2], Xiaolin Zhou[3]
[1]Research Center for Learning Science and Key Laboratory of Child Development, Southeast University, Nanjing, China, [2]School of Foreign Languages & Cultures, Nanjing Normal University, Nanjing, China, [3]Center for Brain and Cognitive Sciences and Department of Psychology, Beijing, China

292 MT Modulation of brain connectivity as a function of orthographic interference
Nan Yan[1], Sam-Po Law[1], I-Fan Su[1]
[1]University of Hong Kong, Hong Kong, Hong Kong

293 MT BOLD responses reveal emotion evaluation in speech depends more on prosody than semantics
Jianfeng Yang[1], Yuejia Luo[2], Yufang Yang[1]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

294 MT Task-modulated processing of intelligible speech within and beyond temporal cortex: an fMRI study
Qiuhai Yue[1], Linjun Zhang[2], Guoqing Xu[3], Xiaoyi Wang[4], Hua Shu[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]College of Chinese Studies, Beijing Language and Culture University, Beijing, China, [3]Department of Psychology, Dalian Medical University, Dalian, China, [4]Department of Radiology, Xuanwu Hospital, Capital Medical University, Beijing, China

295 MT Pseudohomophone effect in visual word recognition: An fMRI study of Chinese compound words
Jiayu Zhan[1], Hongbo Yu[1], Xiaolin Zhou[1,2,3]
[1]Center for Brain and Cognitive Sciences and Department of Psychology, Peking University, Beijing, China, [2]Key Laboratory of Machine Perception (Ministry of Education), Peking University, Beijing, China, [3]Key Laboratory of Computational Linguisitics (Ministry of Education), Peking University, Beijing, China

296 MT The centro-parietal N200: a key neural marker for visual word recognition in Chinese
John Xuexin Zhang[1], Bao Zhang[2], Jie Yuan[3], Xiaofei Jia[4]
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297 MT Orthographic facilitation in Chinese spoken word recognition: An ERP study
Lijuan Zou[1], Amy Desroches[2], Youyi Liu[1], Zhichao Xia[1], Hua Shu[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Department of Psychology, University of Winnipeg, Winnipeg, Canada

LANGUAGE

Reading and Writing

298 MT Evaluating a neural framework for orthographic word representations using fMRI and the HMAX model
Wouter Braet[1], Jonas Kubilius[1], Hans Op de Beeck[1], Johan Wagemans[1]
[1]University of Leuven (KULeuven), Leuven, Belgium

***299 MT Electrophysiological correlate of pre-literate print sensitivity – a predictor for reading outcome? (O-M3)**
Silvia Brem[1,2], Silvia Bach[1,2], Heikki Lyytinen[3], Urs Maurer[4,1], Ulla Richardson[2], Daniel Brandeis[5,1,6]
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300 MT Proficiency does not modulate the brain network of reading in late Chinese-English bilinguals
Fan Cao[1], Ran Tao[2], Xiaoyu Lei[3], Charles Perfetti[3], James Booth[4], Li Liu[2]
[1]Nanyang Technological University, singapore, Singapore, [2]Beijing Normal University, Beijing, China, [3]University of pittsburgh, Pittsburgh, United States, [4]Department of Communication Sciences and Disorders, Northwestern UniversitY, Evanston, IL

301 MT Is the frequency of visual line configurations reflected in the brain?
Hui-Chuan Chang[1], Kimihiro Nakamura[2,3,4,5], Antoinette Jobert[2,3,5], Christophe Pallier[2,3,6,5], Stanislas Dehaene[2,3,4,5]
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302 MT The centro-parietal N200 is not affected by semantic priming
Yingchun Du[1], John.X Zhang[2], Jie Yuan[3], Qin Zhang[4]
[1]Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]Department of Psychology, the Chinese University of Hong Kong, Hong Kong, China, [3]Tsinghua University, Beijing, China, [4]Departmenr of Psychology, Capital Normal University, Beijing, China

303 MT Temporal Dynamics of Structure and Phonetic Radical Modulation in Chinese Character Pronunciation
Janet H. Hsiao[1], Zhiguo Zhang[1], Kit Cheung[1], Lana Lam[1], Yong Hu[1]
[1]The University of Hong Kong, Hong Kong, China

304 MT Two phonological regions show distinct patterns of modulation in an overt reading paradigm
Sarah Ihnen[1], Steven Petersen[1], Bradley Schlaggar[1]
[1]Washington University School of Medicine, St. Louis, MO, United States

305 MT Discriminating the components of the sublexical route during reading
Gael Jobard[1], Florian Bazin[2], Emmanuel Mellet[2], Fabrice Crivello[3], Laure Zago[1], Laurent Petit[4], Pierre-Yves Hervé[2], Marc Joliot[2], Bernard Mazoyer[2], Nathalie Tzourio-Mazoyer[2]
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306 MT Is ventral occipito-temporal cortex necessary for normal reading?
Keith Kawabata Duncan[1,2,3], Joseph Devlin[3], Katsuyuki Sakai[1]
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307 MT The Neural Correlate of the Masked Onset Priming Effect
Michael Klein[1], Piers Cornelissen[2], Katherine Wheat[2], Peter Hansen[3], Jonathan Grainger[1]
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308 MT Contrasting fMRI activations for second language reading in English and Japanese Kana
Maki Koyama[1,2], John Stein[2], Catherine Stoodley[3,2], Peter Hansen[4,2]
[1]Rutgers University, Center for Molecular and Behavioral Neuroscience, Newark, USA, [2]University of Oxford, Department of Physiology, Anatomy, and Genetics, Oxford, United Kingdom, [3]American University, Department of Psychology, Washington, DC, [4]University of Birmingham, School of Psychology, Birmingham, United Kingdom

309 MT English word, Chinese character and object processing in young English speaking children
Anthony Krafnick[1], Megan Luetje[1], Eileen Napoliello[1], D Flowers[1], Li-Hai Tan[2], Guinevere Eden[1]
[1]Georgetown University, Washington, United States, [2]The University of Hong Kong, Hong Kong, China

310 MT A Meta-analysis of Functional Neuroimaging Studies of Chinese Dyslexics and Normal Readers
Fu Yu Kwok[1], Moon-Ho Ho[1], S.H. Chen[1]
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311 MT Large-scale gamma-band amplitude correlations reveal segregation/integration in the reading network
Jean-Philippe Lachaux[1], Juan Vidal[1], Samson Freyermuth[2], Karim Jerbi[1], Tomas Ossandon[3], Carlos Hamamé[4], Olivier Bertrand[1], Philippe Kahane[5], Alain Berthoz[6]
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312 MT Functional Brain Activities for Self-reference Effect on Observing Writing Traces
Elisa Mattaloni[1,2], Horus Huang[3], Daisy Hung[4], Walter Gerbino[1,2], Erik Chang[4]
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313 MT Orthographic transparency modulates the functional asymmetry in the fusiform cortex
Leilei Mei[1], Chuansheng Chen[2], Gui Xue[3], Zhong-lin Lu[4], Qi Dong[5]
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314 MT Letter identity in visual word recognition: MEG correlates of relative position priming
Nicola Molinaro[1], Mikel Lizarazu[1], Jon Andoni Dunabeitia[1], Manuel Carreiras[1]
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315 MT Development of print tuning during learning to read: effects of behavioral language measures
Aleksandra Moscicka[1], Lea Jost[1], Margit Raith[1], Urs Maurer[1]
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316 MT Right and left hemisphere contributions to reading: evidence from transcranial magnetic stimulation
Chotiga Pattamadilok[1], Luis Carlo Bulnes[2], Joseph Devlin[3], Jose Morais[4], Regine Kolinsky[5]
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317 MT An fMRI investigation of the processing of zero derivation in English
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318 MT Shared Neuronal Representations for Spelling and Reading
Jeremy Purcell[1], Xiong Jiang[2], Guinevere Eden[1]
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319 MT Neural systems for reading in childhood medulloblastoma survivors – an fMRI study
Samina Taherbhoy[1,2], Ping Stinnett[1], Chia-ho Hua[1], Thomas Merchant[1], Amar Gajjar[1], Robert Ogg[1]
[1]St. Jude Childrens Research Hospital, Memphis, United States, [2]University of Tennessee Health Science Center, Memphis, United States

320 MT Comparing Different Neural Markers of Developmental Dyslexia and Reading Ability
Cheng Wang[1], Joonkoo Park[2], Agnes Jasinska[1], Joanne Carlisle[3], Holly Craig[3], Stephanie Hensel[4], Jing Liu[5], Frederick Morrison[1], Robert Welsh[6], Thad Polk[1]
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321 MT Overlapping networks for reading and listening to continuous narratives in Chinese
Xiaojuan Wang[1], W Mencl[2], Jianfeng Yang[3], Hua Shu[1], Jason Zevin[2,4]
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322 MT The Somatotopic Representation of Effector Cued and Uncued Chinese Verbs in the Motor Cortex
Haiyan Wu[1], Honghong Tang[1], Yue Ge[1], Yue-jia Luo[1], Chao Liu[1]
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323 MT Linguistic diversity is constrained by universal mechanisms at visual-form level: an fMRI study
Min Xu[1], Jizong Zhao[2], Wai Ting Siok[1], Li Hai Tan[1]
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324 MT Neural deficits and training-induced neural changes in Chinese developmental dyslexia
Wenping You[1,2], Li Liu[2], Qingfang Zhang[1], Danling Peng[2]
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325 MT Grammatical Class Distinction in Neural Representation of Chinese Word Forms
Xi Yu[1], Yanchao Bi[2], Zaizhu Han[2], Sam-Po Law[3]
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LANGUAGE

Speech Perception

326 MT Neural correlates of male and female voice perception and differences between men and women
Jessica Bath[1], Katharina Pauly[1], Christiane Neuschaefer-Rube[1], Joseph Neulen[1], Christian Kohler[2], Ute Habel[3]
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327 MT Modulation of speech processing following item repetition
Mirjana Bozic[1,2], Alexandra Woolgar[3], Elisabeth Fonteneau[1,2], Caroline Whiting[1,2], Li Su[1,2], Cai Wingfield[2], William Marslen-Wilson[1,2]
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328 MT The relationship between online and offline measures of phonology in Chinese children: an ERP study
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329 MT Use of spatial information during speech-in-speech perception in dyslexia: an fMRI study
Marjorie Dole[1], Jean-Luc Anton[2], Bruno Nazarian[2], Muriel Roth[2], Fanny Meunier[1], Michel Hoen[1]
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***330 MT Distinct Cortical Representations for Intact Audiovisual Speech and the McGurk Effect (O-M3)**
Laura Erickson[1], Amber Leaver[1], Jennifer Van Lare[1], Guoying Liu[2], Brandon Zielinski[3], Josef Rauschecker[1]
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331 MT Sensitivity to Linguistic Universals at Birth: A fNIRS Study with Newborn Infants
David Gomez[1,2], Silvia Benavides-Varela[1], Ricardo Bion[3], Francesco Macagno[4], Marina Nespor[1], Iris Berent[5], Jacques Mehler[1]
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332 MT Extracting native MMN responses from phonetic details: Chinese vs. English double dissociation study
Chang Gu[1], Yuliya Yoncheva[1], Han Wu[2], Hua Shu[2], Bruce McCandliss[1]
[1]Vanderbilt University, Nashville, United States, [2]Beijing Normal University, Beijing, China

333 MT Brain-machine interfacing and the motor theory of speech perception
Olga Iljina[1,2,3], Johanna Rüscher[1,4,5], Johanna Derix[1,4,5], Ad Aertsen[5,4], Andreas Schulze-Bonhage[1], Bernd Kortmann[2,3], Tonio Ball[1,5]
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334 MT Neural synchronization during face-to-face communication
Jing Jiang[1], Chunming Lu[2]
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335 MT Bilateralization of the human brain enhances speech perception? Evidence from functional MRI study
Ho-Jung Kang[1], HanGil Lee[1], Yong-Hwan Kim[1], Dong-Youl Kim[1], Jong-Hwan Lee[1]
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336 MT Graphical modeling of brain network on fMRI during audiovisual speech task
Heejung Kim[1], Hyekyoung Lee[2], Hyejin Kang[2], Eunjoo Kang[3], Dong Soo Lee[2]
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337 MT Cortical activation related to the unmasking effect of perceived separation on speech perception
Huahui Li[1], Lihua Mao[1], Xihong Wu[1], Liang Li[1]
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338 MT Online Markers of Phonological Processing in Typically Developing Mandarin-Speaking Children
Jeffrey Malins[1], Danqi Gao[2], Ran Tao[2], James Booth[3], Hua Shu[2], Li Liu[2], Amy Desroches[4]
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339 MT An fMRI Investigation of Mandarin Tonal Processing Using Short-Interval Habituation
Jeffrey Malins[1], Marc Joanisse[1]
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340 MT Auditory Cortical Responses to Spectrally Degraded Speech: An Intracranial Electrophysiology Study
Kirill Nourski[1], John Brugge[1,2], Mitchell Steinschneider[3], Hiroyuki Oya[1], Hiroto Kawasaki[1], Richard Reale[1,2], Matthew Howard[1]
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341 MT Cognitive load during the perception of degraded speech
Varghese Peter[1], Ronny Ibrahim[2], Catherine McMahon[2]
[1]Macquarie University, Sydney, Australia, [2]Macquarie University, Sydney, NSW

342 MT Question or surprise? The neural correlates of linguistic and paralinguistic intonation
Brechtje Post[1], Emmanuel Stamatakis[2], Iwo Bohr[1], Francis Nolan[1], Chris Cummins[1]
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343 MT Centro-parietal N200 for Encoding of Character Position in Chinese Compound word recognition
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344 MT Natural language comprehension in Japanese-English bilinguals
Jie Yang[1], Jeremy Skipper[2], Jason Zevin[3]
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345 MT Selective listening of linguistic and paralinguistic information in speech: An MEG study
Yang Zhang[1], Tess Koerner[1], Keita Tanaka[2], Toshiaki Imada[3]
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LANGUAGE

Speech Production

***346 MT GABAergic function during speech production (O-M3)**
Arash Fazl[1], Peter Herscovitch[2], Kristina Simonyan[3]
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347 MT Changes in Cortical Thickness Following Intensive Therapy for Childhood Motor Speech Disorders
Darren Kadis[1], Debra Goshulak[2], Margit Pukonen[2], Robert Kroll[3], Luc De Nil[4], Elizabeth Pang[5], Jason Lerch[6]
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348 MT High gamma time-frequency analysis of MEG cortical responses to voice pitch feedback perturbation
Naomi Kort[1], John Houde[1], Srikantan Nagarajan[1]
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349 MT Predicting behavioral language performance using a multivariate lesion pattern-based analysis
Yune-Sang Lee[1], Yung-Kyun Noh[2], Daniel Kimberg[3], H Coslett[3], Myrna Schwartz[4]
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350 MT Intrinsic word processing neural networks in children and adults during the resting state
ling li[1], jiangang liu[1], lu feng[2], kang lee[3], jie tian[2]
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351 MT Gesturing engages Episodic Memory Network during Overt Speech Production
Lars Marstaller[1], Hana Burianova[2]
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***352 MT Auditory–motor interactions during speech production in monolingual and bilingual speakers (O-M3)**
ʻŏwi Parker Jones[1], Mohamed Seghier[1], Keith Kawabata Duncan[2], Alexander Leff[1], David Green[1], Cathy Price[1]
[1]University College London, London, United Kingdom, [2]University of Tokyo, Tokyo, Japan

353 MT Concurrent fMRI during TMS-Induced Speech Arrest for Exploring Language Networks
Donna Roberts[1], James Fox[2], Vibhor Krishna[2], Donald Barr[2], Jeffrey Bodle[2]
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354 MT Foreign Accent Syndrome in an Elderly Patient
Marco Romano-Silva[1,2], Maria Bicalho[1], Fernanda Carvalho[1], Marco Cintra[1], Luciana Cunha[1], Leandro Malloy-Diniz[1], Daniela Rosa[1], Lafaiete Moreira[1], Edgar Moraes[1], Marcelo Mamede[1], Debora Miranda[1]
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355 MT Neural plasticity of stuttering speakers by rhythmical speech training
Akira Toyomura[1], Tetsunoshin Fujii[2], Shinya Kuriki[1]
[1]Tokyo Denki University, Tokyo, Japan, [2]Hokkaido University, Sapporo, Japan

356 MT An fMRI study of spontaneity, autobiography and social content in narrative speech production
Yisheng Xu[1], Nuria AbdulSabur[1], Michael Erkkinen[2], Katherine Swett[1], Allen Braun[1]
[1]National Institutes of Health, Bethesda, MD, United States, [2]Dartmouth Medical School, Dartmouth, NH, United States

357 MT The additivity between semantic interference and phonological facilitation: An ERP study
Qingfang Zhang[1], Xuebing Zhu[1]
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358 MT Language Deficit Prediction Using Brain Lesion Geometry Feature-based Support Vector Regression
Yongsheng Zhang[1,2], Daniel Kimberg[3], H Coslett[4], Myrna Schwartz[5], Ze Wang[1]
[1]Center for Functional Neuroimaging, University of Pennsylvania, Philadelphia, PA, [2]Shanghai Jiao Tong University, Shanghai, China, [3]Google Inc, Redwood, CA, [4]University of Pennsylvania, Philadelphia, PA, [5]Moss Rehabilitation Research Institute, Philadelphia, PA

***359 MT Representational Similarity Analysis Reveals Heterogeneous Networks Supporting Speech Motor Control (O-M3)**
Zane Zheng[1], Rhodri Cusack[2], Ingrid Johnsrude[1], Ewen MacDonald[3], Kevin Munhall[1], Alejandro Vicente-Grabovetsky[2]
[1]Queen's University, Kingston, Canada, [2]Medical Research Council Cognition and Brain Sciences Unit, Cambridge, United Kingdom, [3]Technical University of Denmark, Lyngby, Denmark

MODELING AND ANALYSIS METHODS

Bayesian Modeling

360 MT Bayesian global optimization for model-based neuroimaging
Ekaterina Lomakina[1,2], Alexander Vezhnevets[1], Christoph Mathys[3], Kay H. Brodersen[1], Klaas Enno Stephan[4], Joachim Buhmann[1]
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361 MT Variational inversion of a complex hierarchical Bayesian learning model
Christoph Mathys[1], Chaohui Guo[2], Kerstin Preuschoff[3,4], Ernst Fehr[2], Klaas Enno Stephan[1,5]
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362 MT Parameter estimation in a Bayesian hierarchical model of learning: a comparison of four methods
Christoph Mathys[1], Ekaterina Lomakina[1,2], Jean Daunizeau[3], Sandra Iglesias[1], Klaas Enno Stephan[1,4]
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363 MT Integrating Group Connectivity Prior into fMRI Activation Detection
Bernard Ng[1], Gael Varoquaux[1], Jean Baptiste Poline[1], Bertrand Thirion[1]
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MODELING AND ANALYSIS METHODS

Classification and Predictive Modeling

364 MT Support vector machine for one-step group analysis of functional MRI of the human brain
Tibor Auer[1], Dörthe Malzahn[2], Jens Frahm[1]
[1]Biomedizinische NMR Forschungs GmbH am Max-Planck-Institut für biophysikalische Chemie, Göttingen, Germany, [2]Department of Genetic Epidemiology, University Medical Center Göttingen, University of Göttingen, Göttingen, Germany

365 MT Structured Sparsity Models for Brain Decoding from fMRI data
Luca Baldassarre[1], Janaina Mourao-Miranda[1], Massimiliano Pontil[1]
[1]Computer Science Department - University College London, London, United Kingdom

366 MT Variational Bayesian mixed-effects inference for classification studies
Kay H. Brodersen[1,2], Jean Daunizeau[3], Christoph Mathys[1], Justin Chumbley[3], Joachim Buhmann[2], Klaas Enno Stephan[1,4]
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367 MT An Adaptive Autoregressive Fuzzy Model for Brain Activity Detection in Functional MRI
Steren Chabert[1], Rodrigo Salas[1], Juan Vielma[2], Alejandro Veloz[1]
[1]Universidad de Valparaiso, Valparaiso, Chile, [2]Hospital Carlos van Buren, Valparaiso, Chile

368 MT Brain Age Estimation from Childhood to Elderly Based on MRI Texture Analysis
Che-Wei Chang[1,2], Chien-Chan Ho[2], Jyh-Horng Chen[2,1]
[1]Electrical Engineering, National Taiwan University, Taipei, Chinese Taipei, [2]Interdiciplinary MRI/MRS Lab, National Taiwan University, Taipei, Chinese Taipei

369 MT Motor Imagery classification with Source Analysis and Network Dynamics for Brain-Computer Interface
Dongwei Chen[1,2], Jie Xiang[3], Hao Guo[3], Hongxia Deng[3], Haifang Li[3], Junjie Chen[3]
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370 MT Age-Related Surface Regression for Hippocampus via Spherical Harmonic
Xuejiao Chen[1], Wenjing Li[2], Jing Hua[3], Xiaopeng Zhang[4], Huiguang He[1]
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371 MT Decoding Categories under Different Tasks with Identical Visual Stimuli in fMRI
Chia-Yueh Carlton Chu[1], Nikolaus Kriegeskorte[2], Wen-Ming Luh[3], Peter Bandettini[4]
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372 MT Inter-subject Alignment with Whole Brain Using Kernel Canonical Correlation for fMRI Classificaiton
Chia-Yueh Carlton Chu[1], Masaya Misaki[2], Peter Bandettini[3]
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373 MT ADHD prediction using resting-state functional connectivity
Dai Dai[1], Jieqiong Wang[1], Huiguang He[1]
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374 MT Multimodal Classification of ADHD: Combining Features Across Domains to Improve Classification
Pamela Douglas[1], John Colby[2], Zarrar Shehzad[3], Jeffrey Rudie[4], Jesse Brown[5]
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375 MT Detecting primarily and secondarily activated voxels in fMRI data analysis
Nevio Dubbini[1], Emiliano Ricciardi[1], Pietro Pietrini[1], Stefano Marmi[2]
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376 MT Identifying FMRI signatures of drug action from past studies for the screening of novel compounds
Eugene Duff[1], William Vennart[2], Frederick Wilson[2], Irene Tracey[1], Mark Woolrich[3], Stephen Smith[1]
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377 MT Decoding Sexual Brain Dimorphism using Anatomical and Diffusion MRI Data
Delia-Lisa Feis[1], Kay Brodersen[2,3], Marc Tittgemeyer[1]
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378 MT The Decoding Toolbox (TDT): A new fMRI analysis package for SPM and Matlab
Kai Görgen[1,2,3], Martin Hebart[1,2,4], John-Dylan Haynes[1,2,4]
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379 MT Beyond brain reading: randomized sparsity and clustering to predict and identify
Alexandre Gramfort[1], Gael Varoquaux[1], Bertrand Thirion[1]
[1]Parietal Team, INRIA Saclay - Île-de-France, CEA Neurospin, Saclay, France

380 MT Manifold Regularizing for Modeling a Sequence of Neural Events Leading to a Decision
Toke Jansen Hansen[1], Lars Hansen[1], Hartwig Siebner[2], Kristoffer Hougaard Madsen[2]
[1]Technical University of Denmark, Lyngby, Denmark, [2]Danish Research Centre for Magnetic Resonance, Hvidovre, Denmark

381 MT Controlling Global Error Rates in fMRI Data Analysis
Hakmook Kang[1], David Badre[2], Jeffrey Blume[1], Hernando Ombao[3]
[1]Vanderbilt University, Nashville, TN, [2]Brown University, Providence, RI, [3]University of California, Irvine, CA

382 MT Decoding Sensory Modalities from MEG Signals on the Basis of Spectrospatial Information
Jukka-Pekka Kauppi[1], Lauri Parkkonen[2], Riitta Hari[2], Aapo Hyvärinen[1]
[1]University of Helsinki, Helsinki, Finland, [2]Aalto University, Espoo, Finland

383 MT FMRI scan-by-scan decoding of cognitive states using functional connectivity graph wavelets
Nora Leonardi[1], Jonas Richiardi[1], Hamdi Eryilmaz[2], Dimitri Van De Ville[1]
[1]Ecole Polytechnique Fédérale de Lausanne (EPFL) / University of Geneva, Lausanne, Switzerland, [2]University of Geneva, Geneva, Switzerland

384 MT Population Functional Data Analysis of Group ICA-based Connectivity Measures from fMRI
shanshan Li[1], Ani Eloyan[1], James Pekar[2], Suresh Joel[3], Brian Caffo[1], Stewart Mostofsky[4], Susan Bassett[5]
[1]Johns Hopkins University, Baltimore, United States, [2]Kennedy Krieger Institute, Baltimore, United States, [3]Johns Hopkins University, N/A, [4]Kennedy Krieger Institute, Johns Hopkins, Baltimore, United States, [5]Johns Hopkins University, Baltimore, MD

385 MT Joint Estimation of AD Status and Cognitive Performance using VBM Summary Statistics
Taiyong Li[1,2], Jingwen Yan[3,2], Hua Wang[4], Feiping Nie[4], Heng Huang[4], Sungeun Kim[2], Shannon Risacher[2], Andrew Saykin[2], Li Shen[2]
[1]Southwestern University of Finance and Economics, Chengdu, Sichuan, [2]Indiana University School of Medicine, Indianapolis, IN, [3]Indiana University School of Informatics, Indianapolis, IN, [4]University of Texas at Arlington, Arlington, TX

***386 MT Hierarchical Tree-Guided Brain Disease Classification (O-T1)**
Manhua Liu[1,2], Daoqiang Zhang[1,3], Dinggang Shen[1]
[1]IDEA Lab, Department of Radiology and BRIC, University of North Carolina at Chapel Hill, Chapel Hill, United States, [2]Department of Instrument Science and Technology, Shanghai Jiao Tong University, Shanghai, China, [3]Department of Computer Science and Engineering, Nanjing University of Aeronautics & Astronautics, Nanjing, China

387 MT Connectivity between visual resting state networks predicts vulnerability to sleep deprivation
Amiya Patanaik[1], Vitali Zagorodnov[1]
[1]Nanyang Technological University, Singapore, Singapore

388 MT Novel vector-valued approach to automatic brain tissue MT classification
Nataliya Portman[1], Alan Evans[2]
[1]Montreal Neurological Institute, Montreal, Quebec, Canada, [2]McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Quebec

389 MT Population based pattern classification of emotional brain states using fMRI signals
mohit rana[1], Sergio Ruiz[2], Nalin Gupta[3], Thomas Suslow[4], Niels Birbaumer[5], Ranganatha Sitaram[6]
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390 MT Patterns of Brain Activity & Social Decision-Making: An fMRI Study
Filippo Rossi[1], Luke Chang[1], Ian Fasel[1], Alan Sanfey[2]
[1]University of Arizona, Tucson, AZ, [2]Radboud University, Nijmegen, Netherlands

391 MT PRoNTo: Pattern Recognition for Neuroimaging Toolbox
Jessica Schrouff[1], Maria Joao Rosa[2], Andre Marquand[3], Janaina Mourão-Miranda[2], Jane Rondina[3], Chia-Yueh Carlton Chu[4], John Ashburner[5], Christophe Phillips[1], Jonas Richiardi[6]
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392 MT Soft Null Hypotheses: A Case Study of Image Enhancement Detection in Brain Lesions
Haochang Shou[1], Russell Shinohara[2,3], Han Liu[4], Daniel Reich[3], Ciprian Crainiceanu[4]
[1]Johns Hopkins Bloomberg School of Public Health, BALTIMORE, United States, [2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, [3]National Institute of Neurological Disorder and Stroke, National Institutes of Health, Bethesda, MD, [4]Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

393 MT MEG Decoding with Regularized Multinomial Logistic Regression
Jussi Tohka[1], Tapio Manninen[1], Jukka-Pekka Kauppi[2], Heikki Huttunen[1]
[1]Tampere University of Technology, Tampere, Finland, [2]University of Helsinki, Finland

394 MT Correlates of Pupil Diameter and Single-Trial EEG Variability in an Auditory Oddball Task
Jennifer Walz[1], Linbi Hong[2], Paul Sajda[2]
[1]Columbia University, New York, United States, [2]Columbia University, New York, NY

395 MT Classification of AD and MCI using Hippocampal Subfields: An ADNI Study
Jing Wan[1,2], Vijay Ramanan[1], Sungeun Kim[1], John West[1], Mohan Boddu[1], Shannon Risacher[1], Shiaofen Fang[2], Andrew Saykin[1], Li Shen[1]
[1]Indiana University School of Medicine, Indianapolis, IN, [2]Purdue University School of Science, Indianapolis, IN

396 MT Clustering Voxel-based Gray Matter Maps for Improved Discrimination: An Amygdala Study in AD
Jingwen Yan[1], Taiyong Li[2,3], Heng Huang[4], Shannon Risacher[3], John West[3], Sungeun Kim[3], Andrew Saykin[3], Li Shen[3]
[1]Indiana University School of Informatics, Indianapolis, IN, [2]Southwestern University of Finance and Economics, Chengdu, Sichuan, [3]Indiana University School of Medicine, Indianapolis, IN, [4]University of Texas at Arlington, Arlington, TX

397 MT An Adaptive Immune Feature Selection Method for Classification of Schizophrenia Using SNP and fMRI
Honghui Yang[1], Jian Dai[1], Jingyu Liu[2], Jing Sui[2], Vince Calhoun[2,3,4]
[1]Department of Environment Engineering,Northwestern Polytechnical University, Xi'an, China, [2]The Mind Research Network, Albuquerque, NM,United States, [3]Department of Electrical and Computer Engineering, University of New Mexico, Albuquerque, NM,United States, [4]Department of Psychiatry, Yale University, New Haven, CT,United States

398 MT Multivariate Analysis based on Whole-Brain Cortical thickness and Diffusion Tensor Imaging for AD
Jin-Ju Yang[1], Uicheul Yoon[2], Jun Sung Park[3], Duk L. Na[4], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]Hanyang University, Seoul, Korea, Republic of, [4]Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

399 MT Decoding Multiple Sound Categories in the Human Temporal Cortex Using High Resolution fMRI
Fengqing Zhang[1], Jiping Wang[1], Jieun Kim[1], Francis Wong[1], Patrick Wong[1]
[1]Northwestern University, Evanston, United States

400 MT Biomarkers for pattern classification of epilepsy: Functional Integration and Asymmetry of the Brain
Jie Zhang[1], Wenlian Lu[2], Guangming Lu[3], Zhengge Wang[4], Xuejuan Zhang[5], Zhiqiang Zhang[3], Jianfeng Feng[6]
[1]Fudan Univ, Shanghai, China, [2]Fudan Univ, shanghai, China, [3]JinLing Hospital of Nanjing, Nanjing, China, [4]Nanjing Jinling Hospital, Nanjing, China, [5]zhejiang Normal Univ, Jinhua, China, [6]Department of Computer Science, The University of Warwick, Coventry, United Kingdom

MODELING AND ANALYSIS METHODS

Diffusion MRI Modeling and Analysis

401 MT Spatial Normalization of DTI Preserves Tract Reconstruction of Major White Matter Pathways
Nagesh Adluru[1], Do Tromp[1], Hui Zhang[2], Andrew Alexander[1]
[1]University of Wisconsin, Madison, WI, USA, [2]University College London, London, United Kingdom

402 MT The effect of tractography algorithm on human cortical connectome reconstruction by DW-MRI
Matteo Bastiani[1,2], Rainer Goebel[1], Alard Roebroeck[1]
[1]Maastricht University, Maastricht, Netherlands, [2]Forschungszentrum Jülich, Jülich, Germany

403 MT Whole Brain DWI Multi-Voxel Pattern Analysis of WAIS III IQ scores in the Cuban Population
Maria Bringas[1], Yaritza Villareal[2], Gertrudis Hernandez[2], Yenisleydi Lorenzo-Ceballos[2], Yasser Iturria[2], Pedro Valdes-Hernandez[2], Agustin Lage-Castellanos[2], Pedro A. Valdes-Sosa[2]
[1]International Center for Neurological Restoration, Ciudad Habana, Cuba, [2]Cuban Neuroscience Center, Ciudad Habana, Cuba

404 MT Effect of fiber tracking schemes on the variance of constructed structural brain network
Hu Cheng[1], Ruopeng Wang[2], Aina Puce[1]
[1]Indiana University, Bloomington, IN, [2]Harvard University, Charlestown, MA

405 MT Electrical Circuit Model for White Matter Fiber Tracts in Diffusion Tensor Imaging
Moo Chung[1], Nagesh Adluru[1], Janet Lainhart[2], Nicholas Lange[3], Andrew Alexander[1]
[1]University of Wisconsin, Madison, WI, [2]University of Utah, Salt Lake City, UT, [3]Harvard University, Boston, MA

406 MT **Anisotropy Preserving Interpolation of Diffusion Tensors**
Anne Collard[1], Silvère Bonnabel[2], Christophe Phillips[3], Rodolphe Sepulchre[1]
[1]Department of Electrical Engineering and Computer Science, University of Liège, Liège, Belgium, [2]Robotics Center, Mathématiques et Systèmes, Mines Paris Tech, Paris, France, [3]Cyclotron Research Centre, University of Liege, Sart Tilman, Liege, Belgium

407 MT **A software application for real-time, clustering-based exploration of tractographies**
Eleftherios Garyfallidis[1], Stephan Gerhard[2], Paolo Avesani[3], Thien Bao Nguyen[3], Vassilis Tsiaras[4], Ian Nimmo-Smith[5], Emanuele Olivetti[3]
[1]University of Cambridge, Cambridge, United Kingdom, [2]University of Zurich and ETH Zurich, Zurich, Switzerland, [3]Bruno Kessler Foundation (FBK) and University of Trento (CIMeC), Trento, Italy, [4]University of Crete, Heraklion, Greece, [5]Medical Research Council, Cognition and Brain Sciences Unit, Cambridge, United Kingdom

408 MT **Improved Diffusion Tractography with the Funk-Radon and Cosine Transform**
Justin Haldar[1], David Shattuck[2], Hanna Damasio[1], Richard Leahy[1]
[1]Univ of Southern California, Los Angeles, CA, [2]Univ of California, Los Angeles, CA

409 MT **Gyral topology-based structural connectivity analysis in the brain with polymicrogyria**
Kiho Im[1], Rudolph Pienaar[1], Michael Paldino[1], P. Grant[1]
[1]Children's Hospital Boston, Harvard Medical School, Boston, United States

410 MT **Quantifying the timecourse of recovery from mild traumatic brain injury using DTI**
Min Jing[1], Martin McGinnity[1], Sonya Coleman[1], KongFatt Wong-Lin[1], Armin Fuchs[2], Fred Steinberg[3], J.A.Scott Kelso[2]
[1]University of Ulster, Londonderry, United Kingdom, [2]Florida Atlantic University, Boca Raton, FL, [3]University MRI & Diagnostic Imaging Centers, Boca Raton, FL

411 MT **Recovery of Developmental Marker Tracts from Low-resolution Clinical Neonatal DTI Data**
Yi Lao[1], Pierre Fillard[2], Fernando Yepes[3], Ashok Panigrahy[4], Rafael Ceschin[5], Subhashree Ravichandran[6], Marvin Nelson[7], Natasha Lepore[8]
[1]Children's Hospital Los Angeles, Los Angeles, United States, [2]Parietal Team, INRIA Saclay-Île-de-France, Saclay, France, [3]Instituto de investigaciones Biomedicas de Barcelona, Barcelona, Spain, [4]Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA, [5]Children's Hospital of Pittsburgh Radiology, N/A, [6]Children's Hospital Los Angeles, Los Angeles, CA, [7]University of Southern California and Children's Hospital Los Angeles, Los Angeles, CA, [8]USC, N/A

412 MT **High-sensitivity and High-specificity of Traumatic Brain Injury diagnostic method using MRI DTI**
Keumsil Lee[1], Varin Tsai[2], Steven Potkin[2], Joseph Wu[2]
[1]University of California, Irvine, Irvine, CA, United States, [2]University of California, Irvine, Irvine, CA

413 MT **Realistic Calculation of Maximum Number of Crossing White Matter Fibers Detectable by QBI or DSI**
Nicolás Lori[1,2], Rui Lavrador[1], Carlos Santos[1]
[1]IBILI, Faculty of Medicine, University of Coimbra, Coimbra, Portugal, [2]BINP - Brain Imaging Network in Portugal, Coimbra, Portugal

414 MT **A Parametric Approach to Assess the Statistical Significance of Pathway Dependent Diffusion Measures**
Mark Lowe[1], Ken Sakaie[1], Jian Lin[1], Lael Stone[1], Micheal Phillips[1]
[1]Cleveland Clinic, Cleveland, OH

415 MT **Detecting Common Connectivity Modules from Complex Brain Networks**
Dijun Luo[1], Yang Wang[2], Heng Huang[1], Jinhua Sheng[2], Hu Cheng[3], Andrew Saykin[2], Li Shen[2]
[1]University of Texas at Arlington, Arlington, TX, [2]Indiana University School of Medicine, Indianapolis, IN, [3]Indiana University, N/A

416 MT **Physiological noise correction in DTI using a linear model and peripheral physiological recordings**
Siawoosh Mohammadi[1], Chloe Hutton[1], Zoltan Nagy[1], Oliver Josephs[1], Nikolaus Weiskopf[1]
[1]Wellcome Trust Centre for Neuroimaging, UCL Institute of Neurology, University College London, London, United Kingdom

417 MT Matching and comparison of hierarchical trees for whole-brain connectivity-based cortex parcellation
David Moreno-Dominguez[1], Alfred Anwander[1], Thomas Knösche[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

418 MT Neocortical network damage assessment by homotopic lesion mapping on healthy subjects
Emil Nijhuis[1,2], Douwe Bergsma[3], Albert van den Berg[3], Anne-Marie van Cappellen van Walsum[4,2], David Norris[1,2,5]
[1]Donders Centre for Cognitive Neuroimaging, Radboud University Nijmegen, Nijmegen, Netherlands, [2]MIRA Institute for Biomedical Technology and Technical Medicine, University of Twente, Enschede, Netherlands, [3]Department of Medical Physics and Biophysics, Radboud University Nijmegen Medical Center, Nijmegen, Netherlands, [4]Department of Anatomy, Radboud University Nijmegen Medical Center, Nijmegen, Netherlands, [5]Erwin L Hahn Institute for MRI, Universität Duisburg-Essen, Essen, Germany

419 MT Using Cellular Automatons to Find Emergent Properties in Normal vs Anormal Connectivity Matrices
Rudolph Pienaar[1], Kiho Im[1], Daniel Haehn[2], Michael Paldino[1], P. Grant[1]
[1]Children's Hospital Boston, Harvard Medical School, Boston, United States, [2]Children's Hospital Boston, Boston, United States

420 MT Characterizing properties by fiber bundle parameters derived from the fODF
Till Riffert[1], Alfred Anwander[1], Thomas Knösche[1]
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421 MT Method for Parameterizing Clinical Diffusion Measures Along Probabilistic Fiber Pathways
Ken Sakaie[1], Jian Lin[1], Lael Stone[2], Mark Lowe[1]
[1]Imaging Institute, The Cleveland Clinic, Cleveland, United States, [2]Mellen Center, The Cleveland Clinic, Cleveland, United States

422 MT Framework to evaluate direction dependent micro-structural properties from diffusion MRI
Jan Schreiber[1], Alfred Anwander[1], Thomas Knösche[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

423 MT Mapping Microstructural Correlations of White Matter Using Seed Voxel Correlation Analysis of DTI
Charvi Shetty[1], Yi-Ou Li[1], Julia Owen[1], Matthew Cohen[2], BJ Casey[2], Pratik Mukherjee[1]
[1]University of California, San Francisco, San Francisco, United States, [2]Weill Cornell Medical College, New York, United States

424 MT A simple method to improve tractography by including diagonal tract propagation
Paul Taylor[1], Kuan-Hung Cho[2], Ching-Po Lin[2], Bharat Biswal[3]
[1]UMDNJ, Newark, United States, [2]National Yang-Ming University, Taipei, Chinese Taipei, [3]University of Med. and Dent. of New Jersey, Newark, NJ

425 MT A Similarity Metric for Brain Regions based on their Anatomical Connectivity Fingerprints
Rosalia Tungaraza[1], David Haynor[1], Linda Shapiro[1], Thomas Grabowski[1]
[1]University of Washington, Seattle, WA

426 MT Super-Resolving Diffusion MRI Data Using Local Fiber Information
Pew-Thian Yap[1], Dinggang Shen[1]
[1]University of North Carolina at Chapel Hill, Chapel Hill, NC

427 MT NODDI: practical in vivo neurite orientation dispersion and density imaging of the human brain
Hui Zhang[1], Torben Schneider[2], Claudia Wheeler-Kingshott[2], Daniel Alexander[1]
[1]Centre for Medical Image Computing, Department of Computer Science, University College London, London, United Kingdom, [2]Department of Neuroinflammation, UCL Institute of Neurology, University College London, London, United Kingdom

428 MT SPatial REgression Analysis of DTI (SPREAD) for longitudinal comparison of disease progression
Tong Zhu[1], Rui Hu[2], Xing Qiu[2], Sven Ekholm[1], Giovanni Schifitto[3], Wei Tian[1], Jianhui Zhong[1]
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MODELING AND ANALYSIS METHODS

EEG/MEG Modeling and Analysis

429 MT Error analysis for localizing cortical patch-based source activity with single dipoles
Zeynep Akalin Acar[1], Scott Makeig[2]
[1]University of California San Diego, San Diego, United States, [2]Swartz Center for Computational Neuroscience, UCSD, La Jolla, CA

430 MT Investigating the effective connectivity of EEG sources
Selene Amaral[1], Leonardo S. Barbosa[2], Nestor Caticha[1], Luiz Baccala[3]
[1]University of Sao Paulo, Sao Paulo, Brazil, [2]Ecole Normale Supérieure, Paris, France, [3]University of São Paulo, São Paulo, Brazil

431 MT Assessment of Subcortical Source Localization using DBA model: a MEG study
Yohan Attal[1], Denis Schwartz[2]
[1]CNRS - ICM, Paris, France, [2]INSERM - ICM - MEG center, Paris, France

432 MT Measure Projection Analysis: A Probabilistic Approach to EEG Independent Component Source Comparison
nima bigdely-shamlo[1], Tim Mullen[2], Kennet Kreutz-Delgado[3], Scott Makeig[2]
[1]Swartz Center for Computational Neuroscience, UCSD, San Diego, United States, [2]Swartz Center for Computational Neuroscience, UCSD, La Jolla, CA, [3]ECE Dept, UCSD, La Jolla, CA

433 MT Multi-variate Correlation of Power Spectral Density
Sven Dähne[1], Johannes Höhne[1], Stefan Haufe[1], Frank Meinecke[1], Michael Tangermann[1], Vadim Nikulin[2], Klaus-Robert Müller[1]
[1]Machine Learning Group, Berlin Institute of Technology, Berlin, Germany, [2]Neurophysics Group, Department of Neurology, Charité – Universitätsmedizin Berlin, Berlin, Germany

434 MT Coupled neural fields, neuromodulation and the cost of attentional control
Jean Daunizeau[1], Dimitris Pinotsis[2], Karl Friston[2], Klaas Enno Stephan[1]
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435 MT Local protein expression and local neural networks in glioma patients: the hub of the matter
Linda Douw[1,2], Marjolein De Groot[2,3], Edwin van Dellen[2], Eleonora Aronica[3], Jan Heimans[2], Martin Klein[2], Cornelis Stam[4], Jaap Reijneveld[2,3], Arjan Hillebrand[2]
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436 MT High-Resolution Forward Modelling using Finite Element Method Head Models based on 7T MRI Data
Lukas Fiederer[1,2,3], Felix Lucka[4,5], Shan Yang[6], Johannes Vorwerk[5], Matthias Dümpelmann[3], Delphine Cosandier-Rimélé[2,3], Andreas Schulze-Bonhage[2,3], Ad Aertsen[2,1], Oliver Speck[6], Carsten Wolters[5], Tonio Ball[3,2]
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437 MT FACET – a "Flexible Artefact Correction and Evaluation Toolbox" for EEG/fMRI data
Johann Glaser[1], Veronika Schöpf[2], Herbert Bauer[1], Florian Fischmeister[3,2]
[1]Faculty of Psychology, University of Vienna, Vienna, Austria, [2]MR Center of Excellence, Medical University of Vienna, Vienna, Austria, [3]Study Group Clinical fMRI, Department of Neurology, Medical University of Vienna, Vienna, Austria

438 MT Reconsidering topographic analyses in Event-Related Potential research: is rescaling legitimate?
Roman Goj[1], Mark van Rossum[2], David Donaldson[1]
[1]University of Stirling, Stirling, United Kingdom, [2]University of Edinburgh, Edinburgh, United Kingdom

439 MT A flexible spatial filtering framework for time series extraction from EEG/MEG data
Olaf Hauk[1], Matti Stenroos[1]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom

440 MT EEG brain source imaging with the Champagne method
Thomas Jochmann[1,2,3,4], Michael Scherg[5], Isabella Paul-Jordanov[5], Jens Haueisen[6], Srikantan Nagarajan[7]
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441 MT Single-trial EEG Classification of Cross-Modal Attention Shifts
Christian Kothe[1], Joaquin Rapela[2], Marissa Westerfield[2], Jeanne Townsend[3], Scott Makeig[4]
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442 MT An ERP Study of Successful Episodic Retrieval in Amnesia Mild Cognitive Impairment
Juan Li[1], xin li[2]
[1]Chinese Academy of Sciences, Beijing, China, [2]Institute of PsychologyČCAS, Beijing, China

443 MT Functional Brain Network of Gamma Activity with Emotional Stimuli in Major Depression
Yuan Li[1], Zhenlan Jin[1], Zhong Zheng[2], Ling Li[1]
[1]University of Electronic Science and Technology of China, chengdu, China, [2]West China School of Medicine, Sichuan University, Chengdu, China

444 MT Introducing transfer entropy for fMRI and graph-based corrections for cascade effects in TRENTOOL2.0
Michael Lindner[1], Patricia Wollstadt[2], Raul Vicente[3], Viola Priesemann[4], Michael Wibral[5]
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445 MT Convolution Models for Continuous M/EEG Time-Frequency Data
Vladimir Litvak[1], Ashwani Jha[1], Guillaume Flandin[1], Karl Friston[1]
[1]UCL Institute of Neurology, London, United Kingdom

446 MT Networks for incoming and outgoing information flow in EEG during wake and sleep
Daniele Marinazzo[1], Fabrice Jurysta[2], Jean-Pol Lanquart[2], Paul Linkowski[2], Mario Pellicoro[3], Sebastiano Stramaglia[3]
[1]University of Ghent, Gent, Belgium, [2]Sleep Laboratory and Research Laboratory of Psychiatry, Dept of Psychiatry, Erasme Hospital, ULB, Bruxelles, Belgium, [3]University of Bari, Bari, Italy

447 MT Changes in neural traffic during development and face inversion
Bratislav Misic[1], Travis Mills[2], Vasily Vakorin[3], Margot Taylor[2], Anthony McIntosh[3]
[1]Rotman Research Institute, Toronto, Canada, [2]Hospital for Sick Children, Toronto, ON, [3]Rotman Research Institute, Toronto, ON

448 MT The Source Information Flow Toolbox 1.0 for EEGLAB
Tim Mullen[1,2], Arnaud Delorme[1], Scott Makeig[1]
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449 MT Dictionary Learning in Patients with Disorders of Consciousness: a Preliminary EEG Study
Quentin Noirhomme[1], Andrea Soddu[1], Rémy Lehembre[1], Marie-Aurélie Bruno[1], Damien Lesenfants[1], Steven Laureys[1], Francisco Gómez[1]
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450 MT Harmony: EEG/MEG linear inverse source reconstruction in the anatomical basis of spherical harmonics
Yury Petrov[1]
[1]Northeastern University, Boston, United States

451 MT Multiple frequency effective connectivity in the hand somatosensory network
Camillo Porcaro[1,2], Gianluca Coppola[3], Francesco Pierelli[4], Leo Tomasevic[2], Carlo Salustri[5], Franca Tecchio[2]
[1]Newcastle University, Newcastle Upon Tyne, United Kingdom, [2]LET'S ISTC-CNR, Ospedale Fatebenefratelli, Isola Tiberina, Rome, Italy, [3]G.B. Bietti Eye Foundation-IRCCS, Dept of Neurophysiology of Vision and Neurophthalmology, Rome, Italy, [4]Department of Medical and Surgical Sciences and Biotechnologies, 'Sapienza' University of Rome, Rome, Italy, [5]Institute of Cognitive Sciences and Technologies (CNR), Rome, Italy

452 MT A GPU based finite volume method for EEG forward and inverse modelling
Darren Price[1], Andre Antunes[1], Thomas Keeling[1], Karen Julia Mullinger[1], Paul Glover[1], Peter Morris[1], Richard Bowtell[1], Matthew Brookes[1]
[1]University of Nottingham, Nottingham, United Kingdom

453 MT Brain state estimation using physiologically based corticothalamic neural field theory
Peter Robinson[1], Romesh Abeysuriya[1]
[1]University of Sydney, Sydney, Australia

454 MT Neuronal Avalanches in the Resting MEG of the Human Brain
Oren Shriki[1], Jeff Alstott[1,2], Frederick Carver[1], Tom Holroyd[1], Richard Henson[3], Marie Smith[4,3], Richard Coppola[1], Edward Bullmore[5], Dietmar Plenz[1]
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455 MT Dynamic estimation of stationary dipoles in MEG with particle filtering
Alberto Sorrentino[1], Wilfrid Kendall[1], Adam Johansen[1], John Aston[1], Thomas Nichols[1]
[1]University of Warwick, Dept. of Statistics, Coventry, United Kingdom

456 MT Assessing the performance of linear estimators in MEG/EEG source analysis
Matti Stenroos[1,2], Olaf Hauk[1]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom, [2]Aalto University, BECS, Espoo, Finland

457 MT An MEG study on functional interactions in brain of epilepsy patients
HY Tang[1], T Wu[2], K Iramina[3], P Lin[4], X Xiao[1], W Wu[1], S Ge[1]
[1]Nanjing University of Science and Technology, Nanjing, China, [2]Department of Magnetoencephalography, Nanjing Brain Hospital, Nanjing, China, [3]Graduate School of Information Science and Electrical Engineering, Kyushu University, Fukuoka, Japan, [4]Key Laboratory of Biomedical Information Engineering of Education Ministry,Xi'an Jiaotong University, Xi'an, China

458 MT Combinatorial clustering of common brain dynamics: Application to WM-related group-study EEG data
Georg Turi[1], Corinna Haenschel[2], Wolf Singer[3], Michael Wibral[4]
[1]Cognitive Neuroscience Lab, Department of Psychology, Goethe University, Frankfurt, Germany, [2]Department of Psychology, City University, London, United Kingdom, [3]Max Planck Institute for Brain Research, Frankfurt, Germany, [4]MEG Unit, Brain Imaging Center, Goethe University, Frankfurt, Germany

459 MT Phase-amplitude coupling in human electrocorticography is spatially distributed and phase diverse
Roemer van der Meij[1], Michael Kahana[2], Eric Maris[1]
[1]Donders Institute for Brain, Cognition and Behaviour, Radboud University Nijmegen, Nijmegen, Netherlands, [2]University of Pennsylvania, Philadelphia, PA

460 MT Visual and cognitive development in premature children: Source Analyses
Phetsamone Vannasing[1]
[1]CHU Sainte-Justine, Montreal, Canada

461 MT Modeling Habituation of Auditory Evoked Fields using Neural Mass Models
peng wang[1], Thomas Knösche[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

462 MT Effect of blood vessels on µECoG recordings in minipigs
xi wang[1,2], Mortimer Gierthmuehlen[3], Christian Henle[4,2], Markus Raab[4], Jörn Rickert[5,4], Andreas Schulze-Bonhage[1,5], Ad Aertsen[5,6], Thomas Stieglitz[5,2,4], Tonio Ball[1,5,6]
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463 MT Differences in brain networks between personal and impersonal moral dilemmas
Shaowei Xue[1], Yan Wang[1], Yi-Yuan Tang[1,2,3]
[1]Dalian University of Technology, Dalian, China, [2]Texas Tech University, Lubbock, TX, [3]University of Oregon, Eugene, OR

464 MT Wavelet-based Sparse Source Imaging using MEG
Min Zhu[1], Ke Liao[2], Lei Ding[1]
[1]University of Oklahoma, Norman, United States, [2]University of Oklahoma, Norman, OK

MODELING AND ANALYSIS METHODS

Exploratory Modeling and Artifact Removal

465 MT A Comparison of Nuisance Correction Methods on Resting-State fMRI
Brian Cheung[1], Chaogan Yan[2], Qingyang Li[1], Clare Kelly[3], Adriana Di Martino[3], F. Xavier Castellanos[3], Michael Milham[1]
[1]Center for the Developing Brain, Child Mind Institute, New York, United States, [2]The Nathan Kline Institute for Psychiatric Research, New York, United States, [3]Phyllis Green and Randolph Cowen Institute for Pediatric Neuroscience, New York, United States

466 MT Calibrating BOLD fMRI activations with neuro-vascular and anatomical constraints
Xin Di[1], Sridhar Kannurpatti[1], Bart Rypma[2], Bharat Biswal[1]
[1]Department of Radiology, University of Medicine and Dentistry of New Jersey, Newark, NJ, [2]School of Behavioral and Brain Sciences, University of Texas at Dallas, Dallas, TX

467 MT Physiological noise correction may help to detect changes in brain activity during mild sedation
Tommaso Gili[1], Neeraj Saxena[2], Ana Diukova[3], Kevin Murphy[4], Judith Hall[2], Richard Wise[3]
[1]Cardiff University Brain Research Imaging Centre, Cardiff, United Kingdom, [2]Section of Anaesthetics, Intensive Care and Pain Medicine, Cardiff University School of Medicine, Cardiff, United Kingdom, [3]Cardiff University Brain Research Imaging Centre, Cardiff, United Kingdom, [4]Cardiff University, Cardiff, United Kingdom

468 MT Improving the characterization of the BOLD response to breath-hold challenges
João Jorge[1,2], Pedro Vilela[3], Wietske van der Zwaag[4,5], Patrícia Figueiredo[1,2]
[1]Institute for Systems and Robotics, Lisbon, Portugal, [2]Department of Bioengineering, Instituto Superior Técnico, Universidade Técnica de Lisboa, Lisbon, Portugal, [3]Imaging Department, Hospital da Luz, Lisbon, Portugal, [4]Laboratory for Functional and Metabolic Imaging, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, [5]Department of Radiology, Université de Lausanne, Lausanne, Switzerland

469 MT 3D Clustered Voxels Analysis in Functional MR Imaging
Huanjie Li[1], Qihong Zou[1], Jinhu Xiong[2], Jia-Hong Gao[1,3]
[1]Peking University, Beijing, China, [2]University of Iowa, Iowa City, IA, [3]University of Chicago, Chicago, IL

470 MT Improved GRAPPA Reconstruction Using a Coefficient Penalized Regularization
Wentao Liu[1,2], Xin Tang[1,2], Ya-jun Ma[1,2], Jia-Hong Gao[1,2,3]
[1]Beijing City Key Lab for Medical Physics and Engineering, School of Physics, Peking University, Beijing, China, [2]MRI Research Center, Academy for Advanced Interdisciplinary Studies, Peking University, Beijing, China, [3]University of Chicago, Chicago, IL

471 MT Discriminating Schizophrenia and Bipolar Disorder by Fusion of FMRI and DTI Data
JING SUI[1], Godfrey Pearlson[2], Arvind Caprihan[3], Tulay Adali[4], Kent Kiehl[5], Vince Calhoun[5]
[1]The Mind Research Network, ALBUQUERQUE, United States, [2]Olin Neuropsychiatry Research Center, hartford, CT, [3]The Mind Research Network and LBERI, ALBUQUERQUE, NM, [4]University of Maryland, Baltimore County, Baltimore, MD, [5]The Mind Research Network and UNM, ALBUQUERQUE, NM

472 MT An improved analysis and calculation model for the eddy current compensation
Shouyu Zhang[1], Xin Tang[2], Zhongde Jiang[2], Tao Wang[2], Shanglian Bao[1]
[1]Beijing Key Lab of Medical Physics and Engineering, School of Physics, Peking University, Beijing, China, [2]Anke Medical System Company, Suzhou, China

MODELING AND ANALYSIS METHODS

fMRI Connectivity and Network Modeling

473 MT 6 minutes of fMRI & 12 years of correlated growth: relating functional and maturational connectivity
Aaron F. Alexander-Bloch[1,2], Armin Raznahan[2], Edward Bullmore[1], Jay Giedd[2]
[1]Brain Mapping Unit, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom, [2]NIMH, Bethesda, United States

474 MT Is network connectivity driven by spontaneous BOLD events?
Thomas Allan[1], Matthew Brookes[1], Penny Gowland[1], Cesar Gaudes[2], Sue Francis[1]
[1]University of Nottingham, Nottingham, United Kingdom, [2]UniGe, Geneva, Switzerland

475 MT Extracting intrinsic functional networks with feature-based group independent component analysis
Elena Allen[1], Vince Calhoun[2]
[1]Mind Research Network, Albuquerque, United States, [2]The Mind Research Network and UNM, ALBUQUERQUE, NM

***476 MT Tracking whole-brain connectivity dynamics in the resting-state (O-M4)**
Elena Allen[1], Eswar Damaraju[2], Sergey Plis[3], Erik Erhardt[4], Tom Eichele[5], Vince Calhoun[6]
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477 MT A comparison of maximal information coefficient and linear correlation for functional connectivity
Erik Beall[1], Mark Lowe[1]
[1]Cleveland Clinic, Cleveland, United States

478 MT Functional connectivity of fMRI activation clusters projected in resting state-space
Michaël Bernier[1], Kevin Whittingstall[1]
[1]Université de Sherbrooke, Sherbrooke, Canada

479 MT Structural determinants of BOLD fMRI to auditory and visual stimuli
Gleb Bezgin[1], Tanya Brown[1], Zainab Fatima[1], Hongye Wang[1], Natasa Kovacevic[1], Anthony McIntosh[1,2]
[1]Rotman Research Institute, Toronto, Canada, [2]University of Toronto, Toronto, Canada

480 MT Chronotype modulates fMRI derived resting-state connectivity patterns
Janusch Blautzik[1], Isabella Peres[2], Celine Vetter[2], Evgeny Gutyrchik[2], Daniel Keeser[1], Albert Berman[1], Kirsch Valerie[1], Sophia Mueller[3], Ernst Poeppel[2], Till Roenneberg[2], Maximilian Reiser[1], Thomas Meindl[1]
[1]Ludwig Maximilian University, Institute of Clinical Radiology, Munich, Germany, [2]Ludwig Maximilian University, Institute of Medical Psychology, Munich, Germany, [3]Harvard University, Cambridge, MA

481 MT Force-directed edge-bundling for the visualization of functional connectivity
Joachim Böttger[1], Alexander Schäfer[1], Gabriele Lohmann[1], Arno Villringer[1,2], Daniel Margulies[1,2]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Berlin School of Mind and Brain, Berlin, Germany

482 MT Functional and Structural Network Determinants of Brain's Functional Variability
Jesse Brown[1], Jeffrey Rudie[1], SUSAN Bookheimer[1]
[1]UCLA, Los Angeles, United States

***483 MT A novel meta-analytic approach: Mining frequent activation patterns in neuroimaging databases (O-W3)**
Julian Caspers[1,2,3], Karl Zilles[1,2,4], Christoph Beierle[3], Claudia Rottschy[5,1], Simon Eickhoff[1,6]
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484 MT Metaanalytic clustering of the insular cortex
Franco Cauda[1], Tommaso Costa[2], Diana Torta[2], Katiuscia Sacco[3], Federico D'Agata[1], Sergio Duca[4], Giuliano Geminiani[2], Peter Fox[5], Alessandro Vercelli[3]
[1]N/A, Turin, Italy, [2]University of Turin, Department of Psychology, Torino, Italy, [3]University of Turin, Turin, Italy, [4]CCS Koelliker Hospital, Torino, Italy, [5]Research Imaging Institute, San Antonio, TX

485 MT Assessing Significance of Modular Structure in Binary Brain Networks
Yu-Teng Chang[1], Dimitrios Pantazis[2], Richard M. Leahy[1]
[1]University of Southern California, Los Angeles, CA, United States, [2]McGovern Institute for Brain Research, Massachusetts Institute of Technology, Cambridge, MA, United States

486 MT Withdrawn

487 MT Resting State Functional Connectivity Decomposition Using ICA and NMF
Bin Chen[1], Long Meng[1], Qihong Zou[2], Geng Li[3], Jia-Hong Gao[4]
[1]Purdue University Calumet, Indiana, United States, [2]Peking University, Beijing, China, [3]Time-Medical System, Hong Kong, China, [4]University of Chicago, Illinois, United States

488 MT The x-Guided Clustering Method to Detect Functional Connectivity Differences
Gang Chen[1], B. Douglas Ward[1], Chunming Xie[1], Wenjun Li[1], Guangyu Chen[1], Joseph Goveas[1], Piero Antuono[1], Shi-Jiang Li[1]
[1]Medical College of Wisconsin, Milwaukee, WI

489 MT Global Signal Regression in Resting-State fMRI Studies: To apply or not?
Gang Chen[1], Guangyu Chen[1], Chunming Xie[1], B. Douglas Ward[1], Wenjun Li[1], Piero Antuono[1], Shi-Jiang Li[1]
[1]Medical College of Wisconsin, Milwaukee, WI

490 MT Tolcapone modulates the connectivity strength of brain regions in healthy volunteers
Qiang Chen[1,2], Roberta Rasetti[2], Christopher J Li[2], Yunxia Tong[2], José A Apud[2], Daniel R Weinberger[1,2], Venkata S Mattay[1,2]
[1]Lieber Institute for Brain Development, Baltimore, MD, [2]CBDB/NIMH/NIH, Bethesda, MD

491 MT Noise-related variance of functional networks
Hu Cheng[1], Aina Puce[1]
[1]Indiana University, Bloomington, IN

492 MT Evaluation and calibration of functional network modeling methods based on known anatomy
Debra Dawson[1], Kuwook Cha[1], Lindsay Lewis[2], Janine Mendola[2], Amir Shmuel[1]
[1]MNI, McGill University, Montreal, Canada, [2]McGill Vision Research, McGill University, Montreal, Quebec

493 MT Stable clusters of age-related changes in resting-state connectivity: a connectome-wide association
Philip Dickinson[1,2], Guillaume Marrelec[3,4,5], Christian L Dansereau[6,2], Pedro Rosa-Neto[1,7], Michael Milham[8], Julien Doyon[2,4,9,10], Pierre Bellec[2,4,10]
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494 MT Resting-state brain networks in BOLD fMRI and perfusion fMRI
Yuhui Du[1,2], Lirong Yan[3], Danny JJ Wang[3], Yong Fan[4]
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495 MT Co-activation patterns distinguish cortical units, their connectivity and functional differentiation
Simon Eickhoff[1], Danilo Bzdok[2], Angela Laird[3], Christian Roski[4], Svenja Caspers[5], Karl Zilles[1], Peter Fox[6]
[1]Research Center Jülich, Jülich, Germany, [2]N/A, Germany, [3]University of Texas Health Science Center San Antonio, San Antonio, United States, [4]Institute of Neuroscience and Medicine, Research Center Jülich, Jülich, Germany, [5]Institute of Neuroscience and Medicine, INM-2, Research Center Julich, Julich, Germany, [6]Research Imaging Institute, San Antonio, TX

496 MT Assessing Functional Brain Connectivity Changes in Healthy Aging Using R-fMRI and the MIC similarity
Rune Eikeland[1], Erik Hanson[1], Erlend Hodneland[1], Astri Lundervold[1], Arvid Lundervold[1,2]
[1]University of Bergen, Bergen, Norway, [2]Haukeland University Hospital, Bergen, Norway

497 MT Finding Spatio-temporal Patterns in the Dynamics of Complex Brain Networks
Matthias Ekman[1], Jan Derrfuss[1], Christian Fiebach[2]
[1]Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands, [2]University of Frankfurt, Frankfurt am Main, Germany

498 MT Finding Communities in Functional Brain Networks
Matthias Ekman[1], Jan Derrfuss[1], Christian Fiebach[2,1]
[1]Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands, [2]University of Frankfurt, Frankfurt am Main, Germany

***499 MT Estimating BOLD Signals of Deep Brain Networks From EEG using Canonical correlation Analysis (O-T1)**
Tal El Hay[1], Sivan Kinreich[2], Noam Slonim[1], Ilana Podlipsky[3], Talma Hendler[4], Lavi Shpigelman[1]
[1]IBM, Haifa, Israel, [2]Tel Aviv University, Israel, N/A, [3]Wohl Institute for Advanced Imaging, Sourasky Medical Cente, Tel-Aviv, Israel, [4]The Wohl Institute for Advanced Imaging, Tel Aviv Sourasky Medical Center, Tel-Aviv, Israel

500 MT Resting-state Functional Connectivity of the Thalamus with Eyes Open and Closed Conditions
Yang Fan[1], Qihong Zou[1], Jia-Hong Gao[1,2]
[1]Peking University, Beijing, China, [2]University of Chicago, Chicago, IL

501 MT Test-retest reliability of the graph metrics in different rest conditions and sampling rates
Yuanyuan Fan[1], Pengfei Xu[2], Xiaoling Peng[1], Jinhui Wang[2], Junjing Wang[1], Xue Wen[1], Jingjing Ma[1], Delong Zhang[1], Ming Liu[1], Yong He[2], Ruiwang Huang[1]
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502 MT Hidden States of Resting-State Networks
Mark Fiecas[1], Joseph Tadjuidje[2]
[1]Brown University, Providence, United States, [2]Technische Universität Kaiserslautern, Kaiserslautern, Germany

503 MT Cooperation among Large-Scale Functional Networks Indexes Online Cognitive Performance
Wei Gao[1], John Gilmore[1], Weili Lin[1]
[1]University of North Carolina at Chapel Hill, Chapel Hill, NC

504 MT Mild sedation alters eigenvector centrality of BOLD FMRI in the thalamus and brainstem
Tommaso Gili[1], Neeraj Saxena[2], Ana Diukova[1], Kevin Murphy[1], Judith Hall[2], Richard Wise[1]
[1]Cardiff University Brain Research Imaging Centre, Cardiff, United Kingdom, [2]Section of Anaesthetics, Intensive Care and Pain Medicine, Cardiff University School of Medicine, Cardiff, United Kingdom

505 MT Withdrawn

506 MT Detection of task transitions on 45min long continuos multi-task runs using whole brian connectivity
Javier Gonzalez-Castillo[1], Paula Wu[1], Meghan Robinson[1], Daniel Handwerker[1], Souheil Inati[1], Peter Bandettini[1]
[1]National Institute of Mental Health, Bethesda, MD, United States

507 MT Default mode network is modulated by serotonin-1A receptors
Andreas Hahn[1], Wolfgang Wadsak[2], Christian Windischberger[3], Pia Baldinger[1], Anna Hoeflich[1], Jan Losak[1], Lukas Nics[2], Johanna Ungersboeck[2], Georg Kranz[1], Christoph Kraus[1], Markus Mitterhauser[2], Georgios Karanikas[2], Siegfried Kasper[1], Rupert Lanzenberger[1]
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508 MT Validation of stochastic DCM for network discovery: A simulation study
Martin Havlicek[1], Kamil Uludağ[2], Karl Friston[3], Vince Calhoun[4], Alard Roebroeck[1]
[1]Maastricht University, Maastricht, Netherlands, [2]Maastricht Brain Imaging Centre, Faculty of Psychology & Neuroscience, Maastricht University, Maastricht, Netherlands, [3]University College London, London, United Kingdom, [4]The Mind Research Network and UNM, ALBUQUERQUE, NM

509 MT Geometrical Modularity Underlying High Clustering Coefficient in the Cortex
James Henderson[1], Peter Robinson[2]
[1]The Univeristy Of Sydney, Australia, [2]University of Sydney, Sydney, Australia

510 MT **Effective Connectivity between OFA and FFA during face perception: DCM of evoked MEG, EEG and fMRI**
Richard Henson[1], Daniel Wakeman[1], Christophe Phillips[2], james rowe[3]
[1]MRC CBU, Cambridge, United Kingdom, [2]Cyclotron Research Centre, University of Liege, Sart Tilman, Liege, Belgium, [3]Cambridge University, Cambridge, United Kingdom

511 MT **Fractal Analysis of Spontaneous Fluctuations of the BOLD Signal**
Peter Herman[1], Basavaraju Sanganahalli[1], Fahmeed Hyder[1], Andras Eke[2]
[1]Yale University, New Haven, CT, United States, [2]Semmelweis University Budapest, Budapest, Hungary

512 MT **Causality among fMRI networks: how reliable are common estimators?**
Jaroslav Hlinka[1], David Hartman[1], Milan Paluš[1], Martin Vejmelka[1], Dante Mantini[2], Maurizio Corbetta[3]
[1]Institute of Computer Science, Academy of Sciences of the Czech Republic, Prague, Czech Republic, [2]KU Leuven, Leuven, Belgium, [3]Dept. Neurology, Radiology, and Anatomy and Neurobiology, Washington University School of Medicine, St. Louis, MO

513 MT **Differences of Intrisic Functional Connectivity of the Human Brain in Patients with Brain Tumors**
Bob Hou[1], Rachel Lagos[1], Jeffrey Carpenter[1]
[1]Radiology, West Virginia University, Morgantown, WV, United States

514 MT **Modulation of hypothalamic connectivity by food ingestion**
Claudia Huerta[1], Hsiao-Ying Wey[2], Timothy Duong[3]
[1]UTHSCSA, San Antonio, United States, [2]Athinoula A. Martinos Center for Biomedical Imaging, Department of Radiology, MGH, Charlestown, MA, [3]UT Health Science Center at San Antonio, San Antonio, TX

515 MT **Pairwise LiNGAM finds directionalities even for single subjects in fMRI simulations by Smith et al**
Aapo Hyvarinen[1], Stephen Smith[2]
[1]University of Helsinki, Finland, [2]FMRIB, Oxford University, Oxford, United Kingdom

516 MT **Increased Coupling in the Saliency Network is the main cause/effect of ADHD**
Xiaoxi Ji[1], Wei Cheng[1], Jie Zhang[1], Tian Ge[1,2], Edmund Rolls[3,2], Li Sun[4], Yufeng Wang[4], Jianfeng Feng[1,2]
[1]Centre for Computational Systems Biology, School of Mathematical Sciences, Fudan University, Shanghai, China, [2]Department of Computer Science, University of Warwick, Coventry, United Kingdom, [3]Computational Neuroscience Centre, Oxford, United Kingdom, [4]Institute of Mental Health, Peking University, Beijing, China

517 MT **Structural Connectivity of the Default Mode Network**
Sakh Khalsa[1,2], Stephen Mayhew[1], Magdalena Chechlacz[1], Manny Bagary[2], Andrew Bagshaw[1]
[1]School of Psychology, University of Birmingham, Birmingham, United Kingdom, [2]Department of Neuropsychiatry, The Barberry National Centre for Mental Health, Birmingham, United Kingdom

518 MT **Modulating motor connectivity in Cerebral Palsy (CP) patients by dynamic causal modeling(DCM)**
Jae-Chang Kim[1,2], Sunghyon Kyeong[3,1], Jong Doo Lee[4,1], Hae-Jeong Park[4,1]
[1]Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea, Republic of, [2]Department of Radiology and Division of Nuclear Medicine, Yonsei University College of Medicine, Seoul, Korea, Republic of, [3]National Institute for Mathematical Sciences, Daejeon, Korea, Republic of, [4]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Korea, Republic of

519 MT **Increased connectivity to rostral prefrontal cortex leads to poor task performance in MS**
Katherine Koenig[1], Erik Beall[1], Jian Lin[1], Blessy Mathew[1], Lael Stone[1], Robert Bermel[1], Stephen Rao[1], Bruce Trapp[1], Micheal Phillips[1], Mark Lowe[1]
[1]Cleveland Clinic Foundation, Cleveland, United States

520 MT **Endogenous back pain differentially modulates insula connectivity to different brain networks**
Jian Kong[1], Hsiao-Ying Wey[2], Jieun Kim[2], Rosa Spaeth[1], Alexandra Cheetham[1], Amanda Cook[1], Karin Jensen[1], Ying Tan[1], Marco Loggia[1], Ajay Wasan[3], Randy Gollub[4], Vitaly Napadow[2]
[1]Massachusetts General Hospital, Boston, MA, [2]Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA, [3]Brigham and Women's Hospital, Boston, MA, [4]Massachusetts General Hospital, Charlestown, MA

521 **MT** **Clustering Algorithm Classification of Resting State Networks**
Megan Lee[1], Carl Hacker[1], Eric Leuthardt[1], Abraham Snyder[2], Dongyang Zhang[1], Joshua Shimony[1]
[1]Washington University School of Medicine, St. Louis, MO, [2]Washington University School of Medicine, St. Louis, MO

522 **MT** **Altered Resting Functional and White Matter Tract Connectivity in Stroke Patients with Dysphagia**
Shasha Li[1], Chengqi He[1], Dong Zhou[1], Xiaotong Wang[2]
[1]West China Hospital of Sichuan University, Chengdu, China, [2]the Second Affiliated Hospital of Wenzhou Medical College, Wenzhou, China

523 **MT** **Spatial Specificity Change of BOLD Functional Connectivity and EEG Power Correlations**
Xiao Liu[1], Xiao-Hong Zhu[1], Yi Zhang[1], Wei Chen[1]
[1]University of Minnesota, Minneapolis, MN

524 **MT** **A new information theoretic approach to quantify resting-state fMRI synchrony**
Yinan Liu[1], Karl Young[1,2], Yu Zhang[1,2], Michael Weiner[1,2], Norbert Schuff[1,2]
[1]Department of Veteran Affairs Medical Center, San Francisco, CA, [2]University of California at San Francisco, San Francisco, CA

525 **MT** **Dynamic causal modelling: is the model with the "highest evidence" useful ?**
Gabriele Lohmann[1], Karsten Mueller[1], Robert Turner[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

526 **MT** **Brodmann areas in primary somatosensory cortex using monkey tracing studies & restiing-state fMRI**
Xiangyu Long[1], Daniel Margulies[2], Arno Villringer[3]
[1]Max Planck Institute For Human Cognitive And Brain Sciences, Germany, [2]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [3]Max-Planck-Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

Moved to 646 **MT** **Goal-dependent modulation of effective connectivity during a two-party bargaining game**
Qiang Luo[1], Meghana Bhatt[2], Read Montague[3], Jianfeng Feng[4]
[1]National University of Defense Technology, Changsha, China, [2]Beckman Research Institute, City of Hope, CA, [3]Virginia Tech Carilion Research Institute, Roanoke, VA, [4]Department of Computer Science, The University of Warwick, Coventry, United Kingdom

528 **MT** **Validation of a new ICA-based method for between-group comparisons in fMRI**
Mona Maneshi[1], Shahabeddin Vahdat[2], Christophe Grova[3], Jean Gotman[4]
[1]Montreal Neurological Institute and Hospital, McGill University, N/A, [2]Department of Kinesiology and PE, McGill University, Montreal, QC, [3]Biomedical Engineering Department, McGill University, Montreal, QC, [4]Montreal Neurological Institute and Hospital, McGill University, Montreal, QC

529 **MT** **The Temperament Dimension Harm Avoidance modulates functional connectivity in the resting brain**
Sebastian Markett[1], Bernd Weber[2], Gesine Voigt[3], Christian Montag[1], Christian Elger[4], Martin Reuter[1]
[1]Department of Psychology, University of Bonn, Bonn, Germany, [2]Department of NeuroCognition Imaging, Life & Brain Center, University of Bonn, Bonn, Germany, [3]Department of Psychology, University of Bonn, Bonn, Germany, Bonn, Germany, [4]Dept. of Epileptology, Univ. of Bonn, Bonn, Germany

530 **MT** **CHARTing functional connectivity in depression: a novel data-driven method reveals hyperconnectivity**
Susa Merz[1], Jennifer Perrin[1], Daniel Bennett[1], James Currie[1], Douglas Steele[2], Ian Reid[1], Christian Schwarzbauer[1]
[1]University of Aberdeen, Aberdeen, United Kingdom, [2]University of Dundee, Dundee, United Kingdom

531 **MT** **Intra-subject and Inter-subject Variability of Intrinsic Functional Connectivity**
Sophia Mueller[1,2,3], Jie Lu[4], Danhong Wang[1], B. T. Yeo[5,1], Mert Sabuncu[1], Jorge Sepulcre[2,6,1], Michael Fox[7], Kuncheng Li[4], Hesheng Liu[1]
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532 **MT** **A study on the sensitivity of DCM inferences to haemodynamic variability**
Teresa Murta[1], Marco Leite[1], Patrícia Figueiredo[1]
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533 MT Searching for Hubs of Degree and Betweenness in the Connectivity Graph of the Resting-State Networks
Mikaël Naveau[1], Ludivine Gautier[1], Nicolas Delcroix[2], Pierre-Yves Hervé[1], Laurent Petit[1], Laure Zago[1], Fabrice Crivello[1], Gael Jobard[1], Emmanuel Mellet[1], Nathalie Tzourio-Mazoyer[1], Bernard Mazoyer[1], Marc Joliot[1]
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534 MT Using Bootstrap to Test Statistical Difference Between Two Empirical Structural Equation Models
Xavier Noguès[1], Aurélie Boucard[2], Aline Marighetto[1], Jacques Micheau[3]
[1]Neurocentre magendie - Bordeaux University, Bordeaux, France, [2]Bordeaux University, Bordeaux, France, [3]INCIA - Bordeaux University, Talence, France

535 MT Hierarchical organization of Resting State Networks and Verification with DTI
Allison Nugent[1], Maura Furey[1], Carlos Zarate, Jr.[1]
[1]Experimental Therapeutics and Pathophysiology Branch, NIH/NIMH, Bethesda, MD

536 MT DCM Model Selection with Multiple-Model Kalman Filters
Pedro Osório[1], Paulo Rosa[1], Patrícia Figueiredo[1], Carlos Silvestre[1]
[1]Institute for Systems and Robotics / Instituto Superior Técnico, Lisbon, Portugal

537 MT Artistic style recognition influences on reward processing during aesthetic judgment of paintings
Seongmin Park[1], Jaeseung Jeong[2]
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538 MT Erdös-Rényi Mixture Model for Finding Community Structure in Brain Networks
Dragana Pavlovic[1], Petra Vertes[2], Mikail Rubinov[2], Edward Bullmore[3], Thomas Nichols[1]
[1]University of Warwick, Dept. of Statistics, Coventry, United Kingdom, [2]University of Cambridge, Cambridge, United Kingdom, [3]Brain Mapping Unit, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom

539 MT Joint inference of functional ROIs and their interaction graph
Sergey Plis[1], Vamsi K. Potluru[1], Elena Allen[1], Eswar Damaraju[1], Jessica Turner[1], Vince Calhoun[1]
[1]The Mind Research Network, Albuquerque, NM, USA

540 MT Cortical and subcortical connectivity during hand movements at different frequencies
Eva-Maria Pool[1], Anne Rehme[1], Gereon Fink[2,3], Simon Eickhoff[3,4,5], Christian Grefkes[1,2]
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541 MT Sensitivity Enhancement and Clinical Feasibility of Resting State fMRI using Echo-Volumar-Imaging
Stefan Posse[1], Elena Ackley[1], Abhishek Yeruva[1], Radu Mutihac[2,3], Muhammad Chohan[4], Bruce Fisch[1], Howard Yonas[4]
[1]University of New Mexico, Department of Neurology, Albuquerque, NM, [2]Department of Electricity & Biophysics, Faculty of Physics, University of Bucharest, Bucharest, Romania, [3]Division of Psychiatry and Neuroscience, WRAIR, Silver Spring, MD, [4]University of New Mexico, Department of Neurosurgery, Albuquerque, NM

542 MT Appraisal and memory for faces: Cortico-limbic network behavior modeled with dynamic causal modeling
Harinder Rai[1], Sunali Wadehra[1], Simon Eickhoff[2], Vaibhav Diwadkar[1]
[1]Wayne State University School of Medicine, Detroit, United States, [2]Institute of Clinical Neuroscience and Medical Psychology, Heinrich Heine University, Duesseldorf, Germany

543 MT Converging hub identification: Evidence from resting state graph theory and BrainMap ICA analyses
Kimberly Ray[1], David Glahn[2], John Blangero[3], Angela Laird[4]
[1]UTHSCSA, San Antonio, United States, [2]Yale University, Hartford, United States, [3]Texas Biomedical Foundation, San Antonio, United States, [4]University of Texas Health Science Center at San Anotnio, San Antonio, TX

544 MT Comparing resting-state functional and task-state effective connectivity of cortical motor areas
Anne Rehme[1], Simon Eickhoff[2], Christian Grefkes[3]
[1]Max-Planck-Institute for neurological Research, Cologne, Germany, [2]Institute of Clinical Neuroscience and Medical Psychology, Heinrich Heine University, Duesseldorf, Germany, [3]Max Planck Institute for Neurological Research Cologne, Cologne, Germany

545 MT Predictive modelling of multiple sclerosis based on whole-brain functional connectivity
Jonas Richiardi[1], Jean-Marie Annoni[1], Beatrice Greco[2], Markus Gschwind[3], Patric Hagmann[3], Myriam Schluep[3], Samanta Simioni[3], Patrik Vuilleumier[1], Dimitri Van De Ville[4]
[1]University of Geneva, Geneva, Switzerland, [2]Merck-Serono, Geneva, Switzerland, [3]University Hospital Lausanne (CHUV), Lausanne, Switzerland, [4]UniGE/EPFL, Lausanne, Switzerland

546 MT Merging computational models and multimodal imaging data using The Virtual Brain
Petra Ritter[1], Michael Schirner[2], Matthias Reinacher[2], Simon Rothmeier[2], Jonas Schwarz[2], Anthony McIntosh[3], Viktor Jirsa[4]
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547 MT Interrelating Anatomical, Structural, Effective and Functional Connectivity via Neural Field Theory
Peter Robinson[1]
[1]University of Sydney, Sydney, Australia

548 MT Calculation of Structural Connectivity from Functional Connectivity
Peter Robinson[1]
[1]University of Sydney, Sydney, Australia

549 MT Can partial Granger causality really eliminate the effect of confounding variables?
Bjorn Roelstraete[1], Yves Rosseel[2]
[1]Ghent University, Gent, Belgium, [2]Universiteit Gent, Gent, Belgium

550 MT Study of Functional Connectivity Networks obtained using EEG related seeds: Preliminary Results
Gonzalo Rojas[1], Marcelo Galvez[1]
[1]Department of Radiology, Las Condes Clinic, Santiago, Chile

551 MT Dyslexia Induces Imbalances in Resting State Networks Across Hemispheres: Preliminary Results
Sara Rosset[1], Carlo Rondinoni[2], João Ricardo Sato[3], Lívia Freitas[4], Carlos Salmon[5], Antonio Santos[6]
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552 MT Enhancement of functional brain connectivity and semantic priming using real–time fMRI Neurofeedback
Sergio Ruiz[1], mohit rana[2], Katharina Sass[3], Tilo Kircher[4], Niels Birbaumer[2], Ranganatha Sitaram[2]
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553 MT Enhanced Task Related Functional Connectivity in Resting State fMRI following Visuo-motor Learning
Saber Sami[1], Chris Miall[1], Neil Albert[2]
[1]University of Birmingham, Birmingham, United Kingdom, [2]University of Chicago, Chicago, IL

***554 MT Network Analysis Could Reveal Local And Global Intelligence Fingerprint In Resting State fMRI Data (O-M4)**
Emiliano Santarnecchi[1], Matteo Feurra[2], Nicola Polizzotto[3], Simone Rossi[2], Alessandro Rossi[2], Giampaolo Vatti[2]
[1]Department of Neurological and Sensorial Sciences, Siena, Italy, [2]Department of Neurological and Sensorial Sciences, University of Siena, Siena, Italy, [3]Department of Psychiatry, University of Pittsburgh, Pittsburgh, PA

555 MT Integration of BOLD-fMRI cross correlation and context information to measure global connectivity
Saman Sargolzaei[1], Prantik Kundu[2], Fatta Nahab[3]
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556 MT Link Communities in the Human Brain
Alexander Schäfer[1], Daniel Margulies[2], Gabriele Lohmann[1], Arno Villringer[1]
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557 MT Effects of modafinil on neural correlates of response inhibition in alcohol dependent patients
Lianne Schmaal[1], Anna Goudriaan[2], Leen Joos[3], Wim van den Brink[2], Dick Veltman[4]
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558 MT Identifiability of causal models
Benjamin Seeber[1], Yannick Linke[1], Elisa Scheller[2], Stefan Klöppel[3], Cornelius Weiller[2], Jens Timmer[4], Björn Schelter[1]
[1]FDM, Freiburg, Germany, [2]Department of Neurology, Freiburg, Germany, [3]Dept. of Psychiatry and Psychotherapy, Freiburg, Germany, [4]Institute of Physics, Freiburg, Germany

559 MT Resting-state connectivity reflects underlying anatomical structure in the macaque cortex
Kelly Shen[1], Gleb Bezgin[1], R. Matthew Hutchison[2,3], Joseph Gati[3], Ravi Menon[3], Anthony McIntosh[1,4], Stefan Everling[2,3]
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560 MT Probabilistic Characterization of Brain Network Connectivity
Xilin Shen[1], Fuyuze Tokoglu[2], R Constable[3], Xenophon Papademetris[3]
[1]Yale University, New Haven, United States, [2]Yale University, MRRC, New Haven, CT, [3]Yale University, New Haven, CT

561 MT Effective connectivity of motor system in a planning/execution task by DCM in left handed subjects
Elvis Silva[1], Gabriela Castellano[1]
[1]State University of Campinas - UNICAMP, Campinas, Brazil

562 MT An exponential random graph modeling approach to creating group-based representative brain networks
Sean Simpson[1], Paul Laurienti[2], Malaak Moussa[2]
[1]Wake Forest School of Medicine, Winston-Salem, United States, [2]Wake Forest School of Medicine, Winston-Salem, NC

563 MT Age-related Differences in Test-retest Reliability in Resting State Brain Functional Connectivity
Jie Song[1], Alok Desphande[2], Timothy Meier[3], Dana Tudorascu[4], Svyatoslav Vergun[5], Veena Nair[6], Bharat Biswal[7], Mary Meyerand[8], Rasmus Birn[9], Vivek Prabhakaran[6]
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564 MT Average Group Analysis Fails to Capture Complexity in Brain Networks
Qawi Telesford[1], Matthew Steen[1], Malaak Moussa[1], Paul Laurienti[1], Satoru Hayasaka[1]
[1]Wake Forest University School of Medicine, Winston-Salem, NC

565 MT Resting state networks generated from twelve second segments of fMRI scans are behaviorally relevant
Garth Thompson[1], Matthew Magnuson[1], Michael Merritt[1], Hillary Schwarb[2], Wen-Ju Pan[1], Andrew McKinley[3], Lloyd Tripp[3], Eric Schumacher[2], Shella Keilholz[1]
[1]Georgia Institute of Technology and Emory University, Atlanta, GA, USA, [2]Georgia Institute of Technology, Atlanta, GA, USA, [3]Air Force Research Laboratory, Wright-Patterson Air Force Base, OH, USA

566 MT Direct Anatomical Connectivity in fMRI assessed Functional Connectivity Networks
Balint Varkuti[1], Sebastian Halder[1], Colleen Dockery[1], Markus Schneider[1], Philipp Keune[2], Eric Fimbel[3], Kamil Uludağ[4], Niels Birbaumer[1], Ranganatha Sitaram[5]
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567 MT **Graphical models for fMRI correlation: is brain functional connectivity small world or decomposable?**
Gaël Varoquaux[1], Alexandre Gramfort[2], Jean-Baptiste Poline[3], Bertrand Thirion[4]
[1]INRIA, Saclay, France, [2]INRIA - CEA Neurospin, France, [3]CEA, Neurospin, Gif-sur-Yvette, France, [4]Parietal Team, INRIA Saclay - Île-de-France, Saclay, France

568 MT **Finding fMRI Resting-state Network (RSN) Structures with Help of Graph Hubs And Authorities**
Gilson Vieira[1], João Sato[2], Edson Amaro Junior[1], Luiz Baccala[1]
[1]University of São Paulo, São Paulo, Brazil, [2]ABC Federal University, Santo André, Brazil

569 MT **Connectomic fingerprints of human brain function in health and disease**
Konrad Wagstyl[1], Yong Liu[2], Chunshui Yu[3], Xinqing Zhang[4], Tianzi Jiang[2], Edward Bullmore[1], Mikail Rubinov[1]
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570 MT **Using functional connectivity patterns to identify conceptual knowledge representations**
Jing Wang[1], Svetlana Shinkareva[1]
[1]University of South Carolina, Columbia, United States

571 MT **Dynamical simplex evolution: A network analysis method to investigate resting-state connectivity**
Jing Wang[1], Vladimir Gudkov[1], Svetlana Shinkareva[1]
[1]University of South Carolina, Columbia, United States

572 MT **Altered Functional Connectivity and Small-worldness in TLE of Different Focus Locations**
Junjing Wang[1], Shijun Qiu[2], Yong Xu[1], Zhenyin Liu[2], Xue Wen[1], Wensheng Wang[3], Yuanyuan Fan[1], Xiangshu Hu[4], Xiaoling Peng[1], Ming Liu[1], Ruiwang Huang[1]
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573 MT **Radiation-induced changes of brain functional network of nasopharyngeal carcinoma after radiotherapy**
Zengjian Wang[1], Li Li[2], Fangfang He[1], Lizhi Liu[2], Xue Wen[1], Xiaoling Peng[1], Rui Zhong[2], Shumei Li[1], Delong Zhang[1], Ming Liu[1], Ruiwang Huang[1]
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574 MT **Robust Detection of Default Networks Using Resting fMRI with ICA and Sparse Signal Representation**
Zhishun Wang[1], Pengwei Wang[2], Guillermo Horga[2], Lianghua He[3], Yuankai Huo[2], Barbara Graniello[2], Bradley Peterson[1]
[1]Columbia University and NYSPI, New York, USA, [2]Columbia University, New York, USA, [3]Tongji University, Shanghai, China

575 MT **Reproducible Phase Delays in BOLD Time Series Reflect Vascular Anatomy**
Taylor Webb[1], Michael Ferguson[2], Jared Nielsen[2], Jeffrey Anderson[2]
[1]University of Utah, Salt Lake City, United States, [2]University of Utah, Salt Lake City, UT

576 MT **Differential Resting State Connectivity in Adolescent Smokers**
Karen Weierstall[1], Robert Whelan[2], Rowen Morioka[1], Clare Kelly[3], Richard Watts[4], Hugh Garavan[5]
[1]University of Vermont, Burlington, United States, [2]University of Vermont, Burlington, United States, [3]Phyllis Green and Randolph Cŏwen Institute for Pediatric Neuroscience at the NYU Child Study Center, New York, NY, [4]University of Vermont, Burlington, VT, [5]University of Vermont, Burlington, VT

577 MT Mapping resting-state functional networks with total interdependence
Xiaotong Wen[1], Jue Mo[1], Yijun Liu[2], Mingzhou Ding[1]
[1]University of Florida, Gainesville, FL, United States, [2]Department of Psychiatry & McKnight Brain Institute, University of Florida, Gainesville, FL, United States

578 MT Causal influences between task control network and default mode network predict task performance
Xiaotong Wen[1], Yijun Liu[2], Mingzhou Ding[1]
[1]University of Florida, Gainesville, FL, United States, [2]Department of Psychiatry & McKnight Brain Institute, University of Florida, Gainesville, FL, United States

579 MT Linking BOLD-Level Granger Causality with Neural-Level Granger Causality
Xiaotong Wen[1], Govindan Rangarajan[2], Mingzhou Ding[3]
[1]University of Florida, GAINESVILLE, United States, [2]Indian Institute of Science, Bangalore, India, [3]University of Florida, Gainesville, FL

580 MT An exploratory investigation of Dynamic Causal Modelling model space using a face emotion processing
Joseph Whittaker[1], Rebecca Elliott[1], anna Barnes[2], Steve Williams[1], Shane McKie[1]
[1]University of Manchester, Manchester, United Kingdom, [2]University of Cambridge, Cambridge, United Kingdom

581 MT Evaluating directed connectivity in resting brain: method and application to social anxiety disorder
Guorong Wu[1,2], Wei Liao[3], Daniele Marinazzo[1], Huafu Chen[2]
[1]University of Ghent, Gent, Belgium, [2]University of Electronic Science and Technology of China, Chengdu, China, [3]Center for Cognition and Brain Disorders and the Affiliated Hospital, Hangzhou, China

582 MT Extensive overlap of functional networks as a basic property of brain functional organization
Jiansong Xu[1], Marc Potenza[1]
[1]Yale University, New Haven, CT

583 MT Regional Differences in the Impact of Head Motion on R-fMRI Measures: A Voxelwise Analysis
Chaogan Yan[1], Brian Cheung[2], Qingyang Li[2], Stan Colcombe[1], R. Cameron Craddock[3], Clare Kelly[4], Adriana Di Martino[4], F. Xavier Castellanos[1,4], Michael Milham[1,2]
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584 MT Application of NeuroCIS to study neural architecture in resting state fMRI: empirical evidence
Xiaodan Yan[1,2]
[1]Rensselaer Polytechnic Institute, Troy, United States, [2]New York University, New York, NY

585 MT Disrupted Correlation between Low Frequency Power and Connectivity Strength in Schizophrenic Brain
Qingbao Yu[1], Jing Sui[1], Elena Allen[1], Kent Kiehl[1,2], Godfrey Pearlson[3,4], Vince Calhoun[1,5]
[1]The Mind Research Network, Albuquerque, United States, [2]Department of Psychology, University of New Mexico, Albuquerque, United States, [3]Olin Neuropsychiatry Research Center, Hartford, United States, [4]Departments of Psychiatry and Neurobiology, Yale University, New Haven, United States, [5]Department of ECE, University of New Mexico, Albuquerque, United States

586 MT Disrupted small-world brain networks in moderate Alzheimer's disease: A resting state fMRI study
Xiaohu Zhao[1], Yong Liu[2], Xiangbin Wang[1], Peijun Wang[1], Tianzi Jiang[2]
[1]Imaging Department of TongJi Hospital of TongJi University, Shanghai, China, [2]Institute Of Automation, Chinese Academy Of Sciences, Beijing, China

587 MT Latency between Salient Network and Default Mode Network in Depression Patients
Zhengwei Zhou[1], Kui Ying[2], Jingyuan Chen[3]
[1]CBIR, Dept. of Biomedical Engineering, Tsinghua University, Beijing, China, [2]Dept. of Engineering Physics, Tsinghua University, Beijing, China, [3]Department of Electrical Engineering, Stanford, Stanford, United States

588 MT Connectomics Signatures for Characterization of Schizophrenia
dajiang zhu[1], Kaiming Li[2], lei guo[3], tianming liu[4]
[1]University of Georgia, athens, United States, [2]Emory University, atlanta, GA, [3]Northwestern Polytechnical University, xian, China, [4]University of Georgia, athens, GA

589 **MT** **Graphing Resting State Functional Networks**
Erik Ziegler[1], Francisco Gomez[1], Quentin Noirhomme[1], Athena Demertzi[2], Audrey Vanhaudenhuyse[3], Johan Stender[4], Sunny Mahajan[1], Christophe Phillips[5], Steven Laureys[1], Andrea Soddu[1]
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590 **MT** **Towards effective connectivity fMRI neurofeedback: single-block windowed partial correlations**
Anna Zilverstand[1], Bettina Sorger[1], Jan Zimmermann[1], Rainer Goebel[1]
[1]Maastricht University, Maastricht, Netherlands

591 **MT** **Who Is the Best Representative Time Series for Constructing fMRI Network ?**
Nianming Zuo[1], Yuhui Du[2], Yong Liu[3], Chunshui Yu[4], Tianzi Jiang[5]
[1]NLPR&LIAMA, Institute of Automation, Chinese Academy Of Science, Beijing, China, [2]Institute of Automation, Chinese Academy of Sciences, Beijing, China, [3]Institute of Automation, Beijing, China, [4]Department of Radiology, Tianjin Medical University General Hospital, Tianjin, China, [5]Institute Of Automation, Chinese Academy Of Sciences, Beijing, China

MODELING AND ANALYSIS METHODS

Image Registration and Computational Anatomy

592 **MT** **High-resolution atlas of the human hippocampus from postmortem 9.4T MRI and reconstructed histology**
Daniel Adler[1], Salmon Kadivar[1], John Pluta[1], Paul Yushkevich[1]
[1]University of Pennsylvania, Philadelphia, United States

593 **MT** **Age-Specific Unbiased Average Head Templates for 6 Month and 12 Month Old Infants**
Lisa Akiyama[1], Todd Richards[1], Toshiaki Imada[1], Stephen Dager[1], John Gilmore[2], Sarah Short[2], Patricia Kuhl[1]
[1]University of Washington, Seattle, WA, [2]UNC-Chapel Hill, Chapel Hill, NC

594 **MT** **Withdrawn**

595 **MT** **Combining Brain Structure and Function Improves Intersubject Cortical Alignment**
Yi Chen[1,2], Hui Li[3], John-Dylan Haynes[1]
[1]Bernstein Center for Computational Neuroscience, Charité – Universitätsmedizin, Berlin, Germany, [2]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [3]Institute of Image & Graphics, Deptment of Computer Science, Sichuan University, Chengdu, China

596 **MT** **Modelling morphological variability of hippocampus using manifold learning and large deformations**
Claire CURY[1,2,3,4], Joan GLAUNES[5], Emilie GERARDIN[1,2,3,4], Marie CHUPIN[1,2,3,4], Olivier COLLIOT[1,2,3,4]
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597 **MT** **Large Deformation Diffeomorphic Metric Mapping of Orientation Distribution Functions**
Jia Du[1], Alvina Goh[2], anqi qiu[1,3,4]
[1]Department of Bioengineering, National University of Singapore, Singapore, Singapore, [2]Department of Mathematics, National University of Singapore, Singapore, Singapore, [3]Clinical Imaging Research Center, National University of Singapore, Singapore, Singapore, [4]Singapore Institute for Clinical Sciences, the Agency for Science, Technology and Research, Singapore, Singapore

598 MT Bayesian Atlas Estimation for High Angular Resolution Diffusion Imaging
Jia Du[1], Alvina Goh[2], anqi qiu[3,4,5]
[1]Department of Bioengineering, National University of Singapore, Singapore, Singapore, [2]Department of Mathematics, National University of Singapore, Singapore, Singapore, [3]Department of Bioengineering, National University of Singapore, singapore, Singapore, [4]Clinical Imaging Research Center, National University of Singapore, Singapore, Singapore, [5]Singapore Institute for Clinical Sciences, the Agency for Science, Technology and Research, Singapore, Singapore

599 MT Brain size and folding complexity: a new approach using Spectral analysis of gyrification (Spangy)
David Germanaud[1,2,3], Julien Lefèvre[4], Roberto Toro[5], Clara Fischer[6], Jessica Dubois[7,3], Lucie Hertz-Pannier[1,2,3], Jean-François Mangin[6,3]
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600 MT Empowering Anatomical Shape Analysis with Medial Curves and 1-D Group-Wise Registration
Boris Gutman[1], Yalin Wang[2], Priya Rajagopalan[3], Arthur Toga[4], Paul Thompson[5]
[1]UCLA, Los Angeles, United States, [2]Arizona State University, Mesa, AZ, [3]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA, [4]UCLA, Los Angeles, CA, [5]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States

601 MT Improved Power and Robustness of Tensor-Based Morphometry for Tracking Mild Cognitive Impairment
Xue Hua[1], Derrek Hibar[1], Arthur Toga[1], Clifford Jack[2], Michael Weiner[3,4,5,6,7], Paul Thompson[1]
[1]Laboratory of Neuro Imaging, Department of Neurology, School of Medicine, University of California, Los Angeles, CA, [2]Mayo Clinic, Rochester, MN, [3]Department of Veterans Affairs Medical Center, Center for Imaging of Neurodegenerative Diseases, San Francisco, CA, [4]Department of Radiology, University of California, San Fransisco, CA, [5]Department of Medicine, University of California, San Fransisco, CA, [6]Department of Psychiatry, University of California, San Fransisco, CA, [7]Department of Neurology, University of California, San Fransisco, CA

602 MT Refinement of Automated Cortical Surface Registration and Labelling using Gradient Curvature Flow
Anand Joshi[1], David Shattuck[2], Richard Leahy[1]
[1]Univ of Southern California, Los Angeles, CA, [2]Univ of California, Los Angeles, CA

603 MT Multi-structure LDDMM brain registration: applications in confidence-based morphometry
Ali Khan[1], Lei Wang[2], Mirza Faisal Beg[3]
[1]Robarts Research Institute, London, Canada, [2]Northwestern University, Chicago, IL, [3]Simon Fraser University, Burnaby, Canada

604 MT Statistical Power Maps for Sparse Representation of Subcortical Brain Structures
Seung-Goo Kim[1], Stacey Schaefer[2], Moo Chung[3], Carien van Reekum[4], Richard Davidson[2]
[1]Seoul National University, Seoul, Korea, Republic of, [2]University of Wisconsin-Madison, Madison, WI, [3]University of Wisconsin, Madison, WI, [4]University of Reading, Reading, United Kingdom

605 MT Development of an automatic system for the quantification of brain activation in functional MRI
Tae-Hoon Kim[1], Byeong-Chae Kim[2], Jenny Jeong[3], Heoung-Keun Kang[4], Gwang-Woo Jeong[4]
[1]Chonnam National University, Gwang-Ju, Korea, Republic of, [2]Chonnam National University Hospital, Gwang-Ju, Korea, Republic of, [3]Ewha Womans University, Seoul, Korea, Republic of, [4]Chonnam National University Medical School, Gwang-Ju, Korea, Republic of

606 MT Regional Cortical Thickness Analysis in Alzheimer's Subjects
Evgeniy Lebed[1], Mirza Faisal Beg[1], Alain Trouvé[2]
[1]Simon Fraser University, Burnaby, Canada, [2]École Normale Supérieure de Cachan, Paris, France

607 MT **Seed-Voxel Determination in Resting State Functional Connectivity by Using Non-Rigid Registration**
Mingyi Li[1], Katherine Koenig[1], Michael Phillips[1], Mark Lowe[1]
[1]Cleveland Clinic, Cleveland, OH

608 MT **Improved methodology to transform to Talairach space using modified template**
Blessy Mathew[1], Katherine Koenig[1], Mark Lowe[1]
[1]Cleveland Clinic, Cleveland, OH, United States

609 MT **Registration of Histology and MRI using Blockface as Intermediate Space**
Martin Reuter[1,2,3], Peter Sand[2], Kristen Huber[2], Khoa Nguyen[2], Zeynep Saygin[4], H. Diana Rosas[1,2], Jean Augustinack[5,2], Bruce Fischl[5,2,3]
[1]Neurology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, [2]Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA, [3]CSAIL, Massachusetts Institute of Technology, Cambridge, MA, [4]Brain and Cognitive Sciences/ McGovern Institute, Massachusetts Institute of Technology, Cambridge, MA, [5]Radiology, Massachusetts General Hospital, Harvard Medical School, Boston, MA

610 MT **Robust and Accurate Contralateral Registration for Pose Normalization and Tumor Segmentation**
Martin Reuter[1], H. Diana Rosas[1], Bruce Fischl[1]
[1]Massachusetts General Hospital, Harvard Medical School, Boston, MA

611 MT **Availability of Euclidean distance and cosine similarity in deformation based morphometry**
Kazunori Sato[1], Shigeo Kinomura[1], Kai Wu[1], Yasuyuki Taki[1], Ryoi Goto[1], Kentaro Inoue[1], Ken Okada[1], Ryuta Kawashima[1], Hiroshi Fukuda[1]
[1]Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan

612 MT **Joint T1 and Brain Fiber Diffeomorphic Registration Using the Demons**
Viviana Siless[1,2], Pamela Guevara[3,2], Xavier Pennec[4], Bertrand Thirion[1,2], Pierre Fillard[1]
[1]Parietal Team, INRIA Saclay-Île-de-France, Saclay, France, [2]CEA, DSV, I[2]BM, Neurospin bât 145, 91191 Gif-Sur-Yvette, France, PA, [3]University of Concepción, Concepción, Chile, [4]Asclepios Team, INRIA Sophia Antipolis Méditerraneé, Sophia Antipolis, France

613 MT **FMRI Group Analysis in a Morphological Manifold**
Zhong Yi Sun[1], Philippe Pinel[2], Antonio Moreno[2], Matthieu Perrot[1], Stanislas Dehaene[2], Denis Rivière[1], Jean-François Mangin[1]
[1]LNAO, Neurospin, CEA, Gif-sur-Yvette, France, [2]Unicog, INSERM-CEA, Neurospin, Gif-sur-Yvette, France

614 MT **S-HAMMER: Hierarchical Attribute-Guided Symmetric Diffeomorphic Registration**
Guorong Wu[1], Minjeong Kim[1], Qian Wang[1], Dinggang Shen[1]
[1]University of North Carolina at Chapel Hill, Chapel Hill, United States

MODELING AND ANALYSIS METHODS

Motion Correction and Preprocessing

615 MT **Iterative method for motion correction of diffusion weighted images**
Elodie André[1], Anne Collard[1], Christophe Phillips[1], Evelyne Balteau[1]
[1]Cyclotron Research Centre, University of Liège, Liège, Belgium

616 MT **An index for large head motion on resting state fMRI**
Katherine Baquero[1], Francisco Gomez[2], Audrey Vanhaudenhuyse[2], Athena Demertzi[2], Luaba Tshibanda[2], Olivia Gosseries[2], Quentin Noirhomme[2], Steven Laureys[2], Eduardo Romero[1], Andrea Soddu[2]
[1]Bioingenium Research Group, Universidad Nacional de Colombia, Bogotá, Colombia, [2]Coma Science Group, Cyclotron Research Centre, University of Liège, Liège, Belgium

617 MT **Time- and SNR-efficient EPI pulse sequence module for active marker motion correction acquisition**
Erik Beall[1], Mark Lowe[2]
[1]Cleveland Clinic, Cleveland, United States, [2]Cleveland Clinic, Cleveland, OH

618 MT **Optimization of White-Matter Nuisance Regressors in fMRI analysis**
Emrah Kacar[1], Jacqueline Atanelov[1], Ronald Sladky[1], Jasmin Tröstl[1], Rupert Lanzenberger[2], Christian Windischberger[1]
[1]MR Centre Of Excellence, Medical University Of Vienna, Vienna, Austria, [2]Medical University of Vienna, Wien, Austria

619 MT **Functional MRI Localization of Awake Cat Visual Cortex Facilitated by Partial Volume Registration**
Manxiu Ma[1], Yanxia Li[1], Zuxiang Liu[1], Chencan Qian[1], Zhentao Zuo[1]
[1]Institute of Biophysics, Chinese Academy of Sciences, Beijing, China

620 MT Reference Cross-Modality Pediatric Image Database and Its Representative Templates
Nataliya Portman[1], Alan Evans[2]
[1]Montreal Neurological Institute, Montreal, Canada, [2]McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Quebec

621 MT The Effect of Head Motion Regression on Regional Homogeneity of Resting State fMRI Signal
Zhao Qing[1], Zhangye Dong[1], Chaogan Yan[2], Yufeng Zang[1,3], Xindi Wang[1], Dongqiang Liu[3]
[1]National Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Phyllis Green and Randolph Cŏwen Institute for Pediatric Neuroscience, New York, United States, [3]Center for Cognition and Brain Disorders, Affiliated Hospital, Hangzhou Normal University, Hangzhou, China

622 MT Correction for T1 effect incorporating flip angle estimated by Kalman filter in cardiac-gated fMRI
Jaemin Shin[1], Xiaoping Hu[1]
[1]Georgia Tech/Emory University, Atlanta, United States

623 MT Retrospective Motion Correction of fMRI Data Using Motion Artifacts in Simultaneous EEG
Vadim Zotev[1], Han Yuan[1], Raquel Phillips[1], Jerzy Bodurka[1]
[1]Laureate Institute for Brain Research, Tulsa, OK

MODELING AND ANALYSIS METHODS

Multivariate Modeling

624 MT Withdrawn

***625 MT Model-Based Clustering Using Generative Embedding (O-T1)**
Kay H. Brodersen[1,2], Zhihao Lin[2], Ajita Gupta[2], William Penny[3], Alexander Leff[3], Morteza Chehreghani[2], Alberto Busetto[2], Joachim Buhmann[2], Klaas Enno Stephan[1,4]
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626 MT Outlier Detection in Neuroimaging Data Sets
Virgile Fritsch[1], Gael Varoquaux[2], Benjamin Thyreau[3], Jean-Baptiste Poline[4], Bertrand Thirion[5]
[1]Inria, Gif-sur-Yvette, France, [2]N/A, Gif-sur-Yvette, France, [3]N/A, Paris, France, [4]CEA, Neurospin, Gif-sur-Yvette, France, [5]Parietal Team, INRIA Saclay - Île-de-France, Saclay, France

627 MT Evaluation of Machine Learning Methods for Classification on Resting State fMRI Data
Wolfgang Huf[1,2,3], Klaudius Kalcher[1,2,3], Roland Boubela[1,2,3], Peter Filzmoser[3], Siegfried Kasper[2], Ewald Moser[1], Christian Windischberger[1]
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628 MT Elevated Normal Movement Network Activity in Parkinson's Disease in the Absence of Movement
Ji Hyun Ko[1], Chris Chengke Tang[1], Yilong Ma[1], Hideo Mure[1], Phoebe Spetsieris[1], Vijay Dhawan[1], David Eidelberg[1]
[1]Feinstein Institute for Medical Research, Manhasset, NY

629 MT Projection Regression Models (PRM) for High Dimensional Imaging Responses
Ja-An Lin[1], Hongtu Zhu[1,2], Rebecca Knickmeyer[3], Martin Styner[4], John Gilmore[3], Joseph Ibrahim[1]
[1]Department of Biostatistics, The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, [2]Biomedical Research Imaging Center, Chapel Hill, NC, United States, [3]Department of Psychiatry, The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States, [4]Department of Computer Science, The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States

630 MT Analyzing community structure in fMRI data using non-negative matrix factorization
Gabriele Lohmann[1], Daniel Margulies[1], Alexander Schaefer[1], Robert Turner[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

631 MT The optimal spatial resolution for decoding analysis in visual cortex with orientation columns
Seungkyu Nam[1], Misun Kim[1], Dae-Shik Kim[2]
[1]KAIST, Daejeon, Korea, Republic of, [2]Korea Advanced Institute of Science and Technology, Daejeon, Korea, Republic of

***632 MT Capturing high-order interactions in neuroimaging data (O-T1)**
Sergey Plis[1], Jing Sui[1], Terran Lane[2], Sushmita Roy[3], Vince Clark[1], Vamsi K. Potluru[1], Andrew Michael[1], Michael Weisend[1], Vince Calhoun[1]
[1]The Mind Research Network, Albuquerque, NM, USA, [2]Computer Science Dept. UNM, NM, USA, [3]Dept. of Biostatistics and Medical Informatics, University of Wisconsin, Madison, WI, USA

633 MT Visualising the distribution of subjects using t-distributed stochastic neighbour embedding (t-SNE)
Gerard Ridgway[1], John Ashburner[1]
[1]Wellcome Trust Centre for Neuroimaging, London, United Kingdom

634 MT An Assessment of the Limitations of Joint ICA in Multimodal Data Fusion
Rogers Silva[1], Vince Calhoun[2]
[1]Mind Research Network, Albuquerque, NM, [2]The Mind Research Network and UNM, ALBUQUERQUE, NM

635 MT Real-time fMRI using ICA: optimization study for defining a target IC from a functional localizer
nicola soldati[1], Lorenzo Bruzzone[2], Jorge Jovicich[1], Vince Calhoun[3]
[1]CIMeC Center for Mind/Brain Science, University of Trento, Trento, Italy, [2]Department of Information Engineering and Computer Science, University of Trento, Trento, Italy, [3]The Mind Research Network and UNM, ALBUQUERQUE, NM

636 MT Real-time fMRI with ICA: optimizing dynamically monitoring of an IC with a priori information
nicola soldati[1], Vince Calhoun[2], Lorenzo Bruzzone[3], Jorge Jovicich[1]
[1]CIMeC Center for Mind/Brain Science, University of Trento, Trento, Italy, [2]The Mind Research Network and UNM, ALBUQUERQUE, NM, [3]Department of Information Engineering and Computer Science, University of Trento, Trento, Italy

637 MT Optimising Searchlight Representational Similarity Analysis (RSA) for EMEG
Li Su[1], Alexandra Woolgar[2], Caroline Whiting[1], Elisabeth Fonteneau[1], Mirjana Bozic[1], William Marslen-Wilson[1]
[1]University of Cambridge, Cambridge, United Kingdom, [2]Macquarie University, Sydney, Australia

638 MT A Novel N-Way Brain Imaging Data Fusion Model And Its Application to Schizophrenia
JING SUI[1], Hao He[2], Qingbao Yu[3], Tulay Adali[4], Godfrey Pearlson[5], Vince Calhoun[6]
[1]The Mind Research Network and Lovelace Biomedical and Environmental Research Institute, ALBUQUERQUE, United States, [2]University of New Mexico, ALBUQUERQUE, NM, [3]The Mind Research Network, Albuquerque, United States, [4]University of Maryland, Baltimore County, Baltimore, MD, [5]Olin Neuropsychiatry Research Center, hartford, CT, [6]The Mind Research Network and UNM, ALBUQUERQUE, NM

639 MT Two-compartment model of Transverse Relaxation Time using Multi-echo Planar Imaging for Human Brain
Kevin Tsai[1], Wen-Jui Kuo[2], Fa-Hsuan Lin[1,3]
[1]Institute of Biomedical Engineering, National Taiwan University, Taipei, [2]Institute of Neuroscience, National Yang-Ming University, Taipei, Chinese Taipei, [3]Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA

640 MT Shared and Specific Independent Components Analysis for Between Groups Comparison
shahabeddin vahdat[1], Mona Maneshi[1], Christophe Grova[2], Jean Gotman[3], Theodore Milner[1]
[1]McGill, Montreal, Canada, [2]Biomedical Engineering Department, McGill University, Montreal, QC, [3]Montreal Neurological Institute and Hospital, McGill University, Montreal, QC

641 MT More repetitions or more items? The effect of repeating stimuli on MVPA for fMRI and E/MEG
Alexandra Woolgar[1], Mirjana Bozic[2], Caroline Whiting[2], Elisabeth Fonteneau[2], Li Su[2], Cai Wingfield[3], William Marslen-Wilson[2]
[1]Macquarie University, Sydney, Australia, [2]University of Cambridge, Cambridge, United Kingdom, [3]MRC-CBU, Cambridge, United Kingdom

642 MT Gaussian Confidence Maps for Detection of Structural Alterations on the Single Subject Level
Gabriel Ziegler[1], Robert Dahnke[1], Christian Gaser[2]
[1]Structural Brain Mapping Group, Jena University Hospital, Jena, Germany, [2]Structural Brain Mapping Group, Department of Psychiatry, University of Jena, Jena, Germany

MODELING AND ANALYSIS METHODS

Other Methods

643 MT Data visualization in the neurosciences: overcoming the curse of dimensionality
Elena Allen[1], Erik Erhardt[2], Vince Calhoun[3]
[1]Mind Research Network, Albuquerque, United States, [2]The MIND Research Network, Albuquerque, United States, [3]The Mind Research Network and UNM, ALBUQUERQUE, NM

644 MT An iterative two-threshold analysis for single-subject functional MRI of the human brain
Tibor Auer[1], Renate Schweizer[1], Jens Frahm[1]
[1]Biomedizinische NMR Forschungs GmbH am Max-Planck-Institut für biophysikalische Chemie, Göttingen, Germany

645 MT Sensory processing during viewing of cinematographic material: hypothesis- vs data-driven analyses
Cécile Bordier[1], Francesco Puja[1], Emiliano Macaluso[1]
[1]Santa Lucia Foundation, Roma, Italy

646 MT Goal-dependent modulation of effective connectivity during a two-party bargaining game
Qiang Luo[1], Meghana Bhatt[2], Read Montague[3], Jianfeng Feng[4]
[1]National University of Defense Technology, Changsha, China, [2]Beckman Research Institute, City of Hope, CA, [3]Virginia Tech Carilion Research Institute, Roanoke, VA, [4]Department of Computer Science, The University of Warwick, Coventry, United Kingdom

647 MT Bidirectional BOLD activation depiction by jointly using the MR magnitude and phase response maps
zikuan chen[1], Jingyu Liu[1], Vince Calhoun[2]
[1]The Mind Research Network, Albuquerque, NM, [2]The Mind Research Network and UNM, ALBUQUERQUE, NM

***648 MT Real-time tracking and biofeedback of the default mode network (O-T1)**
R. Cameron Craddock[1], Jonathan Lisinski[1], Pearl Chiu[1], Helen Mayberg[2], Stephen LaConte[1]
[1]Virginia Tech Carilion Research Institute, Roanoke, VA, USA, [2]Emory University, Atlanta, GA

649 MT Single trials Based Multimodal Casual Connectivity: An Simultaneous EEG-fMRI simulation study
Li Dong[1], Xu Lei[2,1], Peng Xu[1], Cheng Luo[1], dezhong yao[1]
[1]Key Laboratory for NeuroInformation of MOE, School of Life Science and Technology, UESTC, ChengDu, China, [2]School of Psychology, Southwest University, ChongQing, China

650 MT Temporal Kernel Canonical Correlation Analysis: Deconvolving EEG/fMRI in Space and Time
Pamela Douglas[1], Daniel Moyer[2]
[1]UCLA, Los Angeles, United States, [2]UCLA, Los Angeles, CA

651 MT Comparison of MRI and Physical Sections to Estimate Cortical Surface Area in Eight PostMortem Brains
Carolyn Furlong[1], Marta García-Fiñana[2], Bunyamin Sahin[3], Anna Anderson[1], Katrine Fabricius[4], Nina Eriksen[4], Bente Pakkenberg[4], Neil Roberts[5]
[1]Magnetic Resonance and Image Analysis Research Centre (MARIARC), University of Liverpool, Liverpool, UK, [2]Centre for Medical Statistics and Health Evaluation, University of Liverpool, University of Liverpoo, Liverpool, UK, [3]Department of Anatomy, Medical School, Ondokuz Mayis University, Samsun, Turkey, [4]Research Laboratory for Stereology and Neuroscience, Bispebjerg University Hospital, Copenhagen, Denmark, [5]Clinical Research Imaging Centre (CRIC), College of Medicine and Veterinary Medicine, University of Edinburgh, UK

652 MT Detection of Brain Metabolites with Less Contamination in 2D Localized Correlation Spectroscopy
Meijin Lin[1], Anand Kumar[1], Shaolin Yang[1]
[1]University of Illinois at Chicago, Chicago, United States

653 MT A Better Approach to Identify Non-Linear Associations in Datasets
Andrew Michael[1], Sahitya Konda[2], Sergei Plis[3], Elena Allen[4], Arvind Caprihan[5], Vince Calhoun[6]
[1]The Mind Research Network, N/A, [2]The Mind Research Network, NM, Albuquerque, NM, [3]The Mind Research Network, Albuquerque, NM, [4]Mind Research Network, Albuquerque, United States, [5]The Mind Research Network and LBERI, ALBUQUERQUE, NM, [6]The Mind Research Network and UNM, ALBUQUERQUE, NM

654 MT Single-shot EPI with Nyquist ghost compensation: Interleaved Dual-Echo with Acceleration (IDEA) EPI
Benedikt Poser[1,2], Markus Barth[2,3], Pål Erik Goa[4], Weiran Deng[1], V Andrew Stenger[1]
[1]University of Hawaii, Honolulu, United States, [2]Donders Insitute for Brain, Cognition and Behaviour, Radboud University, Nijmegen, Netherlands, [3]Erwin L Hahn Institute, University Duisburg-Essen, Essen, Germany, [4]Department of Medical Imaging, St. Olavs Hospital, Trondheim, Norway

655 MT A Model-Based Comparison of Visual Field Mapping Approaches
Mario Senden[1], Rainer Goebel[1,2]
[1]Maastricht University, Maastricht, Netherlands, [2]Netherlands Institute for Neuroscience, Amsterdam, Netherlands

656 MT Test-retest Reliability of the Hemodynamic Response Function in fMRI
Zuyao Shan[1], Katie McMahon[1], Greig Zubicaray[2], Paul Thompson[3], Nicholas Martin[4], Margaret Wright[4], David Reutens[1]
[1]Centre for Adavanced Imaging, The University of Queensland, Brisbane, Australia, [2]School of Psychology, The University of Queensland, Brisbane, Australia, [3]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, USA, [4]Genetic Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Australia

657 MT Comparison of Field mapping and two phase encoding method to correct EPI distortion
Wanyong Shin[1], Erik Beall[1], Ken Sakaie[1], Mark Lowe[1]
[1]Cleveland Clinic, Cleveland, OH

658 MT Comparison of region-of-interest (ROI) single-value summary measurements of BOLD response
Yunxia Tong[1], Qiang Chen[2,1], Roberta Rasetti[1], Thomas Nichols[3], Joseph Callicott[1], Venkata Mattay[2,1], Daniel Weinberger[2,1]
[1]CBDB/NIMH/NIH, Bethesda, MD, [2]Lieber Institute for Brain Development, Johns Hopkins University, Baltimore, MD, [3]University of Warwick, Dept. of Statistics, Coventry, United Kingdom

659 MT Left-handers present a right shift of their motor, verbal and spatial functional lateralization
Nathalie Tzourio-Mazoyer[1], Laurent Petit[1], Emmanuel Mellet[1], Gael Jobard[1], Laure Zago[1], Pierre-Yves Hervé[1], Fabrice Crivello[1], Marc Joliot[1], Bernard Mazoyer[1]
[1]GIN UMR5296 CNRS CEA Bordeaux University, Bordeaux, France

660 MT Quantitative susceptibility mapping of human brain using MR phase gradients
Luning Wang[1], Jason Langley[2], Qun Zhao[1]
[1]University of Georgia, Athens, GA, [2]Emory University, Atlanta, GA

661 MT Estimating Hemodynamic Response across Subjects with Subject-Specific Hemodynamic Response Model
Jia-Yi Yeh[1], Keh-Shih Chuang[1], Jim-Chao Chuang[2], Hsin-Hon Lin[3], Shang-Lun Tung[1], Sharon Chia-Ju Chen[4]
[1]Department of Biomedical Engineering and Environmental Sciences, National Tsing-Hua University, Hsin-Chu, [2]Department of Medical Imaging and Radiology, Chung Shan Medical University, Tai-Chung, [3]Department of Biomedical Engineering and Environmental Sciences, National Tsing-Hua University, Hsin-Chu, Chinese Taipei, [4]Kaohsiung Medical University, Kaohsiung

662 MT **Intuitive Computation of Sulcal Depth using Adaptive Distance Transform**
Hyuk Jin Yun[1], Kiho Im[2], Uicheul Yoon[3], Jin-Ju Yang[1], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Children's Hospital Boston, Harvard Medical School, N/A, [3]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of

MODELING AND ANALYSIS METHODS

PET Modeling and Analysis

663 MT **Cortical Thickness-Based Partial Volume Correction for High Resolution PET**
Thomas Funck[1], Peter Zepper[2], Alan Evans[3], Alexander Thiel[1]
[1]McGill University, Montreal, Canada, [2]SMBD Jewish General Hospital, Montreal, Quebec, [3]McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Quebec

664 MT **Serotonin-1A receptor quantification with image-derived and venous input functions**
Andreas Hahn[1], Lukas Nics[2], Pia Baldinger[1], Johanna Ungersboeck[2], Peter Dolliner[2], Richard Frey[1], Wolfgang Birkfellner[3], Markus Mitterhauser[2], Wolfgang Wadsak[2], Georgios Karanikas[2], Siegfried Kasper[1], Rupert Lanzenberger[1]
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***665** MT **Edge selection preserving the topological features of brain network (O-M4)**
Hyekyoung Lee[1], Moo Chung[2], Hyejin Kang[3], Bung-Nyun Kim[4], Dong Soo Lee[5]
[1]SNUH, Seoul, Korea, Republic of, [2]University of Wisconsin, Madison, WI, [3]Department of Nuclear Medicine, Seoul National University College of Medicine, Seoul, Korea, Republic of, [4]Seoul National University, Seoul, Korea, Republic of, [5]Seoul Natl University, Seoul

MODELING AND ANALYSIS METHODS

Segmentation and Parcellation

666 MT **Comparative Analysis of Atlas-Based and Manual Prefrontal Brain Parcellation in an Ageing Cohort**
Benjamin Aribisala[1], Simon Cox[1], Sarah MacPherson[2], Alasdair MacLullich[3], Karen Ferguson[4], Maria Valdez Hernandez[1], Natalie Royle[1], Mark Bastin[1], Ian Deary[2], Joanna Wardlaw[1]
[1]Brain Imag. Research Centre, Centre for Cogn. Ageing and Cog. Epidemiology, University of Edinburgh, Edinburgh, United Kingdom, [2]Department of Psychology, Centre for Cogn. Ageing and Cog. Epidemiology, University of Edinburgh, Edinburgh, United Kingdom, [3]Department of Psychology, Endocrinology Unit, Geriatric Medicine, University of Edinburgh, Edinburgh, United Kingdom, [4]Clinical Research Imaging Centre, University of Edinburgh, Edinburgh, United Kingdom

667 MT **The LOCUS software suite for MR brain scan segmentation**
Senan Doyle[1], Florence Forbes[1], Michel Dojat[2]
[1]INRIA Rhone-Alpes, Grenoble, France, [2]INSERM, GIN, Grenoble, France

668 MT **Superresolution improves MRI cortical segmentation with FACE**
Simon Eskildsen[1,2], Jose Manjon[3], Pierrick Coupe[4,2], Vladimir Fonov[2], D. Louis Collins[2]
[1]Center of Functionally Integrative Neuroscience, Aarhus University, Aarhus, Denmark, [2]McConnell Brain Imaging Centre, Montréal Neurological Institute, McGill University, Montréal, Canada, [3]ITACA, Universidad Politécnica de Valencia, Valencia, Spain, [4]LaBRI UMR CNRS 5800, Talence, France

669 MT **Segmentation of white matter hyperintensities: a comparison of automatic methods on multicentre data**
Ludovic Fillon[1,2,3,4], Thomas Samaille[1,2,3,4], Eric Jouvent[5], Hugues Chabriat[5], Didier Dormont[1,2,3,4,6], Olivier COLLIOT[1,2,3,4], Marie CHUPIN[1,2,3,4]
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670 MT **Morphologist 2012: the new morphological pipeline of BrainVISA**
Clara Fischer[1,2], Grégory Operto[1,2], Soizic Laguitton[1,2], Matthieu Perrot[3,2], Isabelle Denghien[1,4], Denis Rivière[1,2], Jean-François Mangin[1,2]
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671 MT Automatic lateral ventricle segmentation in infant population with high risk of autism
Vladimir Fonov[1], Pierrick Coupe[2], Martin Styner[3], D. Louis Collins[4]
[1]Montreal Neurological Institute, Montreal, Canada, [2]LaBRI UMR CNRS 5800, Talence, France, [3]Department of Computer Science, The University of North Carolina at Chapel Hill, Chapel Hill, NC, [4]McConnell Brain Imaging Centre, Montréal Neurological Institute, McGill University, Montréal, Québec

672 MT Local Histogram Equalization to Improve Segmentation of Low Contrast Structures
Christian Gaser[1,2]
[1]Structural Brain Mapping Group, Department of Psychiatry, University of Jena, Jena, Germany, [2]Department of Neurology, University of Jena, Jena, Germany

673 MT Automated segmentation of hippocampus using graph-cuts algorithm and morphological opening
Kichang Kwak[1], Uicheul Yoon[2], Dong-Kyun Lee[1], Geon Ha Kim[3], Sang Won Seo[3], Duk L. Na[3], Hack-Joon Shim[4], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of, [4]TI Medical Systems, Seoul, Korea, Republic of

674 MT Automatic segmentation of cerebellum and brainstem region using intensity and atlas based method
Dong-Kyun Lee[1], Uicheul Yoon[2], Duk L. Na[3], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

675 MT Automatic Multi-Resolution EMS based MS Lesion Segmentation
Felix Ruiz de Arcaute[1], Wim Van Hecke[1], Dirk Loeckx[1]
[1]icoMetrix, Leuven, Belgium

676 MT A spatio-temporal parcellation method for segmenting brain regions using resting state fMRI
Srikanth Ryali[1], Tianwen Chen[1], Vinod Menon[1]
[1]Stanford University School of Medicine, Palo Alto, CA, United States

677 MT Robust cortical reconstruction and mapping tools using intrinsic analysis of geometry and topology
Yonggang Shi[1], Rongjie Lai[2], Arthur Toga[1], The ADNI[3]
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678 MT Automated Segmentation of Subcortical Structures via Large Deformation Diffeomorphic Metric Mapping
Xiaoying Tang[1], Michael Miller[1], Susumu Mori[2], Tilak Ratnanather[1]
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679 MT Parcellation of the cingulate cortex when involved in active tasks: a meta-analytic clustering study
Diana Torta[1], Tommaso Costa[1], Giuliano Geminiani[1], Peter Fox[2], Franco Cauda[1]
[1]University of Turin, Department of Psychology, Torino, Italy, [2]Research Imaging Institute, San Antonio, TX

680 MT Template-free Brain Parcellation with an Optimal Number of Equal Area Nodes
Olga Tymofiyeva[1], Etay Ziv[1], Christopher Hess[1], Donna Ferriero[1], A Barkovich[1], Duan Xu[1]
[1]University of California, San Francisco, San Francisco, CA

681 MT Scan-Rescan Reliability of Automated Segmentation of Cerebral Cortex at Multiple Scales
Yang Wang[1], Li Shen[1], Yishi Guo[2], Mohan Boddu[1], John West[1], Sungeun Kim[1], Tom Hummer[1], William Kronenberger[1], Vincent Mathews[1], Andrew Saykin[1]
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682 MT Cortical surface reconstruction from high-resolution 7 Tesla MP2RAGE data using a level set method
Marcel Weiss[1], Pierre-Louis Bazin[1], Gabriele Lohmann[1], Gerik Scheuermann[2], Robert Turner[3]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Institute of Computer Science, University of Leipzig, Leipzig, Germany, [3]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

683 MT Multi-contrast brain template for segmenting deep brain nuclei
Yiming Xiao[1], Silvain Beriault[1], Abbas Sadikot[2], G. Bruce Pike[1], D. Louis Collins[1]
[1]McConnell Brain Imaging Centre, Montréal Neurological Institute, McGill University, Montréal, Canada, [2]Division of Neurosurgery, McGill University, Montréal, Canada

684 MT **New similarity measures for functional connectivity-based brain parcellation**
Yu Zhang[1], Lingzhong Fan[1], Jiaojian Wang[2], Yonghui li[1], Tianzi Jiang[1]
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MODELING AND ANALYSIS METHODS

Task-Independent and Resting-State Analysis

685 MT **Dual clustering analysis of individual differences in resting state connectivity: beyond anxiety**
Janine Bijsterbosch[1], Stephen Smith[1], Sophie Forster[2], Sonia Bishop[1,2]
[1]FMRIB Centre, Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, United Kingdom, [2]Department of Psychology and Helen Wills Neuroscience Institute, UC Berkeley, Berkeley, United States

686 MT **Resting-state functional connectivity in adolescence is correlated with early childhood HPA activity**
Cory Burghy[1], Diane Stodola[1], Erin Molloy[1], Jonathan Oler[1], Richard Davidson[1], Marilyn Essex[1], Rasmus Birn[1]
[1]University of Wisconsin-Madison, Madison, WI

687 MT **The Variation of Resting-State fMRI Time Series in Regions of Interest using AAL Atlas**
Jungho Cha[1], Uicheul Yoon[2], Hang Joon Jo[3], Sang Won Seo[4], Duk L. Na[4], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]National Institute of Mental Health, Bethesda, United States, [4]Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

688 MT **Dynamics of resting-state functional connectivity associated with heart rate variability**
Catie Chang[1], Coraline Metzger[2], Gary Glover[3], Martin Walter[4]
[1]NINDS/NIH, Bethesda, MD, [2]Clinical Affective Neuroimaging Laboratory, Department of Psychiatry, Otto-von-Guericke University, Magdeburg, Germany, [3]Stanford University, Palo Alto, CA, [4]Clinical Affective Neuroimaging Laboratory, Magdeburg, Germany

689 MT **Dependence of fMRI scale-free dynamics on cognitive load and temporal preprocessing**
Catie Chang[1], Biyu He[1], Jeff Duyn[2]
[1]NINDS/NIH, Bethesda, MD, [2]National Institute of Neurological Disorders and Stroke, NIH, Bethesda, United States

690 MT **Estimation of resting-state functional connectivity using random subspace partial correlation method**
Tianwen Chen[1], Srikanth Ryali[2], Shaozheng Qin[3], Vinod Menon[4]
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691 MT **Withdrawn**

692 MT **Aberrant Resting State Connectivity associated with Chronic Hallucinations**
Mareike Clos[1], Simon Eickhoff[1], Anne Lotte Meijering[2], Kelly Diederen[2], Iris Sommer[2]
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693 MT **Functional connectivity at rest in patients with disorders of consciousness: Evaluation of 4 methods**
Julia Sophia Crone[1,2], Matthias Schurz[2], Eugen Trinka[3], Stefan Golaszewski[3], Martin Kronbichler[1,2]
[1]Neuroscience Institute, Christian Doppler Clinic, Salzburg, Salzburg, Austria, [2]University of Salzburg, Salzburg, Austria, [3]Department of Neurology, Christian Doppler Clinic, Salzburg, Austria

694 MT **Improved resting-state mapping of the default mode activity in OFC using volume-selective z-shimming**
Manish Dalwani[1], Dietmar Cordes[1], Jason Tregellas[2], Ibrahim Hamza[2], Yiping Du[2]
[1]University of Colorado Denver Anschutz Medical Campus, Aurora, CO, United States, [2]University of Colorado Denver Anschutz Medical Campus, Aurora, CO, United States

695 MT Searching for patient-specific residual functional connectivity with independent component analysis
Athena Demertzi[1], Francisco Gómez[1], Audrey Vanhaudenhuyse[1], Luaba Tshibanda[2], Marie Thonnard[1], Vanessa Charland[1], Murielle Kirsch[3], Olivia Gosseries[1], Steven Laureys[1], Andrea Soddu[1]
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696 MT GIx related pgACC entropy alters between eyes open and eyes closed rest
Niall Duncan[1], Defeng Wang[2], Christine Wiebking[1], Oliver Lyttelton[1], Georg Northoff[1]
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697 MT Differential Modulation of Distinct Resting-State Networks
Yan Fan[1,2,3], Marie Dietz[1,2,3], Matti Gärtner[1,2,3], Simone Grimm[1,2,3,4], Malek Bajbouj[1,2,3]
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698 MT MEG imaging reveals phase-amplitude coupling of ongoing neural oscillations in the resting state
Esther Florin[1], Sylvain Baillet[1]
[1]McConnell Brain Imaging Center, Montreal Neurological Institute, McGill University, Montreal, Canada

699 MT Cross-frequency coupling of ongoing neural oscillations predicts resting-state BOLD fluctuations
Esther Florin[1], Sylvain Baillet[1]
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700 MT The structural – functional correspondence of resting state networks
Martin Frost[1], Fabrizio Esposito[2], Rainer Goebel[1]
[1]Maastricht University, Maastricht, Netherlands, [2]University of Naples "Federico II", Naples, Italy

701 MT Frontostriatal Functional Connectivity Is Sensitive to DAT1 Genotype and Predicts Working Memory
Evan Gordon[1], Stephanie Bean[1], Chandan Vaidya[1]
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702 MT One-year test-retest reliability of intrinsic connectivity network fMRI in older adults
Christine Guo[1], Florian Kurth[2], Juan Zhou[3], Emeran Mayer[2], Simon Eickhoff[4], Joel Kramer[5], William Seeley[6]
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703 MT Analyze resting-state fMRI using multivariate empirical mode decomposition
Lanjin Guo[1,1], Peng Xu[1], Chunyang Tian[1], Zhenyu Wang[1], Peiyang Li[1], Tiejun Liu[1], dezhong yao[1]
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704 MT Sensor-space connectivity analysis of the human alpha rhythm - influence of the reference electrode
Stefan Haufe[1,2], Klaus-Robert Müller[3,2], Guido Nolte[4], Vadim Nikulin[5,6]
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705 MT Source of inter-subject variation of resting state low frequency fluctuation power
Hongjian He[1,2], Nantu Hu[2], Heshan Zhou[3], Huafeng Liu[1], Feiyan Chen[2]
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706 MT State-Dependent Resting-State Transfer Functions: Coherence between Neural Activity and Blood Flow
Peter Herman[1], Yuguo Yu[1,2], Robert Sachdev[1], Basavaraju Sanganahalli[1], David McCormick[1], Fahmeed Hyder[1]
[1]Yale University, New Haven, CT, [2]Fudan University, Shanghai, China

707 MT Computationally efficient group ICA for large groups
Aapo Hyvarinen[1], Stephen Smith[2]
[1]University of Helsinki, Finland, [2]FMRIB, Oxford University, Oxford, United Kingdom

708 MT Structural Correlates of "Resting" Brain Functional Homogeneity
Lili Jiang[1,2,3], Zhi Yang[2,3], Daniel Margulies[4], Yong He[5], F. Xavier Castellanos[6,7], Michael Milham[7,8], Yu-Feng Zang[9], Xi-Nian Zuo[1,2,3]
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709 MT Brain source networks of MEG in resting states
Seung-Hyun Jin[1], June Sic Kim[1], Chun Kee Chung[1,2]
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710 MT Amplitude of Low Frequency Fluctuations in Resting-state fMRI Predicts Magnitude of Task Activation
Klaudius Kalcher[1,2,3], Roland Boubela[1,2,3], Wolfgang Huf[1,2,3], Siegfried Kasper[2], Ewald Moser[1], Christian Windischberger[1]
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711 MT Fully Exploratory Network Independent Component Analysis of the 1000 Functional Connectomes Database
Klaudius Kalcher[1,2,3], Wolfgang Huf[1,2,3], Roland Boubela[1,2,3], Peter Filzmoser[3], Siegfried Kasper[2], Ewald Moser[1], Christian Windischberger[1]
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712 MT Total Activation:A New Spatiotemporal Regularization Technique to Analyze Spontaneous Brain Activity
Fikret Isik Karahanoglu[1,2], Cesar Gaudes[2], Dimitri Van De Ville[1,2]
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713 MT Surface based functional parcellation of medial frontal cortex in resting brain
Han Soo Kim[1], Uicheul Yoon[2], Jun Sung Park[1], Jungho Cha[1], Sook Hui Kim[3], Sang Won Seo[3], Duk L. Na[3], Jong-Min Lee[1]
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714 MT Does brightness matter during rest? Evidence from the resing-state functional MRI data analysis
Yong-Hwan Kim[1], Jong-Hwan Lee[1]
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715 MT Anterior-Posterior Dissociation of the Default Mode Network in Dogs
Sreenath Pruthviraj Kyathanahally[1], Oleg Mykolajovych Pustovyy[2], Paul Waggoner[3], Ronald Beyers[1], John Schumacher[4], Jay Barrett[5], Edward Morrison[2], Robert Gillette[4], Thomas Denney[1], Vitaly Vodyanoy[5], Gopikrishna Deshpande[1]
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716 MT Resting-State Networks at Higher Frequencies with MREG and ICA: Group Analysis
Hsu-Lei Lee[1], Benjamin Zahneisen[2,1], Thimo Hugger[1], Pierre LeVan[1], Jürgen Hennig[1]
[1]University Medical Center Freiburg, Freiburg, Germany, [2]Neuroscience and MR Research Program Department of Medicine, Honolulu, United States

717 MT Intrinsic functional connectivity in language networks
Elise Lesage[1], Chris Miall[1]
[1]University of Birmingham, Birmingham, United Kingdom

718 MT The Correlation between Functional Connectivity and Cerebral Blood Flow and its Reliability
Zhengjun Li[1], John Pluta[2], Anna Childress[3], Ze Wang[3]
[1]Dept. of Biomedical Engineering, Shanghai Jiao Tong University, Shanghai, China, [2]Department of Neurology, University of Pennsylvania, Philadelphia, PA, [3]Department of Psychiatry, University of Pennsylvania, Philadelphia, PA

***719 MT Metabolic and Hemodynamic Differences Among Resting-State Brain Networks (O-W4)**
Ai-Ling Lin[1], Angela Laird[1], Amy Ramage[1], Timothy Duong[1], Peter Fox[1]
[1]Research Imaging Institute, San Antonio, TX, United States

720 MT Frequency specific regional homogeneity of resting state fMRI signal can be differentially modulated
Dong-Qiang Liu[1], Jue Wang[1,2], Yu-Feng Zang[1,2]
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721 MT Identification of frequency specific regional homogeneity of resting state fMRI signal
Dong-Qiang Liu[1], Su-Fang Li[2], Yu-Feng Zang[1,2]
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722 MT Distinct resting-state functional connectivity and effective connectivity by cortical stimulation
Hanbing Lu[1], César Quiroz[1], William Rea[1], Elliot Stein[1], Sergi Ferré[1], Yihong Yang[1]
[1]National Inst on Drug Abuse, NIH, Baltimore, United States

723 MT Observing resting state networks at short echo times
John McGonigle[1,2], Laurence Reed[1], Louise Paterson[1], Rexford Newbould[3], Anne Lingford-Hughes[1], David Nutt[1], The ICCAM Collaboration[4]
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724 MT Consistent cortical networks in resting-state EEG:Spatial topography and temporal dynamics
Saeid Mehrkanoon[1], Michael Breakspear[2], Tjeerd Boonstra[1]
[1]The University of New South Wales, Sydney, Australia, [2]The University of New South Wales, Sydney, NSW

725 MT A Comparison of RETROICOR, RVHRCOR and CompCor in Removing Physiological Noise
Xinyuan Miao[1], Catie Chang[2], Yihong Yang[3], Yan Zhuo[1]
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726 MT Increased functional connectivity in resting-state networks of adults with ADHD
Jeanette Mostert[1,2], Elena Shumskaya[1], Marten Onnink[3], Martine Hoogman[3], Jan Buitelaar[3], David Norris[1], Barbara Franke[2]
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727 MT MICCA: Multi-Scale Independent Component Clustering Algorithm
Mikaël Naveau[1], Nicolas Delcroix[2], Pierre-Yves Hervé[1], Laurent Petit[1], Laure Zago[1], Fabrice Crivello[1], Gael Jobard[1], Emmanuel Mellet[1], Nathalie Tzourio-Mazoyer[1], Bernard Mazoyer[1], Marc Joliot[1]
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728 MT Intersubject Correlation in fMRI: Method Validation Against General Linear Model
Juha Pajula[1], Jukka-Pekka Kauppi[2], Jussi Tohka[1]
[1]Tampere University of Technology, Tampere, Finland, [2]University of Helsinki, Finland

729 **MT** **Altered patterns of ReHo in children with auditory processing disorder: resting-state fMRI study**
Agnieszka Pluta[1], Tomasz Wolak[1], Mateusz Rusiniak[1], Monika Lewandowska[1], Natalia Czajka[1], Diana Grudzien[1], Lech ćiwa[1], Henryk Skarżyński[1]
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730 **MT** **Cognitive implications of component fractionation across BrainMap task-based ICA networks**
Kimberly Ray[1], Reese McKay[2], Mickle Fox[3], Christian Beckmann[4], Stephen Smith[5], Peter Fox[6], Angela Laird[7]
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731 **MT** **Global Signal Regression Can Cause False Inferences in RS-FMRI, Not Just Negative-Correlations**
Ziad Saad[1], Stephen Gotts[2], Kevin Murphy[3], Gang Chen[4], Hang Joon Jo[5], Alex Martin[2], Robert Cox[2]
[1]National Institutes of Health, Bethesda, MD, [2]National Institute of Mental Health, Bethesda, MD, [3]Cardiff University, Cardiff, United Kingdom, [4]SSCC/DIRP/NIMH, National Institutes of Health, USA, N/A, [5]National Institute of Mental Health, Bethesda, United States

732 **MT** **Effect of anxiety and gender on EEG in eyes open and close conditions**
Alexander Savostyanov[1], Gennady Knyazev[1], Evgeny Levin[1], Arthur Tsai[2]
[1]Institute of Physiology of SB RAMS, Novosibirsk, Russian Federation, [2]Research Institute of Statistical Science Academia Sinica, Taipei, Chinese Taipei

733 **MT** **Localized Independent Component Analysis (LICA) for Mapping Motor Networks**
William Sohn[1], Kwangsun Yoo[1], Yong Jeong[1]
[1]KAIST, Daejeon, Korea, Republic of

734 **MT** **Temporally varying connectivity between ICA default-mode sub-networks - ASD vs. controls**
Tuomo Starck[1,2], Juha Nikkinen[2], Jukka Remes[2], Jukka Rahko[3], Irma Moilanen[3], Osmo Tervonen[1,2], Vesa Kiviniemi[1,2]
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735 **MT** **Investigation of vascular effects on resting-state BOLD fluctuations with simultaneous ASL and fMRI**
Sungho Tak[1], J. Jean Chen[1,2]
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736 **MT** **Functional covariance networks from intersubject variability reflect resting state networks**
Paul Taylor[1], Suril Gohel[2], Xin Di[3], Martin Walter[4], Bharat Biswal[5]
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737 **MT** **Pre-surgical Language Mapping using Movie-Watching fMRI**
Yanmei Tie[1], Laura Rigolo[1], Alexandra Golby[1]
[1]Brigham and Women's Hospital, Harvard Medical School, Boston, MA, United States

738 **MT** **Investigating the establishment of thalamocortical connectivity in neonates using resting state fMRI**
Hilary Toulmin[1], Christian Beckmann[2], Ioannis Gousias[3], Phumza Nongena[3], Ash Ederies[3], A. David Edwards[1,3]
[1]Kings College, London, United Kingdom, [2]University of Twente, Enschede, Netherlands, [3]Imperial College, London, United Kingdom

***739** **MT** **Resting state networks are characterized by high frequency BOLD fluctuations (O-M4)**
Erik van Oort[1], David Norris[2], Stephen Smith[3], Christian Beckmann[1]
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740 MT Learning an atlas of brain spontaneous activity with multi-subject dictionary learning
Gael Varoquaux[1], Vincent Michel[2], Fabian Pedregosa[2], Alexandre Gramfort[3], Bertrand Thirion[4]
[1]N/A, Gif-sur-Yvette, France, [2]INRIA Parietal, Saclay, France, [3]INRIA - CEA Neurospin, France, [4]Parietal Team, INRIA Saclay - Île-de-France, Saclay, France

741 MT Link between function and structure in the resting-state brain: an fMRI and VBM study
Nicolas Vigneau-Roy[1], Maxime Descoteaux[1], Kevin Whittingstall[1]
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742 MT Multiscale Changes in Brain Signal Variability in Pre-versus Post-task Eyes-open Resting Conditions
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743 MT Characterizing Resting Brain Information using Voxel-based Brain Information Mapping (BIM)
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744 MT Generalized RAICAR: An exploratory tool for mining reproducibility of the ICNs in multiple subjects
Zhi Yang[1,2], Xi-Nian Zuo[3,2], Peipei Wang[4], Zhihao Li[5], Stephen LaConte[6], Xuchu Weng[7], Xiaoping Hu[5]
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745 MT Direct correlation analysis between neural activity and blood flow signals
Yuguo Yu[1], Peter Herman[2], Robert Sachdev[2], Basavaraju Sangangahalli[2], Fahmeed Hyder[2], David McCormick[2]
[1]Fudan University, Shanghai, China, [2]Yale University, New Haven, CT

746 MT Exploring EEG Microstates as Electrophysiological Signatures of BOLD Resting State Networks
Han Yuan[1], Vadim Zotev[1], Raquel Phillips[1], Wayne Drevets[1], Jerzy Bodurka[1]
[1]Laureate Institute for Brain Research, Tulsa, OK, United States

747 MT Correlated Fluctuations in Respiration, EEG, and BOLD: What is the Origin of Physiological Noise?
Han Yuan[1], Vadim Zotev[1], Raquel Phillips[1], Jerzy Bodurka[1]
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748 MT Alterations in regional homogeneity of resting-state brain activity in posttraumatic stress disorder
Ye Zhang[1], mingguo qiu[1], Jingna Zhang[1], Bing Xie[2], Linqiong Sang[1], Li Wang[1], Min Li[3]
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749 MT Intrinsic Resting-State Activity Predicts Working Memory Brain Activation and Behavioral Performance
Qihong Zou[1,2,3], Thomas Ross[1], Hong Gu[1], Xiujuan Geng[1], Xi-Nian Zuo[4], Elliot Hong[5], Jia-Hong Gao[2,6], Elliot Stein[1], Yu-Feng Zang[3,7], Yihong Yang[1]
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750 MT Functional Connectome Computation on Volume and Surface: 1. Seed-based Correlation Analysis
Xi-Nian Zuo[1,2,3], Daniel Margulies[4], Maarten Mennes[5,6], Clare Kelly[7], F. Xavier Castellanos[8,9], Michael Milham[9,10]
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751 MT Lifespan Trajectory of Human Brain Functional Connectome: 1. Amplitude

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752 MT Lifespan Trajectory of Human Brain Functional Connectome: 2. Regional Homogeneity

Xi-Nian Zuo[1,2,3], Xiao-Yan Cao[1,4], Lili Jiang[1,2,3], Feng-Mei Fan[1,5], Xiao-Wei Song[6], Maarten Mennes[7,8], Yong He[9], Yu-Feng Zang[4], F. Xavier Castellanos[10,11], Michael Milham[11,12]
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753 MT Lifespan Trajectory of Human Brain Functional Connectome: 3. Network Centrality

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754 MT Reliable Functional Connectome Computation on Volume and Surface: 2. Amplitude

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755 MT Reliable Functional Connectome Computation on Volume and Surface: 3. Regional Homogeneity
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756 MT Reliable Functional Connectome Computation on Volume and Surface: 4. Network Centrality
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757 MT Altered relations between brain complexity and within-between-module diversity in ADHD patients
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MODELING AND ANALYSIS METHODS

Univariate Modeling

758 MT Flaws in fMRI: Demise of the Double Gamma
Ben Cassidy[1], Victor Solo[2]
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759 MT FMRI Group Analysis with Linear Mixed-Effect Modeling (LME) Approach
Gang Chen[1], Jennifer Britton[2], Daniel Pine[2], Ziad Saad[3], Robert Cox[4]
[1]SSCC/DIRP/NIMH, National Institutes of Health, USA, N/A, [2]Section on Development and Affective Neuroscience, NIMH, National Institutes of Health, Bethesda, MD, [3]National Institutes of Health, Bethesda, MD, [4]National Institute of Mental Health, Bethesda, MD

***760 MT Fast and accurate modelling of longitudinal neuroimaging data (O-T1)**
Bryan Guillaume[1,2], Thomas Nichols[1], Lourens Waldorp[3]
[1]University of Warwick, Dept. of Statistics, Coventry, United Kingdom, [2]University of Liège, Liège, Belgium, [3]University of Amsterdam, Amsterdam, Netherlands

761 MT Comparing fMRI data processing approaches with respect to missing responses in fMRI data
Michal Mikl[1], Radek Marecek[1], Milan Brázdil[2]
[1]CEITEC, Masaryk University, Brno, Czech Republic, [2]Behavioral and Social Neuroscience Research Group, CEITEC-Central European Institute of Technology, Brno, Czech Republic

762 MT Time Correlation of Echo-Planar versus Real-Time fMRI Time Series
Radu Mutihac[1,2], Allen Braun[3], Thomas Balkin[2], Stefan Posse[4]
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763 MT How to Smooth your fMRI Data? A Comparison between Gaussian and Adaptive Smoothing
Marijke Welvaert[1], Yves Rosseel[1], Karsten Tabelow[2]
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MOTOR BEHAVIOR

Brain Machine Interface

764 MT Predicting the success of neurofeedback training based on fMRI of imaginary movement
Tibor Auer[1], Renate Schweizer[2], Jens Frahm[2]
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765 MT Biphasic stimulation in an SSVEP-based brain computer interface system
Hsiang-Chih Chang[1], Po-Lei Lee[1], Yi-Lin Chen[2], Chi-Hsun Wu[1]
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766 MT Controlling an Avatar by Thought using Real-time Functional Magnetic Resonance Imaging
Ori Cohen[1], Avi Mendelsohn[2], Rafael Malach[2], Doron Friedman[1]
[1]IDC, Herzliya, Israel, [2]WIS, Rehovot, Israel

767 MT Decoding Spatial Attention in High Order Visual Areas
Jinendra Ekanayake[1], Chloe Hutton[1], Gerard Ridgway[1], Dietrich Samuel Schwarzkopf[1], Frank Scharnowski[1], Geraint Rees[2], Nikolaus Weiskopf[1]
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768 MT Real-time EEG mapping for Brain-Computer Interface based stroke rehabilitation
Christoph Guger[1], Rupert Ortner[2]
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769 MT Optimization of connectivity measures with spatial filtering
Sebastian Halder[1], Manuela Müller[1], Martin Spüler[1], Niels Birbaumer[1]
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770 MT A new dual-frequency stimulation method for SSVEP-based BCI and its application to a mental keypad
Han-Jeong Hwang[1], Chang-Hwan Im[1]
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771 MT A spatial auditory P300-BCI using headphones: Towards communication in total paralysis
Ivo Käthner[1], Emanuele Pasqualotto[2,3], Carolin Ruf[4], Christoph Braun[5,6], Niels Birbaumer[7,8], Sebastian Halder[7]
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772 MT Preliminary results on P300 detection using machine learning when modulating task reaction time
Su Kim[1], Elsa Andrea Kirchner[1]
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773 MT EEG in Dual-Task Human-Machine Interaction: Target Recognition and Prospective Memory
Elsa Andrea Kirchner[1,2], Su Kim[1,2]
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774 MT A survey on paralyzed patient's needs: positive attitudes on invasive BMI treatment options
Jacob Lahr[1], Christina Schwartz[2,3], Bernhard Heimbach[4], Ulla König-Cardanobile[3], Darcey Terris[5], Ad Aertsen[3], Cornelius Weiller[4], Tonio Ball[1,3], Jörn Rickert[2,3]
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775 MT Classifying single-trial ECoG signals preceding voluntary movements
Sang Hun Lee[1], June Sic Kim[2], Chun Kee Chung[1]
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776 MT Combining brain state classification and classical conditioning for basic BCI communication
Giulia Liberati[1,2], Linda van der Heiden[3,2], Ralf Veit[2], Josué Dalboni da Rocha[4,5], Sunjung Kim[2], Antonino Raffone[6,1], Niels Birbaumer[2], Marta Olivetti Belardinelli[1,6], Ranganatha Sitaram[2,7]
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777 MT Implementation of a stand-alone mental spelling system based on steady-state visual evoked potential
Jeong-Hwan Lim[1], Han-Jeong Hwang[1], Chang-Hwan Im[1]
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778 MT High gamma oscillations in ECoG allow for pre-movement decoding of rapid dexterous finger movements
Fanny Quandt[1,2], Stefan Dürschmid[1,3], Hermann Hinrichs[1], Robert Knight[2,4], Jochem Rieger[1,3,2]
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779 MT Self-regulation of differential visual cortex activity with real-time fMRI neurofeedback,
Fabien Robineau[1], SWANN PICHON[1], Christophe Mermoud[1], Dimitri Van De Ville[2], Patrik Vuilleumier[3], Frank Scharnowski[4]
[1]University of Geneva, GENEVE, Switzerland, [2]UniGE/EPFL, Lausanne, Switzerland, [3]University of Geneva, Geneva, Switzerland, [4]EPFL, GENEVA, Switzerland

780 MT Mapping Cortical Response of Visual Motion for Subdural Brain Computer Interface
Huaying Song[1], Dan Zhang[1], Zhipei Ling[2], Huancong Zuo[3], Bo Hong[1]
[1]Dept. of Biomedical Engineering, School of Medicine, Tsinghua University, Beijing, China, [2]Dept. of Neurosurgery, General Hospital of People's Liberation Army, Beijing, China, [3]Dept. of Neurosurgery, Yuquan Hospital, Tsinghua University, Beijing, China

781 MT Automatic Identification of Independent Components Representing Sensorimotor Mu Rhythms
Yijun Wang[1], Tzyy-Ping Jung[1]
[1]University of California, San Diego, California, United States

782 MT Measuring Steady-state Visual Evoked Potentials from Non-hair-bearing Areas
Yu-Te Wang[1], Yijun Wang[1], Tzyy-Ping Jung[1]
[1]University of California, San Diego, California, United States

783 MT Ensemble empirical mode decomposition for brainwave-actuated remote-controlled car
chi-hsun wu[1], Kuo-Kai Shyu[1], Po-Lei Lee[1], Hsiang-Chih Chang[2]
[1]National Central University, jhongli, Chinese Taipei, [2]National Central University, Jhongli, Chinese Taipei

***784 MT Estimation of three-dimensional movement trajectory from MEG signals (O-T2)**
Hong Gi Yeom[1], June Sic Kim[2], Chun Kee Chung[2]
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MOTOR BEHAVIOR

Mirror System

785 MT Muscle-specific modulations of PMv-M1 connections during movement observation and predictive coding
Toon de Beukelaar[1], Kaat Alaerts[1], Nicole Wenderoth[1]
[1]Department of Kinesiology - Movement Control and Neuroplasticity Research Group - KU Leuven, Leuven, Belgium

***786 MT Neuronal network coherent with the kinematics of observed hand movement (O-T2)**
Xavier De Tiège[1], Mathieu Bourguignon[1], Marc Op de beeck[1], Patrcik Van Bogaert[1], Serge Goldman[1], Veikko Jousmäki[2], Riitta Hari[2]
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787 MT Agency Detection in Action
Roee Gilron[1], Roy Mukamel[1]
[1]Tel Aviv University, Tel Aviv, Israel

788 MT Embodied Language - The differential role of canonical and mirror neurons in the processing of words
Houpand Horoufchin[1], Anna Borghi[2], Hong Chen[1], André Knops[3], Rainer Goebel[4], Ferdinand Binkofski[5]
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789 MT Simulation of (Untrained) Actions supports Ensemble Synchronization. A double-pulse TMS study
Giacomo Novembre[1], Luca Ticini[1], Simone Schütz-Bosbach[1], Peter Keller[1]
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790 MT Mental Simulation of Natural Movements Synchronizes Action Observation Circuits Across Individuals
Lauri Nummenmaa[1,2,3,4], Dmitry Smirnov[2], Juha Lahnakoski[2], Enrico Glerean[2], Iiro Jääskeläinen[2], Mikko Sams[2], Riitta Hari[1]
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791 MT The different mechanisms involved in action recognition as revealed by MEG
Anastasia Pavlidou[1], Alfons Schnitzler[1], Joachim Lange[1]
[1]Institute of Clinical Neuroscience and Medical Psychology, Düsseldorf, Germany

792 MT Somatosensory cortex in action observation, a combined fMRI and cTBS study
Nikola Valchev[1], Alessio Avenanti[2], Christian Keysers[3], Valeria Gazzola[4]
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MOTOR BEHAVIOR

Motor Planning and Execution

793 MT Corticokinematic coherence during active and passive finger movements
Mathieu Bourguignon[1,2], Harri Piitulainen[2], Xavier De Tiège[1], Riitta Hari[2,3], Veikko Jousmäki[2]
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794 MT Online Control in Reaching and Grasping: Functional Specificity of Neural Correlates
Sonja Cornelsen[1], Marc Himmelbach[2], Axel Thielscher[3]
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795 MT A combined EEG and kinematic study of the reach to grasp movement
Teresa De Sanctis[1], Vincenza Tarantino[1], Chiara Begliomini[1], Elisa Straulino[1], Umberto Castiello[1]
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796 MT Natural statistics of hand use predicts multivariate activity patterns for finger movements in M1
Joern Diedrichsen[1], Sebastian Telgen[1], Tobias Wiestler[1]
[1]University College London, London, United Kingdom

797 MT Motor control mechanisms during finger tapping in adolescents revealed by dynamic causal modeling
Vaibhav Diwadkar[1], Neil Bakshi[2], Simon Eickhoff[3]
[1]Wayne State University School of Medicine, Detroit, United States, [2]University of Michigan, Ann Arbor, MI, [3]Research Center Jülich, Jülich, Germany

798 MT A high-resolution EEG study of motor potential and beta ERS/ERD scalp topographies
Jurij Dreo[1], Nataša Bizovičar[2], Simon Brezovar[1], Barbara Dolenc[1], Jurij Bon[1], Dejan Georgiev[1], Rok Berlot[1], Blaž Koritnik[2], Zvezdan Pirtošek[1]
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799 MT Functional Electrical Stimulation: fMRI study of the mechanism of action in healthy subjects
Marta Gandolla[1], Alessandra Pedrocchi[1], Simona Ferrante[1], Eleonora Guanziroli[2], Alberto Martegani[3], Giancarlo Ferrigno[1], Franco Molteni[2], Nick Ward[4]
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800 MT Somatotopic Mapping of Primary Motor Cortex in Mouth and Forehead Movement Using fMRI
Siti Hajar Salim[1], Changjin Jung[1], Jeungchan Lee[1], Sanghoon Lee[2], Woosuk Choi[3], Kyungmo Park[1]
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801 MT The timing of pre-supplementary motor area involvement in countermanding responses
Ashwani Jha[1], Parashkev Nachev[1], Gareth Barnes[1], Masud Husain[1], Peter Brown[2], Vladimir Litvak[1]
[1]UCL Institute of Neurology, London, United Kingdom, [2]University of Oxford, Oxford, United Kingdom

802 MT Increased cortico-subcortical functional connectivity during muscle fatigue
Zhiguo Jiang[1], Xiao-Feng Wang[2], Guang Yue[3,4]
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803 MT Greater cortical signal is associated with fast than slow knee extensor activation and deactivation
Katarzyna Kisiel-Sajewicz[1,2], Vlodek Siemionow[2,3], Alexandria Wyant[2], Luduan Zhang[2], Yin Fang[2], Jarosław Marusiak[1], Anna Jaskólska[1], Artur Jaskólski[1], Guang Yue[2,3,4]
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804 MT Callosal correlates of hand motor performance in healthy right-handed children and adolescents
Florian Kurth[1], Emeran Mayer[1], Arthur Toga[2], Paul Thompson[2], Eileen Luders[2]
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805 MT Effects of Tempo on Sensorimotor Synchronization
Yongxiu Lai[1], Jinnan Gong[1], Cheng Luo[1], Yin Tian[1], Dezhong Yao[1]
[1]Key Laboratory for NeuroInformation of MOE, School of Life Science and Technology, UESTC, ChengDu, China

806 MT Directional information flow between sensorimotor cortex and finger muscle during steady contraction
Manyoel Lim[1], June Sic Kim[2], Chun Kee Chung[3]
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807 MT Neuronal correlates of ankle movement: effects of laterality and age in 102 healthy individuals
Patricia Linortner[1], Christian Enzinger[1], Franz Fazekas[1], Margit Jehna[1]
[1]Medical University of Graz, Graz, Austria

808 MT Differential sensorimotor representation between two aspects of food intake: swallowing & occlusion
Glad Mihai[1], martin lotze[1]
[1]University of Greifswald, Greifswald, Germany

809 MT Hand posture influences the laterality judgments of rotated body pictures: A fMRI study
Fangbing Qu[1], Dequan Su[1], Kena Wang[1], Maoxue Wang[2], lianfang shen[2], Yuan Zhong[1], Haosheng Ye[3]
[1]Department of Psychology, Nanjing Normal University, Nanjing, China, [2]Department of Medical Imaging, Jinling Hospital, Clinical School of Medical College, Nanjing Univers, Nanjing, China, [3]School of Education, Guangzhou University, Guangzhou, Guangdong

810 MT Praxis and speech are co-lateralized in individuals with typical and atypical language dominance
Guy Vingerhoets[1], Ann-Sofie Alderweireldt[1], Pieter Vandemaele[1], Qing Cai[1], Lise Van der Haegen[1], Marc Brysbaert[1], Eric Achten[1]
[1]Ghent University, Ghent, Belgium

811 MT Motor function after surgery: correlation between outcome and motor network connectivity
Yukihiro Yamao[1], Nobukatsu Sawamoto[2], Takeharu Kunieda[1], Sumiya Shibata[1], Takayuki Kikuchi[1], Riki Matsumoto[3], Akio Ikeda[3], Hidenao Fukuyama[2], Susumu Miyamoto[1]
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812 MT Behavioral entropy: low-frequency fluctuations in randomness of human action selection
Jiaxiang Zhang[1], Laura Hughes[1,2], james rowe[1,2]
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MOTOR BEHAVIOR

Visuo-Motor Functions

813 MT Multi-Voxel Pattern Analysis of the Ocular System during Saccades, Pursuit, Blinks, and Fixation
Arian Ashourvan[1], Nicholas Port[1]
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***814 MT Ventral and Dorsal Stream Dissociation During Action Recognition in the Human Brain (O-T2)**
Giacomo Handjaras[1], Giulio Bernardi[1], Francesca Benuzzi[2], Micaela Zucchelli[2], Paolo Nichelli[2], Pietro Pietrini[1], Emiliano Ricciardi[1]
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815 MT Brain activation related to balancing objects on the feet — a pilot study
Lukas Jaeger[1,2], Christoph Hollnagel[2], Severin Summermatter[3], Laura Marchal-Crespo[2], Lars Michels[1,4], Robert Riener[2,5], Spyros Kollias[1]
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816 MT Hemispheric functional asymmetry in saccades and eyedness contribute to the 'leftie advantage'
Laurent Petit[1], Emmanuel Mellet[1], Laure Zago[1], Fabrice Crivello[1], Pierre-Yves Hervé[1], Gael Jobard[1], Marc Joliot[1], Bernard Mazoyer[1], Nathalie Tzourio-Mazoyer[1]
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NEUROANATOMY

Anatomy and Function Motor Behavior

817 MT High resolution retinotopic mapping of the visual cortex at 7 Tesla
Jacqueline Atanelov[1], Marion Munk[2], Christopher Kiss[2], Ewald Moser[3], Christian Windischberger[4]
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818 MT Influence of Maternal Mood on Neonatal Brain Anatomy: A Large-scale Diffusion Tensor Imaging Study
Jordan Bai[1], Anne Rifkin-Graboi[2], Marielle Fortier[3], Michael Meaney[2,4], anqi qiu[1,5,2]
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819 MT Insular surface asymmetry predicts the lateralization of language and praxis
Szymon Biduła[1], Gregory Kroliczak[2,3]
[1]Cognitive Science Program, Adam Mickiewicz University, Pozna, Poland, [2]Institute of Psychology, Adam Mickiewicz University, Pozna, Poland, [3]Department of Psychology, University of Oregon, Eugene, OR

820 MT Inter-individual differences in grey matter volume related to visual short-term memory capacity
Signe Bray[1], Aiden Arnold[1], Giuseppe Iaria[1], Glenda MacQueen[1]
[1]University of Calgary, Calgary, Canada

****821 MT Blindness decreases cross-hemisphere striate resting-state functional connectivity**
Omar Butt[1], Noah Benson[1], Ritobrato Datta[1], Geoffrey Aguirre[1]
[1]University of Pennsylvania, Philadelphia, PA

822 MT Receptor architectonics of visual areas FG1 and FG2 of the posterior fusiform gyrus
Julian Caspers[1,2], Nicola Palomero-Gallagher[1], Axel Schleicher[1], Svenja Caspers[1], Mareike Bacha-Trams[1], Karl Zilles[1,2,3]
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***823 MT Receptor-based parcellation of the human inferior parietal lobule and its implication for function (O-T3)**
Svenja Caspers[1], Simon Eickhoff[2], Axel Schleicher[3], Nicola Palomero-Gallagher[4], Mareike Bacha-Trams[5], Angela Laird[6], Peter Fox[7], Katrin Amunts[8], Karl Zilles[9]
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824 MT Involvement of Both Grey and White Matter in Chronic Aphasia Syndromes
Nina Dronkers[1,2], And Turken[1], Juliana Baldo[1], Jenny Ogar[1], Carl Ludy[1], David Wilkins[1], Robert Knight[3]
[1]VA Northern California Health Care System, Martinez, CA, United States, [2]University of California, Davis, CA, United States, [3]University of California, Berkeley, CA, United States

825 MT Local network dynamics and structural connectivity during task based activity in the brain
Peter Hellyer[1], Gregory Scott[1], Murray Shanahan[1], David Sharp[1], Robert Leech[1]
[1]Imperial College London, London, United Kingdom

***826 MT High Resolution Reference Atlases of Pre-natal Human Brain (O-W3)**
John Hohmann[1], Song-Lin Ding[1], Josh Royall[1], Benjamin Facer[1], Michael Hawrylycz[1], Allan Jones[1], Conor Kelly[1], Bergen McMurray[1], David Sandman[1], Susan Sunkin[1], Ed Lein[1]
[1]Allen Institute for Brain Science, Seattle, WA, USA

827 MT Structural change in grey matter and white matter in Express saccade makers of Chinese population
Xiaoyu Jiang[1], Qiyong Gong[1], Xiaoqi Huang[1], Paul Knox[2], Jingjie Zhong[1], Qizhu Wu[1], shiguang li[1], Lihua Qiu[1]
[1]Huaxi MR Research Center, Department of Radiology, West China Hospital of Sichuan University, Chengdu, China, [2]Division of Orthoptics, School of Health Sciences, University of Liverpool, Liverpool City, United Kingdom

828 MT Symptoms versus syndromes of acute aphasia in the context of the dual loop model
Dorothee Kümmerer[1], Tobias Bormann[1], Volkmar Glauche[1], Irina Mader[2], Michel Rijntjes[1], Dorothee Saur[3], Björn Schelter[1], Cornelius Weiller[1]
[1]Neurology, Freiburg, Germany, [2]Neuroradiology, Freiburg, Germany, [3]Neurology, Leipzig, Germany

829 MT Multiparametric Brainstem Segmentation using a Modified Multivariate Mixture of Gaussians
Christian Lambert[1], Antoine Lutti[2], Gunther Helms[3], Richard Frackowiak[4], John Ashburner[2]
[1]St George's University of London, London, United Kingdom, [2]Wellcome Trust Centre for Neuroimaging, UCL, London, United Kingdom, [3]MR-Research in Neurology and Psychiatry, Universitymedicine Goettingen, Goettingen, Germany, [4]LREN, Département des Neurosciences Cliniques, CHUV, Université de Lausanne, Lausanne, Switzerland, Lausanne, Switzerland

830 MT Fast Automated Cortical Surface Parcellation on Structural Magnetic Resonance Images
Wen Li[1], Vincent Magnotta[2]
[1]the University of Iowa, Iowa City, United States, [2]the University of Iowa, Iowa City, IA

831 MT Structural Connectivity for Human Bilateral Insulae Using Diffusion Tensor Imaging
Chia-Feng Lu[1], Shin Teng[1], Hsiu-Mei Wu[2,1], Wei-Yuan Huang[3], Jen-Chuen Hsieh[2,1], Yu-Te Wu[1,2]
[1]National Yang-Ming University, Taipei, Chinese-Taipei, [2]Taipei Veterans General Hospital, Taipei, Chinese-Taipei, [3]BinKun Women and Children's Hospital, Taoyuan, Chinese-Taipei

832 MT Effective Connectivity Detection Based on the Structurally Informed Probabilities
Guoping Luo[1], Zhijian Yao[2], Qing Lu[1]
[1]Research Centre for Learning Science, Southeast University, Nanjing, China, [2]Academic Department of Psychiatry, Nanjing Brain Hospital, Nanjing Medical University, Nanjing, China

833 MT Exploring structure and function: The relationship between cortical thickness and fMRI BOLD activity
Yating Lv[1], Daniel Margulies[1,2], Xinian Zuo[3], Arno Villringer[1,2]
[1]Max Planck Institute For Human Cognitive And Brain Sciences, Leipzig, Germany, [2]Mind&Brain Institute, Humboldt-University, Berlin, Germany, [3]Institute of Psychology, Chinese Academy of Sciences, Beijing, China

834 MT Inferring human brain function from lesions: the history remapped
Yee-Haur Mah[1], Masud Husain[1], Parashkev Nachev[1]
[1]Institute of Neurology, London, United Kingdom

835 MT Morphology and surface area of Heschl's gyri in 216 right and 198 left-handers
Damien Marie[1], Pierre-Yves Hervé[1], Laurent Petit[1], Fabrice Crivello[1], Gael Jobard[1], Marc Joliot[1], Laure Zago[1], Emmanuel Mellet[1], Bernard Mazoyer[1], Nathalie Tzourio-Mazoyer[1]
[1]GIN UMR5296 CNRS CEA University Bordeaux Segalen, Bordeaux, France

836 MT Reliability of primary motor cortex mapping: Neuronavigated TMS versus functional MRI
Charlotte Nettekoven[1], Carolin Weiss[2], Volker Neuschmelting[2], Andrea Eisenbeis[2], Anne Rehme[1], Roland Goldbrunner[2], Christian Grefkes[1,3]
[1]Max Planck Institute for Neurological Research, Cologne, Germany, [2]Department of Neurosurgery, Cologne, Germany, [3]Department of Neurology, Cologne, Germany

837 MT Evaluation of structural plasticity in the S1 and M1 with PVL children using sequential MRI
Yumi Okoshi[1], Toshinori Kato[2]
[1]Tobu Rehabilitation Center, Tokyo, Japan, [2]Department of Brain Environmental Research, KATOBRAIN Co., Ltd., Tokyo, Japan

838 MT Multimodal and comparative analysis of monkey and human cingulate area 32
Nicola Palomero-Gallagher[1], Axel Schleicher[1], Karl Zilles[1,2,3], Brent Vogt[1,4]
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839 MT Alterations of cortex thickness and ALFF in patients with posttraumatic stress disorder
mingguo qiu[1], ye zhang[1], jingna zhang[1], bing xie[2]
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840 MT Neural Population Coding Links Human Brain Anatomy to Behavior
Chen Song[1], Dietrich Samuel Schwarzkopf[1], Ryota Kanai[1], Geraint Rees[1]
[1]University College London, London, United Kingdom

841 MT The WU-Minn Human Connectome Project - an Update
David Van Essen[1], Kamil Ugurbil[2]
[1]Washington University, N/A, [2]Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, United States

842 MT Three-dimensional MR imaging of lateral geniculate nucleus and the volume measurement
Jin Hong Wang[1], Chan Hong Moon[2], Jung-Hwan Kim[3], Kyongtae Ty Bae[3]
[1]University of Pittsburgh, Pittsburgh, United States, [2]Pittsburgh, Pittsburgh, PA, [3]University of Pittsburgh, Pittsburgh, PA

843 MT Subtyping Schizophrenia Subjects Using Working Memory and Approach Motivation Neuromaging Markers
Lei Wang[1], Derin Cobia[1], James Reilly[1], John Csernansky[1], Hans Breiter[2,1]
[1]Northwestern University Feinberg School of Medicine, Chicago, IL, [2]Massachusetts General Hospital, Boston, MA

844 MT Can Taichi Reshape the Human Brain?: Increased Cortical Thickness for Masters
Gaoxia Wei[1], Xinian Zuo[1], Jing Luo[2]
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845 MT **Meta-analytical definition and functional connectivity of the human vestibular cortex**
Peter zu Eulenburg[1], Svenja Caspers[2], Christian Roski[3], Simon Eickhoff[4]
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NEUROANATOMY

Brain Networks

846 MT **Layer-specific Interhemispheric Functional Connectivity in Rat Somatosensory Cortices**
Kwangyeol Baek[1], Woo Hyun Shim[1], Jaeseung Jeong[1], Harsha Radhakrishnan[2], Bruce Rosen[3], David Boas[3], Maria Angela Franceschini[3], Young Kim[3]
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847 MT **Altered brain networks and prediction of altered neurodevelopment in infants with IUGR**
Dafnis Batalle[1,2,3], Elisenda Eixarch[1,2,3], Emma Muñoz-Moreno[1,2,3], Francesc Figueras[1,2,3], Ivan Amat-Roldan[1,2,3], Eduard Gratacos[1,2,3]
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848 MT **Anatomical and effective connectivity segmentation of occipito-temporal face selective area**
Maria Antonieta Bobes[1], Yimay Sosa[1], Mitchell Valdes-Sosa[1], Yusniel Santos[1], iliana quiñones[1], Yasser Iturria[1], Jose Sanchez-Bornot[1], Pedro A. Valdes-Sosa[1], Rui Zhang[2], Pascal Belin[3]
[1]Cuban Neuroscience Center, Ciudad Habana, Cuba, [2]University of Electronic Science and Technology of China, Chengdu, China, [3]Voice Neurocognition Laboratory, University of Glasgow, Glasgow, United Kingdom

849 MT **Principal networks: A new approach to graph-based neural connectivity analysis**
Jonathan Clayden[1]
[1]University College London, London, United Kingdom

850 MT **Disrupted Topological Properties of Brain Network in Psychogenic Non-epilepsy Seizures**
Ju-Rong Ding[1], Dongmei An[2], Wei Liao[1], Dong Zhou[2], Olaf Sporns[3], Huafu Chen[1]
[1]University of Electronic Science and Technology of China, Chengdu, China, [2]West China Hospital, Chengdu, China, [3]Indiana University, Bloomington, United States

851 MT **Enhanced functional connectivity and small-world organization in the brain of chess experts**
Xujun Duan[1], Zhiliang Long[1], Ju-Rong Ding[1], Wei Liao[1], Qiyong Gong[2], Huafu Chen[1]
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852 MT **Mental energy – an fMRI investigation of the anterior insular and the anterior cingulate network**
Maria Engstrom[1], A D Craig[2], Thomas Karlsson[1], Anne-Marie Landtblom[1]
[1]Linkoping University, Linkoping, Sweden, [2]Barrow Neurological Institute, Phoenix, AZ

853 MT **Partition the human brain with binary trees using simulated annealing**
Johnson GadElkarim[1,2], Dan Schonfeld[1], Olusola Ajilore[2], J amie Feusner[3], Donatello Arienzo[3], Liang Zhan[4], Teena Moody[3], Anand Kumar[2], Alex Leow[2]
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854 MT **Attention network of healthy highly educated subjects in attention training: studied by rfMRI and DTI**
Bob Hou[1], Alison Smith[2], Julie Brefczynski-Lewis[3], Jason Chong[2], Deborah Kerr[2], Jennifer Wiener[2], Marc Haut[2]
[1]Radiology, West Virginia University, Morgantown, WV, [2]Behavioral Medicine & Psychiatry, West Virginia University, Morgantown, WV, United States, [3]Physiology & Radiology, West Virginia University, Morgantown, WV, United States

855 MT Mapping the Seizure-Association Neural Networks by Cortico-Cortical Evoked Potential Study
Yue Loong Hsin[1], Jin-Chern Chiou[2], Tomor Harnod[1], Chien-Chun Huang[2]
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856 MT Disrupted Cortical Connectivity in the Aging HIV+ Population
Neda Jahanshad[1], Victor Valcour[2], Talia Nir[1], Edgar Busovaca[2], Krista Nicolas[2], Paul Thompson[1]
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857 MT A cerebellocentric approach to brain parcellation
Judy Kipping[1], Alexander Schaefer[2], Arno Villringer[3], Daniel Margulies[2]
[1]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, Leipzig, Germany, [2]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [3]Max-Planck-Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

858 MT Mapping the human intelligence: Resting-state network analysis of Mensa members
Jeong Hoon Ko[1], Shin-ae Yoon[2], Bumhee Park[2], Maeng-Keun Oh[2], Suhkyung Kim[2], Hae-Jeong Park[3]
[1]Department of Diagnostic Radiology, Nuclear Medicine and Research Institute of Radiological Science, Seoul, Korea, Republic of, [2]Department of Radiology and Division of Nuclear Medicine, Yonsei University College of Medicine, Seoul, Korea, Republic of, [3]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Korea, Republic of

859 MT Thalamic lesion disrupts inter-hemispheric connectivity: a resting state study
Johnny King Lau[1], Carmel Mevorach[1], Stephen Mayhew[1], Keiko Kitadono[1], Glyn Humphreys[2], Pia Rotshtein[1]
[1]University of Birmingham, Birmingham, United Kingdom, [2]University of Oxford, Oxford, United Kingdom

860 MT Structural Complexity of Communication across Brain Regions during General anesthesia
uncheol lee[1], Seung-Woo Ku[2], George A. Mashour[1]
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861 MT The network abstraction and the reality of conduction delay
John Lewis[1], Miyoko Onishi[2], Katie Travis[3], Rebecca Theilmann[4], Jeanne Townsend[2], Alan Evans[1]
[1]Montreal Neurological Institute, Montreal, Quebec, [2]Research on Aging and Development Laboratory, UC San Diego, La Jolla, CA, [3]Department of Neurosciences, UC San Diego, La Jolla, CA, [4]Department of Radiology, UC San Diego, La Jolla, CA

862 MT Alterations of Thalamic Functional Connectivity at Meditation State: a Resting-State MRI study
Chia-Wei Li[1], Chao-Hsien Hsieh[2], Jyh-Horng Chen[1]
[1]Interdisciplinary MRI/MRS Lab, Department of Electrical Engineering, National Taiwan University, Taipei, Chinese Taipei, [2]Neurobiology and Cognitive Science Center, National Taiwan University, Taipei, Chinese Taipei

863 MT Probing Neural Networks Involved in Central Regulation of Heart Rate During Handgrip
Jinqi Li[1], Michael Riedel[1], Karl Li[1], Claudia Huerta[1], Hsiao-Ying Wey[2], Jacob Eisenrich[1], Timothy Duong[1]
[1]UT Health Science Center at San Antonio, San Antonio, TX, [2]Harvard University, Cambridge, MA

864 MT Radiation-induced changes in white matter anatomical networks in nasopharyngeal carcinoma patients
Shumei Li[1], Li Li[2], Bin Wang[1], Lizhi Liu[2], Xiaoling Peng[1], Mofa Gu[2], Yong Xu[1], Rui Zhong[2], Ruibin Zhang[1], Ming Liu[1], Ruiwang Huang[1]
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865 MT Studying the Topological Organization of the human networks using Cerebral Blood Flow measurements
Lester Melie-Garcia[1], Carlos Sánchez-Catasús[2], Gretel Sanabria-Diaz[1], Pedro A. Valdes-Sosa[1]
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866 MT Left and Right Dominant Functional Connectivity Networks
Jared Nielsen[1], Michael Ferguson[2], Jeffrey Anderson[3]
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867 MT The Structural Connectome of the Human Brain in Agenesis of the Corpus Callosum
Julia Owen[1], Yi-Ou Li[2], Polina Bukshpun[1], Hana Lee[1], Elliot Sherr[1], Pratik Mukherjee[1]
[1]University of California, San Francisco, San Francisco, United States, [2]University of California, San Francisco, San Francisco, CA

868 MT Altered resting-state brain functional network in HIV-associated neurocognitive disorders
Xiaoling Peng[1], Yongjuan Sui[2], Yuanyuan Fan[1], Wenhui Lun[2], Delong Zhang[1], Jun Yang[2], Shumei Li[1], Bin Wang[1], Junjing Wang[1], Ming Liu[1], Ruiwang Huang[1]
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869 MT Intracranial (icEEG)-fMRI: mapping brain networks related with Alpha and Beta in sensorimotor cortex
Suejen Perani[1], Roman Rodionov[2,3], Serge Vulliemoz[4,5], Louis Lemieux[6], David Carmichael[7]
[1]UCL, London, United Kingdom, [2]UCL Institute of Neurology, london, United Kingdom, [3]National Hospital for Neurology and Neurosurgery, London, United Kingdom, [4]University of Geneva, Geneva, Switzerland, [5]UCL Institute of Neurology, London, United Kingdom, [6]Institute of Neurology, London, United Kingdom, [7]University College London, London, United Kingdom

***870 MT A cross-modal, cross-species comparison of connectivity analyses in the primate cortex (O-T3)**
Andrew Reid[1], Gleb Bezgin[2], Budhachandra Khundrakpam[3], Anthony McIntosh[4], Alan Evans[5]
[1]McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Canada, [2]Rotman Research Institute, Toronto, Canada, [3]Montreal Neurological Institute, Montreal, Canada, [4]Rotman Research Institute, Toronto, Ontario, [5]Montreal Neurological Institute, Montreal, Quebec

871 MT Inferred modularity in brain networks can be an artifact of mapping resolution
Somwrita Sarkar[1], Peter Robinson[1]
[1]University of Sydney, Sydney, Australia

872 MT The modular organization of aesthetic experience in painters using resting-state fMRI
Shin Teng[1], Chia-Feng Lu[1], Wei-Yuan Huang[2], Jen-Chuen Hsieh[3,1], Yu-Te Wu[1,3]
[1]National Yang-Ming University, Taipei, Chinese Taipei, [2]BinKun Women and Children's Hospital, Taoyuan, Chinese Taipei, [3]Taipei Veterans General Hospital, Taipei, Chinese Taipei

873 MT Right spatial neglect and fronto-parietal disconnection in patients with left hemisphere stroke
Monica N. Toba[1,2,3], Marie CHUPIN[1], Francesca Ciaraffa[4], Frederique Poncet[5], Pascale Pradat-Diehl[5,6], Paolo Bartolomeo[1,4]
[1]Inserm-UPMC UMRS 975, CR-ICM, Centre de Recherche de l'Institut du Cerveau et de la Moelle Epinière, Paris, France, [2]Université de Savoie, Chambéry, France, [3]Project PHRC Régional NEGLECT, DRCD AP-HP, Paris, France, [4]Department of Psychology, Catholic University, Milan, Italy, [5]AP-HP, Pitié-Salpêtrière, Service de Médecine Physique et Réadaptation, Paris, France, [6]Inserm, U731, Paris, France

874 MT Specific lesional patterns leading to visuo-spatial neglect: Cases from a rTMS clinical trial
Monica N. Toba[1,2,3], Federica Rastelli[1,3], Corinne Tchokothe[4,3], Pascale Pradat-Diehl[5,3,6], Antoni Valero-Cabre[1,7,3]
[1]Inserm-UPMC UMRS 975, CR-ICM, Centre de Recherche de l'Institut du Cerveau et de la Moelle Epinière, Paris, France, [2]Université de Savoie, Chambéry, France, [3]Project PHRC Régional NEGLECT, DRCD AP-HP, Paris, France, [4]Unité de Recherche Clinique, Hôpital Fernand Widal-Lariboisière, Paris, France, [5]AP-HP, Pitié-Salpêtrière, Service de Médecine Physique et Réadaptation, Paris, France, [6]Inserm, U731, Paris, France, [7]Boston University School of Medicine, Boston, MA

875 MT What goes up must come down: REM-sleep resets amygdala resting state connectivity
Els van der Helm[1], Stephanie Greer[1], Matthew Walker[2]
[1]University of California Berkeley, United States, [2]University of California Berkeley, Unites States

876 MT Effects of tractographic parameters on the topological measures of the brain anatomical networks
Bin Wang[1], Shumei Li[1], Jingtai Liu[1], Ruibin Zhang[1], Yong Xu[1], Gaolang Gong[2], Yong He[2], Ruiwang Huang[1]
[1]Center for the Study of Applied Psychology, Key Laboratory of Mental Health and Cognitive Science of Guangdong Province, South China Normal University, Guangzhou, China, [2]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

877 MT Altered network efficiency of the default-mode network in patients with amnestic MCI
Liang Wang[1,2], He Li[3], Ying Liang[2], Junying Zhang[2], Yao Zhang[2], Tianjiao Feng[2], Dantao Peng[2], Ni Shu[2], Yongyan Wang[3], Zhanjun Zhang[2]
[1]Princeton University, Princeton, United States, [2]Beijing Normal University, Beijing, China, [3]China Academy of Traditional Chinese Medicine, Beijing, China

878 MT Age-related differences in small-world functional brain networks in healthy children
Kai Wu[1], Yasuyuki Taki[1], Kazunori Sato[1], Hiroshi Hashizume[1], Yuko Sassa[1], Hikaru Takeuchi[1], Yong He[2], Alan Evans[3], Hiroshi Fukuda[1], Ryuta Kawashima[1]
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879 MT Decreased topological efficiency reveals disrupted human brain anatomical networks in TLE
Yong Xu[1], Shijun Qiu[2], Junjing Wang[1], Zhenyin Liu[2], Ruibin Zhang[1], Wensheng Wang[3], Shumei Li[1], Lina Cheng[3], Bin Wang[1], Ming Liu[1], Ruiwang Huang[1]
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880 MT Distinct synchronous dynamic change of brain intra-modular sustains post-acupuncture effect
Delong Zhang[1], Bo Liu[2,3], Xiaoling Peng[1], Jun Chen[2,3], Yuanyuan Fan[1], Xian Liu[2,3], Jingjing Ma[1], Ming Liu[1], Ruiwang Huang[1]
[1]Center for the Study of Applied Psychology, Key Lab of Mental Health and Cognitive Science of Guangdong Province, South China Normal University, Guangzhou, 510631, China, [2]Department of Radiology, Guangdong Province Hospital of Traditional Chinese Medicine, Guangzhou, 510120, China, [3]Department of Radiology, Guangzhou University of Traditional Chinese Medicine, Guangzhou, 510120, China

881 MT Rapidly Developing Functional Circuits and Their Relation to Executive Functions in Early Childhood
Jidan Zhong[1], anqi qiu[1,2,3]
[1]Department of Bioengineering, National University of Singapore, Singapore, [2]Clinical Imaging Research Center, National University of Singapore, Singapore, Singapore, [3]Singapore Institute for Clinical Sciences, the Agency for Science, Technology and Research, Singapore, Singapore

882 MT Development of Intrinsic Functional Networks from Early Childhood to Adults
Jidan Zhong[1], anqi qiu[1,2,3]
[1]Department of Bioengineering, National University of Singapore, Singapore, [2]Clinical Imaging Research Center, National University of Singapore, Singapore, Singapore, [3]Singapore Institute for Clinical Sciences, the Agency for Science, Technology and Research, Singapore, Singapore

NEUROANATOMY

Cortical Anatomy and Segregation

883 MT **A computational pipeline for subject-specific, ultra-high resolution cortical analysis at 7 Tesla**
Pierre-Louis Bazin[1], Marcel Weiss[1], Juliane Dinse[2], Andreas Schaefer[1], Robert Trampel[1], Robert Turner[3]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Department of Simulation and Graphics, Otto-von-Guericke University, Magdeburg, Germany, [3]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

***884** MT **Two new cytoarchitectonic areas of the human frontal pole (O-T3)**
Sebastian Bludau[1], Simon Eickhoff[1,2,3], Axel Schleicher[1], Hartmut Mohlberg[1], Karl Zilles[4,5,2], Katrin Amunts[1,2,6]
[1]Research Centre Juelich - Institute of Neuroscience and Medicine, INM-1, Juelich, Germany, [2]JARA-BRAIN, Juelich – Aachen Research Alliance, Juelich, Aachen, Germany, [3]Institute for Clinical Neuroscience and Medical Psychology, Heinrich Heine University, Duesseldorf, Germany, [4]Research Centre Juelich - Institute of Neuroscience and Medicine, INM-2, Juelich, Germany, [5]C. and O. Vogt Institute for Brain Research, Heinrich Heine University, Duesseldorf, Germany, [6]Department of Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen University, Aachen, Germany

885 MT **Receptorarchitectonic mapping of four new areas in the inferior frontal sulcus of the human brain**
Sabine Helene Bradler[1], Nicola Palomero-Gallagher[1], Axel Schleicher[1], Karl Zilles[1,2], Katrin Amunts[1,3]
[1]Research Centre Juelich (INM-1, INM-2), Juelich, Germany, [2]C. & O. Vogt Institute of Brain Research, Heinrich Heine University Düsseldorf, Duesseldorf, Germany, [3]Department of Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen University Hospital, Aachen, Germany

886 MT **Towards Parcellation of Human Cortex using Bi-exponential Analysis of Diffusion-Weighted Signal**
Bibek Dhital[1], Pierre-Louis Bazin[1], Robert Turner[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

887 MT **Structural adaptation of human temporal cortex to hearing loss**
Guosheng Ding[1], Yanyan Li[2], Yong He[3], Gaolang Gong[4], Lijuan Zou[5], Danling Peng[1], James Booth[6]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]The key lab of cognitive neuroscience and learning, Beijing normal university, Beijing, China, [3]State key laboratory of cognitive neuroscience and learning, Beijing Normal University, Beijing, China, [4]Beijing Normal University, Beijing, China, [5]National Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [6]Department of Communication Sciences and Disorders, Northwestern University, Evanston, IL

888 MT **Tractography-based Parcellation of Human Temporal Pole into Three Sub-regions**
Lingzhong Fan[1], Jiaojian Wang[2], Yu Zhang[1], Wei Han[3], Chunshui Yu[3], Tianzi Jiang[1]
[1]Institute Of Automation, Chinese Academy Of Sciences, Beijing, China, [2]Key Laboratory for NeuroInformation of Ministry of Education, Chengdu, China, [3]Department of Radiology, Tianjin Medical University General Hospital, Tianjin, China

***889** MT **Surface Gradient Comparison of Myelin and fMRI: Architectonic and Functional Border Co-localization (O-T3)**
Matthew Glasser[1], Gregory Burgess[1], Junqian Xu[2], Yizheng He[1], Deanna Barch[1], Timothy Coalson[1], Bruce Fischl[3], Michael Harms[1], Mark Jenkinson[4], Brian Patenaude[5], Steven Petersen[6], Bradley Schlaggar[6], Stephen Smith[7], Mark Woolrich[4], Essa Yacoub[8], David Van Essen[6]
[1]Washington University Medical School, St. Louis, MO, [2]Univeristy of Minnesota, Minneapolis, MN, [3]Massachusetts General Hospital, Boston, MA, [4]University of Oxford, Oxford, United Kingdom, [5]Stanford University, Stanford, CA, [6]Washington University, St. Louis, MO, [7]FMRIB, Oxford University, Oxford, United Kingdom, [8]University of Minnesota, Minneapolis, United States

890 MT **Cortical Laminar Ageing Effects Revealed By Quantitative Parameter Maps**
Chloe Hutton[1], Antoine Lutti[1], Christian Lambert[1], Rumana Chowdhury[1], Thomas Fitzgerald[1], Steve Fleming[2], Nikolaus Weiskopf[1]
[1]Wellcome Trust Centre for Neuroimaging, UCL Institute of Neurology, UCL, London, United Kingdom, [2]Centre for Neural Science, NYU, New York, NY

891 MT **Receptor- and cytoarchitecture of the human hippocampal formation – a multimodal mapping approach**
Olga Kedo[1], Karl Zilles[1,2,3], Nicola Palomero-Gallagher[1], Mehmet Eylem Kirlangic[1,4], Hartmut Mohlberg[1], Katrin Amunts[1,3,4]
[1]Institute of Neurosciences and Medicine (INM-1 and INM-2), Research Centre Juelich, Jülich, Germany, [2]C.&O. Vogt Institute of Brain Research, Düsseldorf University, Düsseldorf, Germany, [3]Jülich-Aachen Research Alliance (JARA), RWTH Aachen University, Aachen, Germany, [4]Department of Psychiatry and Psychotherapy, RWTH Aachen University, Aachen, Germany

892 MT **Automated identification of human brain features using multi-atlas, registration-based segmentation**
Arno Klein[1], Satrajit Ghosh[2], Forrest Bao[3], Joachim Giard[4], Eliezer Stavsky[1], Yrjö Häme[1], Ramin Parsey[1]
[1]Columbia University, New York, NY, [2]MIT, Cambridge, MA, [3]Texas Tech University, Lubbock, TX, [4]Univ. Catholique de Louvain, Louvain, Belgium

893 MT **Layer-dependent orientational structure in primary human somatosensory (S1) and motor cortices (M1)**
Christoph Leuze[1], Alfred Anwander[1], Pierre-Louis Bazin[1], Till Riffert[1], Stefan Geyer[1], Robert Turner[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

894 MT **The Cortical Morphological Variations of Express Saccade Makers**
shiguang li[1], Paul C Knox[2], Jingjie Zhong[1], Lihua Qiu[1], Xiaoyu Jiang[1], Qizhu Wu[1], Qiyong Gong[1], xiaoqi huang[1]
[1]Huaxi Magnetic Resonance Research Center, West China Hospital, Sichuan University, Chengdu, China, [2]Division of Orthoptics, School of Health Sciences, University of Liverpool, Liverpool, United Kingdom

895 MT **Connectivity concordance for characterizing consistent subregions of the prefrontal cortex**
Daniel Margulies[1], Alexander Schäfer[1], Michael Petrides[2]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Montreal Neurological Institute, Montreal, Canada

896 MT **Discriminating Cortical Regions Using HARDI Data**
Zoltan Nagy[1], Daniel Alexander[2], David Thomas[3], Nikolaus Weiskopf[1], Martin Sereno[4]
[1]Wellcome Trust Centre for Neuroimaging, UCL Institute of Neurology, London, United Kingdom, [2]Centre for Medical Image Computing, Department of Computer Science, UCL, London, United Kingdom, [3]Department of Brain Repair and Rehabilitation, UCL Institute of Neurology, London, United Kingdom, [4]Cognitive, Perceptual and Brain Sciences, UCL & Department of Psychology, Birkbeck Collage, London, United Kingdom

897 MT **Iron and Myelin in Human Brain Tissue: Histology, PIXE and Ultra-High-Field MRI Susceptibility Maps**
Carsten Stueber[1], Andreas Schaefer[1], Miriam Waehnert[1], Jürgen Vogt[2], Katja Reimann[1], Stefan Geyer[1], Robert Turner[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Dept. Neurophysics, Leipzig, Germany, [2]LIPSION Laboratory, Institute of Nuclear Solid State Physics, University of Leipzig, Leipzig, Germany

898 MT **Do cortical layers conform to the Laplace equation?**
Miriam Waehnert[1], Marcel Weiss[1], Markus Streicher[1], Pierre-Louis Bazin[1], Stefan Geyer[1], Robert Turner[1]
[1]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

NEUROANATOMY

Subcortical Structures

899 MT Registration of the digital Morel atlas to the MNI brain template for assignment of thalamic lesions
Gunther Helms[1], Peter Dechent[1], Melanie Wilke[1]
[1]Dept. of Cognitive Neurology, University Medicine Göttingen, Göttingen, Germany

900 MT Brain structure changes in normal ageing: a longitudinal study
Jiyang Jiang[1], Perminder Sachdev[1,2], Tao Liu[1], Lin Zhuang[1], Chao Suo[1], Simone Reppermund[1], Julian Trollor[3,1], Henry Brodaty[1,4,5], Wei Wen[1,2]
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901 MT 3d Surface Shape Analysis of the Corpus Callosum in Premature Neonates
Yalin Wang[1], Ashok Panigrahy[2], Jie Shi[3], Rafael Ceschin[4], Zhi Nie[5], Marvin Nelson[6], Natasha Lepore[6]
[1]Arizona State University, Mesa, AZ, [2]Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA, [3]Arizona State University, Tempe, United States, [4]Children's Hospital of Pittsburgh Radiology, Pittsburgh, PA, [5]Arizona State University, Tempe, AZ, [6]University of Southern California and Children's Hospital Los Angeles, Los Angeles, CA

NEUROANATOMY

White Matter Anatomy, Fiber Pathways and Connectivity

902 MT Effects of maturation and heritability on the lateralization of the perisylvian language pathways
Sanja Budisavljevic[1], Flavio Dell'Acqua[2], Fruhling Rijsdijk[3], Fergus Kane[4], Marco Picchioni[4], Philip McGuire[4], Robin Murray[4], Marco Catani[1]
[1]Natbrainlab, Institute of Psychiatry, King's College London, London, United Kingdom, [2]Natbrainlab, Centre for Neuroimaging Sciences, Institute of Psychiatry, King's College London, London, United Kingdom, [3]SGDP Centre, Institute of Psychiatry, King's College London, London, United Kingdom, [4]Institute of Psychiatry, King's College London, London, United Kingdom

903 MT Real-Time Fiber Tractography: Interactive Parameter Tuning for Neurosurgical Interventions
Maxime Chamberland[1,2], David Fortin[3,2], Maxime Descoteaux[1,2]
[1]Sherbrooke Connectivity Imaging Laboratory (SCIL), Sherbrooke, Canada, [2]Surgery department, Université de Sherbrooke, Sherbrooke, Canada, [3]Centre de Recherche Clinique Etienne Le Bel, Sherbrooke, Canada

904 MT Toward a Normative Measure of White Matter Abnormalities during the Adult Lifespan
Paul Corbitt[1], Malle Tagamet[2], Peter Kochunov[3], Joanna Curran[4], Rene Olvera[5], John Blangero[6], David Glahn[7]
[1]University of Maryland Baltimore County, Baltimore, MD, [2]University of Maryland, Baltimore, United States, [3]Maryland Psychiatric Research Center, baltimore, United States, [4]Texas Biomedical Foundation, San Antonio, TX, [5]UTHSCSA, San Antonio, United States, [6]Texas Biomedical Foundation, San Antonio, United States, [7]Yale University, Hartford, United States

905 MT Development of the Structural Connectome Between Ages 12 and 30: An N=467 DTI Study
Emily Dennis[1], Neda Jahanshad[2], Arthur Toga[2], Kori Johnson[3,4], Katie McMahon[5], Greig de Zubicaray[6], Nicholas Martin[4], Ian Hickie[7], Margaret Wright[4,6], Paul Thompson[2]
[1]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States, [2]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA, [3]Center for Advanced Imaging, University of Queensland, Brisbane, Australia, [4]Queensland Institute of Medical Research, Brisbane, Australia, [5]Centre for Advanced Imaging, The University of Queensland, Brisbane, Australia, [6]School of Psychology, University of Queensland, Brisbane, Australia, [7]Brain and Mind Research Institute, University of Sydney, Sydney, Australia

906 MT Sex Differences in the Human Structural Connectome
Emily Dennis[1], Neda Jahanshad[2], Arthur Toga[2], Kori Johnson[3,4], Katie McMahon[5], Greig de Zubicaray[6], Nicholas Martin[3], Ian Hickie[7], Margaret Wright[3,6], Paul Thompson[2]
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907 MT The spatial relationship of structural cerebral alterations in Multiple Sclerosis
Margit Jehna[1], Siegrid Fuchs[1], Alexander Pichler[1], Christian Langkammer[1], Gernot Reishofer[1], Franz Ebner[1], Franz Fazekas[1], Christian Enzinger[1]
[1]Medical University of Graz, Graz, Austria

908 MT Structural Connectivity of the Corpus Callosum in Long-term Meditators
Eileen Luders[1], Owen Phillips[1], Kristi Clark[1], Florian Kurth[2], Arthur Toga[1], Katherine Narr[1]
[1]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA, USA, [2]Center for Neurobiology of Stress, Department of Medicine, UCLA School of Medicine, Los Angeles, CA, USA

909 MT Connectivity between parietal operculum and motor cortex investigated with combined TMS-DTI
FRANCESCA MAULE[1], Guido Barchiesi[1], Nico Dario Papinutto[1], Luigi Cattaneo[1]
[1]Center for Mind/Brain Sciences (CIMeC) - University of Trento, Trento, Italy

910 MT Trait anxiety and the temporal lobe of the human brain: a diffusion tensor imaging study
Christian Montag[1], Sebastian Markett[1], Martin Reuter[1], Jan-Christoph Schoene-Bake[2], Bernd Weber[2]
[1]Department of Psychology, University of Bonn, Bonn, Germany, [2]Department of NeuroCognition Imaging, Life & Brain Center, University of Bonn, Bonn, Germany

911 MT Analysis of white matter morphology and diffusion properties using a shape-based approach
Nic Novak[1], Kristi Clark[2], Yonggang Shi[2], Arthur Toga[2]
[1]UCLA, Los Angeles, United States, [2]UCLA, Los Angeles, CA

912 MT Withdrawn

913 MT Investigating White Matter Continuity in Pediatric Hydrocephalus Using Probabilistic Tractography
Akila Rajagopal[1], Thomas Maloney[1], Robert McKinstry[2,3], Joshua Shimony[2,3], Blaise Jones[1,4], Scott Holland[5,4], David Limbrick[2,3], Francesco Mangano[1,4], Mekibib Altaye[1,4], Jannel Phillips[1,4], Stephanie Powell[2,3], Weihong Yuan[1,4]
[1]Cincinnati Children's Hospital, Cincinnati, OH, [2]St. Louis Children's Hospital, St. Louis, MO, [3]Washington University School of Medicine, St. Louis, MO, [4]University of Cincinnati College of Medicine, Cincinnati, OH, [5]Cincinnati Children's Hospita, Cincinnati, OH

914 MT Cross-calibration of 3D-PLI for a multiscale approach investigating the human connectome
Julia Reckfort[1,2], Markus Axer[1,2], David Graessel[1], Melanie Kleiner[1], Uwe Pietrzyk[3,2], Karl Zilles[4,5], Katrin Amunts[1,6]
[1]Research Centre Juelich (INM-1), Juelich, Germany, [2]University of Wuppertal, Wuppertal, Germany, [3]Research Centre Juelich (INM-4), Juelich, Germany, [4]Research Center Juelich (INM-2), Juelich, Germany, [5]C. and O. Vogt Institute for Brain Research, University of Düsseldorf, Düsseldorf, Germany, [6]Department of Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen, Aachen, Germany

915 MT Connectivity-based parcellation of the dorsal frontal cortex
Jerome Sallet[1], MaryAnn Noonan[1], Rogier Mars[1], Saad Jbabdi[2], Jill O'Reilly[1], Matthew Rushworth[1]
[1]University of Oxford, Oxford, United Kingdom, [2]FMRIB Centre, Oxford, United Kingdom

916 MT A fronto-parietal brain network lateralized for visuospatial attention
Michel Thiebaut de Schotten[1], Flavio Dell'Acqua[1], Stephanie Forkel[1], Andrew Simmons[2], Francesco Vergani[3], Declan Murphy[2], Marco Catani[1]
[1]Natbrainlab - Institute of Psychiatry - King's College London, London, United Kingdom, [2]Institute of Psychiatry - King's College London, London, United Kingdom, [3]Department of Neurosurgery, Royal Victoria Infirmary, Newcastle upon Tyne, United Kingdom

***917 MT Damage to white matter pathways in chronic visuospatial neglect (O-T3)**
Michel Thiebaut de Schotten[1], Francesco Tomaiuolo[2], Paolo Bartolomeo[3], Fabrizio Doricchi[4]
[1]Natbrainlab, Institute of Psychiatry, King's College London, London, United Kingdom, [2]Dipartimento di Radiologia di Volterra, Pisa, Italy, [3]INSERM-UPMC UMR_S 975, Centre de Recherche de l'Institut du Cerveau et de la Moelle épinière, Paris, France, [4]Fondazione Santa Lucia IRCCS, Rome, Italy

918 MT 3D Reconstruction of the Arcuate Fasciculus using the Historic Atlas of Dejerine
Paule Toussaint[1], And Turken[2], Odile Plaisant[3], Nina Dronkers[4]
[1]INSERM, UMR-S 678, LIF, LINeM, GHU Pitié-Salpêtrière, Paris, France, [2]VA Northern California Health Care System, Martinez, CA, [3]University of Paris-Descartes, GH Pitié-Salpêtrière, URDIA, EA4465, Paris, France, [4]VA Northern California Health Care System, UC Davis, Martinez, CA

919 MT Tract-based Lesion-Deficit Mapping Analysis of White Matter Contributions to Language
And Turken[1], Nina Dronkers[2]
[1]US Department of Veterans Affairs, Research Service, Martinez, United States, [2]VA Northern California Health Care System/UC Davis, Martinez, United States

***920 MT The Pathway of the Middle Longitudinal Fasciculus in the human brain (O-T3)**
Yibao Wang[1,2], Juan C. Fernández-Miranda[3], Walter Schneider[4]
[1]Department of the Neurosurgery,The First Affiliated Hospital of China Medical University, ShenYang, China, [2]Department of Neurological Surgery,University of Pittsburgh Medical Center, Pittsburgh, PA, [3]Department of Neurological Surgery, University of Pittsburgh Medical Center, Pittsburgh, PA, [4]University of Pittsburgh, Pittsburgh, PA

921 MT Natural Language Queries for White Matter Identification: the White Matter Query Language (WMQL)
Demian Wassermann[1,2,3], Nikos Makris[4], Paula Pelavin[2], Martha Shenton[2], Marek Kubicki[2], Carl-Fredrik Westin[3], Ron Kikinis[1]
[1]Surgical Planning Lab, Brigham and Women's Hospital & Harvard Medical, Boston, MA, USA, [2]Psychiatry Neuroimaging Laboratory, Brigham and Women's Hospital, Boston, MA, USA, [3]Laboratory of Mathematics in Imaging, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA, [4]Center For Morphometric Analysis, Massachusetts General Hospital, Harvard Medical School, Boston, MA, USA

922 MT Gender effect on the correlation of white matter microstructural integrity
Jiaying Zhang[1], Suyu Zhong[1], Yong He[1], Gaolang Gong[1]
[1]State key laboratory of cognitive neuroscience and learning, Beijing Normal University, Beijing, China

PERCEPTION AND ATTENTION

Attention: Auditory/Tactile/Motor

923 MT Separable Auditory and Visual Top Down Attention Networks
Rodrigo Braga[1], Liam Wilson[1], Richard Wise[1], David Sharp[1], Robert Leech[1]
[1]Imperial College London, London, United Kingdom

924 MT Distinct brain networks of novelty-driven involuntary and cued voluntary auditory attention shifting
Samantha Huang[1], John Belliveau[1], Chinmayi Tengshe[1], Jyrki Ahveninen[1]
[1]Martinos Center, Massachusetts General Hospital, Charlestown, MA

925 MT Functional networks in auditory cortex defined by ICA of neuronal population spectral tuning
Michelle Moerel[1], Federico De Martino[1], Roberta Santoro[1], Kamil Ugurbil[2], Essa Yacoub[2], Elia Formisano[1]
[1]Maastricht University, Maastricht, Netherlands, [2]Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, United States

926 MT The importance of integration when selectively listening to complex multi-part musical stimuli
Marie Uhlig[1], Merle Fairhurst[1], Peter Keller[1,2]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]MARCS Auditory Laboratories, University of Western Sydney, Sydney, Australia

PERCEPTION AND ATTENTION

Attention: Visual

927 MT LACK OF ATTENTIONAL RESOURCES MODULATION IN CHRONIC STRESS: AN fMRI STUDY ON CROHN'S DISEASE
Francesca Benuzzi[1], Alessandro Agostini[2,3], Micaela Zucchelli[1], Valentina Farinelli[1], Nicola Filippini[4], Massimo Campieri[3], Paolo Nichelli[1]
[1]Department of Neurosciences, University of Modena and Reggio Emilia, Modena, Italy, [2]Department of Psychology, University of Bologna, Bologna, Italy, [3]Department of Clinical Medicine, IBD Unit, S.Orsola Malpighi Hospital, University of Bologna, Bologna, Italy, [4]University Department of Psychiatry and FMRIB Centre, University of Oxford, Oxford, United Kingdom

***928 MT Right Temporo-parietal Junction and Attentional Reorienting (O-T4)**
Chi-Fu Chang[1], Tzu-Yu Hsu[2], Philip Tseng[3], Wei-Kuang Liang[4], Ovid J.-L. Tzeng[5], Daisy Hung[6], Neil Muggleton[3], Chi-Hung Juan[4]
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929 MT Withdrawn

930 MT The structural correlates of spatial attention
Thomas Ditye[1], Vincent Walsh[1], Ryota Kanai[1]
[1]University College London, London, United Kingdom

931 MT Oxytocin modulates basic attentional processes during face perception
Matthias Gamer[1], Christian Büchel[1]
[1]University Medical Center Hamburg-Eppendorf, Department of Systems Neuroscience, Hamburg, Germany

932 MT Attentional control networks involved in processing target-similar distracters
Joy Geng[1], Nicholas DiQuattro[2]
[1]Univeristy of California Davis, Davis, United States, [2]Univeristy of California Davis, Davis, CA

933 MT Superior temporal sulcus and target detection - PPI analysis
Petra Haitova[1], Radek Mareček[2], Michal Mikl[1], Milan Brázdil[3]
[1]Behavioral and Social Neuroscience Research Group, CEITEC - Central European Institute of Technology, Brno, Czech Republic, [2]Behavioral and Social Neuroscience Research Group, CEITEC, Masaryk University, Brno, Czech Republic, [3]Behavioral and Social Neuroscience Research Group, CEITEC-Central European Institute of Technology, Brno, Czech Republic

934 MT Attentional Modulation of Retrosplenial Complex Activity in 7-11-Year-Old Children and Adults
Ping Jiang[1], Virve Vuontela[1], YuanYe Ma[2], Eeva Aronen[3], Oili Salonen[4], Synnöve Carlson[1,5,6]
[1]Neurosci Unit/Inst Biomed/Physiol/Univ Helsinki, Helsinki, Finland, [2]Kunming Inst Zoology/Chinese Acad Sci, Kunming, China, [3]Hosp Children Adolesc/Helsinki Univ Central Hosp, Helsinki, Finland, [4]Dept Radiol/Helsinki Univ Central Hosp, Helsinki, Finland, [5]Brain Res Unit/OV Lounasmaa Lab/Aalto Univ Sch Sci, Espoo, Finland, [6]Adv Magn Imag Centre/Aalto Univ Sch Sci, Espoo, Finland

935 MT The Brain Efficient Connectivity of Visual Selective Attention using Granger Causality
Tao Jiang[1], Zhenlan Jin[2], Ling Li[2]
[1]University of Electronic Science and Technology of China, Chengdu, China, [2]University of Electronic Science and Technology of China, chengdu, China

936 MT Individual Modulation of Exogenous Attention to Negative Stimuli: Behavioral and ERP Data
Dominique Kessel[1], Luis Carretié[1], Manuel Tapia[1]
[1]Universidad Autonoma de Madrid, Madrid, Spain

937 MT Functional modules of visual search process investigated by group ICA
Kwang Ki Kim[1], Karunanayaka Prsanna[2], Ji Hyun Kim[3]
[1]Dongguk University Ilsan Hospital, Goyang-shi, Korea, Republic of, [2]Department of Radiology, Center for NMR Research, Penn State University College of Medicine, Hershey, PA, [3]Department of Neurology, Korea University, Seoul, Republic of Korea

938 MT FMRI Correlates of Inhibition of Return in Central and Peripheral Visual field
Quan Lei[1,2], Yan Bao[1,3]
[1]Department of Psychology & Key Laboratory of Machine Perception (MoE), Peking University, Beijing, China, [2]Department of Psychology, Northeastern University, Boston, United States, [3]Human Science Center, University of Munich, Munich, Germany

939 **MT** **Associations between P300 amplitude changes and individual differences in the time-on-task effect**
Julian Lim[1], Tania Kong[1], Kenneth Kwok[1], Sheralyn Tan[1], Chun-Yu Tse[1]
[1]Temasek Laboratories, National University of Singapore, Singapore, Singapore

***940** **MT** **Efficient Visual Search Elicits Sustained Broadband Gamma Activity in the Dorsal Attention Network (O-T4)**
Tomas Ossandon[1,2], Juan Vidal[3], Carolina Ciumas[4], Karim Jerbi[3], Philippe Kahane[5], Jean-Philippe Lachaux[6]
[1]INSERM U1028, CNRS UMR5292, Lyon Neuroscience Research Center, Brain Dynamics and Cognition Team, Ly, Lyon, France, [2]Laboratorio de Neurociencias Cognitivas, Facultad de Medicina, PUC, Santiago, Chile, [3]INSERM, Lyon, France, [4]Lyon Neuroscience Research Center INSERM U1028, Lyon, France, [5]INSERM, Grenoble, France, [6]INSERM, N/A

941 **MT** **A comparison between the attend-o-topy and the frontoparietal activity of voluntary covert orienting**
Takashi, J. OZAKI[1]
[1]University of Tokyo, Tokyo, Japan

942 **MT** **Different Brain Mechanisms of Background-Orientation and Target-Location Specificity in TDT Learning**
Zhe Qu[1], You Wang[1], Yulong Ding[1]
[1]Sun Yat-Sen University, Guangzhou, China

943 **MT** **FMRI of memory guided instructed and decision saccades in a slow event related design**
Carsten Schmidt-Samoa[1], Peter Dechent[1], Igor Kagan[2], Melanie Wilke[1]
[1]Department of Cognitive Neurology, University Medicine, Goettingen, Germany, [2]German Primate Center, Goettingen, Germany

944 **MT** **Top-down Control of Visual Cortical Activity in Human Attention: A Granger Causality Analysis**
Chao Wang[1], Rajasimhan Rajagovindan[1], Sahng-Min Han Han[1], Mingzhou Ding[1]
[1]University of Florida, Gainesville, United States

945 **MT** **The interaction between attentional selection and conflict control in the anterior cingulate cortex**
Ping Wei[1], Hermann Müller[2], Torsten Schubert[2], Andre Szameitat[2], Xiaolin Zhou[3]
[1]Department of Psychology, Capital Normal University, Beijing, China, [2]Department of Psychology, LMU München, Munich, Germany, [3]Center for Brain and Cognitive Sciences and Department of Psychology, Beijing, China

946 **MT** **Performance feedback engages attention, boosts task SNR, and enhances pattern classification**
Jeffrey Zemla[1], Jonathan Lisinski[2], Stephen LaConte[2]
[1]Virginia Tech Carilion Research Institute / Rice University, Roanoke, VA, [2]Virginia Tech Carilion Research Institute, Roanoke, VA

947 **MT** **Attention Deficits in Impulsive Aggressive and Premeditated Aggressive Juvenile Offenders**
Zhuo Zhang[1], AnKang Kong[1], Bo Yang[1]
[1]Sociology College, China University of Political Science and Law, Beijing, China

948 **MT** **Do Alpha Oscillations Modulated by Spatial Attention gate BOLD in Ventral Category Specific Regions?**
Johanna Zumer[1], René Scheeringa[1], Jan-Mathijs Schoffelen[1], David Norris[1], Ole Jensen[1]
[1]Donders Centre for Cognitive Neuroimaging, Radboud University Nijmegen, Nijmegen, Netherlands

PERCEPTION AND ATTENTION

Chemical Senses: Olfaction, Taste

949 MT Sexually dimorphic response of the hypothalamus to the chemo-signal androstadienone in adolescents
Sarah Burke[1], Dick Veltman[2], Peggy Cohen-Kettenis[1], Julie Bakker[3,4,1]
[1]Department of Medical Psychology, VU university medical center, Amsterdam, Netherlands, [2]Department of Psychiatry, VU University medical center, Amsterdam, Netherlands, [3]GIGA Neuroscience, University of Liege, Liege, Belgium, [4]Netherlands Institute of Neuroscience, Amsterdam, Netherlands

950 MT Amygdala Response to Male Anxiety Chemosignals in Anxious Versus Calm Women
Jessica Freiherr[1,2], Julia Schmithausen[1,2], Maria Demmel[3], Veronika Schöpf[4], Martin Wiesmann[1]
[1]Clinic for Diagnostic and Interventional Neuroradiology, RWTH Aachen, Aachen, Germany, [2]Neuroscience of chemosensation, RWTH Aachen, Aachen, Germany, [3]Center for Child and Adolescent Psychiatry, Aarhus University Hospital, Aarhus, Denmark, [4]MR Center of Excellence, Medical University of Vienna, Vienna, Austria

951 MT An fMRI study of odor processing in a family with congenital anosmia
Lea Gagnon[1,2], Helena Karstensen[3], Kristoffer Madsen[4], Martin Vestergaard[4], Hartwig Siebner[4], Niels Tommerup[3], Ron Kupers[2], Maurice Ptito[1,2,4]
[1]Harland Sanders Chair, School of Optometry, University of Montreal, Montreal, Canada, [2]Institute for Neuroscience and Pharmacology, Panum Institute, University of Copenhagen, Copenhagen, Denmark, [3]Institute for Cellular and Molecular Medicine, University of Copenhagen, Copenhagen, Denmark, [4]Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital, Hvidovre, Denmark

952 MT Multimodal food perception: meta-analysis of neuroimaging studies of food cues
Claudia Huerta[1], Angela Laird[2], Peter Fox[3], Ralph DeFronzo[4], Muhammad Abdul-Ghani[5], Timothy Duong[6]
[1]Research Imaging Institute, San Antonio, United States, [2]University of Texas Health Science Center at San Anotnio, San Antonio, TX, [3]Research Imaging Institute, San Antonio, TX, [4]University of texas health Science Centes, San Antonio, TX, [5]University of Texas Health Science Center, San Antonio, TX, [6]UT Health Science Center at San Antonio, San Antonio, TX

953 MT Odorant Stimulation vs. Sniffing in Human Primary Olfactory Cortex
Xiaoyu Sun[1], Jianli wang[1], Christopher Weitekamp[1], Megha Patel[1], Jeffrey Vesek[1], Qing X Yang[1]
[1]Penn State College of Medicine, Hershey, PA

954 MT Hedonic and Intensity Assessment of Sweetness in the Human Brain
Jianli wang[1], Zackary Herse[1], Sarah Ryan[1], Megha Patel[1], Sebastian Rupprecht[1], Jeffrey Vesek[1], Qing X Yang[1], Andras Hajnal[1], Ann Rogers[1]
[1]Penn State College of Medicine, Hershey, PA

PERCEPTION AND ATTENTION

Consciousness and Awareness

955 MT V1 as common drive for performance and visibility improvements during perceptual learning
Felipe Aedo-Jury[1], Caspar Schwiedrzik[1], Wolf Singer[1], Lucia Melloni[1]
[1]Max Planck Institute for Brain Research, Frankfurt am Main, Germany

956 MT My I's in the Brain: Distinct Cortical Structures in *online vs. offline* Body Representations
Clemens Bauer[1], José Díaz[2], Luis Concha[1], Fernando Barrios[1]
[1]Instituto de Neurobiología, Universidad Nacional Autónoma de México, Querétaro, México, [2]Facultad de Medicina, Universidad Nacional Autónoma de México, México D.F., México

957 MT Neuromagnetic correlates of conscious perception and exogenous attention during visual processing
Dimitri Bayle[1], Antoni Valero-Cabre[2,3,4], Ana Chica[5], Catherine Tallon-Baudry[6], Paolo Bartolomeo[7]
[1]CRICM inserm U975, Paris, France, [2]CNRS UMR 7225 CRICM / Boston University School of Medicine, Paris, France, [3]Cognitive Neuroscience and Information Technology Research Program, Open University of Catalonia (UOC)., barcelona, Spain, [4]Laboratory for Cerebral Dynamics Plasticity & Rehabilitation, Boston University School of Medicine, boston, United States, [5]2. Department of Experimental Psychology, Granada, Spain, [6]CENIR, paris, France, [7]INSERM-UPMC UMR_S 975, Centre de Recherche de l'Institut du Cerveau et de la Moelle épinière, Paris, France

958 MT Breakdown of global functional resting state connectivity correlates with the level of consciousness
Athena Demertzi[1], Andrea Soddu[1], Audrey Vanhaudenhuyse[1], Luaba Tshibanda[2], Melanie Boly[1], Marie Thonnard[1], Vanessa Charland[1], Murielle Kirsch[3], Steven Laureys[1]
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959 MT Thalamic generator for propofol-induced alpha-rhythm: a simultaneous EEG-fMRI study
Ithabi Gantner[1], Audrey Vanhaudenhuyse[1], Pierre Boveroux[2], Marie-Aurélie Bruno[1], Quentin Noirhomme[1], Andrea Soddu[1], Séverine Lauwick[2], Christian Degueldre[3], Didier Ledoux[2], Christophe Phillips[3], Alain Plenevaux[3], Jean-François Brichant[2], Steven Laureys[1], Melanie Boly[1]
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960 MT Human Brain Structure Predicts Individual Differences in Unconscious Social Evaluation of Faces
Spas Getov[1], Bahador Bahrami[2,1,3], Ryota Kanai[2], Geraint Rees[2,1]
[1]Wellcome Trust Centre for Neuroimaging, Institute of Neurology, University College London, United Kingdom, [2]UCL Institute of Cognitive Neuroscience, University College London, United Kingdom, [3]Interacting Minds Project, Institute of Anthropology, Archaeology, Linguistics, Aarhus University, & Centre of Functionally Integrative Neuroscience, Aarhus University, Aarhus, Denmark

961 MT Mapping alterations in cortical and subcortical functional connectivity induced by light sedation
Tommaso Gili[1], Neeraj Saxena[2], Ana Diukova[3], Kevin Murphy[4], Judith Hall[2], Richard Wise[3]
[1]Cardiff University Brain Research Imaging Centre, Cardiff, United Kingdom, [2]Section of Anaesthetics, Intensive Care and Pain Medicine, Cardiff University School of Medicine, Cardiff, United Kingdom, [3]Cardiff University Brain Research Imaging Centre, Cardiff, United Kingdom, [4]Cardiff University, Cardiff, United Kingdom

962 MT Consciousness-dependent interplay between spontaneous and stimulus evoked activity:an EEG-fMRI study
Olivia Gosseries[1], Audrey Vanhaudenhuyse[1], Marie-Aurélie Bruno[1], Rémy Phan-Ba[2], Christophe Phillips[3], Pierre Boveroux[4], Vincent Bonhomme[4], Didier Ledoux[4], Jean-François Brichant[4], Séverine Lauwick[4], Manuel Schabus[5], Evelyne Balteau[3], Christian Degueldre[3], Andre Luxen[3], Pierre Maquet[3], Steven Laureys[1], Melanie Boly[1]
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963 MT Volitional Eyes Open Disturbs Economical Resting State Regardless of the Visual Stimulation
Tun Jao[1], Petra Vertes[1], Aaron F. Alexander-Bloch[1], I-Ning Tang[2], Ya-Chih Yu[2], Jyh-Horng Chen[2], Edward Bullmore[1,3]
[1]Brain Mapping Unit, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom, [2]Interdisciplinary MRI/MRS Lab, National Taiwan University, Taipei, [3]GlaxoSmithKline, Cambridge, United Kingdom

964 MT Residual but massively impaired directional connectivity in the unconscious brain
Jean-Remi King[1,2], Jacobo Sitt[1,2], Frederic FAUGERAS[2,3], Benjamin Rohaut[2,3], imen El Karoui[2,4], Laurent Cohen[2,5,3], Lionel Naccache[2,5,3], Stanislas Dehaene[1,6,7]
[1]Unicog, CEA/Saclay, Saclay, France, [2]ICM Res.Center, UMRS 975, INSERM, Paris, France, [3]Dept. of Neurol., AP-HP,Groupe hospitalier Pitié-Salpêtrière, Paris, France, [4]Ecole Normale Supérieure, Paris, France, [5]Faculté de Médecine Pitié- Salpêtrière, Univ. Paris 6, Paris, France, [6]Univ. Paris-sud 11, Orsay, France, [7]Col. de France, Paris, France

965 MT Electrophysiological correlates of ketamine-induced behavioral unresponsiveness
Rémy Lehembre[1], Olivia Gosseries[1], Marcello Massimini[2], Mario Rosanova[2], Rosalyn Moran[3], Audrey Vanhaudenhuyse[1], Marie-Aurélie Bruno[1], Vincent Bonhomme[4], Jean-François Brichant[5], Pierre Boveroux[5], Andrea Soddu[1], Christophe Phillips[6], Quentin Noirhomme[1], Steven Laureys[1], Melanie Boly[1]
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966 MT Global neural network reorganization from awake to anesthetized conditions in the rat brain
Zhifeng Liang[1], Jean King[1], Nanyin Zhang[1]
[1]University of Massachusetts Medical School, Worcester, United States

967 MT An electrophysiological signal that precisely tracks the emergence of error awareness
Peter Murphy[1], Ian Robertson[1], Darren Allen[1], Robert Hester[2], Redmond O'Connell[1]
[1]Trinity College Dublin, Dublin, Ireland, [2]University of Melbourne, Melbourne, Australia

968 MT Task specific visual activity in the frontal lobes — implication to models of visual awareness
niv noy[1,2], Stephan Bickel[3], Elana Zion-Golumbic[4], Michal Harel[2], Ido Davidesco[5], Catherine Schevon[6], Guy McKhann[6], Robert Goodman[6], Charles Schroeder[4], Ashes Mehta[3], Rafael Malach[2]
[1]Gonda Brain Research Center, Bar-Ilan University, Ramat Gan, Israel, [2]Department of Neurobiology, Weizmann Institute of Science, Rehovot, Israel, [3]Comprehensive Epilepsy Center, Long Island Jewish Medical Center, New Hyde Park, NY, [4]Department of Psychiatry, Columbia University College of Physicians and Surgeons, New york, NY, [5]Interdisciplinary Center for Neural Computation, Hebrew University, Jerusalem, Israel, [6]Department of Neurology, Columbia University College of Physicians and Surgeons, New york, NY

969 MT Propofol-induced loss of consciousness associated with changes in fMRI time-series entropy
Ivan J Roijals-Miras[1], Pieter Guldenmund[2], Ithabi Gantner[3], Pierre Boveroux[4], Melanie Boly[3], Audrey Vanhaudenhuyse[5], Marie-Aurélie Bruno[6], Quentin Noirhomme[7], Christophe Phillips[8], Jean-François Brichant[9], Vincent Bonhomme[10], Steven Laureys[11], Andrea Soddu[11]
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970 MT Anaesthetically modulated resting hippocampal connectivity predicts recognition memory
Emmanuel Stamatakis[1], Ram Adapa[1], Anthony Absalom[1], David Menon[1]
[1]Division of Anaesthesia, School of Clinical Medicine, University of Cambridge, Cambridge, United Kingdom

971 MT Rhythm-induced shamanic trance: A simultaneous fMRI & EEG study of altered states of consciousness
Johannes Stelzer[1], Michael Hove[1], Till Nierhaus[1], Sabrina Thiel[1], Christopher Gundlach[1], Daniel Margulies[2], Robert Turner[1], Peter Keller[1], Björn Merker[3]
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972 MT Loss of self-referential stimuli discrimination during propofol-induced loss of consciousness
Audrey Vanhaudenhuyse[1], Pierre Boveroux[2], Marie-Aurélie Bruno[3], Quentin Noirhomme[4], Andrea Soddu[5], Francisco Gómez[6], Mohamed Ali Bahri[7], Mariana Babo-Rebelo[8], Séverine Lauwick[2], Christian Degueldre[9], Alain Plenevaux[10], Manuel Schabus[11], Didier Ledoux[2], Vincent Bonhomme[12], Jean-François Brichant[2], Steven Laureys[5], Melanie Boly[4]
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973 MT External awareness and GABAA receptors – A combined fMRI and [18F]flumazenil-PET study
Christine Wiebking[1,2], Niall Duncan[2], Pengmin Qin[2], Dave Hayes[2], Oliver Lyttelton[3], Paul Gravel[4], Jeroen Verhaeghe[4], Alexey Kostikov[4], Ralf Schirrmacher[4], Andrew Reader[4], Malek Bajbouj[5,6], Georg Northoff[2]
[1]Department of Biology, Freie Universität Berlin, Berlin, Germany, [2]Institute of Mental Health Research, Ottawa, Canada, [3]Institute of Mental Health Research Ottawa, N/A, [4]McConnell Brain Imaging Centre, Montreal, Canada, [5]Department of Psychiatry, Charité-Universitätsmedizin Berlin, Berlin, Germany, [6]Cluster of Excellence "Languages of Emotion" and Dahlem Institute for Neuroimaging of Emotion (D.I.N.E.), Berlin, Germany

974 MT Alteration of Functional Connectivity during Mindfulness Meditation
Chuan-Chih Yang[1,2], Alfonso Barrós-Loscertales[1], Noelia Ventura-Campos[1], Daniel Pinazo[1], Juan Bustamante[1], Aina Rodríguez Pujadas[1], Paola Fuentes Claramonte[1], Raul Balaguer[1], Martin Walter[2,3], César Ávila[1]
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975 MT The Contribution of area V5+/MT+ to the awareness of motion during binocular rivalry
Natalia Zaretskaya[1], Andreas Bartels[1]
[1]Centre for Integrative Neuroscience, University of Tübingen, Tübingen, Germany

PERCEPTION AND ATTENTION

Perception: Auditory/Vestibular

976 MT Narrow-band gamma power increase during auditory continuity illusion for amplitude-modulated tones
Cornelius Abel[1], Jochen Kaiser[1]
[1]Goethe University, Frankfurt am Main, Germany

977 MT Allocentric or craniocentric representation of auditory space? A human electroencephalography study
Christian Altmann[1], Stephan Getzmann[2], Joerg Lewald[2]
[1]ICDO, Kyoto University, Kyoto, Japan, [2]Ruhr University Bochum, Bochum, Germany

978 MT Human cortical regions for processing salient auditory objects and their acoustic signal attributes
James Lewis[1], Chris Frum[2], William Talkington[2]
[1]West Virginia University, Morgantown, United States, [2]West Virginia University, Morgantown, WV

979 MT Cholinergic gain control and environmental uncertainty: A Free Energy Account
Rosalyn Moran[1], Pablo Campo[2], Mkael Symmonds[1], Klaas Enno Stephan[3], Raymond Dolan[1], Karl Friston[1]
[1]University College London, London, United Kingdom, [2]University of Madrid, Madrid, Spain, [3]Translational Neuromodeling Unit (TNU), University & ETH Zurich, Zurich, Switzerland

980 MT Parcellating the neuronal patterns for natural audiovisual speech and music with fMRI
Juha Salmi[1], Enrico Glerean[1], Sasu Mäkelä[2], Aki Vehtari[2], Pasi Jylänki[2], Juho Kettunen[2], Iiro Jääskeläinen[1], Lauri Nummenmaa[3], Katarina Nummi-Kuisma[4], Ilari Nummi[5], Mikko Sams[1]
[1]Brain and Mind Laboratory, BECS, Aalto University, School of science, Espoo, Finland, [2]BECS, Aalto University, School of science, Espoo, Finland, [3]AMI Centre and Brain Research Unit, Low Temperature Laboratory, Aalto University School of Science, Espoo, Finland, [4]Sibelius Academy, Helsinki, Finland, [5]Kulttuurikirkko, Helsinki, Finland

981 MT Delineation of human primary auditory cortex with FMRI and multi-voxel pattern classification
Marc Schoenwiesner[1,2], Peter Dechent[3], Dirk Voit[4], Christopher Petkov[5], Katrin Krumbholz[6]
[1]University of Montreal, Montreal, Canada, [2]International Laboratory for Brain, Music, and Sound Research (BRAMS)), Montreal, Canada, [3]MR-Research in Neurology and Psychiatry, Department of Cognitive Neurology, University Medicine, Goettingen, Germany, [4]Biomedical NMR Research GmbH, Max-Planck-Institute for Biophysical Chemistry, Goettingen, Germany, [5]Institute of Neuroscience, Newcastle University Medical School, Newcastle upon Tyne, United Kingdom, [6]MRC Institute of Hearing Research, Nottingham, United Kingdom

982 MT Relearning Sound Localization With Digital Earplugs
Marc Schoenwiesner[1,2], Régis Trapeau[1,2]
[1]University of Montreal, Montreal, Canada, [2]International Laboratory for Brain, Music, and Sound Research (BRAMS), Montreal, Canada

983 MT Expectation suppression and repetition suppression are dissociable in time
Ana Todorovic[1], Floris de Lange[1]
[1]Donders Institute, Radboud University Nijmegen, Nijmegen, Netherlands

984 MT Unexpected auditory stimuli evoke increased temporal cortical activity
Peter Woodruff[1], Jadwiga Nazimek[1], Iain Wilkinson[1], Michael Hunter[1]
[1]SCANLab, The University of Sheffield, Sheffield, United Kingdom

985 MT Where the human auditory pathway makes sense: the inferior colliculus as an auditory gatekeeper
Peter zu Eulenburg[1], Thomas Bauermann[2], Sarah Hansen[1]
[1]Department of Neurology, Johannes Gutenberg University, Mainz, Germany, [2]Department of Neuroradiology, Johannes Gutenberg University, Mainz, Germany

PERCEPTION AND ATTENTION

Perception: Multisensory and Crossmodal

986 MT Multisensory Speech Perception Without the Left Superior Temporal Sulcus
Sarah Baum[1], A Hamilton[2], Randi Martin[2], Michael Beauchamp[1]
[1]UT Health Science Center at Houston, Houston, Texas, United States, [2]Rice University, Houston, Texas, United States

987 MT Interactions of auditory and visual speech areas during lip-reading
Helen Blank[1], Katharina von Kriegstein[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

988 MT Parieto-premotor coding of peri-hand space contributes to hand's localization and self-attribution
Claudio Brozzoli[1], Giovanni Gentile[1], H. Henrik Ehrsson[1]
[1]Karolinska Institute, Stockholm, Sweden

989 MT Spatial processing in the human dorsal pathway relies on supramodal functional connectivity maps
Luca Cecchetti[1], Giacomo Handjaras[1], Giulio Bernardi[1], Daniela Bonino[1], Emiliano Ricciardi[1], Pietro Pietrini[1]
[1]Laboratory of Clinical Biochemistry and Molecular Biology, University of Pisa Medical School, Pisa, Italy

990 MT Age related differences in the sound-induced flash illusion (SiFi): An MEG study
Jason Chan[1], Marcus Naumer[1], Mareike Brandl[1], Cornelius Abel[1], Saskia Helbling[1], Michael Wibal[1], Jochen Kaiser[1]
[1]Goethe University, Frankfurt am Main, Germany

991 MT Multisensory Modulation of Stimulus Encoding in Human Retinotopic Cortex
Benjamin de Haas[1,2], Dietrich Samuel Schwarzkopf[1,2], Maren Urner[1,2], *Jon Driver[1,2], Geraint Rees[1,2]
[1]UCL Institute of Cognitive Neuroscience, University College London, London, United Kingdom, [2]Wellcome Trust Centre for Neuroimaging at UCL, University College London, London, United Kingdom

992 MT Intramodal, Crossmodal and Multimodal Effects of Emotional Attention
Judith Domínguez-Borràs[1], Sebastian Rieger[1], Patrik Vuilleumier[2]
[1]University of Geneva, Geneva, Switzerland, [2]University of Geneva; University Hospital, Geneva, Switzerland

993 MT FMRI-adaptation reveals the neural bases of hand-centered remapping of space in the human brain
Giovanni Gentile[1], Claudio Brozzoli[1], H. Henrik Ehrsson[1]
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994 MT The Perceived Location of the Self Decoded from Hippocampus Responses during an Out-of-body Illusion
Arvid Guterstam[1], Malin Björnsdotter[1], Loretxu Bergouignan[1], Giovanni Gentile[1], Tie-Qiang Li[2], H. Henrik Ehrsson[1]
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995 MT Occipital-parietal conjunction is sensitive to audiovisual sensory integration
Jia Huang[1], Ya Wang[1], Ting Xu[1], Zhen Jin[2], Rowena Handley[3], Paola Dazzan[3], Raymond Chan[1]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]306 Hospital, Beijing, China, [3]Institute of Psychiatry, King's College, London, United Kingdom

996 MT Biological motion perception and agency recognition in line with specific cerebral oscillations
Raoul Jenni[1], Olivier Renaud[1], Claude-Alain Hauert[1]
[1]FPSE, University of Geneva, Geneva, Switzerland

997 MT Leading or Lagging: Temporal prediction errors are expressed in auditory and visual cortices
HweeLing Lee[1], Uta Noppeney[1,2]
[1]Max Planck Institute for Biological Cybernetics, Tuebingen, Germany, [2]University of Birmingham, Birmingham, United Kingdom

998 MT Audiovisual Congruency Effect in Postlingually deafened Cochlear Implant Users
Hyo-Jeong Lee[1], Jae-Jin Song[2], Hyejin Kang[3], Dong Soo Lee[3], Seung-Ha Oh[2]
[1]Hallym University College of Medicine, Anyang-Si, Gyeonggido, [2]Department of Otorhinolaryngology, Seoul National University College of Medicine, Seoul, Korea, Republic of, [3]Department of Nuclear Medicine, Seoul National University College of Medicine, Seoul, Korea, Republic of

999 MT Dynamic causal interactions in unimodal and crossmodal auditory-visual attention
Lars Michels[1], Tianwen Chen[2], Srikanth Ryali[2], Vinod Menon[2]
[1]University of Zurich, Zurich, Switzerland, [2]Stanford University, School of Medicine, Palo Alto, CA, United States

1000 MT Crossmodal interactions in audiovisual emotion processing
Veronika Müller[1], Edna-Clarisse Cieslik[1], Bruce Turetsky[2], Simon Eickhoff[1]
[1]Research Center Jülich, Institute of Neuroscience and Medicine, Jülich, Germany, [2]Neuropsychiatry Division, Department of Psychiatry, University of Pennsylvania School of Medicine, Philadelphia, PA

1001 MT Shared and somatotopic representation of body ownership in multisensory brain areas
Valeria Petkova[1], Malin Björnsdotter[1], Zakaryah Abdulkarim[1], Giovanni Gentile[1], H. Henrik Ehrsson[1]
[1]Karolinska Institute, Stockholm, Sweden

1002 MT Neuroimaging and genetics of synesthesia
Steffie Tomson[1], Richard Gibbs[1], Suzanne Leal[1], David Eagleman[1]
[1]Baylor College of Medicine, Houston, TX

1003 MT Tactile motion direction processing in hMT+/V5
Bianca van Kemenade[1], Evelin Wacker[2], Felix Blankenburg[2], Philipp Sterzer[3]
[1]Berlin School of Mind & Brain, Berlin, Germany, [2]Department of Neurology and Bernstein Center for Computational Neuroscience, Charité, Berlin, Germany, [3]Department of Psychiatry and Psychotherapy, Campus Charité Mitte, Berlin, Germany

1004 MT Emotional context affects early visual cortex activity
Petra Vetter[1], Karin Petrini[2], Lukasz Piwek[1], Vijay Solanki[1], Frank Pollick[1], Lars Muckli[1]
[1]University of Glasgow, Glasgow, United Kingdom, [2]University College London, London, United Kingdom

1005 MT Compensatory vs atrophy-related neuroanatomical changes in the blind revealed by MT imaging
Patrice Voss[1], GB Pike[1], Robert Zatorre[2]
[1]McGill University, Montreal, Canada, [2]Montreal Neurological Institute, Montreal, Quebec

PERCEPTION AND ATTENTION

Perception: Pain and Visceral

1006 MT Changes in the resting state network in chronic pain patients after administration of LESI
Christopher Buckle[1], Daniel Levin[1], Gregory Katzman[1], Jia-Hong Gao[1]
[1]Department of Radiology University of Chicago Medical Center, Chicago, IL, USA

****1007 MT THE SPATIOTEMPORAL PATTERN OF BRAIN RESPONSES DURING MECHANICAL PAIN**
Franco Cauda[1], Tommaso Costa[2], Matteo Diano[2], Federico D'Agata[1], Katiuscia Sacco[3], Barbara Massa Micon[4], Sergio Duca[5], Giuliano Geminiani[2], Diana Torta[2]
[1]N/A, Turin, Italy, [2]University of Turin, Department of Psychology, Torino, Italy, [3]University of Turin, Turin, Italy, [4]Neurosurgery, CTO Hospital, Turin, Italy, [5]CCS Koelliker Hospital, Torino, Italy

1008 MT Reduced insula activation associated with electric acupuncture: A placebo-controlled fMRI study
Jingling Chang[1,2,3], Markus Savli[3], Ying Gao[1,2], Jan Losak[3], Dan Zhu[1], Andreas Hahn[3], Haizhen Zhong[4], Zhongjian Tan[1], Rupert Lanzenberger[3]
[1]Dongzhimen Hospital of Beijing Chinese University, Beijing, China, [2]The research room of Traditional Chinese Medicine Encephalopathy Syndrome and treatment, Beijing Chinese University, Beijing, China, [3]Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria, [4]National Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

1009 MT Nociception Coma Scale-Revised scores correlate with pain matrix metabolism as measured by PET
Camille Chatelle[1], Aurore Thibaut[1], Melanie Boly[1], Marie-Aurélie Bruno[1], Caroline Schnakers[1], Steven Laureys[1]
[1]Coma Science Group, Cyclotron Research Centre, University of Liège, Liège, Belgium

1010 MT EEG spectral field power mapping of Chinese music perception and Its modulation on tonic human pain
Andrew CHEN*[1], Huixuan ZHAO[1]
[1]Center for Higher Brain Functions, Capital Medical Univers, Beijing, China

****1011 MT Functional brain networks that predict transition from sub acute to chronic back pain**
Javeria Hashmi[1], Alex Baria[1], Marwan Baliki[1], Lejian Huang[1], Souraya Torbey[1], Kristina Herrmann[1], Thomas Schnitzer[1], A. Vania Apkarian[1]
[1]Northwestern University, Chicago, United States

1012 MT Multiple functions of pain induced alpha event-related desynchronization
Li Hu[1], Yong Hu[2], Weiwei Peng[2], Zhiguo Zhang[3]
[1]Key Laboratory of Cognition and Personality and School of Psychology, Southwest University, Chongqing, China, [2]Department of Orthopaedics and Traumatology, the University of Hong Kong, Hong Kong, Hong Kong, [3]Department of Electrical and Electronic Engineering, the University of Hong Kong, Hong Kong, Hong Kong

1013 MT Imaging the Role of Prefrontal Control and Opioidergic Pain Modulation During Prayer
Else-Marie Jegindoe[1], Joshua Skewes[1], Katja Wiech[2], Martin Jensen[1], Armin Geertz[1], Arne Møller[1], Andreas Roepstorff[1], Troels Jensen[1]
[1]Aarhus University, Aarhus, Denmark, [2]University of Oxford, Oxford, United Kingdom

1014 MT Pain Relief Mechanism of Motor Cortex Stimulation: an fMRI Activation and Connectivity Study
Li Jiang[1], Joel Greenspan[2], Yadong Ji[3], Michael Keaser[3], Radi Masri[3,4], David Seminowicz[3], Wang Zhan[5]
[1]University of Maryland Dental School, Baltimore, United States, [2]University of Maryland, Baltimore, MD, [3]University of Maryland Dental School, Baltimore, MD, [4]University of Maryland Medicine School, Baltimore, MD, [5]University of Maryland College Park, College Park, MD

1015 MT S1 is associated with chronic low back pain: a functional and structural MRI study
Jian Kong[1,2], Rosa Spaeth[1], Hsiao-Ying Wey[2], Alexandra Cheetham[1], Amanda Cook[1], Karin Jensen[1], Ying Tan[1], Hesheng Liu[1], Danhong Wang[2], Marco Loggia[1,3], Vitaly Napadow[2], Jordan Smoller[1], Ajay Wasan[3], Randy Gollub[1]
[1]Department of Psychiatry, Massachusetts General Hospital, Charlestown, MA, USA, [2]Athinoula A. Martinos Center for Biomedical Imaging, MGH, Charlestown, MA, USA, [3]Brigham and Women's Hospital, Boston, MA, USA

1016 MT Influence of visceral sensations on attention differs between patients with IBS and healthy controls
Florian Kurth[1], Jennifer Labus[1], Jean Stains[1], Bahar Ebrat[1], Eduardo Vianna[1], Zhiguo Jiang[1], Kirsten Tillisch[1], Bruce Naliboff[1], Emeran Mayer[1]
[1]Center for Neurobiology of Stress, UCLA School of Medicine, Los Angeles, CA

1017 MT The effect of acupuncture needle combination on central heat pain processing-a fMRI study
albert leung[1], Yi Zhao[2], Shiv Shukla[3], Jeng-Ren Duann[4]
[1]University of California, San Diego, School of Medicine, Department of Anesthesiology, San Diego, United States, [2]University of California, San Diego, La Jolla, United States, [3]University of California, San Diego, School of Medicine, Department of Anesthesiology, La Jolla, United States, [4]CMU, Taichung, Chinese Taipei

1018 MT Acquisition of anxiety-potentiated pain is associated with activity in the periaqueductal grey
Chia-Shu Lin[1], Jen-Chuen Hsieh[2], Tzu-Chen Yeh[2], Shyh Lee[3], David Meier Niddam[1]
[1]Brain Research Center, National Yang-Ming University, Taipei, Chinese Taipei, [2]Taipei Veterans General Hospital, Taipei, Chinese Taipei, [3]School of Dentistry, National Yang-Ming University, Taipei, Chinese Taipei

1019 MT Optimising human brainstem fMRI for pain applications
Melvin Mezue[1], Jonathan Brooks[1], Irene Tracey[1]
[1]Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, United Kingdom

1020 MT Heat sensation rather than pain predicts intensity coding in somatosensory cortices
Eric Moulton[1], Gautam Pendse[2], Lino Becerra[3], David Borsook[4]
[1]McLean Hospital, Harvard Medical School, Belmont, United States, [2]McLean Hospital, Harvard Medical School, Belmont, MA, [3]Departments of Psychiatry and Radiology, Massachusetts General Hospital, Harvard Medical School, Charlestown, MA, [4]Department of Radiology, Children's Hospital Boston, Harvard Medical School, Boston, MA

1021 MT Brain Chemistry in Failed Back Surgery Syndrome
Uta Sboto-Frankenstein[1], Jennifer Kornelsen[2], Sunny Thind[3], Theresa McIver[3], Patricia Gervai[3], Mihaela Onu[4], Neil Berrington[5], Paul Wacnik[6], Boguslaw Tomanek[3]
[1]National Research Council Canada, Institute for Biodiagnostics, Winnipeg, Canada, [2]National Research Council Canada Institute for Biodiagnostics, Winnipeg, Canada, [3]National Research Council Institute for Biodiagnostics, Winnipeg, Canada, [4]Clinical Hospital, Bucharest, Romania, [5]Neurosurgery,Faculty of Medicine, University of Manitoba, Winnipeg, Canada, [6]Department of Neuromodulation, Medtronic, Minneapolis, United States

1022 MT BRAIN ACTIVITY DURING SYMPATHETIC RESPONSE IN ANTICIPATION AND EXPERIENCE OF PAIN
Frank Seifert[1], Nadine Schuberth[2], Roberto DeCol[2], Elena Peltz[1], Florian Nickel[1], Christian Maihöfner[1]
[1]Neurology, Erlangen, Germany, [2]Physiology, Erlangen, Germany

1023 MT FMRI weighted MEG in assessing the central dynamics of thermal pain processing
Shiv Shukla[1], Martin Bales[2], albert leung[3], Tao Song[4], Mingxiong Huang[5]
[1]University of California, San Diego, School of Medicine, Department of Anesthesiology, La Jolla, United States, [2]VASDHS, La Jolla, CA, [3]UCSD, San Diego, United States, [4]University of California at San DIego, San Diego, CA, [5]Univ California, San Diego, N/A

1024 MT Now it's crossed now it's not: investigating the neural basis of the crossed hands analgesia
Diana Torta[1], Matteo Diano[1,2], Tommaso Costa[1,2], Giuliano Geminiani[1,2], Sergio Duca[2], Franco Cauda[1,2]
[1]University of Turin, Department of Psychology, Torino, Italy, [2]CCS Koelliker Hospital, Torino, Italy

1025 MT A combined TMS-EEG study for the investigation of the neural mechanisms of the TMS-induced analgesia
Diana Torta[1], Valéry Legrain[2], Julie Duqué[2], Etienne Olivier[2], André Mouraux[2]
[1]University of Turin, Department of Psychology, Torino, Italy, [2]Université Catholique de Louvain, Brussels, Belgium

1026 MT Modulation of Functional Connectivity by Expectancy and Electro-acupuncture Stimulation
Hsiao-Ying Wey[1,2], Randy Gollub[2,1], Jian Kong[2,1]
[1]Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA, United States, [2]Department of Psychiatry, Massachusetts General Hospital, Charlestown, MA, United States

PERCEPTION AND ATTENTION

Perception: Tactile/Somatosensory

1027 MT Brain reorganization of somatosensory function in a patient with deficient finger proprioception
Hana Burianova[1], Mark Williams[1], Anina Rich[1], Greg Savage[1]
[1]Macquarie University, Sydney, Australia

1028 MT A study of cortical responses to inter- and intra-digit tactile stimulation
Yoon Gi Chung[1], Junsuk Kim[1], Jae Kyun Ryu[2], Mi Hyun Choi[2], Hyung-Sik Kim[2], Soon-Cheol Chung[2], Jang-Yeon Park[2], Sung-Phil Kim[1]
[1]Korea University, Seoul, Korea, Republic of, [2]Konkuk University, Chungju, Korea, Republic of

1029 MT Functional Connectivity Analyses Reveal Efference Copy Signal to BA2
Fang Cui[1], Arnstein Dan[2], Christian Keysers[3], Natalia Maria Maurits[4], Valeria Gazzola[5]
[1]Department of Neuroscience University Medical Center Groningen; Netherlands Institute for Neurosciece, Amsterdam, Netherlands, [2]Department of Neuroscience, University Medical Center Groningen, Groningen, Netherlands, [3]Netherlands Institute for Neuroscience, Amsterdam; University Medical Center Groningen, Amsterdam, Netherlands, [4]University Medical Center Groningen, Groningen, Netherlands, [5]University Medical Center Groningen; Netherlands Institute for Neurosciece, Amsterdam, Netherlands

1030 MT Mapping of the somatosensory cortex using MRI-compatible Braille stimulator
Weronika Debowska[1], Tomasz Wolak[2], Pawel Soluch[3], Malgorzata Kossut[1]
[1]Nencki Institute of Experimental Biology, Warsaw, Poland, [2]Institute of Physiology and Pathology of Hearnig, Kajetany, Poland, [3]Institute of Sensory Analysis, Warsaw, Poland

1031 MT Touch and personality: Extraversion predicts somatosensory brain response
Claudia Denke[1], Maria Deja[1], Michael Rotte[2], Hans-Jochen Heinze[2], Michael Schaefer[2]
[1]Department of Anesthesiology and Intensive Care Medicine, Charité – Universitaetsmedizin Berlin, Berlin, Germany, [2]University of Magdeburg, Magdeburg, Germany

1032 MT Electroacupuncture modulating the Limbic-medial prefrontal Network
jiliang Fang[1], hesheng Liu[2], Xiaoling Wang[1], Yin Wang[3], Yang Hong[1], jun liu[3]
[1]Functional Brain Imaging Lab, Dept. of Radiology, Guang An Men Hospital, Beijing, China, [2]Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charles town, MA, [3]Department of Acupuncture and Moxibustion, Guang An Men Hospital, Beijing, China

1033 MT Cortical distance between S1 finger representations: comparing Euclidean and geodesic measures
Amanda Kaas[1], Mona Rosenke[1], Judith Eck[1], Martin Frost[1], Rainer Goebel[1]
[1]Maastricht University, Maastricht, Netherlands

1034 MT Serial Processing of Tactile Vibratory Stimulus Location and Frequency in Human Somatosensory Cortex
Christian Kalberlah[1], Arno Villringer[1,2,3], Burkhard Pleger[1,2,3]
[1]Department of Neurology, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Clinic for Cognitive Neurology, University Hospital Leipzig, Leipzig, Germany, [3]Mind and Brain Institute, Berlin School of Mind and Brain, Humboldt-University, Berlin, Germany

1035 MT Meta-analysis of Brain Activity Associated With Acupuncture Needle Stimulation
Inseon Lee[1], Won-Mo Jung[2], Soon-Ho Lee[1], Younbyoung Chae[1]
[1]Acupuncture and Meridian Science Research Center, Kyung Hee University, Seoul, Korea, Republic of, [2]Dept of Brain Cognitive Engineering, Korea University, Seoul, Korea, Republic of

1036 MT Neural correlate of placebo effect and autonomic response induced by phantom acupuncture stimulation
Jeungchan Lee[1], Changjin Jung[1], Jieun Kim[2], Geonho Jahng[3], Vitaly Napadow[2], Kyungmo Park[4]
[1]Kyung Hee University, Yong-in, Korea, Republic of, [2]Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA, USA, [3]Kyung Hee East-West Neo Medical Center, Seoul, Korea, Republic of, [4]Kyung Hee University, Yongin, Korea, Republic of

1037 MT Neuromagnetic Correlates of Vibrotactile Adaptation
David McGonigle[1], Richard Edden[2], Krish Singh[1], Nicolaas Puts[2,1]
[1]CUBRIC, Cardiff University, Cardiff, United Kingdom, [2]The Johns Hopkins University School of Medicine, Baltimore, MD

1038 MT Acupuncture Point Specific Brain Activity Changes in EEG and fMRI
Till Nierhaus[1], Daniel Pach[1], Wenjing Huang[2], Xiangyu Long[3], Claudia Witt[1], Arno Villringer[3]
[1]Charité University Medical Center, Berlin, Germany, [2]Chengdu University of Traditional Chinese Medicine, Chengdu, China, [3]Max-Planck-Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

1039 MT Spatiotemporally Selective Evidence for Predictive Codes in the Human Somatosensory System
Dirk Ostwald[1,2], Bernhard Spitzer[1], Matthias Guggenmos[1], Timo Schmidt[1], Stefan Kiebel[3], Felix Blankenburg[1]
[1]Department of Neurology and Bernstein Center for Computational Neuroscience, Berlin, Germany, [2]School of Psychology, University of Birmingham, Birmingham, United Kingdom, [3]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

1040 MT Mirror System Involved in Tactile Stimuli
Erick Pasaye[1], Sarael Alcauter[2], Roberto Mercadillo[1], Clemens Bauer[1], Jorge Paz Gutierrez[3], Jesus Taboada[4], Fernando Barrios[5]
[1]Instituto de Neurobiología, Universidad Nacional Autónoma de México, Querétaro, México., [2]Instituto Nacional de Psiquiatria, INPRF, México D.F., México, [3]Hospital Puerta de Hierro, Guadalajara Jal., Mexico, [4]Instituto Nacional de Neurología y Neurocirugia, México DF, México, [5]Instituto de Neurobiología, Universidad Nacional Autónoma de México, Querétaro, México

1041 MT Does secondary somatosensory cortex contribute to somatosensation? A lesion mapping study
Sven Preusser[1], Sabrina Thiel[1,2], Carolin Rook[1], Felix Blankenburg[2,3], Arno Villringer[1,2,3,4,5], Jon Driver[6], Burkhard Pleger[1,5]
[1]Max Planck Institute for Human Cognitive and Brain Science, Leipzig, Germany, [2]Berlin NeuroImaging Center and Dept. Neurology, Charité, Berlin, Germany, [3]Berlin School of Mind&Brain and Mind&Brain Institute, Humboldt-University, Berlin, Germany, [4]Center for Stroke Research Berlin, Charité, Berlin, Germany, [5]Clinic for Cognitive Neurology, University Hospital Leipzig, Leipzig, Germany, [6]UCL Institute of Cognitive Neuroscience, London, United Kingdom

1042 MT Interindividual differences and vicarious somatosensory responses during touch observation
Michael Schaefer[1], Hans-Jochen Heinze[1], Michael Rotte[1]
[1]University of Magdeburg, Magdeburg, Germany

1043 MT Novel analysis approach to test for intra-digit somatotopy in fMRI data of human BA 3b
Meike Annika Schweisfurth[1,2], Renate Schweizer[1], Jens Frahm[1]
[1]Biomedizinische NMR Forschungs GmbH, Max-Planck-Institut fuer biophysikalische Chemie, Goettingen, Germany, [2]Cognitive Neuroscience Laboratory, German Primate Center, Goettingen, Germany

1044 MT High-resolution fMRI of somatosensory finger representations in a case of complete pli de passage
Renate Schweizer[1], Meike Annika Schweisfurth[1], Jens Frahm[1]
[1]Biomedizinische NMR Forschungs GmbH, Max-Planck-Institut fuer biophysikalische Chemie, Goettingen, Germany

1045 MT A MRI-Compatible Tactile Orientation Stimulator to Investigate Brain Activation of Tactile Memory
Yinghua Yu[1], Jiajia Yang[2], Qiyong Guo[3], Hongzan Sun[3], Jinglong Wu[2]
[1]Graduate School of Natural Science and Technology, Okayama university, Okayama, Japan, [2]Graduate School of Natural Science and Technology, Okayama University, Okayama, Japan, [3]Department of Radiology, Shengjing Hospital of China Medical University, Shenyang, China

PERCEPTION AND ATTENTION

Perception: Visual

1046 MT **Attention enhances category information of fMRI response patterns to visual objects**
Arjen Alink[1], Marta Correia[1], Nikolaus Kriegeskorte[1]
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1047 MT **FMRI of Phosphenes Experienced by Patients with Leber Congenital Amaurosis (LCA)**
Manzar Ashtari[1], Laura Cyckowski[1], Kathleen Marshall[2], Daniel Chung[3], Kenneth Shindler[3], Albert Maguire[3], Jean Bennett[3]
[1]Children's Hospital of Philadelphia, Philadelphia, United States, [2]Children's Hospital of Philadelphia, Philadelphia, PA, [3]Scheie Eye Institute, University of Pennsylvania, Philadelphia, PA

1048 MT **Subliminal and supraliminal stimuli elicit opposite neuronal responses**
Isabelle Bareither[1,2], Arno Villringer[1,2], Niko Busch[3]
[1]Max-Planck-Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Mind & Brain Institute, Humboldt Universität, Berlin, Germany, [3]Universitätsmedizin Charité, Medizinische Psychologie, Berlin, Germany

1049 MT **Face and house-specific gaze patterns modulate FFA and PPA activation**
Florian Baumgartner[1], Stefan Pollmann[2,3]
[1]Otto-von-Guericke Universität Magdeburg, Magdeburg, Germany, [2]Otto-von-Guericke Univerität Magdeburg, Magdeburg, Germany, [3]Center of Behavioral Brain Sciences, Magdeburg, Germany

1050 MT **Retinotopy of V1, V2, and V3 is well predicted by cortical surface anatomy**
Noah Benson[1], Omar Butt[2], Ritobrato Datta[1], David Brainard[1], Geoffrey Aguirre[1]
[1]University of Pennsylvania, Philadelphia, PA, [2]University of Pennsylvania, Philadelphia, PA

1051 MT **The left lateral occipitotemporal cortex: where objects we act with become extensions of hands**
Stefania Bracci[1], Marius Peelen[2]
[1]Center of Mind/Brain Sciences, University of Trento, Rovereto, Italy, [2]Center for Mind/Brain Sciences, University of Trento, Rovereto, Italy

1052 MT **Optimal Face Network Localization in Autism: A Comparison of Two Methodologies**
Aaron Browne[1], Vanessa Troiani[2], Robert Schultz[3]
[1]Center for Autism Research, Children's Hospital of Philadelphia, Philadelphia, United States, [2]Center for Autism Research, Children's Hospital of Philadelphia; Neuroscience, U of Pennsylvania, Philadelphia, United States, [3]Center for Autism Research, Children's Hospital of Philadelphia; Ped & Psych, U of Pennsylvania, Philadelphia, United States

****1053 MT** **Layer specific fMRI correlates of motion processing in human cortical areas V1 and MT**
Denis Chaimow[1], Essa Yacoub[2], David Feinberg[3], Ute Goerke[1], Kamil Ugurbil[1], Amir Shmuel[4,5]
[1]University of Minnesota, Minneapolis, MN, United States, [2]University of Minnesota, Minneapolis, United States, [3]Advanced MRI Technologies, UC Berkeley, Berkeley, CA, United States, [4]Montreal Neurological Institute, Montreal, Canada, [5]University of Minnesota, Minneapolis, MN

1054 MT **N170 differentiating processing of facial attractiveness and emotion: An ERP Study**
Chetwyn Chan[1], Jin-tu Fan[2], Tatia MC Lee[3], Delin Sun[3], Kin-hung Ting[1]
[1]Applied Cognitive Neuroscience Laboratory, The Hong Kong Polytechnic University, Hong Kong, Hong Kong, [2]Institute of Textiles and Clothing, The Hong Kong Polytechnic University, Hong Kong, Hong Kong, [3]Laboratory of Cognitive Affective Neuroscience, The University of Hong Kong, Hong Kong, Hong Kong

1055 MT **Causal evidence for distinct roles of beta and low-gamma frontal activity in visual perception**
Lorena Chanes[1], Romain Quentin[2], Antoni Valero-Cabre[3]
[1]Université Pierre et Marie Curie - ICM, Paris, France, [2]INSERM, N/A, [3]CNRS UMR 7225 CRICM / Boston University School of Medicine, Paris, France

***1056 MT** **Individually unique representations of particular objects in human inferior temporal cortex (O-T4)**
Ian Charest[1], Diana Deca[2,1], Nikolaus Kriegeskorte[1]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom, [2]Institute of Neuroscience, Technische Universitat Munchen, Munchen, Germany

1057 MT **The ERFP temporal-spatial dynamics of human brain mapping in size recognition**
Andrew CHEN*[1]
[1]Center for Higher Brain Functions, Capital Medical University, Beijing, China

1058 MT Percept over concept: Distinct sex/gender differentiation in ERFP temporal-spatial brain function
Andrew CHEN*[1], Guozhen LI[2]
[1]Center for Higher Brain Functions, Capital Medical Univers, Beijing, China, [2]Center for Higher Brain Functions, Capital Medical University, Beijing, China

1059 MT BOLD-fMRI responses in human MT complex are modulated by motion speed
Mauro Costagli[1], Anna Gaglianese[2], Pietro Pietrini[2]
[1]IMAGO7 Foundation, Pisa, Italy, [2]Laboratory of Clinical Biochemistry and Molecular Biology, University of Pisa, Pisa, Italy

1060 MT FMRI of color stimuli in Leber congenital amaurosis and correlations with OCT
Laura Cyckowski[1], Daniel Chung[2], Kathleen Marshall[3], Kenneth Shindler[2], Albert Maguire[2], Jean Bennett[2], Manzar Ashtari[3]
[1]Children's Hospital of Philadelphia, N/A, [2]Scheie Eye Institute, University of Pennsylvania, Philadelphia, PA, [3]Children's Hospital of Philadelphia, Philadelphia, PA

1061 MT Interhemispheric Transfer of Predictive Coding measured using fMRI
Grace Edwards[1], Lars Muckli[1], Petra Vetter[1]
[1]The University of Glasgow, Centre of Cognitive Neuroimaging, Glasgow, United Kingdom

1062 MT Decoding the direction of visual motion in perception and imagery using multi-voxel pattern analysis
Thomas Emmerling[1,2], Bettina Sorger[1,2], Rainer Goebel[1,2,3]
[1]Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, Netherlands, [2]Maastricht Brain Imaging Center (M-BIC), Maastricht, Netherlands, [3]Netherlands Institute for Neuroscience (NIN), Amsterdam, Netherlands

1063 MT Semantic Representation within Person and Place Selective Brain Regions
Scott Fairhall[1,2], Stefano Anzellotti[2], Silvia Ubaldi[1], Alfonso Caramazza[1,2]
[1]Center for Mind/Brain Sciences, University of Trento, Trento, Italy, [2]Harvard University, Cambridge, MA

1064 MT Face perception is mediated by linear and non-linear alpha and beta frequency coupling
nicholas furl[1], Bruno Averbeck[2], Daniel Weinberger[3], Richard Coppola[3]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom, [2]National Institutes of Mental health, Bethesda, MD, [3]NIMH/NIH, Bethesda, MD

1065 MT ERFP Mapping of Gender Differences in Chinese Name Perceptions
Yingxiao GAO[1], Andrew CHEN*[2]
[1]Center for Higher Brain Functions, Capital Medical Univers, Beijing, China, [2]Center for Higher Brain Functions, Capital Medical University, Beijing, China

***1066 MT Callosal connections and surface area of V1 predict subjective experience of binocular rivalry (O-T4)**
Erhan Genc[1,2], Johanna Bergmann[1,3], Frank Tong[4], Randolph Blake[5], Wolf Singer[1,6], Axel Kohler[1,7]
[1]Max Planck Institute for Brain Research, Frankfurt am Main, Germany, [2]Brain Imaging Center Frankfurt, Frankfurt am Main, Germany, [3]School of Psychology, University of New South Wales, Sydney, Australia, [4]Department of Psychology, Vanderbilt University, Vanderbilt, TN, [5]Vanderbilt Vision Research Center, Vanderbilt University, Vanderbilt, TN, [6]Frankfurt Institute for Advanced Studies, Goethe University, Frankfurt am Main, Germany, [7]Institute of Psychology, University of Münster, Münster, Germany

1067 MT Representations of Face Identity Information in Ventral Visual Stream using Multi-voxel Analyses
Elfi Goesaert[1], Hans Op de Beeck[1]
[1]University of Leuven (KULeuven), Leuven, Belgium

1068 MT Perceptual Learning alters Neural Tuning in Large-Scale Fronto-Parietal Brain Networks
Marcus Grueschow[1], John-Dylan Haynes[2], Christian Ruff[1]
[1]University of Zurich, Zurich, Switzerland, [2]BCCN, Berlin, Berlin, Germany

***1069 MT A Developmental Study of Face Identity Processing Using FMRI Adaptation (O-T4)**
Frank Haist[1], Jarnet Han[1], Elizabeth Toomarian[1], Mehdi Bouhaddou[1], Maha Adamo[1]
[1]UC San Diego, La Jolla, CA, United States

1070 MT The EEG Oscillations Associated with Encoding of Physics Concepts
Hsiao-Ching She[1], Kevin Lai[1], Sheng-Chen Chen[1], Klaus Germann[2], Tzyy-Ping Jung[3]
[1]Institute of Education, National Chiao Tung University, Hsin Chu, Chinese Taipei, [2]Institute of Cognitive Science, University of Osnabrueck, Osnabrueck, Germany, [3]Institute for Neural Computation, University of California, San Diego, California, United States

1071 MT Perception of Configural and Component Information in Own-Race and Other-Race Faces: An fMRI Study
William Hayward[1], Mintao Zhao[2], Sing-hang Cheung[1], Alan Wong[3], Gillian Rhodes[4], Erich Chan[1], Winnie Chan[1]
[1]University of Hong Kong, Pokfulam Road, Hong Kong, [2]Brown University, Providence, RI, [3]Chinese University of Hong Kong, Shatin, Hong Kong, [4]University of Western Australia, Perth, WA, Australia

***1072 MT Is the domain organization of ventral visual pathway independent of visual experience and modality? (O-T4)**
Chenxi He[1], Marius Peelen[2], Zaizhu Han[1], Nan Lin[1], Alfonso Caramazza[2], Yanchao Bi[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Center for Mind/Brain Sciences, University of Trento, Trento, Italy

1073 MT Brain Mechanism of Face Familarity Processing: An ERP Study
Wanyi Huang[1], Zhe Qu[1], Yulong Ding[1]
[1]Sun Yat-Sen University, Guangzhou, China

1074 MT Event-related changes in spontaneous brain activities during eye gaze perception
Sunao Iwaki[1]
[1]National Institute of Advanced Industrial Science and Technology (AIST), Osaka, Japan

1075 MT Separate Neural Correlates in Change Blindness with Two Different Interstimulus intervals
Jiyoung Kim[1], Sung-Ho Woo[1], JiWoon Jeong[1], Hyun Taek Kim[1]
[1]Department of Psychology, Korea University, Seoul, Korea, Republic of

1076 MT Pre-motor cortices are affected by paired object affordance and verbal action primes
Sanjay Kumar[1], Eun-Young Yoon[1], Glyn Humphreys[2], Pia Rotshtein[1]
[1]University of Birmingham, Birmingham, United Kingdom, [2]University of Oxford, Birmingham, United Kingdom

1077 MT Mental rotation of human hands: Effects of hand facing and orientation on the cerebral processes
Guozhen LI[1], Andrew CHEN*[1]
[1]Center for Higher Brain Functions, Capital Medical University, Beijing, China

1078 MT Behavioral and MEG clues for dyslexia diagnostic tests using (pseudo)letters &non-linguistic stimuli
Lichan Liu[1], Gijs Plomp[2], Cees van Leeuwen[3], Andreas Ioannides[1]
[1]Lab for Human Brain Dynamics, AAI Scientific Cultural Services Ltd, Nicosia, Cyprus, [2]Department of Fundamental Neuroscience, University of Geneva, Geneva, Switzerland, [3]Katholieke Universiteit Leuven, Faculteit PPW, Leuven, Belgium

1079 MT Color-based attention and visual awareness rely on independent neural mechanisms
Ying Liu[1], Anne-Lise Paradis[1], Lydia Yahia-Cherif[2], Catherine Tallon-Baudry[3]
[1]Cricm; Inserm, U975; CNRS, UMR 7225, Paris, France, [2]CENIR, paris, France, [3]Cricm; Inserm, U975; CNRS, UMR 7225; CENIR, paris, France

1080 MT Post-stimulus Trial-by-trial EEG Variability Indexes Mean and Variance of Pre-stimulus α Power
Bin Lou[1], Yun Li[1,2], Jennifer Walz[1], Paul Sajda[1]
[1]Columbia University, New York, United States, [2]Tsinghua University, Beijing, China

1081 MT Rubens in the brain - The neurofunctional processing of corporeity in different medial contexts
Aline Lutz[1], Armin Nassehi[2], Anikó Sztrókay[3], Thomas Meindl[4], Maximilian Reiser[4], Ernst Pöppel[5], Yan Bao[6], Kai Fehse[7], Evgeny Gutyrchik[8]
[1]Ludwig-Maximilians-University Munich, Human Science Center, Institute of Sociology, Munich, Germany, [2]Ludwig-Maximilians-University, Institute of Sociology, Human Science Center, Munich, Germany, [3]Ludwig-Maximilians-University Munich, Institute of Clinical Radiology, Munich, Germany, [4]Ludwig Maximilians University Munich, Institute of Clinical Radiology, Munich, Germany, [5]Human Science Center, Institute of Medical Psychology, Munich, Germany, [6]Beijing University, Department of Psychology, Beijing, China, [7]Ludwig-Maximilians-University, Human Science Center, Munich, Germany, [8]Institute of Medical Psychology, Human Science Center, Munich, Germany

1082 MT Early visual BOLD orientation anisotropies under varying perceptual noise
Daniel Mitchell[1], Saša Redžepovič[2], Nikolaus Kriegeskorte[1]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom, [2]Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, the Netherlands

1083 MT Spatial frequency integration in scene perception: an ERP study
Tonglin Mu[1], Sheng Li[1]
[1]Department of Psychology and Key Laboratory of Machine Perception (MoE), Peking University, Beijing, China

1084 MT Coding of dynamic form in the human occipito-temporal cortex
Tanya Orlov[1], Yuval Porat[1], Ehud Zohary[2]
[1]Dept. of Neurobiology, Hebrew University of Jerusalem, Jerusalem, Israel, [2]Dept. of Neurobiology, ICNC and ELSC, Hebrew University of Jerusalem, Jerusalem, Israel

1085 MT The Spatial Coordinates of Repetition-Suppression for Objects in the Human Ventral Visual Pathway
Yuval Porat[1], Ayelet Mckyton[1], Tanya Orlov[1], Ehud Zohary[1,2,3]
[1]Hebrew University of Jerusalem, Department of Neurobiology, Jerusalem, Israel, [2]Interdisciplinary Center for Neural Computation, Hebrew University, Jerusalem, Israel, [3]3The Edmond & Lily Safra Center for Brain Sciences, Hebrew University, Jerusalem, Israel

1086 MT White matter regions correlated with visual sensitivity improvements induced by rythmic TMS patterns
Romain Quentin[1], Lorena Chanes[1], Antoni Valero-Cabre[2]
[1]INSERM UMR 975 CRICM, Paris, France, [2]CNRS UMR 7225 CRICM / Boston University School of Medicine, Paris, France

1087 MT Response properties of face processing regions as revealed by dynamic visual stimulation and fMRI
Meike Ramon[1,2], Luca Vizioli[3,2], Joan Liu[1], Bruno Rossion[1]
[1]Université catholique de Louvain, Institute of Psychology, Institute of Neuroscience, Louvain-la-Neuve, Belgium, [2]University of Glasgow, Centre for Cognitive Neuroimaging, Institute of Neuroscience & Psychology, Glasgow, United Kingdom, [3]Université de Fribourg, Department of Psychology, Fribourg, Switzerland

1088 MT MEG Correlates of Stabilization of Binocular Rivalry
Kristian Sandberg[1], Gareth Barnes[2], Morten Overgaard[1], Geraint Rees[3]
[1]Cognitive Neuroscience Research Unit, Aarhus University Hospital, Aarhus, Denmark, [2]Wellcome Trust Centre for Neuroimaging, Institute of Neurology, University College London, London, United Kingdom, [3]Institute of Cognitive Neuroscience, University College London., London, United Kingdom

1089 MT The Consequences of Human Visual Cortical Architecture for Visual Processing
Dietrich Samuel Schwarzkopf[1], Chen Song[2], David Robertson[2], Gareth Barnes[3], Geraint Rees[4]
[1]UCL Institute of Cognitive Neuroscience & Wellcome Trust Centre for Neuroimaging at UCL, LONDON, United Kingdom, [2]UCL Institute of Cognitive Neuroscience, London, United Kingdom, [3]Wellcome Trust Centre for Neuroimaging at UCL, London, United Kingdom, [4]UCL Institute of Cognitive Neuroscience & Wellcome Trust Centre for Neuroimaging at UCL, London, United Kingdom

1090 MT Adaptation Decorrelates Neural Activation Pattern in Visual Cortex
Fariba Sharifian[1], Lauri Nummenmaa[2,3], Simo Vanni[2]
[1]Brain Research Unit, O.V. Lounasmaa Laboratory, School of Science, Aalto University, Espoo, Finland, [2]AMI Centre and Brain Research Unit, O.V. Lounasmaa Laboratory, School of Science, Aalto University, Espoo, Finland, [3]Turku PET Centre, Turku, Finland

1091 MT Human brain area for seeing numbers
Jennifer Shum[1], Mohammad Dastjerdi[1], Brett Foster[1], Jonathan Winawer[1], Vinitha Rangarajan[1], Dora Hermes[1], Kai Miller[1], Josef Parvizi[1]
[1]Stanford University, Stanford, CA

1092 MT Matching Reality in the Arts: Processing of Naturalistic Compared to Surrealistic Images
Sarita Silveira[1], Verena Graupmann[2], Dieter Frey[3], Janusch Blautzik[4], Thomas Meindl[5], Maximilian Reiser[5], Yan Bao[6], Ernst Pöppel[1], Evgeny Gutyrchik[1]
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1093 MT Comparison of fNIRS signals elicited by cardinal and oblique gratings
meirong Sun[1], Jing Huang[1], An An[1], Haijing Niu[1], Yan Song[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning,Beijing Normal University, Beijing, China

1094 MT Imaging human face and object responsive visual areas with spin-echo and gradient-echo fMRI
Topi Tanskanen[1], R Waggoner[1], Kenichi Ueno[1], Keiji Tanaka[1], Kang Cheng[1]
[1]RIKEN BSI, Wako, Japan

1095 MT Interplay between FFA and precuneus during person identification: multivariate information analysis
Job van den Hurk[1,2], Sebastian Laufer[1], Bernadette Jansma[1,2]
[1]Maastricht University, Maastricht, Netherlands, [2]Maastricht Brain Imaging Center, Maastricht, Netherlands

1096 MT The transformation of representational similarity along the human ventral stream
Alexander Walther[1], Nikolaus Kriegeskorte[1]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom

1097 MT Comparison of Orientation Discrimination Learning of Real Line and Imagery Line with ERPs
Fang Wang[1], Xiang Zhong[1], meirong Sun[1], Jing Huang[1], Yan Song[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Bejing Normal University, Beijing, China

1098 MT Functional Definition of Human Visual Motion Area based on Wide Field Retinotopy
Tianyi Yan[1], Jinglong Wu[2]
[1]School of Life Science and Technology, Beijing Institute of Technology, Beijing, China, [2]Graduate School of Natural Science and Technology, Okayama University, Okayama, Japan

1099 MT Feature conjunctions are represented in inferior and superior parietal lobe
Wolf Zinke[1], Florian Baumgartner[1], Michael Hanke[1,2], Franziska Geringswald[1], Stefan Pollmann[1,3]
[1]Department of Experimental Psychology, Otto-von-Guericke University, Magdeburg, Germany, [2]Dartmouth College, Hanover, NH, USA, [3]Center for Behavioral Brain Sciences, Magdeburg, Germany

PERCEPTION AND ATTENTION

Sleep and Wakefulness

1100 MT Partial sleep deprivation effects on resting state functional connectivity and neurotransmitters
Naranjargal Dashdorj[1], Antonio Napolitano[1,2], Ella Cooper[1,3], Dorothee Auer[1]
[1]University of Nottingham, Nottingham, United Kingdom, [2]Department of Occupational Health and Safety, Medical Physics, Bambin Gesù Children Hospital, Rome, Italy, [3]Brighton and Sussex Medical School, Brighton, United Kingdom

1101 MT Neural correlates of lucid dreaming: a combined EEG/fMRI study
Martin Dresler[1], Renate Wehrle[1], Victor Spoormaker[1], Stefan Koch[2], Axel Steiger[1], Hellmuth Obrig[3], Michael Czisch[1]
[1]Max Planck Institute of Psychiatry, Munich, Germany, [2]Berlin NeuroImaging Center, Charité University Hospital, Berlin, Germany, [3]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

1102 MT Phase-amplitude coupling in human hippocampal EEG recordings during waking state and sleep
Juergen Fell[1], Nikolai Axmacher[1], Christoph Helmstaedter[1], Mathilde Bonnefond[2], Roemer van der Meij[2], Christian Elger[1], Bernhard Staresina[3]
[1]Dept. of Epileptology, Univ. of Bonn, Bonn, Germany, [2]FC Donders Centre for Cognitive Neuroimaging, Nijmegen, Netherlands, [3]MRC Cognition & Brain Sciences Unit, Cambridge, United Kingdom

1103 MT Hemodynamic correlates of human non-rapid eye movement sleep stage transitions
Crystal Goh[1], Vincent Walsh[2], Ryota Kanai[2]
[1]Institute of Cognitive Neuroscience, UCL, London, United Kingdom, [2]University College London, London, United Kingdom

1104 MT Sleep and real-life declarative learning
Kerstin Hoedlmoser[1], Kathrin Bothe[1], Tina Moeckel[1], Philippe PEIGNEUX[2], Wolfgang Klimesch[1], Manuel Schabus[3]
[1]University of Salzburg, Salzburg, Austria, [2]Université Libre de Bruxelles (ULB), Bruxelles, Belgium, [3]University of Salzburg, N/A

1105 MT Spindles and brain activity in the spindle frequency range during human stage 2 sleep
Andreas Ioannides[1], Lichan Liu[1], Yuko Urakami[2], George Kostopoulos[3]
[1]Lab for Human Brain Dynamics, AAI Scientific Cultural Services Ltd, Nicosia, Cyprus, [2]National Rehabilitation Center for Persons with Disabilities, Tokorozawa, Japan, [3]Neurophysiology Unit, Department of Physiology, University of Patras, Patras, Greece

1106 MT Increase in cortico-thalamo-cortical connectivity during human sleep slow wave activity
Caroline Kussé[1], Rémy Lehembre[1], Ariane Foret[1], Laura Mascetti[1], Pierre Maquet[1], Melanie Boly[1]
[1]University of Liège, Cyclotron Research Centre, Liège, Belgium

1107 MT Locally-Desynchronized Frontal Cortex Is Disconnected from Posterior Brain During Slow-Wave Sleep
Xiao Liu[1], Silvina Horovitz[2,1], Allen Braun[3], Walter Carr[4], Dante Picchioni[5], Thomas Balkin[5], Masaki Fukunaga[1], Jeff Duyn[1]
[1]AMRI, LFMI, NINDS, NIH, Bethesda, MD, USA, [2]HMCS, NINDS, NIH, Bethesda, MD, USA, [3]National Institute pf Health, Bethesada, MD, USA, [4]Naval Medical Research Center, Silver Spring, MD, USA, [5]Department of Behavioral Biology, Walter Reed Army Institute of Research, Silver Spring, MD, USA

1108 MT Haemodynamic coupling of K-complexes during sleep deprived and non-sleep deprived conditions
David Rollings[1,2], Stephen Mayhew[1], Andrew Bagshaw[1]
[1]School of Psychology, University of Birmingham, Birmingham, United Kingdom, [2]Neuroscience Department, Queen Elizabeth Hospital, Birmingham, United Kingdom

1109 MT The fate of incoming stimuli during deep sleep is determined by spontaneous NREM sleep features
Manuel Schabus[1,2], Thien Thanh Dang-Vu[2], Melanie Boly[3], Dominik Heib[1], Martin Desseilles[4], Genevieve Albouy[5], Anabelle Darsaud[2], Christina Schmidt[2], Steffen Gais[2], Gilles Vandewalle[2], Christophe Phillips[2], Christian Degueldre[2], Evelyne Balteau[2], Andre Luxen[2], Pierre Maquet[2]
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1110 MT Decoding Vigilance States From Brain Functional Connectivity Graphs
Manuel Sebastian Schröter[1,2], Andre Altmann[1], Sara Kiem[1], Victor Spoormaker[1], Renate Wehrle[1], Edward Bullmore[2], Michael Czisch[1], Philipp Sämann[1]
[1]Max Planck Institute of Psychiatry, Munich, Germany, [2]Brain Mapping Unit, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom

1111 MT Consistency of brain activity during sleep stages within subjects
Yu-Chin Wu[1], Pei-Jung Tsai[2], Po-Yu Liu[3], Changwei Wu[4], Ching-Po Lin[2], Keh-Shih Chuang[5], Sharon Chia-Ju Chen[6]
[1]Institute of Nuclear Engineering and Science, National Tsing-Hua University, Hsin-Chu, [2]Institute of Brain Science, National Yang-Ming University, Taipei, [3]Department of Biomedical Imaging and Radiological Sciences, National Yang-Ming University, Taipei, [4]Graduate Institute of Biomedical Engineering, National Central University, Taoyuan, [5]Department of Biomedical Engineering and Environmental Sciences, National Tsing-Hua University, Hsin-Chu, [6]Kaohsiung Medical University, Kaohsiung

SOCIAL NEUROSCIENCE

Social Cognition

1112 MT Contributions of Top-Down and Bottom-Up Features to Social Action Perception
Emily Cross[1,2], Roman Liepelt[3], Wolfgang Prinz[4], Antonia Hamilton[5]
[1]Bangor University, Bangor, United Kingdom, [2]Radboud University Nijmegen, Nijmegen, Netherlands, [3]Universität Münster, Münster, Germany, [4]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [5]University of Nottingham, Nottingham, United Kingdom

1113 MT Seeing it their way or my way: Neural substrates for selecting between visual perspectives
Richard Ramsey[1], Ian Apperly[2], Peter Hansen[3], Dana Samson[4]
[1]Bangor University, Bangor, United Kingdom, [2]University of Birmingham, Birmingham, United Kingdom, [3]University of Birmingham, School of Psychology, Birmingham, United Kingdom, [4]Catholic University of Louvain, Louvain-La-Neuve, Belgium

SCHEDULE OF POSTER PRESENTATIONS

Wednesday, June 13, 2012 and Thursday, June 14, 2012

* Indicates poster will also be presented during an Oral Session. The oral session number is indicated in parantheses after the poster title.

** Indicates poster will also be presented during an Interactive Poster (I-Poster) Session. Please check the Program Book for I-Poster Presentation times.

Information listed, including author affiliations, appear as submitted.

BRAIN STIMULATION METHODS

Deep Brain Stimulation

1 WTh Optimal SCC DBS electrode placement determined by structural connectivity to prefrontal cortex
KI SUENG CHOI[1], Paul Holtzheimer[2], Alexandre Franco[3], Patricio Posse[4], Xiaoping Hu[5], Helen Mayberg[4]
[1]Georgia Institute of Technology / Emory University, Atlanta, United States, [2]Dartmouth Medical School, Lebanon, NH, [3]Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, [4]Emory University, Atlanta, GA, [5]Georgia Tech/Emory University, Atlanta, GA

2 WTh Geometrical distortions of 7T MRI and their implications for clinical applications
Yuval Duchin[1], Aviva Abosch[1], Essa Yacoub[1], Guillermo Sapiro[1], Noam Harel[1]
[1]University of Minnesota, Minneapolis, MN

3 WTh Deep Brain Stimulation normalizes nucleus accumbens activity in obsessive-compulsive disorder
Martijn Figee[1], Judy Luigjes[1], Matthijs Vink[2], damiaan denys[1]
[1]AMC, Amsterdam, Netherlands, [2]Rudolf Magnus Institute of Neuroscience, Utrecht, Netherlands

***4 WTh Default Mode Network Functional Structure Predicts Treatment Response of Deep Brain Stimulation (O-Th1)**
Alexandre Franco[1], Steven Garlow[2], Patricio Posse[2], Robert Gross[2], Paul Holtzheimer[3], Mary Kelley[2], Helen Mayberg[2]
[1]Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil, [2]Emory University, Atlanta, GA, [3]Dartmouth Medical School, Lebanon, NH

5 WTh Subdural Cortical Stimulation in a Realistic Head Model – Computational Study
Donghyeon Kim[1], Hyoung-Ihl Kim[1], SUNG JUN[1]
[1]Gwangju Institute of Science and Technology, Gwangju, Korea, Republic of

6 WTh Deep Brain Stimulation normalizes frontostriatal connectivity in obsessive-compulsive disorder
Judy Luigjes[1], Martijn Figee[1], Guido van Wingen[1], Lukas Droge[1], Wim van den Brink[1], damiaan denys[1]
[1]Academic Medical Center Amsterdam, Amsterdam, Netherlands

7 WTh Suppression of collective synchronization in a population of globally coupled chaotic FHN neurons
Le Nguyen[1], Keum-Shik Hong[1]
[1]Pusan National University, Busan, Korea, Republic of

8 WTh Synchronization of FitzHugh-Nagumo neurons using PI-based nonlinear adaptive control
Muhammad Rehan[1], Keum-Shik Hong[1], Muhammad Ahmad Kamran[1]
[1]Pusan National University, Busan, Korea, Republic of

BRAIN STIMULATION METHODS

Direct Electrical/Optogenetic Stimulation

9 WTh Multi modal segregation of neural language networks
Tal Gonen[1,2,3], Irit Lichter Shapira[1], Daniella Perry[1], Tomer Gazit[1], Talma Hendler[1,3,4], Zvi Ram[2,4]
[1]Functional Brain Imaging Unit, Wohl Institute for Advanced Imaging, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, [2]Department of Neurosurgery, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, [3]Department of Psychology, Tel-Aviv University, Tel Aviv, Israel, [4]Sackler School of Medicine Tel-Aviv University, Tel Aviv, Israel

10 WTh Comparison of binocular and monocular neural response time courses in cats' primary visual cortex
Man Song[1]
[1]Fudan University, Shanghai, China

BRAIN STIMULATION METHODS

TDCS

11 WTh Transcranial direct current stimulation (tDCS) as an adjunct intervention in stroke rehabilitation
Claire Allman[1], Ugwechi Amadi[1], Nicola Filippini[2], Udo Kischka[3], Charlotte Stagg[1], Heidi Johansen-Berg[1]
[1]FMRIB Centre, University of Oxford, Oxford, United Kingdom, [2]University Department of Psychiatry and FMRIB Centre, University of Oxford, Oxford, United Kingdom, [3]Oxford Centre for Enablement, Oxford, United Kingdom

***12 WTh Transcranial Direct Current Stimulation (tDCS) Modulates Connectivity in Human Attention Networks (O-Th1)**
Peter Dechent[1], Carsten Schmidt-Samoa[1], Melanie Wilke[1]
[1]Dept. of Cognitive Neurology, University Medicine Göttingen, Göttingen, Germany

13 WTh Modulation of somatosensory oscillations by means of transcranial alternating current stimulation
Christopher Gundlach[1], Bernhard Sehm[1], Matthias Müller[2], Arno Villringer[1]
[1]Max-Planck-Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]University of Leipzig, Leipzig, Germany

14 WTh Comparison of the onsite-effects according to application methods of tDCS
Yong Hyun Kwon[1], Sung Ho Jang[2]
[1]Department of Physical Therapy, Yeungnam College of Science and Technology, Daegu, Korea, Republic of, [2]Department of Physical Medicine and Rehabilitation, College of Medicine, Yeungnam University, Daegu, Korea, Republic of

15 WTh Finite element model of the rhesus macaque head: electroconvulsive therapy electric field simulation
Won-Hee Lee[1,2], Sarah Lisanby[2], Andrew Laine[1], Angel Peterchev[2]
[1]Columbia University, New York, United States, [2]Duke University, Durham, United States

***16 WTh Modulation of resting state and task-related activity induced by dual motor cortex stimulation (O-Th1)**
Robert Lindenberg[1], Mira Sieg[1], Marcus Meinzer[1], Jan Kubke[1], Keren Avirame[1], Agnes Flöel[1]
[1]Department of Neurology, Charite University Medicine, Berlin, Germany

17 WTh Rejuvenating the aging mind by transcranial direct current stimulation
Marcus Meinzer[1], Daria Antonenko[1], Robert Lindenberg[1], Agnes Flöel[2]
[1]Charite University Medicine, Berlin, Germany, [2]Charite Universitätsmedizin Berlin, Berlin, Germany

18 WTh Dynamic modulation of intrinsic functional connectivity by transcranial direct current stimulation
Bernhard Sehm[1], Alexander Schaefer[1], Judy Kipping[1], Daniel Margulies[2], Virginia Conde Ruiz[1], Marco Taubert[1], Arno Villringer[1], Patrick Ragert[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Berlin School of Mind and Brain, Humboldt University, Berlin, Germany

19 WTh An tDCS Study with an extracephalic reference electrode based on realistic 3D body modeling
Miseon Shim[1], Chang-Hwan Im[1]
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20 WTh Modulation of motor cortical oscillations by transcranial alternating current stimulation (tACS)
Claudia Wach[1], Vanessa Krause[1], Vera Moliadze[2], Walter Paulus[3], Alfons Schnitzler[1], Bettina Pollok[1]
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21 WTh Effects of transcranial direct current stimulation on aphasia rehabilitation
Xue Wang[1], Rosalind Hurwitz[2], Edna Babbitt[2], Lynn Rogers[2], Richard L. Harvey[2,1], Todd Parrish[1], Leora R. Cherney[2,1]
[1]Northwestern University, Chicago, IL, [2]The Rehabilitation Institute of Chicago, Chicago, IL

22 WTh Using beamforming to assess online-effects of electric brain stimulation on the Bereitschaftsfield
Matthias Witkowski[1,2], Stephen Robinson[3], Tom Holroyd[3], Richard Coppola[3], Niels Birbaumer[4], Leonardo Cohen[2], Surjo Soekadar[2,1]
[1]University Hospital Tübingen, Department of Psychiatry and Psychotherapy, Tübingen, Germany, [2]NINDS/NIH, Bethesda, MD, [3]NIMH/NIH, Bethesda, MD, [4]Institute of Medical Psychology and Behavioral Neurobiology, Tübingen, Germany

23 WTh The effect of tDCS on human EEG default mode network (EEG DMN) in spectral field powers
Min XU[1], Weiqi CUI[2], Kun WANG[1], Andrew CHEN*[1]
[1]Center for Higher Brain Functions, Capital Medical Univers, Beijing, China, [2]Center for Higher Brain Functions, Capital Medical University, Beijing, China

24 WTh Changes in M1 cortical excitability and intracortical inhibition by tDCS in rest and active states
xue zhang[1], Hilde Feys[2], Stephan Swinnen[1], Femke van den Berg[1], Nicole Wenderoth[1]
[1]Department of Kinesology - Movement Control and Neuroplasticity Research Group- KU Leuven, Leuven, Belgium, [2]Faculty of Kinesilogy and Rehabilitation Sciences - KU Leuven, Leuven, Belgium

BRAIN STIMULATION METHODS
TMS

***25 WTh Role of interhemispheric connectivity in the auditory network: a combined TMS and fMRI study (O-Th1)**
Jamila Andoh[1], Robert Zatorre[1]
[1]Montreal Neurological Institute, Montreal, Quebec

26 WTh Dorsal and ventral parietal contributions to inhibition of return
Alexia Bourgeois[1], Ana Chica[2], Antoni Valero-Cabre[3], Paolo Bartolomeo[4]
[1]CRICM - Inserm UMRS975, Paris, France, [2]Department of Experimental Psychology, Granada, Spain, [3]CNRS UMR 7225 CRICM / Boston University School of Medicine, Paris, France, [4]INSERM-UPMC UMR_S 975, Centre de Recherche de l'Institut du Cerveau et de la Moelle épinière, Paris, France

27 WTh Combining concurrent TMS/fMRI and calculations of the electric field induced by TMS
Andreas Bungert[1], Andre Antunes[2], Chambers Christopher[1], C. Evans[1], Paul Glover[2]
[1]Cardiff University, Cardiff, United Kingdom, [2]University of Nottingham, Nottingham, United Kingdom

28 WTh Effective connectivity in the motor system predicts response to theta-burst rTMS
Lizbeth Cárdenas-Morales[1], Mareike Gooßes[2], Jochen Michely[2], Charlotte Nettekoven[3], Christian Grefkes[4]
[1]Max Planck Institute Neurological Research/Department of Neurology University of Cologne, Cologne, Germany, [2]Max Planck Institute for neurological research, Cologne, Germany, [3]Max Planck Institute for Neurological Research, Cologne, Germany, [4]Max-Planck-Institut for Neurological Research, Cologne, Germany

29 WTh Transcranial magnetic stimulation of the prefrontal cortex impairs tactile temporal discrimination
Juha Gogulski[1,2], Robert Boldt[1,3,4], Petri Savolainen[5], Jessica Guzmán-López[1,2], Synnöve Carlson[1,3], Antti Pertovaara[1]
[1]Institute of Biomedicine/Physiology, University of Helsinki, Helsinki, Finland, [2]BioMag Laboratory, HUSLAB, Helsinki University Central Hospital, Helsinki, Finland, [3]Brain Research Unit, O.V. Lounasmaa Laboratory, Aalto University School of Science, Espoo, Finland, [4]Advanced Magnetic Imaging Centre, Aalto University School of Science, Espoo, Finland, [5]Nexstim Ltd, Helsinki, Finland

30 WTh Perturbed Functional Motor Connectivity in Human Brain by Transcranial Magnetic Stimulation
Jae-Chang Kim[1,2], Sunghyon Kyeong[3,1], Jong Doo Lee[4,1], Hae-Jeong Park[4,1]
[1]Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea, Republic of, [2]Department of Radiology, Nuclear Medicine and Severance Biomedical Science Institute, Yonsei University College of Medicine, Seoul, Korea, Republic of, [3]National Institute for Mathematical Sciences, Daejeon, Korea, Republic of, [4]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Korea, Republic of

31 WTh State-dependent directed information flow across synchrony networks in the human brain
Keiichi Kitajo[1,2], Tadashi Kitahara[3,1], Yumi Nakagawa[1]
[1]RIKEN Brain Science Institute, Wako, Japan, [2]JST PRESTO, Kawaguchi, Japan, [3]Keio University, Yokohama, Japan

32 WTh BDNF Val66Met Polymorphism and Intermittent Theta Burst Stimulation Affect Motor Cortical Plasticity

Mina Lee[1], Jeong-Yun Lee[2], Yi-Seul Choi[3], Seon-Yong Jeong[4], Byung Gon Kim, MD, PhD,[5], Hyang Woon Lee[1]
[1]Department of Neurology, Ewha Womans University School of Medicine & Ewha Medical Research Institute, Seoul, Korea, Republic of, [2]Ewha Womans University School of Medicine, Seoul, Korea, Republic of, [3]Ewha Womans University Graduate School of Medicine & Medical Research Institute, Seoul, Korea, Republic of, [4]Departments of Medical Genetics, Ajou University School of Medicine, Suwon, Korea, Republic of, [5]Department of Neurology, Ajou University School of Medicine, Suwon, Korea, Republic of

***33 WTh MEP predicts motor recovery in chronic stroke patients undergoing 4-weeks of daily physical therapy (O-Th1)**

Fabricio Lima Brasil[1], Marco Curado[2], Manuel Agostini[3], Giulia Liberati[4], Eliana Garcia Cossio[1], Doris Broetz[5], Matthias Witkowski[6], Niels Birbaumer[7], Surjo Soekadar[8]
[1]Max Planck Research School - University of Tübingen, Tübingen, Germany, [2]International Max Planck Research School for Neural & Behavioural Sciences, Tübingen, Germany, [3]Eberhard Karls University, Tuebingen, Germany, [4]Interuniversity Centre for Research on Cognitive Processing in Natural and Artificial Systems (ECONA), Rome, Italy, [5]University Hospital Tübingen, Department of Psychiatry and Psychotherapy, Tübingen, Germany, [6]University Hospital Tuebingen, Department of Psychiatry and Psychotherapy, Tuebingen, Germany, Tuebingen, Germany, [7]University of Tübingen, Tübingen, Germany, [8]National Institute of Neurological Disorders and Stroke (NINDS), NIH, Bethesda, MD

34 WTh Stimulating medial and lateral cortical areas with TMS during whole brain fMRI recording

Sebastiaan Neggers[1], Antoin De Weijer[2], sven bestmann[3], Erwin Bakker[4], Dennis Klomp[5], Iris Sommer[2]
[1]University Medical Center Utrecht & Rudolf Magnus Institute for Neuroscience, Utrecht, Utrecht, [2]Rudolf Magnus Institute for Neuroscience, Utrecht, Utrecht, [3]IoN, London, United Kingdom, [4]UMC Utrecht, Utrecht, Utrecht, [5]Image Science Institute, Utrecht, Utrecht

35 WTh Age differences in plastic response to a single session of non-invasive brain stimulation

Traian Popa[1,2], Eric Bertasi[1,2], Cecile Galea[1,2], Frederic Bernard[3], Richard Frackowiak[4], Stephane Lehericy[1,2]
[1]Centre de NeuroImagerie de Recherche (CENIR), Groupe Hospitalier Pitié-Salpêtrière, Paris, France, [2]Centre de Recherche de l'Institut du Cerveau et de la Moelle épinière (CRICM), UPMC – Paris 6, Inserm UMR-S975, CNRS UMR 7225, Paris, France, [3]Laboratoire d'Imagerie et de Neurosciences Cognitives (CNRS-UDS), Université de Strasbourg, Strasbourg, France, [4]LREN, Département des Neurosciences Cliniques, CHUV, Université de Lausanne, Lausanne, Switzerland, Lausanne, Switzerland

36 WTh Baboon Validations of the Cortical Column TMS Aiming Strategy: CBF dependence on Coil Orientation

Felipe Salinas[1], Shalini Narayana[1], Wei Zhang[1], Lisa Jones[2], M. Michelle Leland[2], Jack Lancaster[1], Peter Fox[1]
[1]Research Imaging Institute, UTHSCSA, San Antonio, TX, [2]Dept. of Lab Animal Resources, UTHSCSA, San Antonio, TX

37 WTh Modeling transcranial magnetic stimulation induced synaptic plasticity

Roberto Sotero[1], Ramon Martinez-Cancino[2], Ajay Venkateswaran[1], Amir Shmuel[1]
[1]Montreal Neurological Institute, Montreal, Canada, [2]National Bioinformatics Center (BIOINFO), Havana, Cuba

38 WTh Voluntary Muscle Fatigue alters Motor Cortical Maps- A Transcranial Magnetic Stimulation study

Alexandria Wyant[1], Corin Bonnett[1], David Cunningham[1], Ela Plow[1], Vlodek Siemionow[1], Guang Yue[2]
[1]Cleveland Clinic, Cleveland, OH, [2]Cleveland Clinic & Kessler Foundation Research Center, Cleveland, OH & West Orange, NJ

DISORDERS OF THE NERVOUS SYSTEM

Addictions

39 WTh Mapping the impact of cannabis on regular smokers during a visuo-motor task

Giovanni Battistella[1], Eleonora Fornari[2], Jean-Frédéric Mall[3], Marie Fabritius[4], Kim Dao Vicente[5], Monique Appenzeller[5], Jean-Marie Annoni[6], Thierry Buclin[5], Bernard Favrat[7], Christian Giroud[4], Philippe Maeder[1]
[1]Dept. of Radiology,CHUV Lausanne and University of Lausanne, Lausanne, Switzerland, [2]Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland, [3]Department of Psychiatry, SUPAA (Service Universitaire de Psychiatrie de l'Age Avancé), CHUV, Lausanne, Switzerland, [4]CURML (University Center of Legal Medicine), (UTCF) Forensic Toxicology and Chemistry Unit, Lausanne, Switzerland, [5]Division of Clinical Pharmacology and Toxicology, CHUV, Lausanne, Switzerland, [6]University of Geneva, Geneva, Switzerland, [7]CURML, UMPT (Unit of Psychology and Traffic Medicine), Lausanne and Geneva, Switzerland

40 WTh Relapse in alcohol dependence: the impact of brain structure, brain function and brain connectivity

Anne Beck[1], Torsten Wüstenberg[2], Alexander Genauck[2], Wrase Jana[2], Schlagenhauf Florian[2], Michael Smolka[3], Karl Mann[4], Andreas Heinz[2]
[1]Dept. of Psychiatry and Psychotherapy, CCM, Charité - Univeristätsmedizin Berlin, Berlin, Germany, [2]Dept. of Psychiatry and Psychotherapy, CCM, Charité - Universitätsmedizin Berlin, Berlin, Germany, [3]Technische Universität Dresden, Dresden, Germany, [4]Central Institute of Mental Health, Mannheim, Germany

41 WTh An investigation into response inhibition processes in current adolescent heavy cannabis users

Brendan Behan[1], Adam Stone[1], Sameer Datwani[1], Marika Doucet[1], Jelena Ivanovic[1], Bobby Smyth[2], Hugh Garavan[3]
[1]Trinity College Institute of Neuroscience (TCIN), Dublin, Ireland, [2]Health Service Executive Ireland, Dublin, Ireland, [3]University of Vermont, Burlington, VT

42 WTh FMRI shows recovery of function in the response inhibition circuit of abstinent cocaine abusers

Ryan Bell[1,2], John Foxe[1,2], Lars Ross[1,2], Hugh Garavan[3]
[1]Albert Einstein College of Medicine, New York, NY, [2]Cognitive Neurophysiology Laboratory, New York, NY, [3]University of Vermont, Burlington, VT

43 WTh Resting-state functional connectivity in networks mediating self-perception in chronic cannabis use

Laura Blanco-Hinojo[1,2], Jesus Pujol[3], Ana B Fagundo[2], Marina López-Solà[1,4], Carles Soriano-Mas[4], Ben J Harrison[5], Oren Contreras Rodríguez[1,4], Joan Deus[6], Marta Torrens[2], Rafael de la Torre[2], Magí Farré[2], Rocío Martín-Santos[2,7]
[1]IAT-PRBB, CRC-Hospital del Mar, Barcelona, Spain, [2]Neuroscience Research Program, Pharmacology Unit, IMIM-Parc de Salut Mar, Barcelona, Spain, [3]IAT-PRBB, CRC-Hospital del Mar, Bacelona, Spain, [4]Bellvitge University Hospital-IDIBELL, CIBERSAM, Barcelona, Spain, [5]The University of Melbourne, Melbourne, Australia, [6]Universitat Autònoma de Barcelona, Barcelona, Spain, [7]Clinical Institute of Neuroscience, Hospital Clínic, IDIBAPS, CIBERSAM, and University of Barcelona, Barcelona, Spain

44 WTh White matter deficits of impaired cognition in heroin users after methadone maintenance treatment

Kun-Hsien Chou[1], Wei-Che Lin[2], Chu-Chung Huang[3], Chien-Chih Chen[4], Hsiu-Ling Chen[2], Cheng-Hsien Lu[5], Shau-Hsuan Li[6], Ya-Ling Wang[4], Yu-Fan Cheng[2], Ching-Po Lin[7]
[1]Institute of Neuroscience, National Yang-Ming University, [2]Department of Diagnostic Radiology, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University, Kaohsiung, Chinese Taipei, [3]Institue Of Biomedical Imaging And Radiological Sciences, National Yang-Ming University, Taipei, [4]Department of Psychiatry, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University, Kaohsiung, Chinese Taipei, [5]Department of Neurology, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University, Kaohsiung, Chinese Taipei, [6]Department of Internal Medicine, Kaohsiung Chang Gung Memorial Hospital and Chang Gung University, Kaohsiung, Chinese Taipei, [7]National Yang-Ming University, Taipei, Chinese Taipei

45 WTh Nicotine Effects on Ventral Striatal Activation Patterns in Smokers and Non-Smokers

Uraina Clark[1], Lawrence Sweet[2], Colleen Finnerty[3], Raymond Niaura[4]
[1]Brown University, Providence, RI, [2]Alpert Medical School of Brown University, Providence, RI, [3]Rutgers University, Newark, NJ, [4]American Legacy Foundation, The Schroeder Institute for Tobacco Research and Policy Studies, Washington, DC

46 WTh Approach-bias predicts cannabis problem severity: results from a prospective fMRI study

Janna Cousijn[1], Anna Goudriaan[2], K. Richard Ridderinkhof[1], Wim van den Brink[2], Dick Veltman[3], Reinout Wiers[1]
[1]Department of Psychology, University of Amsterdam, Amsterdam, Netherlands, [2]Department of Psychiatry, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands, [3]Department of Psychiatry, VU University medical center, Amsterdam, Netherlands

47 WTh Exploring Nicotine Addiction: Resting State and DTI Measures Linked To Physical Dependence
Joseph DiFranza[1], Wei Huang[1], Nanyin Zhang[1], Sanouri Ursprung[1], David Kennedy[1], Jean King[1]
[1]University of Massachusetts Medical School, Worcester, United States

48 WTh Drug Cue Reactivity in Heroin Dependents under Methadone Maintenance and Abstinence Based Treatments
Hamed Ekhtiari[1], Hossein Tabatabaei[2], Habib Ganjgahi[3], Peyman Hassani-Abharian[4], Mohammad Ali Oghabian[5]
[1]Iranian National Center for Addiction Studies, Tehran, [2]Iranian National Center for Addiction Studies, Tehran, Iran, Islamic Replblic of, [3]Iranian National Center For Addiction Studies, Iran, Islamic Republic Of, [4]Institute for Cognitive Science Studies, Tehran, Iran, Islamic Replblic of, [5]Tehran University of Medical Sciences, Tehran, Iran, Islamic Replblic of

49 WTh Functional Connectivity Analysis Confirms Reward Network Involvement During Cue-Elicited Craving
Francesca Filbey[1], Joseph Dunlop[2]
[1]Center for BrainHealth, University of Texas at Dallas, Dallas, United States, [2]The University of Texas at Dallas, N/A

50 WTh Volumetric changes in brain structure in males with pathological gambling
Eva Hasselmann[1], Saskia Köhler[1,2], Torsten Wüstenberg[1], Andreas Heinz[1,2], Nina Seiferth[1]
[1]Department of Psychiatry and Psychotherapy, Charité – Universitätsmedizin Berlin, CCM, Berlin, Germany, [2]Berlin School of Mind and Brain, Humboldt University, Berlin, Germany

51 WTh Independent Component Analysis of Decision Making in Methamphetamine Dependent and Control Subjects
William Hoffman[1], Marilyn Huckans[2], Suzanne Mitchell[3], Daniel Schwartz[2], Britta Tremblay[2]
[1]Department of Veterans Affairs, Portland, United States, [2]Portland VA Medical Center, Portland, OR, [3]Oregon health & science university, Portland, OR

52 WTh Corticostriatal Ratio of Grey Matter Volume Predicts Cocaine Dependence
Yuzheng Hu[1], Hong Gu[1], Betty Jo Salmeron[1], xia liang[1,2], Feiyan Chen[1,3], Elliot Stein[1], Yihong Yang[1]
[1]Neuroimaging Research Branch, National Institute on Drug Abuse, National Institutes of Health, Baltimore, MD 21224, United States, [2]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [3]Bio-X Lab, Department of Physics, Zhejiang University, Hangzhou, China

53 WTh Relating Treatment Outcome To Reward Processing in Cocaine Dependence: A SVC ROI-Based fMRI Study
Zhiru Jia[1], Patrick Worhunsky[2], Kathleen Carroll[2], Bruce Rounsaville[2], Michael Stevens[3], Godfrey Pearlson[3], Marc Potenza[4]
[1]Department of Psychiatry, Weill Cornell Medical College of Cornell University, 21 Bloomingdale Road, White Plains, NY, United States, [2]Department of Psychiatry, Yale University School of Medicine, VA CT Healthcare, West Haven, CT, United States, [3]Department of Psychiatry, Yale University School of Medicine, Olin Research Center, Hartford, CT, United States, [4]Department of Psychiatry and Child Study Center, Yale University School of Medicine, New Haven, CT, United States

54 WTh Human brain anatomical network related to the increased impulsivity in heroin addicts
Guihua Jiang[1], Ruibin Zhang[2], Xue Wen[2], Yingwei Qiu[1], Yong Xu[2], Bin Wang[2], Shumei Li[2], Junzhang Tian[1], Ming Liu[2], Ruiwang Huang[2]
[1]Department of Medical Imaging, Guangdong No. 2 Provincial People's Hospital, Guangzhou 510317, P.R. China, [2]Center for the Study of Applied Psychology, Key Lab of Mental Health and Cognitive Science of Guangdong Province, South China Normal University, Guangzhou 510631, P.R. China

55 WTh Neural substrates of acupuncture in the modulation of smoking-related visual cues induced craving
O-SEOK KANG[1], Geon-Ho Jahng[2], Hackjin Kim[3], Hi-Joon Park[1], Younbyoung Chae[1,3]
[1]Acupuncture and Meridian Science Research Center, Kyung Hee University, Seoul, Korea, Republic of, [2]Dept. of Radiology, East-West Neo Medical Center, School of Medicine, Kyung Hee University, Seoul, Korea, Republic of, [3]Dept. of Brain and Cognitive Engineering, Korea University, Seoul, Korea, Republic of

56 WTh Increased functional connectivity between middle frontal gyrus and striatum in pathological gambling
Saskia Koehler[1,2], Smadar Ovadia–Caro[1,3], Arno Villringer[1,3], Andreas Heinz[1,2], Nina Seiferth[2], Daniel Margulies[1,3]
[1]Berlin School of Mind and Brain, Humboldt University, Berlin, Germany, [2]Department of Psychiatry and Psychotherapy, Charité – Universitätsmedizin Berlin, CCM, Berlin, Germany, [3]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

57 WTh The effect of acute alcohol and stimulus salience on conflict monitoring and error processing
Ozlem Korucuoglu[1], Thomas Gladwin[1], Prof. Dr. Reinout Wiers[1]
[1]University of Amsterdam, Amsterdam, Netherlands

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

58 WTh Does the medial orbitofrontal activation reflect smoking desire? Functional MRI study
HanGil Lee[1], Dong-Youl Kim[1], Yong-Hwan Kim[1], Jong-Hwan Lee[1]
[1]Korea University, Seoul, Korea, Republic of

59 WTh Cortical Thickness Alterations in Heroin Dependence
Meng Li[1], Junzhang Tian[2], Xue Wen[1], Guihua Jiang[2], Junjing Wang[1], Yingwei Qiu[2], Ruibin Zhang[1], Xiaoling Peng[1], Ming Liu[1], Ruiwang Huang[1]
[1]Center for the Study of Applied Psychology, Key Lab of Mental Health and Cognitive Science of Guangdong Province, South China Normal University, Guangzhou 510631, China, [2]Department of Medical Imaging, Guangdong No. 2 Provincial People's Hospital, Guangzhou 510317, China

60 WTh Abnormal degree centrality of brain functional network in chronic cocaine users
xia liang[1,2], Hong Gu[1], Yuzheng Hu[1], Betty Jo Salmeron[1], Yong He[2], Elliot Stein[1], Yihong Yang[1]
[1]Neuroimaging Research Branch, National Institute on Drug Abuse, National Institutes of Health, Baltimore, MD, USA, [2]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

61 WTh Altered Local Efficiency of Brain Functional Networks in Heavy Smokers
Fuchun Lin[1], Guangyao Wu[2], Hao Lei[1]
[1]Wuhan Institute of Physics and Mathematics, Chinese Academy of Sciences, Wuhan, China, [2]Zhongnan Hospital, Wuhan University, Wuhan, China

62 WTh Naltrexone accentuates fMRI BOLD response to facial expressions in treatment seeking alcoholics
Reza Momenan[1], Caitlin Durkee[1], Lishu Zhang[1], Vijay Ramchandani[1], David George[1], Daniel Hommer[1]
[1]NIAAA, NIH, Bethesda, United States

63 WTh Recovery of inhibitory mechanisms in abstinent drug users and the effects of stimulus valence
Kristen Morie[1], Hugh Garavan[2], Ryan Bell[3], Pierfilippo De Sanctis[4], Menachem Krakowski[5], John Foxe[4]
[1]City College of NY, NY,NY, [2]University of Vermont, Burlington, VT, [3]City College of NY, NY, NY, [4]Albert Einstein College of Medicine, Bronx, NY, [5]Nathan Kline Institute, Orangeburg, NY

64 WTh Frontoparietal, Medial Prefrontal, and Limbic Connectivity is Altered in Nicotine-Dependent Smokers
Lisa Nickerson[1], Amy Janes[2], Blaise Frederick[2], Marc Kaufman[2]
[1]McLean Hospital Harvard Medical School, Belmont, United States, [2]McLean Hospital, Harvard Medical School, Belmont, MA

65 WTh Brain substrates associated with processing happiness among abstinent alcoholics
Mi-Sook Park[1], Ji-Eun Park[1], Sunju Sohn[2], Sook-Hee Kim[3], Jin-Hun Sohn[1]
[1]Department of Psychology, Institute for Brain Research, Chungnam National University, Daejeon, Korea, Republic of, [2]Department of Social Work, Cheongju University, Cheongju, Korea, Republic of, [3]US Army Substance Abuse Program, Pyeongtaek, Korea, Republic of

66 WTh Changed brain functional networks in heroin addicts based on a wide range of sparsity thresholds
Yingwei Qiu[1], Xue Wen[2], Ruibin Zhang[2], Guihua Jiang[1], Yuanyuan Fan[2], Junjing Wang[2], Meng Li[2], Junzhang Tian[1], Ming Liu[2], Ruiwang Huang[2]
[1]Department of Medical Imaging, Guangdong No. 2 Provincial People's Hospital, Guangzhou 510317, China, [2]Center for the Study of Applied Psychology, Key Lab of Mental Health and Cognitive Science of Guangdong Province, South China Normal University, Guangzhou 510631, China

67 WTh Dopaminergic dysfunction in amphetamine users during a reward task before and after methylphenidate
Marieke Schouw[1], marco bottelier[1], A. Kaag[1], ramon lindauer[1], Michiel de Ruiter[2], L. Reneman[1]
[1]Academic Medical Center, Amsterdam, the Netherlands, [2]Netherlands Cancer Institute, Amsterdam, the Netherlands

68 WTh Methamphetamine Dependent Individuals Have Decreased Connectivity in the Frontoparietal Network
Daniel Schwartz[1], Suzanne Mitchell[2], Britta Tremblay[1], Marilyn Huckans[1], William Hoffman[3]
[1]Portland VA Medical Center, Portland, OR, [2]Oregon health & science university, Portland, OR, [3]Department of Veterans Affairs, Portland, United States

69 WTh Neuronal changes of reward sensitivity in pathological gambling
Nina Seiferth[1,2], Saskia Koehler[3,2], Eva Hasselmann[2], Torsten Wüstenberg[2], Andreas Heinz[2]
[1]Charite Berlin, Berlin, Germany, [2]Department of Psychiatry and Psychotherapy, Charité – Universitätsmedizin Berlin, CCM, Berlin, Germany, [3]Berlin School of Mind and Brain, Humboldt University, Berlin, Germany

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

70 WTh Habit formation in alcohol dependence: neural correlates of instrumental learning
Zsuzsika Sjoerds[1], Sanne de Wit[2], Wim van den Brink[3], Brenda Penninx[1], Dick Veltman[1]
[1]Department of Psychiatry, VU University Medical Center, Amsterdam, Netherlands, [2]Department of Clinical Psychology and Cognitive Science Center Amsterdam, University of Amsterdam, Amsterdam, Netherlands, [3]Department of Psychiatry, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands

71 WTh Neural responses towards BEGIN- and END-smoking stimuli under the influence of cigarette reward
Bastian Stippekohl[1], Bertram Walter[2], Markus Winkler[3], Ronald Mucha[3], Dieter Vaitl[2], Paul Pauli[3], Rudolf Stark[2]
[1]Bender Institute of Neuroimaging, Gießen, Germany, [2]Bender Institute of Neuroimaging, Giessen, Germany, [3]Department of Psychology, University of Würzburg, Würzburg, Germany

72 WTh Disrupted Brain Functional Network in Internet Addiction Disorder
Chong-Yaw Wee[1], Zhimin Zhao[2], Pew-Thian Yap[1], Yasong Du[2], Jianrong Xu[3], Yan Zhou[3], Dinggang Shen[1]
[1]University of North Carolina at Chapel Hill, Chapel Hill, United States, [2]Shanghai Jiao Tong University, Shanghai, China, [3]Shanghai Jiao Tong University Medical School, Shanghai, China

73 WTh Functional Connectivity of Frontoparietal and Attention Networks Relates to Drink Volume in Youth
Barbara Weiland[1], Robert Welsh[2], Mary Soules[1], Crosby Modrowski[3], Jon-Kar Zubieta[1], Robert Zucker[1], Mary Heitzeg[1]
[1]University of Michigan, Ann Arbor, MI, [2]UNIVERSITY OF MICHIGAN DEPARTMENT OF RADIOLOGY, Ann Arbor, United States, [3]University of Michigan, Ann Arbor, MA

74 WTh Neural Network Potential Predicts Impulsivity in Abstinent Heroin Addicts
Zheng Yang[1], Chunming xie[1,2], Tianye Zhai[1,2], Liping Fu[1], Yongcong Shao[1], Guohua Bi[1], Gang Chen[2], Wenjun Li[2], Guangyu Chen[2], Enmao Ye[1], Lin Ma[3], Shi-Jiang Li[2]
[1]Beijing Institute of Basic Medical Science, Beijing, Beijing, [2]Medical College of Wisconsin, Milwaukee, WI, [3]The PLA General Hospital, Beijing, Beijing

75 WTh Altered Hippocampal Connectivity Network Associated with Impulsivity in Abstinent Heroin Addicts
Tianye Zhai[1,2,3], Chunming Xie[1,2], Wenjun Li[2], Zheng Yang[1], Shi-Jiang Li[2]
[1]Center of Brain and Cognition, Beijing Institute of Basic Medical Science, Beijing, P.R.China, 100850, [2]Department of Biophysics, Medical College of Wisconsin, Milwaukee, WI, US, 53226, [3]Departmeng of Biomedical Engineering, Peking Union Medical College, Beijing, P.R.China, 100005

DISORDERS OF THE NERVOUS SYSTEM

Autism

***76 WTh Underconnectivity of STS predicts socio-cognitive deficits in Autism (O-W1)**
Kaat Alaerts[1], Daniel Woolley[2], Stephan Swinnen[3], Nici Wenderoth[3]
[1]Katholieke Universiteit Leuven, Leuven, [2]KU Leuven, Leuven, Belgium, [3]Katholieke Universiteit Leuven, Leuven, Belgium

77 WTh Atypical Brain Activity Related to Gesture Imitation in Autism
Elise B. Barbeau[1], Laurent Mottron[1], Marie-Pier Poulin-Lord[1], Tom Zeffiro[2]
[1]Centre d'excellence en troubles envahissants de développement de l'Université de Montréal (CETEDUM), Montreal, Quebec, [2]Neural Systems Group, Boston, MA

***78 WTh Robust prediction of autism diagnosis from brain responses to biological motion (O-W1)**
Malin Bjornsdotter[1], Kevin Pelphrey[1], Nancy Wang[1], Martha Kaiser[1]
[1]Yale Child Study Center, New Haven, CT

79 WTh Differences in functional networks involving the insula: contrasting with ASD
Leonardo Cerliani[1,2], Rajat Thomas[2], Marc Thioux[2,1], Christian Keysers[2,1]
[1]University Medical Center Groningen, Rijksuniversiteit Groningen, Groningen, Netherlands, [2]Netherlands Institute for Neuroscience, Royal Netherlands Academy for Arts and Sciences, Amsterdam, Netherlands

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

*80 WTh **The Autism Brain Imaging Data Exchange (ABIDE) consortium: open sharing of autism resting state fMRI (O-M4)**
Adriana Di Martino[1], F. Xavier Castellanos[1,2], Jeffrey Anderson[3], Kaat Alaerts[4], Michal Assaf[5,6], Marlene Behrmann[7], Ben Deen[8], Damien Fair[9], Louise Gallagher[10], Janet Lainhart[3], Catherine Lord[11], Beatriz Luna[7], Nancy Minshew[7], Christopher Monk[12], Ralph-Axel Müller[13], Joel Nigg[9], Kirsten O'Hearn[7], Kevin Pelphrey[14], Scott Peltier[12], Stefan Sunaert[4], Judith Verhoeven[4], Nicole Wenderoth[4], Jillian Wiggins[12], Michael Milham[15,2], Stewart Mostofsky[16]
[1]New York University Child Study Center, New York, NY, [2]Nathan Kline Institute, Orangeburg, NY, [3]University of Utah School of Medicine, Salt Lake City, UT, [4]University of Leuven, Leuven, Belgium, [5]Olin Center, Institute of Living at Hartford Hospital, Hartford, CT, [6]Yale School of Medicine, New Haven, CT, [7]University of Pittsburgh School of Medicine, Pittsburgh, PA, [8]Massachusetts Institute of Technology, Cambridge, MA, [9]Oregon Health & Science University, Portland, OR, [10]Trinity Centre for Health Sciences St. James's Hospital, Dublin, Ireland, [11]Weill-Cornell Medical College, New York, NY, [12]University of Michigan, Ann Arbor, MI, [13]San Diego State University, San Diego, CA, [14]Yale Child Study Center, New Haven, CT, [15]Child Mind Institute, New York, NY, [16]Kennedy Krieger Institute, Baltimore, MD

81 WTh **Pursuing biomarkers of verbal proficiency in Autism using resting state fMRI**
Adriana Di Martino[1], Clare Kelly[1], Maarten Mennes[2,1], Rebecca Grzadzinski[1], Ariel Schvarcz[1], Dana Levy[1], Nicoletta Adamo[1], Jessica Raithel[1], Jennifer Rodman[1], Manuel Garcia-Garcia[1], Erin Denio[1], Eva Petkova[1], Catherine Lord[3], F. Xavier Castellanos[1,4], Michael Milham[5,4]
[1]NYU Child Study Center, New York, NY, [2]Donders Institute for Brain, Cognition and Behaviour, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, [3]Weill-Cornell Medical College, New York, NY, [4]Nathan Kline Institute, Orangeburg, NY, [5]Child Mind Institute, New York, NY

82 WTh **Similar brain network in children with autism spectrum disorder and their unaffected siblings**
Hyejin Kang[1], Hyekyoung Lee[1], Moo Chung[2], Bung-Nyun Kim[1], Dong Soo Lee[1]
[1]Seoul National University College of Medicine, Seoul, Korea, Republic of, [2]University of Wisconsin, Madison, WI

83 WTh **Neural Correlates of Empathy for Social Pain in Autism
Soeren Krach[1], Inge Kamp-Becker[2], Marius Blanke[3], Laura Müller-Pinzler[4], Jens Sommer[1], Andreas Jansen[1], Tilo Kircher[1], Katja Becker[2], Frank Bremmer[5], Wolfgang Einhäuser[5], Frieder Paulus[6]
[1]Philipps-University, Marburg, Germany, [2]Department of Child- and Adolescent Psychiatry and Psychotherapy, Marburg, Germany, [3]Department of Neurophysics, Philipps-University, Marburg, Germany, [4]Psychiatry, University of Marburg, Marburg, Germany, [5]Department of Neurophysics, Philipps-University Marburg, Marburg, Germany, [6]Department of Psychiatry, Philipps University Marburg, Germany, Marburg, Germany

84 WTh **Brain Atypicality in Women but not Men with Autism Overlaps with Sexually Dimorphic Regions**
Meng-Chuan Lai[1], Michael Lombardo[1], John Suckling[2], Amber Ruigrok[1], Bhismadev Chakrabarti[1], Edward Bullmore[2], MRC AIMS Consortium[3], Simon Baron-Cohen[1]
[1]Autism Research Centre, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom, [2]Brain Mapping Unit, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom, [3]Institute of Psychiatry, King's College London; University of Cambridge; University of Oxford, London, Cambridge, Oxford, United Kingdom

85 WTh **Atypical Functional Connectivity of the Posterior Medial Cortex in Children with Autism**
Charles Lynch[1], Lucina Uddin[1], Kaustubh Supekar[1], Amirah Khouzam[1], Vinod Menon[1]
[1]Stanford University School of Medicine, Stanford, United States

86 WTh **Deficient Network Coherence During an Word Segmentation Task in Children and Adolescents with ASD**
Leonardo Moore[1], Jesse Brown[2], Jeffrey Rudie[3], Mirella Dapretto[2], SUSAN Bookheimer[1]
[1]UCLA, Los Angeles, United States, [2]UCLA, Los Angeles, CA, [3]N/A, United States

87 WTh **Atypical neural response to spontaneous attention towards positive emotion in ASD**
Eric Murphy[1], Megan Norr[1], Jenni Sokoloff[2], William Gaillard[2], Lauren Kenworthy[2], Chandan Vaidya[1]
[1]Georgetown University, Washington, DC, [2]Children's National Medical Center, Washington, DC

88 WTh **Cerebral correlates of moral reasoning in high-functioning autism**
Katharina Pauly[1], Karla Schneider[1], Frank Schneider[1], Ute Habel[1]
[1]RWTH Aachen University, Aachen, Germany

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

89 WTh Altered Cerebral Effective Connectivity in Theory-of-Mind in Autism Spectrum Disorders
Karthik Sreenivasan[1], Gopikrishna Deshpande[1,2], Hrishikesh Deshpande[3], Rajesh Kana[4]
[1]AU MRI Research Center, Department of Electrical and Computer Engineering, Auburn University, Auburn, Alabama, United States, [2]Department of Psychology, Auburn University, Auburn, Alabama, United States, [3]Department of Biomedical Engineering,University of Alabama, Birmingham, Alabama, United States, [4]Department of Psychology, University of Alabama, Birmingham, Alabama, United States

***90 WTh Widespread brain hyper-connectivity in children with autism (O-W1)**
Kaustubh Supekar[1], Lucina Uddin[2], Amirah Khouzam[3], Jennifer Phillips[3], William Gaillard[4], Lauren Kenworthy[4], Ben Yerys[4], Chandan Vaidya[5], Vinod Menon[6]
[1]Stanford University School of Medicine, Stanford, United States, [2]Stanford University, Stanford, United States, [3]Stanford University School of Medicine, Stanford, CA, [4]Children's National Medical Center, Washington, DC, [5]Georgetown University, Washington, DC, [6]Stanford school of medicine, Palo Alto, CA

91 WTh Atypical causal influences from the insula in autism
Lucina Uddin[1], Kaustubh Supekar[2], Charles Lynch[3], Amirah Khouzam[4], Srikanth Ryali[5], Vinod Menon[6]
[1]Stanford University, Stanford, United States, [2]Stanford University School of Medicine, Stanford, United States, [3]Stanford University, Palo Alto, United States, [4]Stanford University School of Medicine, Stanford, CA, [5]Stanford University School of Medicine, Palo Alto, United States, [6]Stanford school of medicine, Palo Alto, CA

92 WTh Mutual and averted eye gaze elicit distinct cortical responses in Autism Spectrum Conditions
Elisabeth von dem Hagen[1], Raliza Stoyanova[1], james rowe[2], Simon Baron-Cohen[3], Andrew Calder[1]
[1]MRC Cognition & Brain Sciences Unit, Cambridge, United Kingdom, [2]Cambridge University, Cambridge, United Kingdom, [3]Autism Research Centre, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom

93 WTh Absence of Developmental Increase in DMN Connectivity in Autism Spectrum Disorders
Stuart Washington[1], Evan Gordon[2], Jasmit Brar[1], Laura Girton[1], Ayichew Hailu[1], Amanda Wolfe-Vogel[1], Samantha Warburton[1], Juma Mbwana[1], William Gaillard[3], Layne Kalbfleisch[4], John VanMeter[5]
[1]Georgetown University Medical Center, Washington, DC, [2]Georgetown University, Washington, DC, [3]Children's National Medical Center, Washington, DC, [4]George Mason University, Fairfax, VA, [5]Georgetown University, Washington DC, United States

94 WTh Atypical development of local and distant intrinsic functional connectivity in ASD
Xiaozhen You[1], Megan Norr[1], Eric Murphy[1], Jenni Sokoloff[2], Benjamin Yerys[2,3], William Gaillard[2], Lauren Kenworthy[2], Kaustubh Supekar[4], Lucina Uddin[4], Vinod Menon[4], Chandan Vaidya[1,2]
[1]Department of Psychology, Georgetown University, Washington, DC, [2]Children's Research Institute, Children's National Medical Center, Washington, DC, [3]Center for Autism Research, Children's Hospital of Philadelphia, Philadelphia, PA, [4]Psychiatry and Behavioral Science, Child and Adolescent Psychiatry, Stanford University, Stanford, CA

DISORDERS OF THE NERVOUS SYSTEM
Developmental Disorders

95 WTh Weak effects of spatial working memory on activation and connectivity in developmental dyscalculia
Sarit Ashkenazi[1], Miriam Rosenberg-Lee[2], Arron Metcalfe[2], Vinod Menon[3]
[1]Stanford University School of Medicine, N/A, [2]Stanford, Palo alto, CA, [3]Stanford school of medicine, Palo Alto, CA

96 WTh Methylphenidate affects emotional behaviour in d-amphetamine users: implications for ADHD patients
marco bottelier[1], Michiel de Ruiter[2], Marieke Schouw[3], Wim van den Brink[4], ramon lindauer[1], liesbeth reneman[1]
[1]amc, amsterdam, Netherlands, [2]Netherlands Cancer Institute, Amsterdam, Netherlands, [3]Academic Medical Center Amsterdam, N/A, [4]Department of Psychiatry, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands

97 WTh Brain activation in NVLD children during a mental rotation task
xavier caldú[1,2], Josep Serra-Grabulosa[3,4], Bet Ristol Orriols[5], Roser Colomé Roura[5], Anna López-Sala[5], Cristina Boix[5], María Ruiz Perea[3], Anna Sans Fitó[5]
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98 WTh Neonatal and adult neurobehavior and structural brain changes due to IUGR in a rabbit model
Elisenda Eixarch[1,2,3], Dafnis Batalle[1,2,3], Miriam Illa[1,2,3], Emma Muñoz-Moreno[4,2,3], Ariadna Arbat-Plana[1,2,3], Francesc Figueras[1,2,3], Eduard Gratacos[1,2,3]
[1]Department of Maternal-Fetal Medicine, ICGON, Hospital Clínic of Barcelona, Barcelona, Spain, [2]Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), University of Barcelona, Barcelona, Spain, [3]Centro de Investigación Biomédica en Red de Enfermedades Raras (CIBERER), Barcelona, Spain, [4]Department of Maternal-Fetal Medicine, Hospital Clinic, Barcelona, Spain

99 WTh Abnormal Functional Network Connectivity in Down Syndrome
Michael Ferguson[1], Li Dai[2], Guido Gerig[2], Julie Korenberg[2], Janet Lainhart[2], Nicholas Lange[3], Andrew Alexander[4], Jeffrey Anderson[2], Erin Bigler[5], Melissa Burback[2], Annahir Cariello[2], Jason Cooperrider[2], Molly DuBray[2], Alyson Froehlich[2], Jared Nielsen[2]
[1]University of Utah, Salt Lake City, United States, [2]University of Utah, Salt Lake City, UT, [3]Harvard University, Boston, MA, [4]University of Wisconsin, Madison, WI, [5]Brigham Young University, Provo, UT

100 WTh Foetal Alcohol Syndrome microcephaly: a preliminary study with spectral analysis of gyrification
David Germanaud[1,2,3], Julien Lefèvre[4], Marc Bintner[5], Marie-Claude Candapin[5], Sylvie Martins[1], Clara Fischer[6], Jean-François Mangin[6,3], Roberto Toro[7], Denis Lamblin[8], Lucie Hertz-Pannier[1,2,3]
[1]INSERM - Paris Descartes Univ., UMR663, Paris, France, [2]CEA, DSV, I2BM, NeuroSpin, LBIOM, Gif/Yvette, France, [3]IFR49, Paris, France, [4]CNRS - Aix-Marseille Univ., LSIS, UMR6168, Marseille, France, [5]GH Sud-Réunion, Service de neuroradiologie, St-Pierre (974), France, [6]CEA, DSV, I2BM, NeuroSpin, LNAO, Gif/Yvette, France, [7]CNRS URA 2182 'Genes, synapses and cognition', Institut Pasteur, Paris, France, [8]Fondation Père Favron, IMS Charles Isautier, CAMPS, St-Denis (974), France

101 WTh Morphometric differences in children with X chromosome aneuploidies
David Hong[1], Fumiko Hoeft[2,1], Matthew Marzelli[1], Jean-Francois Lepage[1], Allan Reiss[1]
[1]Stanford University, Stanford, CA, [2]UCSF, San Francisco, CA

102 WTh Altered network interactions during working memory in children with prenatal alcohol exposure: fMRI
Pranav Jagtap[1], Ernesta Meintjes[2], Sandra Jacobson[3], Christopher Molteno[2], Rohan Bhalla[1], Joseph Jacobson[3], Vaibhav Diwadkar[4]
[1]Wayne State University, Detroit, MI, [2]University of Cape Town Faculty of Health Sciences, Cape Town, South Africa, [3]Wayne State University School of Medicine, Detroit, MI, [4]Wayne State University School of Medicine, Detroit, United States

103 WTh Association of Corpus Callosum Abnormalities with Facial Dysmorphology in Fetal Alcohol Syndrome
Shantanu Joshi[1], Owen Phillips[1], Eric Kan[2], Roger Woods[3], Arthur Toga[1], Sarah Mattson[4], Ed Riley[4], Kenneth Jones[5], Colleen Adnams[6], Philip May[7], Mary O'Connor[3], Katherine Narr[3], Elizabeth Sowell[8]
[1]UCLA, Los Angeles, CA, [2]Children's Hospital, Los Angeles, Los Angeles, CA, [3]University of California at Los Angeles, Los Angeles, CA, [4]San Diego State University, San Diego, CA, [5]University of San Diego, La Jolla, CA, [6]University of Cape Town, Cape Town, South Africa, [7]University of North Carolina, Chapel Hill, NC, [8]University of Southern California, Los Angeles, CA

104 WTh Phonological and Orthographic Deficits During Fast Implicit Print Processing in Dyslexic Adolescents
Jens Kronschnabel[1], Raffaela Schmid[1], Urs Maurer[2], Daniel Brandeis[1,3]
[1]Department of Child and Adolescent Psychiatry, University of Zurich, Zurich, Switzerland, [2]Department of Psychology, University of Zurich, Zurich, Switzerland, [3]Central Institute of Mental Health, Medical Faculty Mannheim/ Heidelberg University, Mannheim, Germany

105 WTh Relationships between brain development and facial dysmorphology in fetal alcohol spectrum disorders
Catherine Lebel[1], Eric Kan[2], Sarah Mattson[3], Ed Riley[3], Kenneth Jones[4], Colleen Adnams[5], Philip May[6], Mary O'Connor[7], Katherine Narr[7], Elizabeth Sowell[8]
[1]University of California at Los Angeles, Los Angeles, United States, [2]Children's Hospital, Los Angeles, Los Angeles, CA, [3]San Diego State University, San Diego, CA, [4]University of San Diego, La Jolla, CA, [5]University of Cape Town, Cape Town, South Africa, [6]University of North Carolina, Chapel Hill, NC, [7]University of California at Los Angeles, Los Angeles, CA, [8]University of Southern California, Los Angeles, CA

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

106 WTh Chinese dyslexia shows neural abnormality in morphological processing
Li Liu[1], Ran Tao[1], Wenjing Wang[1], Wenping You[2], Yi Li[1], Danling Peng[1], James Booth[3]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [3]Department of Communication Sciences and Disorders, Northwestern UniversitY, Evanston, IL

107 WTh Treatment-Assisted Brain Plasticity in Developmental Stuttering
Chunming Lu[1], Danling Peng[1], Peter Howell[2]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Division of Psychology and Language Sciences, University College London, UK, London, United Kingdom

108 WTh Impaired intrinsic connectivity networks in adolescents with ADHD
Maarten Mennes[1,2], Daniel Von Rhein[1,2], Marcel Zwiers[1,2], Erik van Oort[3,1], Barbara Franke[4], Catherina Hartman[5], Pieter Hoekstra[5], Marjolein Luman[6], Jaap Oosterlaan[6], Christian Beckmann[7,1], Jan Buitelaar[2,1]
[1]Donders Institute for Brain, Cognition and Behavior, Nijmegen, Netherlands, [2]Cognitive Neuroscience, UMC St. Radboud, Nijmegen, Netherlands, [3]MIRA Institute, University of Twente, Enschede, Netherlands, [4]Genetics, University Medical Center, Radboud University, Nijmegen, Netherlands, [5]Child Psychiatry, UMCG, Groningen, Netherlands, [6]Clinical Neuropsychology, VU, Amsterdam, Netherlands, [7]University of Twente, Enschede, Netherlands

109 WTh Executive, default-mode, and salience network abnormalities in ADHD revealed in resting state fMRI
Teena Moody[1], Jamie Feusner[1], Casey Armstrong[1], Ronald Ly[1], Joseph O'Neill[1], Jennifer Levitt[1]
[1]UCLA, Westwood, CA

110 WTh Withdrawn

111 WTh A Reading and Age matched fMRI study of Motion Perception in Dyslexic Children
Olumide Olulade[1], Eileen Napoliello[1], Megan Luetje[1], Guinevere Eden[1]
[1]Center for the Study of Learning, Georgetown University, Washington, DC, USA

112 WTh Forethought in ADHD: a fMRI study of the neural correlates
helene poissant[1], Adrianna Mendrek[2], Noureddine Senhadji[3], Lucile Rapin[1]
[1]UQÀM, Montreal, Canada, [2]UdeM, Montreal, Canada, [3]IUGM, Montreal, Canada

113 WTh Withdrawn

114 WTh Structural abnormalities in the dyslexic brain: A meta-analysis of Voxel Based Morphometry studies
Fabio Richlan[1], Martin Kronbichler[1], Heinz Wimmer[1]
[1]University of Salzburg, Salzburg, Austria

115 WTh Functional and Structural Connectivity of the Motor Area in a Double Cortex Patient
Gonzalo Rojas[1], Marcelo Galvez[1], Maria de la Iglesia-Vayá[2]
[1]Department of Radiology, Las Condes Clinic, Santiago, Chile, [2]Centro de Excelencia de Imagen Biomédica (CEIB) Conselleria de Sanitat Valencia, Valencia, Spain

116 WTh Volumetric Changes in Frontal Cortical Regions in Adolescents with Prenatal Cocaine Exposure
Florence Roussotte[1], Tamara Warner[2], Katherine Narr[1], Catherine Lebel[1], Marylou Behnke[2], Eyler Davis[2], Elizabeth Sowell[3]
[1]University of California - Los Angeles, Los Angeles, CA, [2]University of Florida, Gainesville, FL, [3]University of Southern California, Los Angeles, CA

117 WTh Disrupted Structural Connectome in Attention Deficit Hyperactivity Disorder
Ni Shu[1], Qingjiu Cao[2], Li Sun[2], Li An[2], Peng Wang[2], Mingrui Xia[1], Jinhui Wang[1], Yufeng Wang[2], Yong He[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Institute of Mental Health, Peking University, Beijing, China

118 WTh DACC modulation of fronto-parietal regions increases with working memory load in children with ADHD
Jeffrey Stanley[1], Dalal Khatib[1], Tudor Puiu[1], Ashley Burgess[1], Richard White[1], Vaibhav Diwadkar[1]
[1]Wayne State University School of Medicine, Detroit, MI

***119 WTh Children with fetal alcohol spectrum disorders undergo less developmental cortical thinning (O-M1)**
Sarah Treit[1], Dongming Zhou[2], Catherine Lebel[2], Carmen Rasmussen[3], Gail Andrew[4], Alan Evans[5], Christian Beaulieu[2]
[1]Centre for Neuroscience, University of Alberta, Edmonton, Alberta, [2]Department of Biomedical Engineering, University of Alberta, Edmonton, Alberta, [3]Department of Pediatrics, University of Alberta, Edmonton, Alberta, [4]FASD Diagnostic Clinic, Glenrose Rehabilitation Hospital, Edmonton, Alberta, [5]McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Quebec

120 WTh 3D Statistical Parametric Mapping of quiet sleep EEG in the first year of life
Pedro A. Valdes-Sosa[1], Jorge Bosch-Bayard[1], Thalía Fernandez[2], Gloria Otero[3], Bernardo Pliego Rivero[3], Josefina Ricardo-Garcell[2], Berta González-Frankenberger[2], Lídice Galán-García[1], Agustin Lage-Castellanos[1], Antonio Fernandez-Bouzas[2], Eduardo Aubert-Vazquez[1], René Rodríguez-Valdés[1], Thalia Harmony-Baillet[2]
[1]Cuban Neuroscience Center, Ciudad Habana, Cuba, [2]Instituto de Neurobiologia Queretaro UNAM, Queretaro, Mexico, [3]Facultad de Medicina UAEM, Toluca, Mexico

121 WTh Regional brain volume increases relate to cognitive function in Neurofibromatosis type 1
Ines Violante[1], Maria Ribeiro[1], Inês Bernardino[1], Gil Cunha[1], Eduardo Silva[1], Miguel Castelo-Branco[1]
[1]Visual Neurosciences Lab, IBILI, Faculty of Medicine, University of Coimbra, Coimbra, Portugal

122 WTh Gray Matter Asymmetry of Dorsal Anterior Cingulate Cortex in Typical Developmental Children and ADHD
Jue Wang[1], Li Sun[2], Hong Yang[3], Xi-Nian Zuo[4], Zhao Qing[5], Han Zhang[1], Yu-Feng Zang[1,5]
[1]Center for Cognition and Brain Disorders, Affiliated Hospital, Hangzhou Normal University, Hangzhou, China, [2]Institute of Mental Health, Peking University, Beijing, China, [3]The First Affiliated Hospital of College of Medicine, Zhejiang University, Hangzhou, China, [4]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [5]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

123 WTh The Corpus Callosum and its relation to Motor Function in Children with Hemiplegic Cerebral Palsy
Maya Weinstein[1,2], Dido Green[3,4], Ronny Geva[5], Vicki Myers[1], Moran Artzi[1], Shelly Shiran[6], Andrew Gordon[7], Liat Ben-Sira[6], Mitchell Schertz[8], Aviva Fattal-Valevski[8], Dafna Ben Bashat[1]
[1]Functional Brain Center, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, [2]Gonda Multidisciplinary Brain Research Center, Bar Ilan University, Ramat-Gan, Israel, [3]Department occupational therapy, Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel, [4]Health and Life Sciences, Oxford Brookes University, Oxford, United Kingdom, [5]Gonda Multidisciplinary Brain Research Center, Bar Ilan University, Ramat Gan, Israel, [6]Department of Radiology, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, [7]Department of Biobehavioral Sciences, Columbia University, New York, United States, [8]Paediatric Neurology Unit, Tel Aviv Medical Center, Tel Aviv, Israel

124 WTh Dyscalculia and dyslexia in adults: Findings from the Auckland Comorbidity study
Anna Wilson[1,2], Geoffrey Scott[1], Janine Keir[2], Victoria Rowe[2], Stuart Andrewes[2], Kimberley Maskell[2], Karen Waldie[2]
[1]University of Canterbury, Christchurch, New Zealand, [2]The University of Auckland, Auckland, New Zealand

125 WTh Variations in Frontal and Striatal Morphology Associate with Psychopathic Traits in Adolescents
Yaling Yang[1], Laura Baker[2], Adrian Raine[3], Pan Wang[4], Anand Joshi[5], Shantanu Joshi[6], Katherine Narr[7], Paul Thompson[8]
[1]Developmental Cognitive Neuroimaging Laboratory, UCLA School of Medicine, Los Angeles, CA, [2]Department of Psychology, University of Southern California, Los Angeles, CA, [3]Departments of Criminology, Psychiatry, and Psychology, University of Pennsylvania, Philadelphia, CA, [4]Department of Psychology, University of Southern California, Los Angeles, United States, [5]USC, Los Angeles, United States, [6]N/A, Los Angeles, United States, [7]UCLA, Los Angeles, CA, [8]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States

126 WTh Thicker Temporal Cortex Associates with a Developmental Propensity for Psychopathic Traits
Yaling Yang[1], Pan Wang[2], Laura Baker[3], Anand Joshi[4], Shantanu Joshi[5], Katherine Narr[6], Adrian Raine[7], Paul Thompson[8]
[1]Developmental Cognitive Neuroimaging Laboratory, UCLA School of Medicine, Los Angeles, CA, [2]Department of Psychology, University of Southern California, Los Angeles, United States, [3]Department of Psychology, University of Southern California, Los Angeles, CA, [4]USC, Los Angeles, United States, [5]N/A, Los Angeles, United States, [6]UCLA, Los Angeles, CA, [7]Departments of Criminology, Psychiatry, and Psychology, University of Pennsylvania, Philadelphia, CA, [8]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

127 WTh Altered White Matter Integrity of the Cognitive Network in Duchenne Muscular Dystrophy
Woo-Kyoung Yoo[1], Young-Chul Choi[2], Kwang Ik Jung[1], Suk Hoon Ohn[1], Yoon Ghil Park[2]
[1]Hallym University, Anyang, Korea, Republic of, [2]Yonsei University College of Medicine, Seoul, Korea, Republic of

128 WTh Reduced Activation in VWFA During Spoken Word Rhyming in ESL Children with English Impairmen
Hanlin You[1], Amy Desroches[2], Nadine Gaab[3], Guosheng Ding[4], Xiangzhi Meng[1]
[1]Department of Psychology, Peking University, Beijing, China, [2]Department of Psychology, University of Winnipeg, Winnipeg, Canada, [3]Children's Hospital Boston, Boston, United States, [4]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

129 WTh Sample size and brain regions jointly affect the anatomical difference between ADHD and Normal brain
Wei-Hsiang Yu[1], Chun-Chia Kung[1]
[1]Department of Psychology, National Cheng-Kung University, Tainan, Chinese Taipei

130 WTh Aberrant Attention and Default Mode Networks in ADHD: a Multicenter Resting-State fMRI Study
Han Zhang[1], Li Sun[2], Xi-Nian Zuo[3], Jue Wang[1], Zhao Qing[4], Yu-Feng Zang[1]
[1]Center for Cognition and Brain Disorders, Hangzhou Normal University, Hangzhou, China, [2]Institute of Mental Health, Peking University, Beijing, China, [3]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [4]National Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

DISORDERS OF THE NERVOUS SYSTEM

Mood and Anxiety Disorders

131 WTh Global brain volume in bipolar disorder: The effect of lithium and age
Lucija Abramovic[1], Neeltje van Haren[1], Marco Boks[1], Florian Bootsman[1], Rachel Brouwer[1], Hugo Schnack[1], Hilleke Hulshoff Pol[1], René Kahn[1]
[1]Rudolf Magnus Institute of Neuroscience, University Medical Center Utrecht, Department of Psychiatry, Utrecht, Netherlands

132 WTh Neural activity during Emotional Memory as Predictor of Depressive Symptom Improvement
Hui Ai[1], Esther Opmeer[1], Marie-Jose van Tol[1,2], Jan-Bernard Marsman[1], Rudie Kortekaas[1], Saskia Woudstra[3,4,5,6], Nic van der Wee[4,7], Mark van Buchem[7,8], Dick Veltman[5], A. Aleman[1,9]
[1]Neuroimaging Center, University Medical Center Groningen, Groningen, Netherlands, [2]Clinical Affective Neuroimaging Laboratory, Otto van Guericke University Magdeburg, Magdeburg, Germany, [3]Neuroscience Campus Amsterdam, VU University, Amsterdam, Netherlands, [4]Department of Psychiatry, Leiden University Medical Center, Leiden, Netherlands, [5]Department of Medical Genomics, VU University Medical Center, Amsterdam, Netherlands, [6]Department of Psychiatry, VU University Medical Center, Amsterdam, Netherlands, [7]Leiden Institute for Brain and Cognition, Leiden University, Leiden, Netherlands, [8]Department of Radiology, Leiden University Medical Center, Leiden, Netherlands, [9]Department of Psychology, University of Groningen, Groningen, Netherlands

***133 WTh Altered Resting State Functional Connectivity in the Limbic System in Social Anxiety Disorder (O-W1)**
Sheeba Anteraper[1], Susan Whitfield-Gabrieli[2], Alice Sawyer[3], John Gabrieli[2], Christina Triantafyllou[1,4]
[1]A. A. Martinos Imaging Center at McGovern Institute for Brain Research, MIT, Cambridge, MA, [2]Department of Brain and Cognitive Sciences, MIT, Cambridge, MA, [3]Program in Clinical Psychology, Boston University, Boston, MA, [4]Dept. of Radiology, Harvard Medical School, A. A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Cambridge, MA

134 WTh State-dependent changes in grey matter in the hippocampal region in depression
Danilo Arnone[1], Shane McKie[1], Rebecca Elliott[1], Gabriella Juhasz[1], EJ Thomas[1], Darragh Downey[2], Steve Williams[2], JF William Deakin[1], Ian Anderson[1]
[1]University of Manchester, Neuroscience and Psychiatry Unit, Manchester, United Kingdom, [2]University of Manchester, Imaging Science and Biomedical Engineering, Manchester, United Kingdom

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

135 WTh Emotion Processing in Remitted Depression – an fMRI Study with Happy and Fearful Music
Sabine Aust[1], Karin Filip[1], Stefan Koelsch[1], Malek Bajbouj[2]
[1]Freie Universität Berlin, Languages of Emotion, Berlin, Germany, [2]Department of Psychiatry, Charité-Universitätsmedizin Berlin, Berlin, Germany

136 WTh Genetic and Environmental Influences on Cortical Surface Area and Thickness in Bipolar Disorder
Florian Bootsman[1], Neeltje van Haren[1], Caroline van Baal[1], Hugo Schnack[1], Astrid van der Schot[1], Hilleke Hulshoff Pol[1], Willem Nolen[2], René Kahn[1]
[1]Rudolf Magnus Institute of Neuroscience, University Medical Center Utrecht, Department of Psychiatry, Utrecht, Netherlands, [2]Department of Psychiatry, University Medical Center Groningen, University of Groningen, Groningen, Netherlands

137 WTh Detecting Rich-club Associations of Bipolar Disorder in Large Neuroimaging Data: using meta-analysis
Congying Chu[1], Lingzhong Fan[2], Tianzi Jiang[3]
[1]Institute of Automation,Chinese Academy of Sciences, Beijing, China, [2]Institution of Automation,Chinese Academy of Sciences, Beijing, China, [3]Institute Of Automation, Chinese Academy Of Sciences, Beijing, China

138 WTh Dysfunctional cortical-amygdala coupling in social anxiety patients during speech anticipation
Henk Cremers[1], Ilya Veer[2], Tor Wager[3], Philip Spinhoven[4], Serge Rombouts[2], Karin Roelofs[1]
[1]Behavioural Science Institute, Radboud University Nijmegen, Nijmegen, Netherlands, [2]Leiden Institute for Brain and Cognition, Leiden, Netherlands, [3]Department of Psychology and Neuroscience, University of Colorado at Boulder, Boulder, CO, [4]Leiden University - Institute of Psychology, Leiden, Netherlands

139 WTh Uncinate fasciculus integrity reflects functional connectivity within ventral affective network
Bart de kwaasteniet[1], Eric Ruhe[2], damiaan denys[3], Matthan Caan[4]
[1]Academic medical centre Amsterdam, N/A, [2]academic medical center, amsterdam, Netherlands, [3]AMC, Amsterdam, Netherlands, [4]Academic Medical Center Amsterdam, Amsterdam, Netherlands

140 WTh Neural processing of emotional faces in social anxiety disorder
Jonas Engman[1], Andreas Frick[1], Ulrika Wallenquist[1], Vanda Faria[1], Thomas Ågren[1], Elna-Marie Larsson[2], Mats Fredrikson[1], Tomas Furmark[1]
[1]Dept. of Psychology, Uppsala University, Uppsala, Sweden, [2]Dept. of Radiology, Uppsala University, Uppsala, Sweden

141 WTh CACNA1C variant impairs hippocampal and frontolimbic function in relatives of patients with psychosi
Susanne Erk[1], Andreas Meyer-Lindenberg[2], Sebastian Mohnke[1], Phoebe Schmierer[1], Björn Schott[1], Claudia Schütz[3], Knut Schnell[4], Leila Haddad[2], Grimm Oliver[2], Peter Kirsch[2], Christine Esslinger[5], Nina Seiferth[1], Andreas Heinz[1], Thomas Mühleisen[3], Manuel Mattheisen[6,3], Markus Nöthen[3,7], Vanessa Nieratschker[2], Stephanie Witt[2], Sven Cichon[8,3], Marcella Rietschel[2], Henrik Walter[9]
[1]Charité Universitätsmedizin Berlin, Berlin, Germany, [2]Central Institute of Mental Health, Mannheim, Germany, [3]University of Bonn, Bonn, Germany, [4]University of Heidelberg, Heidelberg, Germany, [5]Otto-von-Guericke-University, Magdeburg, Germany, [6]Harvard School of Public Health, Boston, MA, [7]German Center for Neurodegenerative Diseases, Bonn, Germany, [8]Research Center Jülich, Jülich, Germany, [9]Charité Universitätsmedizin, Berlin, Germany

142 WTh Subregional Amygdala Responsivity in Responders and Nonresponders to SSRIs in Patients with Social A
Vanda Faria[1], Massimo Bani[2], Paolo Bettica[2], Örjan Frans[1], Clas Linnman[3], Anna Pissiota[1], Kurt Wahlstedt[4], Fredrik Åhs[5], Lieuwe Appel[6], Mats Fredrikson[1], Tomas Furmark[1]
[1]Dept. of Psychology Uppsala University, Uppsala, Sweden, [2]GlaxoSmithKline, Verona, Italy, [3]Harvard, Boston, MA, [4]Uppsala University Hospital and Quintiles AB Phase I Services, Uppsala, Sweden, [5]Duke University, Durham, NC, [6]Uppsala Imanet, Uppsala, Sweden

143 WTh Grey matter reductions in bipolar disorder and their relationship to neuropsychological performance
Andreas Finkelmeyer[1], Adrian Lloyd[1], Peter Gallagher[1], Stuart Watson[1], David Cousins[1], Jill Thompson[2], Allan Young[3], Nicol Ferrier[1]
[1]Newcastle University, Newcastle Upon Tyne, United Kingdom, [2]AstraZeneca UK, Luton, United Kingdom, [3]Imperial College, London, United Kingdom

144 WTh Altered fusiform connectivity when viewing fearful faces in social phobia: an fMRI study
Andreas Frick[1], Katarina Howner[2], Håkan Fischer[3], Thomas Ågren[1], Marianne Kristiansson[2], Tomas Furmark[1]
[1]Uppsala University, Uppsala, Sweden, [2]Karolinska Institute, Stockholm, Sweden, [3]Stockholm University, Stockholm, Sweden

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

145 WTh Differences in BOLD Response to Emotional Faces Predict Antidepressant Response to Scopolamine
Maura Furey[1], Wayne Drevets[2], Joanna Szczepanik[3], Ashish Khanna[4], Allison Nugent[5], Carlos Zarate, Jr[3]
[1]Experimental Therapeutics and Pathophysiology Branch, NIH/NIMH, Bethesda, MD, [2]Laureate Institute for Brain Research, Tulsa, OK, [3]NIMH/NIH, Bethesda, MD, [4]American University of the Caribbean School of Medicine, Coral Gables, FL, [5]NIMH, Bethesda, United States

146 WTh Evaluation of the anxiety tasks to assess amygdala activities using fMRI
Yoshiyuki Hirano[1], Takayuki Obata[2], Daisuke Matsuzawa[1], Chihiro Sutoh[1], Sudesna Chakraborty[1], Eiji Shimizu[1]
[1]Chiba University, Chiba, Japan, [2]National Institutes of Radiological Sciences, Chiba, Japan

147 WTh Impaired fronto-thalamic circuitry in major depression with a history of suicidal behavior
zhiyun Jia[1], Yuqing Wang[1], Weihong Kuang[2], Qizhu Wu[1], Su Lui[1], xiaoqi huang[1], Raymond Chan[3], Sweeney John[4], Qiyong Gong[1]
[1]Huaxi MR Research Center, Department of Radiology, West China Hospital of Sichuan University, chengdu, sichuan, [2]Department of Psychiatry, State Key Lab of Biotherapy, West China Hospital of Sichuan University, chengdu, sichuan, [3]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [4]Departments of Psychiatry and Pediatrics, University of Texas Southwestern, Dallas TX, Dallas TX, TX

148 WTh Connectivity patterns in an affective network and "dysthymic personality traits"
Tanja Kellermann[1], Christian Roski[2], Svenja Caspers[3], Silke Lux[4], Karl Zilles[5], Simon Eickhoff[6]
[1]Department of Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen University, Germany, [2]Institute of Neuroscience and Medicine, Research Center Jülich, Jülich, Germany, [3]Institute of Neuroscience and Medicine, INM-2, Research Center Julich, Julich, Germany, [4]Institute of Neuroscience and Medicine, INM-1, Research Centre Jülich, Jülich, Germany, [5]Research Center Jülich, Jülich, Germany

149 WTh Cortical Thickness and Folding Pattern Abnormalities in Pediatric Bipolar Disorder
Bryn Levitan[1], Minjie Wu[2], Mani Pavuluri[3]
[1]University of Illinois at Chicago, Chicago, United States, [2]University of Illinois, Chicago, United States, [3]University of Illinois at Chicago, Chicago, IL

150 WTh Altered Pattern of Sad Emotion Processing Procedure in Major Depressive Disorder
Haoran Li[1], Qing Lu[1], Zhijian Yao[2]
[1]Research Center for Learning Science, Southeast University, Nanjing, China, [2]Academic Department of Psychiatry, Nanjing Brain Hospital, Nanjing Medical University, Nanjing, China

151 WTh Cortical thickness alterations in default mode network in major depressive disorder
Meng Li[1,2], Nora Hilla[2], Dorothea Horn[2], Annemarie Osoba[2], Coraline Metzger[2], Marie-Jose van Tol[2,3], Wenjing Li[1,2], Joern Kaufmann[4], Johann Steiner[2], Kolja Schiltz[2], Bernhard Bogerts[2], Huiguang He[1], Martin Walter[2,3]
[1]Institute of Automation, Chinese Academy of Sciences, Beijing, China, [2]Department of Psychiatry and Psychotherapie, Otto-von-Guericke University, Magdeburg, Germany, [3]Leibniz Institute for Neurobiology, Magdeburg, Germany, [4]Department of Neurology, Otto-von-Guericke University, Magdeburg, Germany

152 WTh Regional spontaneous activity alterations in elderly individuals with moderate depressive symptoms
Rui Li[1], Zhenling Ma[2], Jing Yu[3], Juan Li[3]
[1]Key Laboratory of Mental Health, Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]School of Nursing, Peking Union Medical College, Beijing, China, [3]Key Laboratory of Mental Health, Institute of Psychology, Chinese Academy of Sciences, Beijing, China

153 WTh Spontaneous BOLD fluctuations reveal efficacy of TMS treatment on major depressive disorder
Shang-Hua Lin[1], Changwei Wu[2], Kun-Hsien Chou[3], Cheng-Ta Li[4], Tung-Ping Su[5], Ching-Po Lin[6]
[1]Institute of Neuroscience, National Yang-Ming University, Taipei, [2]Graduate Institute of Biomedical Engineering, National Central University, Taoyuan, Chinese Taipei, [3]National Yang Ming University, [4]Department of Psychiatry, Taipei Veterans General Hospital, Taipei, Chinese Taipei, [5]Institute of Neuroscience, School of Life Science, National Yang-Ming University, Taipei, Chinese Taipei, [6]National Yang-Ming University, Taipei, Chinese Taipei

154 WTh Abnormal Baseline Brain Activity In Major Depressive Disorder And Their Siblings
chunhong liu[1], Xia Wu[2], Chuan-Yue Wang Wang[3]
[1]Department of Radiology, Beijing Anding Hospital, Capital Medical University, Beijing, China, beijing, China, [2]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing, China, [3]Laboratory of Clinical Psychopharmacology,Beijing Normal University, Beijing, China

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

155 WTh Investigating the diagnostic value of whole-brain functional connectivity in social anxiety disorder
Feng Liu[1], Jianwei Zhang[1], Shanshan Wang[1], Ling Zeng[1], Qing Gao[1], Huafu Chen[1]
[1]University of Electronic Science and Technology of China, Chengdu, China

156 WTh MR Spectroscopy of Amygdala: abnormal neurobiochemistry revealed in Pediatric and Adolescent Patient
Mengqi Liu[1], Qizhu Wu[1], Jun Li[2], Qiyong Gong[1], Qiang Yue[1]
[1]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University, Chengdu, China, [2]Department of geriatrics, West China Hospital of Sichuan University, Chengdu, China

157 WTh Disrupted Topological Patterns of structural network in Major Depressive Disorder
Zhiliang Long[1], Jun Li[1], Chaoqiong Ma[1], Ling Zeng[1], Qing Gao[1], Huafu Chen[1]
[1]University of Electronic Science and Technology of China, Chengdu, China

158 WTh Voxel-Based Morphometry and Resting-State Functional Connectivity Investigation in Major Depression
Chaoqiong Ma[1], Jun Li[1], Chunyan Zheng[1], Ling Zeng[1], Qing Gao[2], Huafu Chen[1]
[1]University of Electronic Science and Technology of China, Chengdu, China, [2]University of Electronic Science and Technology of China, Cheng Du, China

159 WTh Network specific influence of Glutamate on BOLD responses in healthy controls and depressed patients
Coraline Metzger[1,2], Marie-José van Tol[3,2], Dorothea Horn[3], Johann Steiner[3], Joern Kaufmann[4], Bernhard Bogerts[3], Constanze Seidenbecher[2], Martin Walter[3,2]
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160 WTh Impact of Blood Cholesterol Levels on Striatal and Frontal Functional Connectivity
Bernhard Meyer[1], Ulrich Rabl[1], Lucie Bartova[1], Manuel Kuhn[1], Kersten Diers[2], Andreas Berger[1], Christian Scharinger[1], Ana Popovic[1], Lisa Ott[1], Klaudius Kalcher[3], Wolfgang Huf[3], Thomas Perkmann[4], Helmuth Haslacher[4], Christian Windischberger[3], Harald Esterbauer[4], Burkhard Brocke[2], Siegfried Kasper[1], Ewald Moser[3], Harald Sitte[4], Lukas Pezawas[1]
[1]Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria, [2]Technical University of Dresden, Dresden, Germany, [3]MR Center, Medical University of Vienna, Vienna, Austria, [4]Medical University of Vienna, Vienna, Austria

161 WTh Dissociation, PTSD and parenting: An fMRI study involving child video-stimuli
Dominik Moser[1], Tatjana Aue[2], Zhishun Wang[3], Bradley S Peterson[4], Daniel Schechter[1]
[1]Hôpitaux Universitaires de Genève, Geneva, Switzerland, [2]University of Geneva, Geneva, Switzerland, [3]Columbia University and NYSPI, N/A, [4]MRI unit, Columbia University Department of Psychiatry, & New York State Psychiatric Institute, New York, United States

162 WTh Neural Correlates with parental rearing and temperament in individuals with major depression
Mami Nakashima[1], Koji Matsuo[2], Masayuki Nakano[1], Kazuteru Egashira[3], Toshio Watanuki[1], Toshio Matsubara[1], Yoshifumi Watanabe[1]
[1]Yamaguchi University Graduate School Of Medicine, Ube, Yamaguchi, Japan, [2]Yamaguchi University Graduate Shool Of Medicine, Ube, Yamaguchi, Japan, [3]Department of Psychiatry, Yamaguchi Grand Medical Center, Yamaguchi, Japan, Ube, Yamaguchi, Japan

163 WTh Structural plasticity in fronto-limbic regions in patients with major depression treated with ECT
Katherine Narr[1], Owen Phillips[1], Roger Woods[1], Boris Gutman[1], Paul Thompson[1], Jeffry Alger[1], Randall Espinoza[1]
[1]David Geffen School of Medicine at UCLA, Los Angeles, CA, United States

164 WTh Abnormalities in Mood Disorders During Performance of a Working Memory Task: An MEG Study
Allison Nugent[1], Craig Marquardt[1], Giacomo Salvadore[2], Maura Furey[1], Carlos Zarate, Jr.[1]
[1]Experimental Therapeutics and Pathophysiology Branch, NIH/NIMH, Bethesda, MD, [2]Johnson and Johnson, Titusville, NJ

165 WTh Effects of DISC1 genotype and affective psychopathology on brain function and structure
Esther Opmeer[1], Marie-Jose van Tol[2], Rudie Kortekaas[3], Nic Wee[4], Saskia Woudstra[5], Mark van Buchem[6], Brenda Penninx[7], Dick Veltman[8], A. Aleman[9]
[1]university medical center groningen, N/A, [2]University Medical Center Groningen, Groningen, Netherlands, [3]Department of Neuroscience, University Medical Center Groningen and University of Groningen, Groning, Groningen, Netherlands, [4]Leiden Institute for Brain and Cognition, Leiden, Netherlands, [5]Department of Pyschiatry, VU University Medical Center, Amsterdam, Netherlands, [6]Leiden Institute for Brain and Cognition, leiden, Netherlands, [7]Department of Psychiatry, VU University Medical Center, Amsterdam, Netherlands, [8]Department of Psychiatry, VU University medical center, Amsterdam, Netherlands, [9]NeuroImaging Center, Groningen, Netherlands

166 WTh Electroconvulsive Therapy Reduces Frontal Cortical Connectivity in Severe Depressive
Jennifer Perrin[1], Susa Merz[1], Daniel Bennett[1], James Currie[1], Douglas Steele[2], Ian Reid[1], Christian Schwarzbauer[1]
[1]University of Aberdeen, Aberdeen, United Kingdom, [2]University of Dundee, Dundee, United Kingdom

167 WTh Grey Matter Changes Following Electroconvulsive Therapy (ECT) for the Treatment of Depression
Jennifer Perrin[1], Daniel Bennett[1], James Currie[1], Douglas Steele[2], Gordon Fernie[1], Ian Reid[1]
[1]University of Aberdeen, Aberdeen, United Kingdom, [2]University of Dundee, Dundee, United Kingdom

168 WTh Decreased Nucleus Accumbens Activation in Depression in Response to Anticipation of Loss
Patrick Pruitt[1], Annie Weldon[1], Brian Mickey[1], Wai-Ying Yau[1], Kortni Meyers[1], David Hsu[1], Stephan Taylor[1], Mary Heitzeg[1], Jon-Kar Zubieta[1], Scott Langenecker[1]
[1]University of Michigan, Ann Arbor, MI, United States

169 WTh Volumetric and Geometric Change of Gray Matter in First-episode, Drug-naive Major Depression
Lihua Qiu[1], Xiaoqi Huang[1], shiguang li[1], Qizhu Wu[1], Su Lui[1], junran zhang[1], Yuqing Wang[1], Qiyong Gong[1]
[1]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University, Chengdu, China

****170 WTh COMT Val158Met and Life Stress Load Interact with Hippocampal Volume and Connectivity**
Ulrich Rabl[1], Kersten Diers[2], Bernhard Meyer[1], Wolfgang Huf[1,3,4], Klaudius Kalcher[3], Lucie Bartova[1], Andreas Berger[1], Raphaela Oswald[1], Viktor Szilagyi[1], Christian Scharinger[1], Ana Popovic[1], Helmuth Haslacher[5], Thomas Perkmann[5], Burkhard Brocke[2], Christian Windischberger[3], Harald Esterbauer[5], Siegfried Kasper[1], Ewald Moser[3], Lukas Pezawas[6]
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171 WTh Functional Connectivity Density Mapping to Explore TMEM 132D, a New Candidate for Anxiety Phenotypes
Philipp Sämann[1], Angelika Erhardt[1], Sara Kiem[1], Michael Czisch[1], David Höhn[1], Florian Holsboer[1], Bertram Müller-Myhsok[1], Oliver Gruber[2], Elisabeth Binder[1]
[1]Max Planck Institute of Psychiatry, Munich, Germany, [2]Georg-August-Universität, Göttingen, Germany

172 WTh Blood Serotonin Levels Predict Anterior Cingulate Activity
Christian Scharinger[1], Christian Kasess[1], Ulrich Rabl[1], Tina Hofmaier[1], Kersten Diers[2], Lucie Bartova[1], Gerald Pail[1], Wolfgang Huf[1], Zeljko Uzelac[1], Beate Hartinger[1], Klaudius Kalcher[1], Thomas Perkmann[1], Andreas Meyer-Lindenberg[3], Siegfried Kasper[1], Michael Freissmuth[1], Christian Windischberger[1], Matthaeus Willeit[1], Rupert Lanzenberger[1], Harald Esterbauer[1], Burkhard Brocke[2], Ewald Moser[1], Harald Sitte[1], Lukas Pezawas[1]
[1]Medical University of Vienna, Vienna, Austria, [2]Technical University of Dresden, Dresden, Germany, [3]Central Institute of Mental Health, Mannheim, Germany

173 WTh Defining the human hypothalamus in vivo by high-resolution 7 Tesla magnetic resonance imaging
Peter Schoenknecht[1], Stephanie Schindler[1], Laura Schmidt[1], Robert Trampel[2], Maria Strauß[1], Ulrich Hegerl[1], Robert Turner[2], Stefan Geyer[2]
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›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

174 WTh Validating S100B as biomarker for the human brain – A combined serum, gene expression and MRI study
Matthias Schroeter[1], Katrin Arelin[2], Juergen Kratzsch[3], Johann Steiner[4], Daniel-Paolo Streitbuerger[2], Arno Villringer[2], Karsten Mueller[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Max-Planck-Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [3]Institute of Laboratory Medicine, Clinical Chemistry and Molecular Diagnostics, Leipzig University, Leipzig, Germany, [4]Department of Psychiatry, University of Magdeburg, Germany, Magdeburg, Germany

175 WTh Negative emotion processing in Bipolar Disorder: an fMRI study
Gianna Sepede[1], Francesco Gambi[1], Domenico De Berardis[2], Daniela Campanella[2], Mauro Perrucci[1], Antonio Ferretti[3], Nicola Serroni[2], Rosa Maria Salerno[3], Marco Onofrj[3], Gian Luca Romani[3,4], Massimo Di Giannantonio[3,5]
[1]Department of Neuroscience and Imaging, Gabriele D'Annunzio University, Chieti, Italy, [2]Department of Mental Health, National Health Trust, Teramo, Italy, [3]Department of Neuroscience and Imaging, Gabriele D' Annunzio University, Chieti, Italy, [4]Gabriele D'Annunzio University Foundation, Chieti, Italy, [5]Department of Mental Health, National Health Trust, Chieti, Italy

176 WTh Neural correlates of worry in neuroticism
M.N. Servaas[1], H. Riese[2], J. Ormel[2], A. Aleman[1]
[1]NeuroImaging Center, Groningen, Netherlands, [2]Interdisciplinary Center for Psychiatric Epidemiology, Groningen, Netherlands

177 WTh Altered Fiber Tract Integrity in Traffic Accident Victims: A Diffusion Tensor Imaging Study
Feng Shi[1], Yan Zhou[2], Zhen Wang[3], Dinggang Shen[1]
[1]University of North Carolina at Chapel Hill, NC, United States, [2]Renji Hospital, Shanghai Jiao Tong University, Shanghai, China, [3]Shanghai Mental Health Center, Shanghai Jiao Tong University School of Medicine, Shanghai, China

178 WTh FMRI of increased habituation in the amygdala and orbitofrontal cortex in social anxiety disorder
Ronald Sladky[1], Anna Höflich[2], Jasmin Tröstl[1], Christoph Kraus[2], Pia Baldinger[2], Ewald Moser[1], Rupert Lanzenberger[2], Christian Windischberger[1]
[1]MR Centre of Excellence, Medical University of Vienna, Vienna, Austria, [2]Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria

179 WTh The Effect of CBT on Aversive Conditioning: A Multi-Center fMRI Study in Panic Disorder
Benjamin Straube[1], Thilo Kellermann[2], Ulrike Lueken[3], Isabelle Reinhardt[2], Andreas Jansen[1], Hans-Ulrich Wittchen[3], André Wittmann[4], Andreas Ströhle[4], Bettina Pfleiderer[5], Carsten Konrad[1], Volker Arolt[6], Tilo Kircher[1]
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180 WTh Traces of Stress: Cortisol Related Sustained Enhancement of Amygdala-Hippocampal Connectivity
Sharon Vaisvaser[1,2], Tamar Lin[3,4], Ilana Podlipsky[5], Yona Greenman[6], Naftali Stern[6], Eyal Fruchter[7], Yair Bar-Haim[4], Roee Admon[3,8], Talma Hendler[3,8,9]
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181 WTh Glutamatergic metabolism affects resting state functional connectivity in health and depression
Marie-Jose van Tol[1,2], Coraline Metzger[3], Catie Chang[4], Johann Steiner[5], Axel Genz[2], Dorothea Horn[2], Joern Kaufman[6], Berhard Bogerts[2], Martin Walter[7,1,2]
[1]Leibniz Institute for Neurobiology, Magdeburg, Germany, [2]Department of Psychiatry, Otto von Guericke University, Magdeburg, Germany, [3]Clinical Affective Neuroimaging Laboratory, Department of Psychiatry, Otto-von-Guericke University, Magdeburg, Germany, [4]NINDS/NIH, Bethesda, MD, [5]5Department of Psychiatry, University of Magdeburg, Germany, Magdeburg, Germany, [6]Department of Neurology, Otto von Guericke University, Magdeburg, Germany, [7]Clinical Affective Neuroimaging Laboratory, Magdeburg, Germany

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

182 WTh Recovering from combat stress: reversible and persistent mesofrontal plasticity

Guido van Wingen[1], Elbert Geuze[2], Matthan Caan[1], Tamas Kozicz[3], Silvia Olabarriaga[1], damiaan denys[1], Eric Vermetten[2], Guillén Fernández[4]
[1]Academic Medical Center Amsterdam, Amsterdam, Netherlands, [2]Military Mental Health, Utrecht, Netherlands, [3]Radboud University Nijmegen, Nijmegen, Netherlands, [4]Radboud University Medical Centre, Nijmegen, Netherlands

183 WTh The amygdala in PTSD following childhood trauma: anatomy, activation, and functional connectivity

Ilya Veer[1,2,3], Nicole Oei[1,2,4], Philip Spinhoven[1,3], Mark van Buchem[1,2], Bernet Elzinga[1,3], Serge Rombouts[1,2,3]
[1]Leiden Institute for Brain and Cognition, Leiden, Netherlands, [2]Leiden University Medical Center, Dept. of Radiology, Leiden, Netherlands, [3]Leiden University - Institute of Psychology, Leiden, Netherlands, [4]Leiden University Medical Center, Dept. of Gerontology and Geriatrics, Leiden, Netherlands

184 WTh Gray Matter Changes in Adolescents with Subthreshold Depression

Helene VULSER[1,2,3], Marie-Laure Paillère Martinot[1,2,3,4], Jean-Luc Martinot[1,2,3], Eric Artiges[1,2,3], Ruben MIRANDA[1,2,3], Robert Goodman[5], Jari Penttilä[6], Maren STRUVE[7], Tamine FADAI[8], Viola JUCKSCH[9], Luise POUTSKA[7], Patricia Conrod[10], Tobias Banaschewski[7], Christian Büchel[11], Herta Flor[7], Juergen GALLINAT[9], Hugh Garavan[12], Andreas Heinz[13], Tomas Paus[14], Marcella Rietschel[7], Michael Smolka[15], Alexis BARBOT[16], Jean-Baptiste Poline[17], Gunter Schumann[18], Herve Lemaitre[19], Consortium IMAGEN[20]
[1]UMR INSERM-CEA U1000, Orsay, France, [2]Universite Paris Descartes, Paris, France, [3]University Paris-Sud 11, Orsay, France, [4]APHP, Hôpital Cochin, Paris, France, [5]Department of Neurology, Columbia University College of Physicians and Surgeons, New york, NY, [6]Aivon Oy, Espoo, Finland, [7]Central Institute of Mental Health, Mannheim, Germany, [8]Universitaetsklinikum Hamburg Eppendorf, Hamburg, Germany, [9]Department of Psychiatry and Psychotherapy, Campus Charité Mitte, Charité – Universitätsmedizin, Berlin, Germany, [10]King's College London, Institute of Psychiatry, London, United Kingdom, [11]University Medical Center Hamburg-Eppendorf, Department of Systems Neuroscience, Hamburg, Germany, [12]University of Vermont, Burlington, VT, [13]Dept. of Psychiatry and Psychotherapy, CCM, Charité - Universitätsmedizin Berlin, Berlin, Germany, [14]Rotman Research Institute - Baycrest Centre, Toronto, ON, [15]Technische Universität Dresden, Dresden, Germany, [16]I2BM-Neurospin CEA, Gif-sur-Yvette, France, [17]CEA, Neurospin, Gif-sur-Yvette, France, [18]King's College London, London, United Kingdom, [19]INSERM - CEA - Faculté de Médecine Paris Sud 11, Orsay, France, [20]Consortium IMAGEN, Europe

185 WTh Alteration of negative emotional processing during the initial weeks after trauma

xin Wang[1,2], Hong Xie[1], Marijo Tamburrino[1], Andrew Cotton[1], Jennifer Smirnoff[1], Michael Dennis[1], Teresa Biehn[1], Ateka Contractor[1], Kristopher Brickman[1], Samuel McLean[3], Jon Elhai[1], Israel Liberzon[2]
[1]University of Toledo, Toledo, OH, [2]University of Michigan, Ann Arbor, MI, [3]University of North Carolina at Chapel Hill, Chapel Hill, NC

186 WTh Dynamic gamma band phase synchronization in depression:MEG study

Yi Wang[1], Zhijian Yao[2], Qing Lu[1]
[1]Research Center for Learning Science, Southeast University, Nanjing, China, [2]Academic Department of Psychiatry, Nanjing Brain Hospital, Nanjing Medical University, Nanjing, China

187 WTh Diffusion Tensor Imaging Reveals U-fibers Abnormalities in Pediatric Bipolar Disorder

Minjie Wu[1], Lisa Lu[1,2], Bryn Levitan[1], Alessandra Passarotti[1], Joe Zhou[1], Mani Pavuluri[1]
[1]University of Illinois at Chicago, Chicago, United States, [2]Roosevelt University, Chicago, IL

188 WTh Altered Affective, Executive and Sensorimotor Resting State Networks in Pediatric Mania

Minjie Wu[1], Lisa Lu[1,2], Alessandra Passarotti[1], Ezra Wegbreit[1], Jacklynn Fitzgerald[1], Mani Pavuluri[1]
[1]University of Illinois at Chicago, Chicago, IL, [2]Roosevelt University, Chicago, IL

189 WTh Spontaneous brain activity in combat-related PTSD

Xiaodan Yan[1], Charles Marmar[2]
[1]New York Unviersity, New York, NY, United States, [2]New York University, New York, NY, United States

190 WTh Relations of Default-Mode Network Connectivity and amygdala volume in Major Depressive Disorder

Chuan-Chih Yang[1], Marie-Jose van Tol[1,2], Meng Li[3], Coraline Metzger[1,2], Annemarie Osoba[4], Johann Steiner[2], Joern Kaufmann[5], Bernhard Bogerts[2], Martin Walter[1,2]
[1]Leibniz Institute for Neurobiology, Magdeburg, Germany, [2]Department of Psychiatry and Psychotherapy, Otto-von-Guericke University, Magdeburg, Germany, [3]Institute of Automation, Chinese Academy of Sciences, Beijing, China, [4]Otto-von-Guericke University, Magdeburg, Germany, [5]Department of Neurology, Otto-von-Guericke University, Magdeburg, Germany

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

191 WTh Abnormality of default mode and the stable task control network in major depressive disorder
Liqin YANG[1], Fuchun Lin[1], Hao Lei[1]
[1]Wuhan Institute of Physics and Mathematics, Chinese Academy of Sciences, Wuhan, China

192 WTh Effects of Type 2 Diabetes and Major Depression on Subcortical Biophysical Abnormalities: A MT Study
Shaolin Yang[1], Olusola Ajilore[1], Minjie Wu[1], Melissa Lamar[1], Anand Kumar[1]
[1]University of Illinois at Chicago, Chicago, United States

193 WTh Biophysical Abnormalities in Focal Gray and White Matter Regions in Late-Life Major Depression
Shaolin Yang[1], Olusola Ajilore[1], Minjie Wu[1], Melissa Lamar[1], Anand Kumar[1]
[1]University of Illinois at Chicago, Chicago, United States

194 WTh Depressed Adolescents Demonstrate Abnormal Amygdala Activation and Functional Connectivity
TONY YANG[1]
[1]UNIVERSITY OF CALIFORNIA SAN DIEGO, SAN DIEGO, United States

195 WTh Neural correlates of semantic priming in panic disorder with agoraphobia using panic related stimuli
Yunbo Yang[1], Benjamin Straube[1], Ulrike Lueken[2], Hans-Ulrich Wittchen[2], André Wittmann[3], Andreas Ströhle[3], Bettina Pfleiderer[4], Martin Herrmann[5], Jürgen Deckert[5], Alfons Hamm[6], martin lotze[7], Volker Arolt[8], Tilo Kircher[1]
[1]Department of Psychiatry and Psychotherapy, Philipps-University Marburg, Marburg, Germany, [2]Department of Psychology, University of Technology, Dresden, Germany, [3]Department of Psychiatry and Psychotherapy, Charité - Universitätsmedizin Berlin, Berlin, Germany, [4]Department of Clinical Radiology, University of Münster, Münster, Germany, [5]Department of Psychiatry, Psychosomatics and Psychotherapy, University of Würzburg, Würzburg, Germany, [6]Department of Biological and Clinical Psychology, University of Greifswald, Greifswald, Germany, [7]Center for Diagnostic Radiology and Neuroradiology, University of Greifswald, Greifswald, Germany, [8]Department of Psychiatry, University of Münster, Münster, Germany

196 WTh Spectral Analysis of Resting State in Recurrent Major Depression: a Magnetoencephalography Study
Zhijian Yao[1], Hao Tang[1], Guoping Luo[2], Li Han[1], Qing Lu[2]
[1]Academic Department of Psychiatry, Affiliated Nanjing Brain Hospital of Nanjing Medical University, Nanjing, China, [2]Research Centre for learning Science, Southeast University, Nanjing, China

197 WTh FMRI of autobiographical memory deficits in individuals with, and at risk for, developing depression
Kymberly Young[1], Patrick Bellgowan[2], Jerzy Bodurka[2], Wayne Drevets[2]
[1]Laureate Institute For Brain Research, Tulsa, OK, [2]Laureate Institute for Brain Research, Tulsa, OK

198 WTh Depression alters dorsolateral prefrontal cortex response to anticipated picture viewing
Bin Zhang[1], Coraline Metzger[1,2], Marie-José van Tol[1,2], Annemarie Osoba[1], Dorothea Horn[1], Maryam Roayaee[1], Axel Genz[1], Johann Steiner[1], Claus Tempelmann[3], Bernhard Bogerts[1], Martin Walter[1,2]
[1]Department of Psychiatry and Psychotherapy, Otto-von-Guericke University, Magdeburg, Germany, [2]Leibniz Institute for Neurobiology, magdeburg, Germany, [3]Department of Neurology, Otto-von-Guericke University, Magdeburg, Germany

199 WTh Neurochemical Changes in the Anterior Cingulate Cortex Link with ECT Treatment in Major Depression
Jingjing Zhang[1], Katherine Narr[1], Roger Woods[1], Owen Phillips[1], Jeffry Alger[1], Randall Espinoza[1]
[1]David Geffen School of Medicine at UCLA, Los Angeles, United States

200 WTh Regional cortical thickness reduction in remitted depression is associated with childhood trauma
Kai Zhang[1,2,3,4], Sabine Aust[1,2,3], Simone Grimm[1,2,3,5], Malek Bajbouj[1,2,3]
[1]Cluster of Excellence 'Languages of Emotion', Freie Universität Berlin, Berlin, Germany, [2]Dahlem Institute for Neuroimaging of Emotion, Freie Universität Berlin, Berlin, Germany, [3]Department of Psychiatry, Charité, CBF, Berlin, Germany, [4]Department of Education and Psychology, Freie Universität Berlin, Berlin, Germany, [5]Department of Psychiatry, University Zurich, Zurich, Switzerland

201 WTh Abnormal functional networks in major depression
Chunyan Zheng[1], Chaoqiong Ma[1], Jun Li[1], Qing Gao[1], Huafu Chen[1]
[1]University of Electronic Science and Technology of China, Chengdu, China

202 WTh Amplitude of Low Frequency Fluctuation of BOLD Signal and Functional Connectivity Analysis in PTSD

Hong-Ru Zhu[1], Jun-Ran Zhang[2], Chang-Jian Qiu[3], Rui-Zhi Wu[3], Ya-jing Meng[3], Hao-Fei Cui[3], Wei Zhang[3], Qi-Yong Gong[4]
[1]Mental Health Center, West China Hospital of Sichuan University, ChengDu, China, [2]School of Electrical Engineering and Information, Sichuan University, ChengDu, China, [3]Mental Health Center, West China Hospital of Sichuan University, Chengdu, China, [4]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University, Chengdu, China

203 WTh A study between the resting-state default mode network connectivity and the self in Major Depression

xueling zhu[1], Xiaofeng Yang[2], Yuan Zhong[3], Fangcheng Long[1], Dongsheng Liao[1]
[1]the School of Humanities and Social Sciences, National University of Defense Technology, Changsha, China, [2]Emory University, Atlanta, United States, [3]Department of Psychology, Nanjing Normal University, Nanjing, China

DISORDERS OF THE NERVOUS SYSTEM

Obsessive-Compulsive Disorder and Tourette Syndrome

204 WTh Shut down of caudate-prefrontal circuits and cognitive control during symptom provocation in OCD

Paula Banca[1], Fernando Pocinho[2], Joao Relvas[2], Gregor Philipiak[1], Carlos Ferreira[1], Miguel Castelo-Branco[1]
[1]IBILI, Coimbra, Portugal, [2]Hospital of University of Coimbra, Coimbra, Portugal

205 WTh Neural correlates of abnormal 'guilt processing' in patients with obsessive compulsive disorder

Barbara Basile[1,2], Francesco Mancini[2], Emiliano Macaluso[3], Marco Bozzali[4]
[1]Santa Lucia Foundation, N/A, [2]School of Cognitive Psychotherapy, Rome, Italy, [3]Santa Lucia Foundation, Roma, Italy, [4]Santa Lucia Foundation, Rome, Italy

206 WTh Neuroimaging changes after psychotherapy in pediatric patients with obsessive compulsive disorder

Chaim Huyser[1], Dick Veltman[2], Odile van den Heuvel[3], Lidewij Wolters[4], Else de Haan[5], Frits Boer[6]
[1]De Bascule/AMC, Amsterdam, Netherlands, [2]Department of Psychiatry, VU University medical center, Amsterdam, Netherlands, [3]Vrije Universiteit, Amsterdam, Netherlands, [4]University of Amsterdam, Amsterdam, Netherlands, [5]University of Amsterdam/De Bascule, Amsterdam, Netherlands, [6]University of Amsterdam / De Bascule, Amsterdam, Netherlands

207 WTh Altered functional connectivity during reward processing in obsessive-compulsive disorder

Wi Hoon Jung[1], Joon Hwan Jang[2], Sung Nyun Kim[2], Jae Yeon Hwang[3], Euitae Kim[2], Jun Soo Kwon[3]
[1]Seoul National University, Seoul, Korea, Republic of, [2]Seoul National University Hospital, Seoul, Korea, Republic of, [3]Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, Republic of

208 WTh Altered Properties in the Cortical Thickness Network of Patients with Obsessive-Compulsive Disorder

Seung-Goo Kim[1], Moo Chung[2], Wi Hoon Jung[1], Joon Hwan Jang[3], Jun Soo Kwon[3]
[1]Seoul National University, Seoul, Korea, Republic of, [2]University of Wisconsin, Madison, WI, [3]Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, Republic of

209 WTh Withdrawn

210 WTh Hair-pulling disorder (trichotillomania): White matter changes and its clinical correlates
Annerine Roos[1], Jean-Paul Fouche[1], Bruce Spottiswoode[2], Dan Stein[2], Christine Lochner[1]
[1]Stellenbosch University, Cape Town, South Africa, [2]University of Cape Town, Cape Town, South Africa

211 WTh Disrupted Small-World Architecture of Default Mode Network in Obsessive-Compulsive Disorder
Da-Jung Shin[1], Wi Hoon Jung[2], Geumsook Shim[3], Sung Nyun Kim[4], Hye Yeon Park[3], Min Soo Byun[3], Jun Soo Kwon[3]
[1]Department of Brain and Cognitive Science, Seoul National University, Seoul, Korea, Republic of, [2]Interdisciplinary Program in Neuroscience, College of Natural Sciences, Seoul National University, Seoul, Korea, Republic of, [3]Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, Republic of, [4]Seoul National University Hospital, Seoul, Korea, Republic of

212 WTh Altered structure of cortico-striato-pallido-thalamic circuits in Gilles de la Tourette syndrome
Yulia Worbe[1,2], Linda Marrakchi-Kacem[3], Sophie Lecomte[3], Romaine Valabregue[4], Fabrice Poupon[3], Pamela Guevara[3], Marie Vidailhet[5], Stephane Lehericy[4], Andreas Hartmann[5], Cyril Poupon[3]
[1]Behavioral and Clinical Neuroscience Institute, Cambridge, United Kingdom, [2]Université Pierre et Marie Curie-Paris 6, Centre de Recherche de l'Institut du Cerveau et de la Moelle épinière, UMR-S975, Paris, France, [3]NeuroSpin, CEA, Gif-Sur-Yvette, France, [4]Centre de NeuroImagerie de Recherche – CENIR, Paris, France, [5]Université Pierre et Marie Curie-Paris 6, Centre de Recherche de l'Institut du Cerveau et de la Moe, Paris, France

213 WTh Brain structural changes in adolescents obsessive-compulsive disorder
Mojtaba Zarei[1,2], David Mataix-Cols[3], Isobel Heyman[3], Morgan Hough[2], Joanne Doherty[4], Sunita Nijhawan[4], Louise Winmill[4], Linda Burge[4], Paul Matthews[5,6], Anthony James[2,7]
[1]National Brain Mapping Centre, Tehran, Iran, Islamic Replblic of, [2]University of Oxford, Oxford, United Kingdom, [3]Institute of Psychiatry, London, United Kingdom, [4]Warneford Hospital, Oxford, United Kingdom, [5]GSK Clinical Imaging Centre, London, United Kingdom, [6]Centre for Neuroscience, Imperial College London, London, United Kingdom, [7]Warnford Hospital, Oxford, United Kingdom

DISORDERS OF THE NERVOUS SYSTEM

Other Disorders

214 WTh Reversing pathological neuronal synchrony and tinnitus symptoms by acoustic CR neuromodulation
Ilya Adamchic[1], Christian Hauptmann[1], Peter Tass[1,2]
[1]Institute of Neuroscience and Medicine–Neuromodulation, Research Center Jülich, Jülich, Germany, [2]Department of Stereotactic and Functional Neurosurgery, University of Cologne, Cologne, Germany

215 WTh Relationship between neurocognition and brain volumes in adolescents with and without PTSD
Fatima Ahmed[1], Paul Carey[2], Soraya Seedat[3], Bruce Spottiswoode[4], Dan Stein[4]
[1]University of Stellenbosch, Cape Town, South Africa, [2]Department of Psychiatry, Stellenbosch University, Cape Town, South Africa, [3]South African Research Chairs Initiative in PTSD, Department of Psychiatry, Stellenbosch University, Cape Town, South Africa, [4]University of Cape Town, Cape Town, South Africa

216 WTh Neuroimaging Interpersonal Trust in Combat Veterans with Post Traumatic Stress Disorder
Jason Aimone[1], Jessica Eiseman[2], B. Frueh[3], David Graham[2], Rob McNamara[4], Wright Williams[2], Katherine McCurry[5], Pearl Chiu[1], BROOKS KING-CASAS[6]
[1]Virginia Tech Carilion Research Institute, Roanoke, United States, [2]Michael E. DeBakey VA Medical Center, Houston, United States, [3]University of Hawaii at Hilo, Hilo, United States, [4]Virginia Tech Carilion Research Institute, Roanoke, VA, [5]Virginia Tech Carilion Research Institute, N/A, [6]Virginia Tech Carilion Research Institute, ROANOKE, VA

217 WTh Brain's white matter alterations in lower limb amputees: a DTI study
Sarael Alcauter[1], Fernando Barrios[2], Erick Pasaye[3]
[1]Instituto Nacional de Psiquiatria, INPRF, MEXICO D.F., Mexico, [2]Instituto de Neurobiología, Universidad Nacional Autónoma de México, Querétaro, Mexico, [3]Universidad Nacional Autonoma de Mexico, Quéretaro, QRO

218 WTh Neuroanatomical changes associated with binge eating disorder
Miguel Alonso-Alonso[1], Cleofé Peña-Gómez[2], Greta Magerowski[1], Frederick Ifert-Miller[1], George Blackburn[1], Alvaro Pascual-Leone[1]
[1]Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA, [2]Facultat de Medicina, Departament de Psiquiatria i Psicobiologia Clínica, Universitat de Barcelona, Barcelona, Spain

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

219 WTh The EEG dynamic in emotional face recognition in the patients with the vertebrogenic pain syndrom
Andrew Baikalov[1], Alexander Krutko[1], Dmitry Dyachkov[2], Alexander Savostyanov[2]
[1]Research Institute of Traumatology and Orthopedics, Novosibirsk, Russian Federation, [2]Institute of Physiology SB RAMS, Novosibirsk, Russian Federation

220 WTh Abnormal emotional processing in Multiple Sclerosis: an fMRI investigation
Barbara Basile[1], Ugo Nocentini[2], Carlo Caltagirone[3], Marco Bozzali[2]
[1]Santa Lucia Foundation, N/A, [2]Santa Lucia Foundation, Rome, Italy, [3]University of Rome "Tor Vergata", IRCCS Santa Lucia Foundation, Rome, Italy

221 WTh Connectivity of pain regulating brain regions is different in episodic and chronic daily migraineurs
Erik Beall[1], Stuart Tepper[1], Jian Lin[1], Kecheng Liu[2], Stephen Jones[1], Mark Stillman[1], Mary Horvat[1], Mark Lowe[1], Micheal Phillips[1]
[1]Cleveland Clinic, Cleveland, OH, [2]Siemens Medical Solutions, Inc, Malvern, PA

222 WTh Disorganization of cortico-motor tracts in motor deficient HIV-1 subjects
Charlotte Bernard[1], Bixente Dilharreguy[1], Michèle Allard[1], Hélène Amieva[2], Bonnet Fabrice[3], Bruyand Mathias[2], Dauchy Frederic[3], Creib Carinne[3], Dehail Patrick[3,4], Gwénaëlle Catheline[1]
[1]Univ. Bordeaux, INCIA, UMR 5287, Bordeaux, France, [2]ISPED, INSERM U 897, Bordeaux, France, [3]CHU, Bordeaux, France, [4]Univ. Bordeaux, EA 4136, Bordeaux, France

****223 WTh Negative Affect and Neural Response to Taste in Bulimia Nervosa: Activation and Connectivity**
Cara Bohon[1], Eric Stice[2]
[1]University of California - Los Angeles, Los Angeles, CA, [2]Oregon Research Institute, Eugene, OR

224 WTh Diffusion tensor and voxel based morphometry study in patients with amyotrophic lateral sclerosis
Paola Caroppo[1], Federico D'Agata[2], Maria Federica Ferrio[1], Mario Coriasco[1], Andrea Calvo[1], Adriano Chiò[1], Dorico Righi[1], Paolo Mortara[3], Gianni Boris Bradac[1], Mauro Bergui[1]
[1]University of Turin, Turin, Italy, [2]N/A, Turin, Italy, [3]University Of Turin, Turin, Italy

225 WTh Cognitive Impairment in Patients with Myasthenia Gravis during a Spatial Working Memory Task
Wen-li Chen[1], Min-min Zhang[2], Yi Wang[3], Wei-jun Tang[3], Matthew Norris[4], James Eliassen[4], Jing-Huei Lee[4]
[1]Kunhua Hospital Affiliated to Kunming Medical College, Kunming, Yunnan, [2]Second Military Medical University, Shanghai, China, [3]Huashan Hospital Affiliated to Fudan University, Shanghai, China, [4]University of Cincinnati, Cincinnati, OH

226 WTh White Matter Damage After Carbon Monoxide Intoxication with/without Delay Syndrome
Wang Chih Hsueh[1], Lin Wei-Che[2], Lo Chun-Yi[1], Ching-Po Lin[1]
[1]National Yang-Ming University, Taipei, Chinese Taipei, [2]Department of Diagnostic Radiology, Chang Gung Memorial Hospital, Kaohsiung, Chinese Taipei

227 WTh Reconciling variable findings in Major Depressive Disorder white matter integrity
KI SUENG CHOI[1], Paul Holtzheimer[2], Alexandre Franco[3], Xiaoping Hu[4], Helen Mayberg[5]
[1]Georgia Institute of Technology / Emory University, Atlanta, United States, [2]Dartmouth Medical School, Lebanon, NH, [3]Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, [4]Georgia Tech/Emory University, Atlanta, GA, [5]Emory University, Atlanta, GA

228 WTh Identifying whole-brain anatomical alterations in criminal psychopathy
Oren Contreras Rodríguez[1,2], Jesus Pujol[1], Iolanda Batalla[3], Carles Soriano-Mas[2], Ben J Harrison[4], Eva Real[2], Vanesa Pera[3], Rosa Hernández-Ribas[2], Laura Bossa[3], Joan Deus[5], Marina López-Solà[1,2], Josep Pifarré[3], Laura Blanco-Hinojo[1,6], Jose Menchón[2], Narcis Cardoner[2]
[1]IAT-PRBB, CRC-Hospital del Mar, Barcelona, Spain, [2]Bellvitge University Hospital IDIBELL-CIBERSAM, Barcelona, Spain, [3]Hospital de Santa Maria de Lleida, Lleida, Spain, [4]The University of Melbourne, Melbourne, Australia, [5]Universitat Autònoma de Barcelona, Barcelona, Spain, [6]Neuroscience Research Programme IMIM- Parc de Salut Mar, Barcelona, Spain

229 WTh Preliminary results of neuropsychological and morphofunctional alterations in Eating Disorders
Federico D'Agata[1], Paola Caroppo[1], Luca Lavagnino[1], Marcella Caglio[1], Angela Spalatro[1], Carmen Settanta[1], Mario Coriasco[1], Maria Federica Ferrio[1], Mauro Bergui[1], Federico Amianto[1], Secondo Fassino[1], Paolo Mortara[1]
[1]University of Turin, Turin, Italy

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

230 WTh Structural Alterations in Suicidal Patients: A Neuroimaging study using both VBM and SBM
Yang Ding[1], Natalia Lawrence[2], Gustavo Turecki[3], Mary Phillips[4], Fabrice Jollant[5]
[1]McGill Group for Suicide Studies, Douglas Mental Health University Institute, MI, McGill University, Montreal, Quebec, Canada, [2]Wales Institute of Cognitive Neuroscience, School of Psychology, Cardiff University, Cardiff, Wales, [3]McGill Group for Suicide Studies, Douglas Mental Health University Institute, McGill University, Montreal, Québec, [4]Clinical and Translational Affective Neuroscience Program, University of Pittsburgh School of Medic, Pittsburgh, PA, [5]McGill Group for Suicide Studies, Douglas Mental Health University Institute, McGill University, Montreal, Qeubec, Canada

231 WTh The EEG dynamic in Stop-signal paradigm in the patients with the vertebrogenic pain syndrome
Dmitry Dyachkov[1], Alexander Savostyanov[1], Andrew Baikalov[2], Alexander Krutko[2], Evgeny Levin[1]
[1]Institute of Physiology of SB RAMS, Novosibirsk, Russian Federation, [2]Research Institute of Traumatology and Orthopedics, Novosibirsk, Russian Federation

232 WTh DTI study of the cerebellar peduncles in children with fetal alcohol spectrum disorders
Jia Fan[1,2], Sandra Jacobson[3,2,4], Alkathafi Alhamud[1,2], Roland Baasch[1,2], Christopher Molteno[4], Joseph Jacobson[3,2,4], Bruce Spottiswoode[1,2], Ernesta Meintjes[1,2]
[1]MRC/UCT Medical Imaging Research Unit, University of Cape Town, Cape Town, South Africa, [2]Department of Human Biology, University of Cape Town, Cape Town, South Africa, [3]Department of Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI, [4]Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa

233 WTh Evidence for cortical thinning in HIV positive children on highly active antiretroviral treatment
Jean-Paul Fouche[1,2,3], Bruce Spottiswoode[1,4], Dan Stein[3], Jacqueline Hoare[3]
[1]Department of Human Biology, University of Cape Town, Cape Town, South Africa, [2]Department of Psychiatry, University of Stellenbosch, Cape Town, South Africa, [3]Department of Psychiatry, University of Cape Town, Cape Town, South Africa, [4]Department of Radiology, University of Stellenbosch, Cape Town, South Africa

234 WTh Reliability of single subject fMRI in the context of presurgical planning
Krzysztof Gorgolewski[1], Mark Bastin[1], Cyril Pernet[1], Amos Storkey[1]
[1]University of Edinburgh, Edinburgh, United Kingdom

235 WTh Brain damage associated with reduced consciousness in patients with disorders of consciousness
Pieter Guldenmund[1], Andrea Soddu[1], Luaba Tshibanda[2], Audrey Vanhaudenhuyse[1], Christophe Phillips[3], Steven Laureys[1], Francisco Gómez[1]
[1]Coma Science Group, Cyclotron Research Center, University of Liège, Liège, Belgium, [2]Department of Radiology, CHU Sart Tilman Hospital, University of Liège, Liège, Belgium, [3]Cyclotron Research Centre, University of Liege, Liège, Belgium

236 WTh The "third" gender: neural correlates of gender stereotype processing in transsexuals
Ute Habel[1], Jessica Bath[1], Christiane Neuschaefer-Rube[1], Joseph Neulen[1], Christian Kohler[2], Frank Schneider[1], Katharina Pauly[1]
[1]RWTH Aachen University, Aachen, Germany, [2]University of Pennsylvania, Philadelphia, PA

237 WTh Gray Matter and Microstructure Alternations in Children with Trichotillomania
Geon-Ho Jahng[1], So-Youn Shin[1], Jee A Lee[2], Geon-Ho Bahn[2], Min-Ji Kim[1], Hyuk Gi Kim[1], Chang-Woo Ryu[1]
[1]Kyung Hee University Hospital at Gangdong, Kyung Hee University, Seoul, Korea, Republic of, [2]Kyung Hee University Hospital, Kyung Hee University, Seoul, Korea, Republic of

238 WTh Peripheral Neuropathy Increases Brain Wiring Cost and Randomizes Mid-Short Functional Connectivity
Tun Jao[1], Paul-Chen Hsieh[2], Ming-Tsung Tseng[3], Aaron F. Alexander-Bloch[1], Sung-Tsang Hsieh[4], Edward Bullmore[1,5]
[1]Brain Mapping Unit, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom, [2]Department of Medicine, National Taiwan University College of Medicine, Taipei, [3]Oxford Center for Functional MRI of the Brain, University of Oxford, Oxford, United Kingdom, [4]Department of Neurology, National Taiwan University Hospital, Taipei, [5]GlaxoSmithKline, Cambridge, United Kingdom

****239 WTh Changes on gray matter density and cortical thickness in postlingual deaf by CCA and jICA**
Eunkyung Kim[1], Hyekyoung Lee[2], Hyejin Kang[2], Hyo-Jeong Lee[3], Seung-Ha Oh[2], Dong Soo Lee[2]
[1]Seoul National University, Seoul, Korea, Republic of, [2]Seoul National University College of Medicine, Seoul, Korea, Republic of, [3]Hallym University College of Medicine, Anyang-Si, Gyeonggido

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

240 WTh Novel insights into MS pathology using a combination of post-mortem MRI and quantitative histology
James Kolasinski[1], Charlotte Stagg[1], Steven Chance[1], Margaret Esiri[1], Eun-Hyuk Chang[1], Jacqueline Palace[1], Jennifer McNab[2], Mark Jenkinson[1], Karla Miller[1], Heidi Johansen-Berg[1]
[1]University of Oxford, Oxford, United Kingdom, [2]Massachusetts General Hospital, Boston, MA

241 WTh Spinal Cord fMRI: Task-anticorrelated neuronal activity differs in Failed Back Surgery Syndrome
Jennifer Kornelsen[1], Uta Sboto-Frankenstein[1], Theresa McIver[1], Patricia Gervai[1], Neil Berrington[2], Paul Wacnik[3], Boguslaw Tomanek[1]
[1]National Research Council Canada Institute For Biodiagnostics, Winnipeg, Canada, [2]Neurosurgery,Faculty of Medicine, University of Manitoba, Winnipeg, Canada, [3]Department of Neuromodulation, Medtronic, Minneapolis, United States

242 WTh Investigating the disabling matrix from MIDAS and cortical thickness in patients with migraine
YI-CHIA KUNG[1], Tzu-Hsien Lai[2], Jong-Ling Fuh[3], Kun-Hsien Chou[4], Jiing-Feng Lirng[5], Ching-Po Lin[6], Shuu-Jiun Wang[3]
[1]National Yang-Ming University, Taipei City, Chinese Taipei, [2]Institute of Neuroscience and Department of Medicine, National Yang-Ming University, Taipei, Chinese Taipei, [3]Neurological Institute, Taipei Veterans General Hospital, Taipei, Chinese Taipei, [4]National Yang Ming University, [5]Department of Radiology, National Yang-Ming University School of Medicine, Taipei, Chinese Taipei, [6]National Yang-Ming University, Taipei, Chinese Taipei

243 WTh White Matter Integrity on FA Maps in Encephalopathic Neonates with Normal-Appearing MR
Earn Chun Christabel Lee[1], Neha Kwatra[2], Gilbert Vezina[2], Zarir Khademian[2]
[1]Georgetown University Hospital, Washington DC, United States, [2]Children's National Medical Center, Washington, DC

244 WTh Altered intra- and inter-regional synchronization of superior temporal cortex in deaf people
Yanyan Li[1], James Booth[2], Danling Peng[1], Yufeng Zang[1], Junhong Li[1], Chaogan Yan[1], Guosheng Ding[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Department of Communication Sciences and Disorders, Northwestern University, Evanston, IL

245 WTh Altered resting state complex network in attention-deficit/ hyperactivity disorder
Mei Lin Liang[1], Sheng Ge[2], Cheng Yu Lee[1], Xin Liu[1], Pan Lin[1]
[1]Key Laboratory of Biomedical Information Engineering of Education Ministry,Xi'an Jiaotong University, Xi'an, China, [2]Nanjing University of Science and Technology, Nanjing, China

246 WTh A Control Study of Regional Homogeneity of Brain Activity in Resting State before and after 72 Hours
Yang Liao[1], Xufeng Liu[1], Jingsong Zhang[2], Zhiping Huang[1], Shun Qi[2]
[1]Department of Psychology, School of Aerospace Medicine, Fourth Military Medical University, Xi'an, China, [2]Department of Radiology, Xijing Hospital, Fourth Military Medical University, Xi'an, China

247 WTh Self-Regulation Dysfunction in Antisocial Personality Disorder
Huasheng Liu[1], Yan Tang[1], Weixiong Jiang[1], Yin Liu[1], Wei Wang[1]
[1]Department of Radiology, the Third Xiangya Hospital of Central South University, Changsha, Hunan, China

248 WTh Social Cognition Alteration in Antisocial Personality Disorder: Structural Imaging Analysis Study
Huasheng Liu[1], Yan Tang[1], Weixiong Jiang[1], Yin Liu[1], Wei Wang[1]
[1]Department of Radiology, the Third Xiangya Hospital of Central South University, Changsha, Hunan, China

249 WTh Reduced brain responses to visual and auditory stimulation in Fibromyalgia patients
Marina López-Solà[1,2,3], Jesus Pujol[4], Oren Contreras Rodríguez[1], Alba Garcia-Fontanals[1], Monica Gimenez-Navarro[1], Laura Blanco-Hinojo[1,5], Marta Amor[1], Carles Soriano-Mas[2], Ben J Harrison[6], Hector Ortiz[1], Rosa Hernández-Ribas[2], Narcis Cardoner[2], Jose Menchón[7], Joan Deus[8]
[1]IAT-PRBB, CRC-Hospital del Mar, Barcelona, Spain, [2]Bellvitge University Hospital IDIBELL- CIBERSAM, Barcelona, Spain, [3]Department of Psychology. University of Colorado, Boulder, Colorado, United States, [4]IAT-PRBB, CRC-Hospital del Mar, Bacelona, Spain, [5]Neuroscience Research Programme IMIM- Parc de Salut Mar, Barcelona, Spain, [6]The University of Melbourne, Melbourne, Australia, [7]Bellvitge University Hospital IDIBELL-CIBERSAM, Bacelona, Spain, [8]Universitat Autònoma de Barcelona, Barcelona, Spain

250 WTh Resting-State Functional Connectivity in Early HIV Infection: Effect of Antiretroviral Treatment
Riti Mahadevia[1], Xue Wang[1], Christina Sammet[1], Ying Wu[2], Todd Parish[1], Ann Ragin[1]
[1]Northwestern University, Chicago, IL, [2]NorthShore University Health System, Evanston, IL

251 WTh Differential Response of Visual Cortex to Noxious Stimulation in Migraine Patients with Visual Aura

Nasim Maleki[1], Lino Becerra[1,2], Jennifer Brawn[1], Rami Burstein[3], David Borsook[1,2]
[1]Department of Radiology, Children's Hospital Boston, Harvard Medical School, Boston, MA, [2]Department of Psychiatry, McLean Hospital, Harvard Medical School, Belmont, MA, [3]Department of Anesthesia, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

***252 WTh Functional Changes in Language Areas of Brain Tumor Patients Revealed by fMRI and Group ICA (O-M3)**

hui mao[1,2], Liya Wang[1,2,3], Dandan Chen[4,5], xiaofeng yang[6], Jeffrey Olson[7], Tianning Fan[8]
[1]Department of Radiology and Imaging Sciences, Emory University School of Medicine, Atlanta, GA, [2]Center for Systems Imaging, Emory University School of Medicine, Atlanta, GA, [3]Department of Radiology, Baoan Hospital, Shenzhen, Guangdong, China, [4]Physics, Emory University, Atlanta, GA, [5]School of Radiation Medicine & Protection, Soochow University, Suzhou, China, [6]Radiation Oncology, Emory University, Atlanta, GA, [7]Surgery, Emory University, Atlanta, GA, [8]Emory University, Atlanta, GA

253 WTh Differential brain activation on a virtual water maze task by fetal alcohol-exposed children

Ernesta Meintjes[1,2], Kevin Thomas[3], Keri Woods[1,2], Christopher Molteno[4], Joseph Jacobson[5,2,4], Sandra Jacobson[5,2,4]
[1]MRC/UCT Medical Imaging Research Unit, University of Cape Town, Cape Town, South Africa, [2]Department of Human Biology, University of Cape Town, Cape Town, South Africa, [3]Department of Psychology, University of Cape Town, Cape Town, South Africa, [4]Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa, [5]Department of Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI

254 WTh TBM analysis of regional differences in brain volume in relation to prenatal alcohol exposure

Ernesta Meintjes[1,2], Sandra Jacobson[3,2,4], Owen Phillips[5], André Van der Kouwe[6], Christopher Molteno[4], Boris Gutman[5], Roger Woods[7], Paul Thompson[5], Joseph Jacobson[3,2,4], Katherine Narr[5]
[1]MRC/UCT Medical Imaging Research Unit, University of Cape Town, Cape Town, South Africa, [2]Department of Human Biology, University of Cape Town, Cape Town, South Africa, [3]Department of Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI, [4]Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa, [5]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States, [6]Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA, [7]Department of Neurology, UCLA School of Medicine, Los Angeles, United States

255 WTh Aberrant Individual Structural Connectivity Networks in Borderline Personality Disorder

Chun Meng[1,2], Junming Shao[2], Anselm Doll[2], Valentin Riedl[2], Afra Wohlschlaeger[2], Christian Sorg[2]
[1]Ludwig Maximilian University, Munich, Germany, [2]Klinikum Rechts der Isar, TUM, Munich, Germany

256 WTh The correlation between brain structure and neuron-specific enolase in overweight and obese subjects

Karsten Mueller[1], Katrin Arelin[1,2], Julia Sacher[1,2], Juergen Kratzsch[3], Matthias Schroeter[1,2]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Clinic for Cognitive Neurology, University of Leipzig, Leipzig, Germany, [3]Institute of Laboratory Medicine, Clinical Chemistry and Molecular Diagnostics, Leipzig University, Leipzig, Germany

257 WTh Intrinsic connectivity shift in Borderline Personality Disorder

Valentin Riedl[1], Anselm Doll[2], Afra Wohlschlaeger[2], Christian Sorg[2]
[1]Department of Neuroradiology and Neurology, Technische Universität München, Munich, Germany, [2]Klinikum Rechts der Isar der TU Muenchen, Muenchen, Germany

258 WTh The Medial Longitudinal Fasciculus in Standard Space

Ken Sakaie[1], Masaya Takahashi[2], Ivan Dimitrov[3], Koji Sagiyama[2], Gina Remington[2], Teresa Frohman[2], Elliot Frohman[2], Mark Lowe[1], Robert Fox[4]
[1]Imaging Institute, The Cleveland Clinic, Cleveland, United States, [2]University of Texas-Southwestern Medical Center, Dallas, United States, [3]Philips Medical Systems, Cleveland, United States, [4]Mellen Center, The Cleveland Clinic, Cleveland, United States

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

259 WTh Motor network of periventricular leukomalacia (PVL)
MinHee Um[1], Bumhee Park[2], Hae-Jeong Park[3]
[1]Yonsei University, Seoul, Republic Of Korea, [2]Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea, Republic of, [3]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Korea, Republic of

260 WTh Amphetamine-induced dopamine release and dopamine D_2 receptor availability in obesity
Elsmarieke van de Giessen[1], Jan Booij[1], Funda Celik[2], Dave Schweitzer[3], Wim van den Brink[4]
[1]Academic Medical Center, Amsterdam, Netherlands, [2]Slotvervaart Hospital, Amsterdam, Netherlands, [3]Reinier de Graaf Group, Delft, Netherlands, [4]Department of Psychiatry, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands

261 WTh Reduction of White Matter Integrity in Childhood Brain Tumor Survivors
Liya Wang[1,2], Tricia King[3], Hui Mao[1]
[1]Department of Radiology and Imaging Sciences, Emory University School of Medicine, Atlanta, GA, [2]Department of Radiology, Baoan Hospital, Shenzhen, Guangdong, China, [3]Department of Psychology, Georgia State University, Atlanta, GA

262 WTh Mapping Gray Matter Atrophy with Voxel-based Morphometry in Transient Ischemic Attack
Shanshan Wang[1], Feng Liu[1], Ling Zeng[1], Huafu Chen[1]
[1]University of Electronic Science and Technology of China, Chengdu, China

263 WTh Altered "driving" effect from amygdala to hypothalamus in Prader-Willi syndrome during resting state
Yi Zhang[1], Jie Tian[2], Karen von Deneen[1], Mark Gold[3], Yijun Liu[3]
[1]Life Sciences Research Center, School of Life Sciences and Technology, Xidian University, Xi'an, Shaanxi, China, [2]Institute of Automation, Chinese Academy of Sciences, Beijing, China, [3]Department of Psychiatry & McKnight Brain Institute, University of Florida, Gainesville, FL, USA

264 WTh Hemodynamic Responses to Visual Stimulation in Pediatric Survivors of Medulloblastoma
Ping Zou[1], Matthew Scoggins[1], Carlos Parra[1], Samina Taherbhoy[1], Jones Mellissa[1], Thomas Merchant[1], Amar Gajjar[1], Robert Ogg[1]
[1]St. Jude Children's Research Hospital, Memphis, TN, United States

DISORDERS OF THE NERVOUS SYSTEM

Parkinson's Disease and Movement Disorders

****265 WTh Neuromelanin MR Imaging: Detection of Locus Coeruleus Using T1 Weighted Gradient Echo Imaging**
Sinyeob Ahn[1], Daniel Huddleston[2], Xiangchuan Chen[1], Govind Bhagavatheeshwaran[3], Xiaoping Hu[1]
[1]Georgia Tech/Emory University, Atlanta, GA, [2]Emory Univ, Atlanta, GA, [3]NIH/NINDS, Bethesda, MD

266 WTh The analysis of correlation between cognition and fluorodeoxyglucose uptake in Parkinson's disease
Eun Joo Chung[1], Sang Jin Kim[1]
[1]Busan Paik Hospital, Inje Medical University, Busan, Korea, Republic of

267 WTh The Visual Defect of Parkinson's disease: a Resting State fMRI Study
Jinnan Gong[1], Cheng Luo[1], Yang Xia[1], Haibo Xu[2], Dezhong Yao[1]
[1]Key Laboratory for NeuroInformation of MOE, School of Life Science and Technology, UESTC, ChengDu, China, [2]Radiology Department of Union Hospital, Huazhong University of Science and Technology, Wuhan, China

268 WTh Discrete Mechanism Related to Improvement by Rehabilitation in Cerebellar Degenerative Disease
Noriaki Hattori[1,2], Ichiro Miyai[1], Megumi Hatakenaka[1], Masahito Mihara[1], Hajime Yagura[1], Teiji Kawano[1], Taro Hino[1], Mizuki Ito[3], Gen Sobue[3]
[1]Morinomiya Hospital, Osaka, Japan, [2]PRESTO, JST, Saitama, Japan, [3]Department of Neurology, Nagoya University Graduate School of Medicine, Nagoya, Japan

269 WTh Personalizing fMRI Protocols for Studying Neural Substrates of Motor Deficits in Parkinson's Disease
Štefan Holiga[1], Karsten Mueller[1], Harald Möller[1], Tomáš Sieger[2,3], Matthias Schroeter[1,4], Robert Jech[2]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Department of Neurology and Center of Clinical Neuroscience, Charles University in Prague, Prague, Czech Republic, [3]Department of Cybernetics, Faculty of Electrical Engineering, Czech Technical University in Prague, Prague, Czech Republic, [4]Clinic for Cognitive Neurology, Leipzig, Germany

270 WTh Functional Connectivity in Parkinson's disease
Silvina Horovitz[1], David Moosavi[1], Pritha Ghosh[1], Sarah Kranick[1], David Benninger[1], Kathrin Czarnecki[1], Mark Hallett[1]
[1]National Institute of Neurological Disorder and Stroke, Bethesda, MD, United States

271 WTh DTI reveals neuroanatomical patterns of cerebral WM involvement in different motor neuron diseases
Jan Kassubek[1], Alexander Unrath[1], Albert Ludolph[1], Hans-Peter Müller[1]
[1]Dept. of Neurology, University of Ulm, Ulm, Germany

272 WTh Imaging Activated Microglia in Parkinson's disease: a PET study with a novel radiotracer, [18F]FEPPA
Ji Hyun Ko[1], Yuko Koshimori[2], Romina Mizrahi[2], Pablo Rusjan[2], Alan Wilson[2], Sylvain Houle[2], AE Lang[2], Antonio Strafella[2]
[1]University of Toronto, Toronto, Canada, [2]University of Toronto, Toronto, Canada

273 WTh Resting-State Functional Connectivity in Prodromal Huntington's Disease
Katherine Koenig[1], Stephen Rao[1], Mark Lowe[1], Jian Lin[1], Deborah Harrington[2], Dawei Liu[3], Ken Sakaie[1], Jane Paulsen[3]
[1]Cleveland Clinic Foundation, Cleveland, United States, [2]University of California, San Diego, San Diego, United States, [3]The University of Iowa, Iowa City, United States

274 WTh DTI measures correlate with performance on the Trail Making Test in prodromal Huntington's Disease
Katherine Koenig[1], Stephen Rao[1], Mark Lowe[1], Jian Lin[1], Deborah Harrington[2], Dawei Liu[3], Ken Sakaie[1], Jane Paulsen[3]
[1]Cleveland Clinic Foundation, Cleveland, United States, [2]University of California, San Diego, San Diego, United States, [3]The University of Iowa, Iowa City, United States

275 WTh Transcranial alternating current stimulation (tACS) in early Parkinson's disease
Vanessa Krause[1], Claudia Wach[1], Martin Suedmeyer[2], Stefano Ferrea[2], Alfons Schnitzler[1], Bettina Pollok[1]
[1]Institute of Clinical Neuroscience & Medical Psychology, Heinrich-Heine-University, Duesseldorf, Germany, [2]Department of Neurology, Heinrich-Heine-University, Duesseldorf, Germany

276 WTh Metabolite Decrease in Essential Tremor Patients Measured by Magnetic Resonance Spectroscopy
Iva Latnerová[1,2], Jiří Keller[1,3], Aaron Rulseh[1,2], Josef Vymazal[1,2], Evžen Růžička[4,2], Robert Jech[5,2], Martina Hoskovcová[5], Olga Ulmanová[5], Antonín Škoch[6], Filip Jiřč[6]
[1]Na Homolce Hospital, Prague, Czech Republic, [2]1st Medical Faculty, Charles University, Prague, Czech Republic, [3]3rd Medical Faculty, Charles University, Prague, Czech Republic, [4]Department of Neurology and Centre of Movement Disorders, General University Hospital, Prague, Czech Republic, [5]Department of Neurology and Center of Clinical Neuroscience, General University Hospital, Prague, Czech Republic, [6]IKEM, Prague, Czech Republic

277 WTh Impaired sensorimotor functional connectivity in writer's cramp: a resting-state fMRI study
Yong Li[1], Christian Dresel[1], Verena Wilzeck[1], Florian Castrop[1], Claus Zimmer[2], Bernhard Haslinger[1]
[1]Department of Neurology, Klinikum rechts der Isar, Technische Universitaet Muenchen, Munich, Germany, [2]Department of Neuroradiology, Klinikum rechts der Isar, Technische Universitaet Muenchen, Munich, Germany

278 WTh Olfactory Deficits in the Brain of Parkinson's Disease: Evidence from fMRI study
Jiangtao Liu[1], Jianli wang[2], Kaiyuan Zhang[1], Zhiqun Wang[1], Yanhui Yang[1], Qing X Yang[2], Kuncheng Li[1]
[1]Department of Radiology, Xuanwu Hospital of Capital Medical University, Beijing, China, [2]Center for NMR Research, Penn State College of Medicine, Hershey, PA

***279 WTh Basal ganglia-cortical interactions in Parkinsonian patients (O-T2)**
Andre Marreiros[1], Hayriye Cagnan[1], Rosalyn Moran[2], Karl Friston[2], Peter Brown[1]
[1]University of Oxford, Oxford, United Kingdom, [2]University College London, London, United Kingdom

280 WTh Assessment of smell and sniff habituation using olfactory functional MR imaging
Chan Hong Moon[1], Ayaz Aghayev[1], Serter Gumus[1], Qing Yang[2], Kyongtae Bae[1]
[1]Department of Radiology, University of Pittsburgh, Pittsburgh, PA, [2]Center for NMR Research, Department of Radiology, The Pennsylvania State University, Hershey, PA

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

281 WTh Stroop Task in Patients with Parkinson´s disease — a fMRI Study
Martina Mrackova[1,2], Radek Marecek[2], Radka Kubikova[2,1], Michal Mikl[2], Irena Rektorova[2,1]
[1]First Department of Neurology, St. Anne's Hospital and Faculty of Medicine, Masaryk University, Brno, Czech Republic, [2]Brain and Mind Research, Central European Institute of Technology, Masaryk University, Brno, Czech Republic

282 WTh Altered hemispheric asymmetry of network centrality in hemiplegia
Bumhee Park[1,2], MaengKeun Oh[2], Jong Doo Lee[1,2], Hae-Jeong Park[1,2]
[1]Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea, Republic of, [2]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Korea, Republic of

283 WTh Multiclass classification of FDG-PET scans: Parkinson's disease vs. atypical parkinsonian syndromes
Christophe Phillips[1], Jessica Schrouff[1], Eric Salmon[1], Gaëtan Garraux[1]
[1]Cyclotron Research Centre, University of Liege, Liege, Belgium

284 WTh Withdrawn

285 WTh SEEKING HUNTINGTON DISEASE BIOMARKERS BY MULTIMODAL, CROSS-SECTIONAL BASAL-GANGLIA IMAGING
Cristina Sanchez Castaneda[1,2], Andrea Cherubini[1], Francesca Elifani[3], Sara Orobello[3], Umberto Sabatini[1], Ferdinando Squitieri[3]
[1]Fondazione Santa Lucia, Rome, Italy, [2]Departament de Psiquiatria i Psicobiologia Clinica, Universitat de Barcelona, Barcelona, Spain, [3]Neurogenetics and Rare Diseases Center, IRCCS Neuromed, Pozzilli, Italy

286 WTh Forced exercise improves task-related overactivity in the default mode network in Parkinson Disease
Chintan Shah[1], Erik Beall[2], Anneke Frankemolle[3], Amanda Penko[3], Micheal Phillips[1], Mark Lowe[2], Jay Alberts[3]
[1]Cleveland Clinic Foundation, Cleveland, United States, [2]Cleveland Clinic, Cleveland, United States, [3]Cleveland Clinic Foundation, Cleveland, OH

287 WTh Withdrawn

288 WTh Motor fMRI in secondary dystonia due to Pantothenate Kinase Associated Neurodegeneration
Peter Stoeter[1], Rea Rodriguez-Raecke[2], Pedro Roa[1], Herwin Speckter[1], Jairo Oviedo[1], Rafael Fermin[1], Eddi Perez-Then[1]
[1]CEDIMAT, Santo Domingo, Dominican Republic, [2]Medical University, Hannover, Germany

289 WTh Parkinson's Disease-Related Pattern: a Resting State Functional MRI Study
Tao Wu[1], Yilong Ma[2], Zheng Zheng[1], Shichun Peng[2], xiaoli wu[1], David Eidelberg[2], piu chan[1]
[1]Xuanwu Hospital, Beijing, China, [2]Feinstein Institute for Medical Research, Manhasset, NY

290 WTh Altered resting-state functional connectivity of bilateral striatum in Parkinson's disease
Jinping Xu[1], Jiaojian Wang[2], Yuanchao Zhang[3], Tianzi Jiang[3,4]
[1]Key Laboratory for NeuroInformation of the Ministry of Education, School of Life Science and Technology, University of Electronic Science and Technology of China, chengdu, China, [2]Key Laboratory for NeuroInformation of the Ministry of Education, School of Life Science and Technol, Chengdu, China, [3]Key Laboratory for NeuroInformation of the Ministry of Education, School of Life Science and Technol, chengdu, China, [4]LIAMA Center for Computational Medicine, National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China

291 WTh DTI of Pathophysiological Characteristics in Impulse Control Disorder with Parkinson's Disease
Hye Bin Yoo[1], Jae Sung Lee[1], Jee Young Lee[2], Hyejin Kang[3], Yu Kyeong Kim[4], In Chan Song[5], Beom Seok Jeon[6], Dong Soo Lee[3]
[1]Department of Brain and Cognitive Sciences, College of Natural Sciences, Seoul National University, Seoul, Republic of Korea, [2]Department of Neurology, Seoul National University Boramae Medical Center, Seoul, Republic of Korea, [3]Department of Nuclear Medicine, Seoul National University College of Medicine, Seoul, Republic of Korea, [4]Department of Nuclear Medicine, Seoul National University Bundang Hospital, Seoul, Republic of Korea, [5]Diagnostic Radiology, Seoul National University Hospital, Seoul, Republic of Korea, [6]Department of Neurology, College of Medicine, Seoul National University, Seoul, Republic of Korea

292 WTh Intrinsic Functional Connectivity of Subcortical Motor Circuit in Patients with Parkinson's disease
Kwangsun Yoo[1], Sun Ju Chung[2], Mi-Jung Kim[2], Sooyeoun You[2], William Sohn[1], Yong Jeong[1]
[1]KAIST, Daejeon, Korea, Republic of, [2]Asan Medical Center, University of Ulsan College of Medicine, Ulsan, Korea, Republic of

DISORDERS OF THE NERVOUS SYSTEM

Schizophrenia and Psychotic Disorders

293 WTh Effects of Cognitive Behavioral Therapy in Schizophrenia: A Multicenter FMRI Study
Maurice Cabanis[1], Axel Krug[1], Martin Pyka[2], Stephanie Mehl[3], Henrik Walter[4], Wolfgang Wölwer[5], Bernhard Müller[6], Kai Vogeley[7], Georg Wiedemann[8], Alexander Rapp[9], Stefan Klingberg[9], Tilo Kircher[1]
[1]Philipps-University, Marburg, Germany, [2]Department of Psychiatry and Psychotherapy, Philipps-University Marburg, Marburg, Germany, [3]Philipps University, Marburg, Germany, [4]Charité Universitätsmedizin, Berlin, Germany, [5]Rhineland State Clinics for Psychiatry, Düsseldorf, Germany, [6]Rhineland State Clinics for Psychiatry, Essen, Germany, [7]Dept. of Psychiatry, University Hospital Cologne, Cologne, Germany, [8]Department of Psychiatry and Psychotherapy, Frankfurt, Germany, [9]Eberhard Karls University, Tübingen, Germany

294 WTh EEG-based Classification of Depression with KECA and SVM
Yin Cai[1], Jun Shi[1], Lijin Huang[1], Yingjie Li[1]
[1]Shanghai University, Shanghai, China

295 WTh White matter pattern classification in the At-Risk Mental State for psychosis
Francesco Carletti[1], Andre Marquand[1], James Woolley[1], Rocio Perez-Iglesias[1], Matthew Broome[1], Louise Johns[1], Elvira Bramon[1], Steve Williams[1], Philip McGuire[2], Gareth Barker[1]
[1]Institute of Psychiatry, King's College London, London, United Kingdom, [2]Institute of Psychiatry, King's College, London, United Kingdom

296 WTh Cognitive Control Deficits Across Attention, Memory, Language and Emotion in Schizophrenia
Cameron Carter[1], Ann Kring[2], Steve Luck[3], J. Dan Ragland[4], Charan Ranganath[3], Tamara Swaab[3]
[1]U.C. Davis, Davis, United States, [2]UC berkeley, berkeley, CA, [3]UC Davis, Davis, CA, [4]U.C. Davis, Davis, CA

297 WTh Altered Cortico-Cerebellar Functional Connectivity in Cognitive and Motor Networks in Schizophrenia
Yen-Ling Chen[1], Tung-Ping Su[2], Pei-Chi Tu[3]
[1]Department of Occupational Therapy, Bei-Tou Hospital, Taipei, Chinese Taipei, [2]Institute of Neuroscience, School of Life Science, National Yang-Ming University, Taipei, Chinese Taipei, [3]Department of Medical Research and Education, Taipei Veterans General Hospital, Taipei, Chinese Taipei

298 WTh Elevation of Baseline Noise in White Matter for Schizophrenia
Hu Cheng[1], William Hetrick[1], Jerillyn Kent[1], Dae-Jin Kim[1], Mallory Klaunig[1], Brian O'donnell[1], Aina Puce[1]
[1]Indiana University, Bloomington, IN

299 WTh An fMRI Study on practice-induced neural plasticity in schizophrenia
Lingxi Chi[1], Benjamin Austin[2], Cynthia Krafft[1], Qingyang Li[3], Amanda Rodrigue[1], Kara Dyckman[1], Jennifer McDowell[1]
[1]University of Georgia, Athens, GA, United States, [2]University of Wisconsin - Madison, Madison, WI, United States, [3]Child Mind Institute, New York, NY, United States

300 WTh Stimulus-response integration in schizophrenia – evidence for shifted hemispheric balance
Edna-Clarisse Cieslik[1], Veronika Müller[1], Tanja Kellermann[2], Halfter Sarah[2], Simon Eickhoff[1]
[1]Research Center Jülich, Institute of Neuroscience and Medicine, Jülich, Germany, [2]RWTH Aachen University, Aachen, Germany

301 WTh Dysconnection of Areas for Predictive Speech Coding in Patients with Auditory-Verbal Hallucinations
Mareike Clos[1], Iris Sommer[2], Kelly Diederen[2], Anne Lotte Meijering[2], Simon Eickhoff[1]
[1]Research Center Jülich, Jülich, Germany, [2]UMC Utrecht, Utrecht, Netherlands

302 WTh Compensatory activations in schizophrenia follow the brain's network configuration
Nicolas Crossley[1], Andrea Mechelli[1], Cedric Ginestet[1], Edward Bullmore[2], Philip McGuire[1]
[1]Institute of Psychiatry - King's College London, London, United Kingdom, [2]Brain Mapping Unit, Department of Psychiatry, University of Cambridge, Cambridge, United Kingdom

303 WTh Reward processing in unaffected siblings of schizophrenia patients: an fMRI study
Max de Leeuw[1], Matthijs Vink[2], René Kahn[1]
[1]Rudolf Magnus Institute of Neuroscience, University Medical Center Utrecht, Department of Psychiatry, Utrecht, Netherlands, [2]Rudolf Magnus Institute of Neuroscience, Utrecht, Netherlands

304 WTh Multiparametric MR Imaging for Probing White Matter Abnormalities in Schizophrenia

Fei Du[1], Bruce Cohen[2], Alissa Cooper[2], Scott Lukas[2], Dost Ongur[2]
[1]McLean Hospital, Harvard Medical School, Belmont, United States, [2]McLean Hospital, Harvard Medical School, Belmont, MA

305 WTh Self-control of auditory verbal hallucinations with an fMRI-based neurofeedback training

Miriam Dyck[1], Yury Koush[1], Eliza M. Alawi[1], Krystyna Mathiak[2], Mikhail Zvyagintsev[1], Sukhi Shergill[3], Klaus Mathiak[1,4,5]
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306 WTh Ventral Medial Prefrontal Functional Connectivity and Emotion Regulation in Schizophrenia

Feng-Mei Fan[1,2,3], Shu-Ping Tan[1], Fu-De Yang[1], Yun-Long Tan[1], Yan-Li Zhao[1], Bin-Bin Li[1], Chong-Sheng Song[1], Yun-Hui Wang[1], Zhen Jin[4], Dong-Feng Zhou[5], Michael Milham[6,7], Yi-Zhuang Zou[1], Xi-Nian Zuo[2,3,8]
[1]Psychiatry Research Center, Beijing Huilongguan Hospital, Beijing, China, [2]Laboratory for Functional Connectome and Development, Institute of Psychology, CAS, Beijing, China, [3]Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [4]Magnetic Resonance Imaging Unit, The 306TH Hospital of PLA, Beijing, China, [5]Institute of Mental Health, Peking University, Beijing, China, [6]Nathan Kline Institute for Psychiatric Research, Orangeburg, New York, United States, [7]Center for the Developing Brain, Child Mind Institute, New York, United States, [8]Magnetic Resonance Imaging Research Center, Institute of Psychology, Chinese Academy of Sciences, Beijing, China

307 WTh Functional Fractionation of Default Network in Schizophrenia: Small graph, big brain

Feng-Mei Fan[1,2,3], Zhi Yang[3,4], Shu-Ping Tan[1], Yi-Zhuang Zou[1], Michael Milham[5,6], Xi-Nian Zuo[2,3,4]
[1]Psychiatry Research Center, Beijing Huilongguan Hospital, Beijing, China, [2]Laboratory for Functional Connectome and Development, Institute of Psychology, CAS, Beijing, China, [3]Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [4]Magnetic Resonance Imaging Research Center, Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [5]Nathan Kline Institute for Psychiatric Research, Orangeburg, New York, United States, [6]Center for the Developing Brain, Child Mind Institute, New York, United States

308 WTh Progressive brain structural change in schizophrenia over a nine year interval

Joyce Guo[1], Graham Murray[1]
[1]The University of Cambridge, Cambridge, United Kingdom

309 WTh Reduced Internal Capsule but Preserved Correlation with Frontal Lobe in Ultra-High-Risk Subjects

Hyun Jung Han[1,2], Wi Hoon Jung[3], Joon Hwan Jang[4], Jae Yeon Hwang[4], Sung Nyun Kim[4], Yoon Joo Lee[5], Chi-Hoon Choi[6], Jun Soo Kwon[7]
[1]Seoul National University, Seoul, Korea, Republic of, [2]Department of Brain and Cognitive Sciences - World Class University program, College of Natural Sciences, Seoul National University, Seoul, Korea, Republic of, [3]Interdisciplinary Program in Neuroscience, College of Natural Sciences, Seoul National University, Seoul, Korea, Republic of, [4]Department of Psychiatry, College of Medicine, Seoul National University, Seoul, Korea, Republic of, [5]Department of Brain and Cognitive Sciences - World Class University program, College of Natural Sci, Seoul, Korea, Republic of, [6]Department of Diagnostic Radiology, National Medical Center, Seoul, Korea, Republic of, [7]Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, Republic of

310 WTh Impaired Neural Mechanism of Telepresence in Patients with Schizophrenia: A Preliminary Study

Kiwan Han[1], Il Ho Park[2], Jeonghun Ku[3], Jae-Jin Kim[4,1]
[1]Severance Biomedical Science Institute, Yonsei University College of Medicine, Seoul, Korea, Republic of, [2]Department of Psychiatry, Myongji Hospital, Kwandong University, Goyang, Korea, Republic of, [3]Department of Biomedical Engineering, Keimyung University, Daegu, Korea, Republic of, [4]Department of Psychiatry and Institute of Behavioral Science in Medicine, Yonsei University College, Seoul, Korea, Republic of

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

311 WTh Disrupted Functional Connectivity During Episodic Memory in Youth at Clinical Risk for Schizophrenia
Kristen Haut[1], Tyrone Cannon[2], Theo van Erp[3], Carrie Bearden[4]
[1]University of California, Los Angeles, Los Angeles, United States, [2]University of California, Los Angeles, LOS ANGELES, CA, [3]University of California Irvine, Irvine, CA, [4]University of California, Los Angeles, N/A

312 WTh Altered Functional Circuit Dynamics during Motion Perception in Schizophrenia
Elliot Hong[1], Peter Kochunov[2], Malle Tagamet[3]
[1]Maryland Psychiatrie Research Center, Baltimore, United States, [2]Maryland Psychiatric Research Center, Baltimore, United States, [3]University of Maryland, Baltimore, United States

313 WTh CMV antibody titers are associated with hippocampal volume and verbal memory in major psychoses
Josselin Houenou[1,2,3,4], Marc-Antoine d'Albis[1,3,4], Claire Daban[1,3,4], Nora Hamdani[1,3,4], Marine Delavest[5], Jean-Pierre Lépine[5], François-Eric Vederine[1,4], Soufiane Carde[1,4], Faith Dickerson[6], Robert Yolken[7], Marion Leboyer[1,3,4]
[1]INSERM U955, Team 15 "Psychiatry & Genetics", Créteil, France, [2]Neurospin, CEA, Saclay, France, [3]Fondation Fondamental, Créteil, France, [4]AP-HP, Albert Chenevier - Henri Mondor Hospitals, Psychiatry Department, Créteil, France, [5]AP-HP, Lariboisiere Fernand Widal Hospital, INSERM U 705 CNRS UMR 8206, Paris Diderot University, Paris, France, [6]The Stanley Research Program at Sheppard Pratt, Baltimore, MD, [7]The Johns Hopkins University School of Medicine, Baltimore, MD

314 WTh Longitudinal studies of antipsychotic effects on brain volume in schizophrenia - a systematic review
Sanna Huhtaniska[1], Erika Jääskeläinen[1,2], Noora Hirvonen[1,3], Jukka Remes[4], Graham Murray[5], Juha Veijola[1,2], Matti Isohanni[1,2], Jouko Miettunen[1,2]
[1]University of Oulu, Department of Psychiatry, Oulu, Finland, [2]Department of Psychiatry, Oulu University Hospital, Oulu, Finland, [3]University of Oulu, Faculty of Humanities, Information Studies, Oulu, Finland, [4]Department of Diagnostic Radiology, Oulu University Hospital, Oulu, Finland, [5]The University of Cambridge, Cambridge, United Kingdom

315 WTh The influence of emotional stimulus on the neural processing of cognitive conflict in schizophrenia
Park Jae-Sub[1]
[1]1Department of Psychiatry, Yonsei University College of Medicine, Seoul, Korea, Republic of

316 WTh Association of rs1006737 in CACNA1C with alterations in prefrontal activation and fronto-hippocampal
Andreas Jansen[1], Frieder Paulus[2], Johannes Bedenbender[3], Soeren Krach[3], Martin Pyka[4], Axel Krug[3], Stephanie Witt[5], Marcella Rietschel[5], Tilo Kircher[3], Jens Sommer[3]
[1]University of Marburg, Marburg, Germany, [2]Department of Psychiatry, Philipps University Marburg, Germany, Marburg, Germany, [3]Philipps-University, Marburg, Germany, [4]Department of Psychiatry and Psychotherapy, Philipps-University Marburg, Marburg, Germany, [5]Central Institute of Mental Health, Mannheim, Germany

317 WTh Combining Functional Neuroimaging Markers for Classifying Schizophrenia
Jimmy Jensen[1], Katharina Schmack[1], Philipp Sterzer[1], Ingrid Agartz[2], Ingrid Melle[2], Ole Andreassen[2], Henrik Walter[1]
[1]Department of Psychiatry and Psychotherapy, Charité Universitätsmedizin, Berlin, Germany, [2]Institute of Clinical Medicine, University of Oslo, Oslo, Norway

318 WTh Dissociable prefrontal and hippocampal engagement in context learning and updating in schizophrenia
Claire Kaplan[1], Juan Molina[1], Qiang Chen[1], Daniel R Weinberger[2], Hao Yang Tan[1]
[1]Clinical Brain Disorders Branch, NIMH, Bethesda, MD, [2]Lieber Institute for Brain Development, Baltimore, MD

319 WTh Neuronal correlates of affective and cognitive perspective taking in schizophrenia
Christin Kästner[1,2], Dominik Meißner[1], Sandra Dehning[1], Buchheim Anna[3], Janusch Blautzik[4], Norbert Müller[1], Thomas Meindl[4], Maximilian Reiser[4], Rolf Engel[1], Hans Möller[1], Kristina Hennig-Fast[1]
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320 WTh Key functional circuitry altered in schizophrenia involves sense of self
Keith Kendrick[1], Shuixia Guo[2], Rongjun Yu[3], Wen-Yih Tseng[4], Jianfeng Feng[5]
[1]University of Electronic Science and Technology of China, Chengdu, China, [2]Hunan Normal University, Changsha, China, [3]South China Normal University, Guangzhou, China, [4]National Taiwan University College of Medicine, Taipei, Chinese Taipei, [5]Department of Computer Science, The University of Warwick, Coventry, United Kingdom

321 WTh Source activation during face emotional processing correlates with symptom severity in schizophrenia
Do-Won Kim[1,2], Seung-Hwan Lee[3], Chang-Hwan Im[2]
[1]Department of Biomedical Engineering, Yonsei University, Wonju, Republic of Korea, [2]Department of Biomedical Engineering, Hanyang University, Seoul, Republic of Korea, [3]Psychiatry Department, Ilsan Paik Hospital, Inje University, Goyang, Republic of Korea

322 WTh Antipsychotic D2 occupancy and change in frontal metabolism and cognitive function
Euitae Kim[1], Oliver Howes[2], Jae Min Jeong[1], Shitij Kapur[3], Jun Soo Kwon[4]
[1]Seoul National University, Seoul, Korea, Republic of, [2]Imperial College London, London, United Kingdom, [3]King's College London, London, Korea, Republic of, [4]Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, Republic of

323 WTh Neural correlates of reality judgement impairment in patients with schizophrenia
Eun Seong Kim[1], Jung Suk Lee[1,2], Ji Won Chun[1], Dong Il Kang[1], Hae-Jeong Park[3], Jae-Jin Kim[1]
[1]Institute of Behavioral Science in Medicine and Department of Psychiatry, Yonsei University College, Seoul, Korea, Republic of, [2]Department of Psychiatry, Bundang Jesaeng Hospital, Seongnam, Gyeonggi-do, Korea, Republic of, [3]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Korea, Republic of

324 WTh Accelerated cerebral white matter aging in schizophrenia and major depression
Peter Kochunov[1], David Glahn[2], Laura Rowland[3], Rene Olvera[4], Will Carpenter[3], Anderson Winkler[5], John Blangero[6], Elliot Hong[7]
[1]Maryland Psychiatric Research Center, baltimore, United States, [2]Yale University, Hartford, United States, [3]University of Maryland, baltimore, United States, [4]UTHSCSA, San Antonio, United States, [5]yale university, Hartford, United States, [6]Texas Biomedical Foundation, San Antonio, United States, [7]Maryland Psychiatrie Research Center, Baltimore, United States

325 WTh The neural basis of response inhibition and impulsivity in patients with schizophrenia
Kwang-Hyuk Lee[1], Graham Pluck[1], Nicoletta Lekka[1], Andrew Horton[1], Conal Devlin[1], David Walker[1], Iain Wilkinson[1], Peter Woodruff[1]
[1]University of Sheffield, Sheffield, United Kingdom

326 WTh Preferential Patterns of Gamma Band Activity to Socially-Relevant Stimuli in Schizophrenia Patients
Seung-Hwan Lee[1], Sangrae Kim[2], Ji-Hye Park[3], Do-Won Kim[3], Chang-Hwan Im[3]
[1]Psychiatry Department, Ilsan Paik Hospital, Inje University, Goyang, Kyunggido, [2]Clinical Emotion and Cognition Research Laboratory, Goyang, Korea, Republic of, [3]Department of Biomedical Engineering, Hanyang Universiy, Seoul, Korea, Republic of

327 WTh Long-term treatment is associated with modulation of network function connectivity in schizophrenia
Fei Li[1], Su Lui[2], xiaoqi huang[2], wei deng[3], tao li[3], qiyong gong[2]
[1]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University, chengdu, China, [2]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University, chengdu, sichuan, [3]Department of Psychiatry, West China Hospital of Sichuan University, chengdu, sichuan

328 WTh Voxel-Based Morphometric Study on First-Episode Schizophrenia and Healthy Unaffected Siblings
Jun Li[1], Chunyan Zheng[1], Chaoqiong Ma[1], Ling Zeng[1], Qing Gao[1], Huafu Chen[1]
[1]University of Electronic Science and Technology of China, Chengdu, China

329 WTh Brain Activities of Emotional Working Memory in Schizophrenia
Xuebing Li[1], Xiao-yan Cao[1], Raymond Chan[1]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China

****330 WTh Less Efficiency of Information Transfer in Cys-allele Carriers of DISC1: A DMRI Brain Network Study**
Yonghui Li[1], Bing Liu[2], Bing Hou[3], Wen Qin[4], Dawei Wang[4], Chunshui Yu[5], Tianzi Jiang[6]
[1]Queensland Brain Institute, Brisbane, Australia, [2]CMC,Institute of Automation, Chinese Academy of Sciences, Beijing, China, [3]Institute of Automation, Chinese Academy of Sciences, Beijing, China, [4]Tianjin Medical University General Hospital, Tianjin, China, [5]Department of Radiology, Tianjin Medical University General Hospital, Tianjin, China, [6]Institute Of Automation, Chinese Academy Of Sciences, Beijing, China

331 WTh Functional connectivity pattern extraction using entropy-based discretization and SMO
Xinguo Lu[1,2], Pengjie Zhou[1], Lingli Zeng[2], Bingtao Feng[1]
[1]School of Information and Engineering, Hunan University, changsha, China, [2]College of Mechatronics and Automation, National University of Defense Technology, changsha, China

332 WTh Changes in Structural Brain Volumes of Patients with Psychotic Disorder and Cannabis Use Disorder
Marise Machielsen[1], Laura Koenders[1], Dick Veltman[2], Lieuwe Haan[1]
[1]AMC, Amsterdam, Netherlands, [2]Department of Psychiatry, VU University medical center, Amsterdam, Netherlands

333 WTh Altered white matter connectivity in medication-naive patients with schizophrenia
René Mandl[1], Monica Rais[1], Caroline van Baal[1], Neeltje van Haren[1], Wiepke Cahn[1], René Kahn[1], Hilleke Hulshoff Pol[1]
[1]Rudolf Magnus Institute of Neuroscience, University Medical Center Utrecht, Department of Psychiatry, Utrecht, Netherlands

***334 WTh Aberrant inter-network connectivity reflects anterior insula activity and psychosis in schizophrenia (O-W1)**
Andrei Manoliu[1], Christian Sorg[2], Susanne Neufang[3], Nicholas Myers[4], Mark Mühlau[5], Claus Zimmer[3], Hans Förstl[6], Josef Bäuml[6], Afra Wohlschläger[3], Valentin Riedl[7]
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335 WTh Neural correlates of attachment in schizophrenic patients and the representation of self
Dominik Meissner[1], Buchheim Anna[2], Sandra Dehning[1], Janusch Blautzik[3], Norbert Müller[1], Thomas Meindl[3], Maximilian Reiser[3], Rolf Engel[1], Hans Möller[1], Kristina Hennig-Fast[1]
[1]Department of Psychiatry and Psychotherapy, LMU Munich, Munich, Germany, [2]Institute for Psychology, University of Innsbruck, Innsbruck, Austria, [3]Department of Clinical Radiology, LMU Munich, Munich, Germany

336 WTh Replication of the impact of the psychosis risk variant in ZNF804A on the Theory of Mind network
Sebastian Mohnke[1], Knut Schnell[2], Susanne Erk[1], Nina Seiferth[3], Claudia Schütz[4], Leila Haddad[5], Lydia Pöhland[1], Maria Garbusow[1], Björn Schott[1], Peter Kirsch[6], Christine Esslinger[7], Marcella Rietschel[6], Stephanie Witt[6], Markus Nöthen[4], Sven Cichon[8], Manuel Mattheisen[9], Thomas Mühleisen[4], Vanessa Nieratschker[6], Andreas Heinz[10], Andreas Meyer-Lindenberg[6], Henrik Walter[11]
[1]Charité Universitätsmedizin Berlin, Berlin, Germany, [2]University of Heidelberg, Heidelberg, Germany, [3]Charite Berlin, Berlin, Germany, [4]University of Bonn, Bonn, Germany, [5]Central Institute of Mental Health Mannheim, N/A, [6]Central Institute of Mental Health, Mannheim, Germany, [7]Otto-von-Guericke-University, Magdeburg, Germany, [8]Research Center Jülich, Jülich, Germany, [9]Harvard School of Public Health, Boston, MA, [10]Dept. of Psychiatry and Psychotherapy, CCM, Charité - Universitätsmedizin Berlin, Berlin, Germany, [11]Charité Universitätsmedizin, Berlin, Germany

337 WTh FMRI Changes Associated with Antipsychotic Treatment in Initially Drug-naïve Schizophrenia Patients
Ayna Nejad[1,2], Bjørn Ebdrup[2], Hans Rasmussen[2], Bodil Aggernæs[2], William Baaré[1], Hartwig Siebner[1], Birte Glenthøj[2]
[1]Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital, Hvidovre, Denmark, [2]Center for Clinical Intervention and Neuropsychiatric Schizophrenia Research, Glostrup, Denmark

338 WTh Decreased Control by SMA in Childhood-Onset Schizophrenia during motor function: fMRI Evidence
Carol Noronha[1], Nitin Gogtay[2], Richard White[1], Vaibhav Diwadkar[1]
[1]Wayne State University, Detroit, MI, [2]National Institute of Mental Health, Bethesda, MD

339 WTh Altered Default Mode Network Activity in Schizophrenia Patients
Anne Pankow[1], Lorenz Deserno[1], Torsten Wüstenberg[1], Björn Schott[1], Felix Bermpohl[2], Andreas Heinz[1,3,4], Florian Schlagenhauf[5,1,6]
[1]Dept. of Psychiatry and Psychotherapy, CCM, Charité - Universitätsmedizin Berlin, Berlin, Germany, [2]Dept. of Psychiatry and Psychotheapy, CCM, Charité - Universitätsmedizin Berlin, Berlin, Germany, [3]Cluster of Excellence NeuroCure, Charité-Universitätsmedizin, Berlin, Germany, [4]Bernstein Center of Computational Neuroscience, Berlin, Germany, [5]Charité Universitätsmedizin Berlin, Berlin, Germany, [6]Max Planck Institute of Psychiatry, Lepzig, Germany

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

340 WTh Exploring the neuroanatomical pathway to psychosis using support vector machine
William Pettersson-Yeo[1], Stefania Benetti[1], Andre Marquand[1], Marco Catani[1], Steve Williams[1], Paul Allen[1], Lana Kambeitz-Ilankovic[1], Philip McGuire[1], Andrea Mechelli[1]
[1]Institute of Psychiatry - King's College London, United Kingdom

341 WTh Association of Cortical Thickness and White Matter Integrity in Schizophrenia
AKIHIKO SASAMOTO[1], SHINSUKE FUJIMOTO[1], HIDENAO FUKUYAMA[2], Ryosaku Kawada[1], Manabu Kubota[1], JUN MIYATA[1], TOSHIYA MURAI[1], HIDEHIKO TAKAHASHI[1], YUSUKE TANAKA[1], Nobukatsu Sawamoto[3]
[1]Department of Neuropsychiatry, Graduate School of Medicine, Kyoto University, Kyoto, Japan, [2]Human Brain Research Center, Graduate School of Medicine, Kyoto University, Kyoto, Jamaica, [3]Kyoto University, Kyoto, Japan

***342 WTh The neural bases of reversal learning deficits in unmedicated schizophrenia patients (O-W1)**
Florian Schlagenhauf[1,2], Quentin Huys[3], Lorenz Deserno[1], Michael Rapp[1], Anne Beck[1], Andreas Heinz[1]
[1]Dept. of Psychiatry and Psychotherapy, CCM, Charité - Universitätsmedizin Berlin, Berlin, Germany, [2]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [3]Gatsby Computational Neuroscience Unit and Wellcome Trust Centre for Neuroimaging, UCI, London, United Kingdom

****343 WTh Aberrant Intrinsic Networks in Schizophrenia and Bipolar Disorder in An Auditory Oddball Task**
JING SUI[1], Elena Allen[2], Qingbao Yu[3], Kent Kiehl[4], Godfrey Pearlson[5], Vince Calhoun[4]
[1]The Mind Research Network, ALBUQUERQUE, United States, [2]Mind Research Network, Albuquerque, United States, [3]The Mind Research Network, Albuquerque, United States, [4]The Mind Research Network and UNM, ALBUQUERQUE, NM, [5]Olin Neuropsychiatry Research Center, hartford, CT

344 WTh Anatomical connectivity of the 'social brain' in a patient with Capgras syndrome
Olivia Sujazow[1], Bojana Kuzmanovic[2], Kai Vogeley[2], Marc Tittgemeyer[2], Leonhard Schilbach[2]
[1]Max Planck Institute for Neurological Research, Cologne, Germany, [2]Department of Psychiatry and Psychotherapy, University of Cologne, Cologne, Germany

345 WTh Dynamic causal models of dopaminergic working memory networks and schizophrenia pharmacogenetics
Hao Yang Tan[1], Anthony Chen[2], Bhaskar Kolachana[2], José Apud[3], Venkata Mattay[4], Joseph Callicott[3], Qiang Chen[4], Daniel Weinberger[4]
[1]NIMH, Bethesda, United States, [2]NIMH, Bethesda, MD, [3]NIH/NIMH, Bethesda, MD, [4]Lieber Institute for Brain Development, Baltimore, MD

346 WTh Structural basis of fronto-thalamic dysconnectivity in schizophrenia: a combined DCM-VBM study
Gerd Wagner[1], Kathrin Koch[1], Claudia Schachtzabel[1], Christoph Schultz[1], Ralf Schlösser[1]
[1]Jena University Hospital, Jena, Germany

347 WTh Semantic processing in individuals with stable and unstable schizotypal personality features
Kui Wang[1], Raymond Chan[1]
[1]Insitute of Psychology, Chinese Academy of Sceiences, Beijing, China

348 WTh Comparison of Manual and Automated Method for Hippocampal Volume in First-episode Schizophrenia
Xiang Wang[1], Xiaosheng Wang[2], Zhaohui Fei[1], Weijun Situ[3], Tingting Sun[1], Shuqiao Yao[1]
[1]Medical Psychological Institute of the Second Xiangya Hospital, Central South University, Changsha, China, [2]Department of Human Anatomy & Neurobiology, Xiangya School of Medicine, Central South University, Changsha, China, [3]Department of Radiology, the Second Xiangya Hospital, Central South University, Changsha, China

349 WTh Neural correlates of prospective memory impairment in schizotypal personality participants
Ya Wang[1], Tianxiao Yang[2], Chao Yan[3], Yi Wang[1], Jia Huang[1], David Shum[4], Mingxia Fan[5], Dazhi Yin[6], Raymond Chan[1]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]Department of Psychology, York University, York, United Kingdom, [3]Institution of Psychology, Beijing, China, [4]School of Applied Psychology, Griffith University, Brisbane, Queensland, [5]Shanghai Key Laboratory of MRI, East China Normal University, Shanghai, China, [6]Key Laboratory of Brain Functional Genomics, Shanghai Key Laboratory of Magnetic Resonance, ECNU, Shanghai, China

350 WTh Effects of valence, schizophrenia, and their interaction on episodic memory-related brain function
Michael White[1], Roberta Rasetti[1], Qiang Chen[2,1], Brad Zoltick[1], Xi Cheng[2,1], Joseph Callicott[1], Venkata Mattay[2,1], Daniel Weinberger[2,1]
[1]Clinical Brain Disorders Branch/NIMH/NIH, Bethesda, MD, [2]Lieber Institute for Brain Development, Baltimore, MD

351 WTh Heritability of motor coordination neurological soft signs: an fMRI study in Chinese healthy twins
Ting Xu[1], Jia Huang[1], Ya Wang[1], Raymond Chan[1]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China

352 WTh Individuals at-risk for psychosis show altered brain activity during working memory task
Siti N. Yaakub[1], Kavitha Dorairaj[1], Joann S. Poh[1], Christopher L. Asplund[1], Michael W.L. Chee[1]
[1]Neuroscience and Behavioural Disorders Program, Duke-NUS Graduate Medical School, Singapore, Singapore

353 WTh Neural substrates of pleasure in schizophrenia: An Activation Likelihood Estimate Meta-Analysis
Chao Yan[1], Raymond Chan[2], Tammy Yang[1]
[1]Institution of Psychology, Chinese Academy of Sciences, Beijing, China, [2]Institute of Psychology, Chinese Academy of Sciences, Beijing, China

354 WTh Abnormal Frontostriatal Structural Connectivity in Adolescent-Onset Schizophrenia
Mojtaba Zarei[1,2], Eileen Joyce[3], Morgan Hough[2], Linda Burge[4], Pavandeep Ghataorhe[2], Paul Matthews[5,6], Anthony James[2,7]
[1]National Brain Mapping Centre, Tehran, Iran, Islamic Replblic of, [2]University of Oxford, Oxford, United Kingdom, [3]Institute of Neurology, London, United Kingdom, [4]Warneford Hospital, Oxford, United Kingdom, [5]GSK Clinical Imaging Centre, London, United Kingdom, [6]Centre for Neuroscience, Imperial College London, London, United Kingdom, [7]Warnford Hospital, Oxford, United Kingdom

355 WTh Early coding of normal and abnormal visual words processing
Yulia Zaytseva[1], Ganna Garakh[2], Irina Mariyna[2], Valeria Strelets[2]
[1]Moscow Research Institute of Psychiatry, MOSCOW, Russian Federation, [2]Institute of Higher Nervous Activity and Neurophysiology, Russian Academy of Sciences, Moscow, Russian Federation

DISORDERS OF THE NERVOUS SYSTEM

Sleep Disorders

356 WTh Functional connection of cerebellum after normal sleep and after 24h sleep deprivation:an fMRI study
Xi-jian Dai[1], Hong-han Gong[1], You-jiang Min[2], Bi-xia Liu[3], Si-yong Wang[1]
[1]Department of radiology,the first affiliated hospital of nanchang University, NanChang,Jiangxi,China, [2]Department of Acupuncture, Affiliated Hospital of JiangXi College Of Traditional Chinese Medicine, Nanchang,Jiangxi,China, [3]Department of infectious diseases,the first affiliated hospital of nanchang University, Nanchang,Jiangxi,China

357 WTh The Impact of Obstructive Sleep Apnea-Hypopnea on Neurodegeneration in Multiple Sclerosis
Fei Xu[1], Sridar Narayanan[1], Douglas Arnold[1], David Araujo[1], R. John Kimoff[2], Mauro Cardoso[1], Daria Trojan[1]
[1]Montreal Neurological Institute, McGill University, Montreal, Canada, [2]McGill University Health Centre, McGill University, Montreal, Canada

GENETICS

Genetic Association Studies

358 WTh Neural correlates of gene-environment interaction
Nina Alexander[1], Georgia Koppe[2], Roman Osinsky[3], Bertram Walter[4], Tim Klucken[4], Dieter Vaitl[4], Gebhard Sammer[5], Rudolf Stark[4], Juergen Hennig[6]
[1]Technical University of Dresden, Dresden, Germany, [2]Central Institute of Mental Health, Mannheim, Germany, [3]University of Wuerzburg, Wuerzburg, Germany, [4]Bender Institute of Neuroimaging, Giessen, Germany, [5]University of Gießen, Giessen, Germany, [6]Justus Liebig University Giessen, Giessen, Germany

359 WTh Genetic Effects on Connectivity in Brain Circuits Processing Motivational Salience
David Blitzer[1], Sam Colalillo[1], Bhaskar Kolachana[1], Kuan Wang[1], Daniel Weinberger[2], Caroline Zink[1]
[1]National Institute of Mental Health, Bethesda, MD, [2]Lieber Institute for Brain Development, Baltimore, MD

***360 WTh Genome-wide association analysis of working memory brain activation in a population-based sample (O-W3)**
Gabriella Blokland[1,2,3], Angus Wallace[4], Katie McMahon[5], Paul Thompson[6], Nicholas Martin[1], Grant Montgomery[7], Greig de Zubicaray[8], Margaret Wright[1,3]
[1]Genetic Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Australia, [2]Centre for Advanced Imaging, The University of Queensland, Brisbane, Australia, [3]School of Psychology, The University of Queensland, Brisbane, Australia, [4]Genetic Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Queensland, [5]Centre for Advanced Imaging, The University of Queensland, Brisbane, Queensland, [6]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA, [7]Molecular Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Queensland, [8]School of Psychology, The University of Queensland, Brisbane, Queensland

361 WTh Neuropsychiatric risk variants in NTRK2 relate to white matter integrity in young healthy adults
Meredith Braskie[1], Neda Jahanshad[1], Omid Kohannim[2], Ming-Chang Chiang[3], Marina Barysheva[4], John Ringman[1], Arthur Toga[1], Kori Johnson[5], Katie McMahon[6], Greig de Zubicaray[5], Nicholas Martin[7], Margaret Wright[7], Paul Thompson[8]
[1]UCLA, Los Angeles, CA, [2]Laboratory of Neuro Imaging, UCLA, Los Angeles, CA, [3]National Yang-Ming University, Taipei, Chinese Taipei, [4]Laboratory of Neuro Imaging, Dept. of Neurology, UCLA School of Medicine, Los Angeles, United States, [5]University of Queensland, Brisbane, Australia, [6]Centre for Advanced Imaging, The University of Queensland, Brisbane, QLD, [7]Genetic Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Australia, [8]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States

362 WTh Effects of GWAS positive schizophrenia variant in PRR16 on hippocampal activation and connectivity
Joseph Callicott[1], Fengyu Zhang[1], Richard Straub[1], Venkata Mattay[2], Daniel Weinberger[2]
[1]CBDB/NIMH/NIH, Bethesda, MD, [2]Lieber Institute for Brain Development, Baltimore, MD

363 WTh Imaging Genetics of Functional Genes Groups: G-protein genes group map to Medial Frontal Cortex
Ivan Chavarria-Siles[1,2], Matthijs Verhage[1], Barbara Franke[3], Guillén Fernández[4,2], Danielle Posthuma[1]
[1]VU University. Department of Functional Genomics, Amsterdam, Netherlands, [2]Donders Institute for Cognitive Neuroimaging, Nijmegen, Netherlands, [3]Genetics, University Medical Center, Radboud University, Nijmegen, Netherlands, [4]Radboud University Medical Centre, Nijmegen, Netherlands

364 WTh Parallel Independent Component Analysis with Reference
Jiayu Chen[1], Vince Calhoun[2], Jingyu Liu[3]
[1]University of New Mexico, N/A, [2]The Mind Research Network and UNM, ALBUQUERQUE, NM, [3]The Mind Research Network, Albuquerque, NM

365 WTh Genetic Variants in the AMPA Regulation Pathway Modulate Ventral Striatal Motivational Value Signal
Sam Colalillo[1], David Blitzer[1], Bhaskar Kolachana[1], Kuan Wang[1], Daniel R Weinberger[2], Caroline Zink[1]
[1]National Institute of Mental Health, Bethesda, MD, [2]Lieber Institute for Brain Development, Baltimore, MD

366 WTh Association of working memory performance and dopamine related genes with white matter structure
Fahimeh Darki[1], Myriam Peyrard-Janvid[2], Hans Matsson[2], Juha Kere[2], Torkel Klingberg[1]
[1]Neuroscience Department, Karolinska Institutet, Stockholm, Sweden, [2]Department of Biosciences and Nutrition at Novum, Karolinska Institutet, Huddinge, Stockholm, Sweden

367 WTh 5-HTTLPR Genotype Modulates Amygdala-DMN Connectivity during Mood Recovery
Zhuo Fang[1,2], Senhua Zhu[1,2], Seth J. Gillihan[3], Hengyi Rao[2,1]
[1]Department of Psychology,Sun Yat-sen University, GuangZhou, China, [2]Center for Functional Neuroimaging, University of Pennsylvania, Philadelphia, PA, [3]Center for Cognitive Neuroscience, Department of Psychology,University of Pennsylvania, Philadelphia, PA

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

368 WTh Genetic influences in the boundaries of subsystems within the Default Mode Networks

Manuel Garcia-Garcia[1], Christine Cox[2], Clare Kelly[3], F. Xavier Castellanos[4], Xi-Nian Zuo[5], Greig de Zubicaray[6], Katie McMahon[7], Ian Hickie[8], Nicholas Martin[9], Margaret Wright[10], Michael Milham[11]
[1]Phyllis Green and Randolph Cowen Institute for Pediatric Neuroscience, NYU Langone Medical Center, N, N/A, [2]Phyllis Green and Randolph Cowen Institute for Pediatric Neuroscience at the NYU Child Study Center, New York, NY, [3]Phyllis Green and Randolph Cŏwen Institute for Pediatric Neuroscience at the NYU Child Study Center, New York, NY, [4]New York University Child Study Center, New York, NY, [5]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [6]University of Queensland, Brisbane, Australia, [7]Centre for Advanced Imaging, The University of Queensland, Brisbane, QLD, [8]University of Sydney, Sydney, Australia, [9]Queensland Institute of Medical Research, Herston, Queensland, [10]Genetic Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Australia, [11]Nathan Kline Institute for Psychiatric Research, New York, NY

***369 WTh Increasing Power for Voxel-wise Genome-wide Association Studies (O-W3)**

Tian Ge[1,2], Thomas Nichols[3], Jianfeng Feng[1,2], Derrek Hibar[4], Paul Thompson[4]
[1]Centre for Computational Systems Biology and School of Mathematical Sciences, Fudan University, Shanghai, China, [2]Department of Computer Science, University of Warwick, Coventry, United Kingdom, [3]Department of Statistics, University of Warwick, Coventry, United Kingdom, [4]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States

370 WTh Effect of Bcl-2 rs956572 SNP on regional gray matter volumes and cognitive function in elderly males

Chu-Chung Huang[1], Mu-En Liu[2], Kun-Hsien Chou[3], Ching-Po Lin[4], Shih-Jen Tsai[5]
[1]Institue Of Biomedical Imaging And Radiological Sciences, National Yang-Ming University, Taipei, [2]Taipei Veterans General Hospital, Taipei, [3]National Yang Ming University, [4]National Yang-Ming University, Taipei, Chinese Taipei, [5]Taipei Veterans General Hospital, Taipei, Chinese Taipei

371 WTh Genome-wide association of full brain white matter integrity – from the ENIGMA DTI working group

Peter Kochunov[1], Neda Jahanshad[2], Emma Sprooten[3], Paul Thompson[4], Andrew MCINTOSH[3], Ian Deary[3], Mark Bastin[3], Arthur Toga[5], Katie McMahon[6], Greig Zubicaray[7], Nicholas Martin[8], Margaret Wright[8], G Montgomery[8], S Medland[8], Melanie Carless[9], Joanna Curran[10], Elliot Hong[11], Ravi Duggirala[9], Rene Olvera[12], Thomas Dyer[9], John Blangero[9], David Glahn[13]
[1]Maryland Psychiatric Research Center, baltimore, United States, [2]UCLA, Los Angeles, United States, [3]University of Edinburgh, Edinburgh, United Kingdom, [4]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States, [5]UCLA, Los Angeles, CA, [6]Centre for Adavance Imaging, The University of Queensland, Brisbane, Australia, [7]School of Psychology, The University of Queensland, Brisbane, Australia, [8]Genetic Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Australia, [9]Texas Biomedical Foundation, San Antonio, United States, [10]Texas Biomedical Foundation, San Antonio, TX, [11]Department of Psychiatry, University of Maryland School of Medicine, Baltimore, MD, [12]UTHSCSA, San Antonio, United States, [13]Yale University, Hartford, United States

372 WTh A genetic variation of the serotonin-1B receptor affects serotonin-1A receptor in vivo binding

Rupert Lanzenberger[1], Andreas Hahn[1], Johanna Ungersboeck[2], Marion Friedl[3], Pia Baldinger[1], Cécile Philippe[2], Lukas Nics[2], Georg Kranz[1], Christoph Kraus[1], Daniela Haeusler[2], Annette Hartmann[3], Markus Savli[1], Thomas Vanicek[1], Markus Mitterhauser[2], Wolfgang Wadsak[2], Dan Rujescu[3], Siegfried Kasper[1]
[1]Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria, [2]Department of Nuclear Medicine, Medical University of Vienna, Vienna, Austria, [3]Genetics Research Center, Ludwig-Maximilian-University, Munich, Germany

373 WTh Effects of Copy Number Variations on Gray Matter Concentration in Schizophrenia

Jingyu Liu[1], Alvaro Ulla[2], Nora Perrone-Bizzozero[2], Ronald Yeo[2], Vince Calhoun[3]
[1]Mind Research Network, Albuquerque, United States, [2]University of New Mexico, Albuquerque, United States, [3]The Mind Research Network and UNM, ALBUQUERQUE, NM

374 WTh 5-HTTLPR polymorphism impacts functional connectivity between amygdala and fronto-parietal network

Haixia Long[1], Bing Liu[1], Bing Hou[1], Huandong Li[1], Chao Wang[2], Wen Qin[3], Dawei Wang[3], Chunshui Yu[3], Tianzi Jiang[1]
[1]Institute of Automation, Chinese Academy of Sciences, Beijing, China, [2]University of Electronic Science and Technology of China, Chengdu, China, [3]Tianjin Medical University General Hospital, Tianjin, China

375 WTh Genome-wide search for genetic factors influencing cortical thickness in humans
Thomas Mühleisen[1,2], Christine Herold[3], Florian Siedek[1,2], Svenja Caspers[4], Christian Roski[4], Dmitriy Drichel[3], Stefan Herms[1,2], Per Hoffmann[1,2], Markus Nöthen[1,2,3], Tim Becker[3,5], Karl Zilles[4], Katrin Amunts[6], Sven Cichon[1,2,6]
[1]Institute of Human Genetics, University of Bonn, Bonn, Germany, [2]Department of Genomics, Life & Brain Center, University of Bonn, Bonn, Germany, [3]German Center for Neurodegenerative Diseases (DZNE), Bonn, Germany, [4]Institute of Neuroscience and Medicine (INM-2), Research Center Jülich, Jülich, Germany, [5]Institute of Medical Biometry, Informatics, and Epidemiology, University of Bonn, Bonn, Germany, [6]Institute of Neuroscience and Medicine (INM-1), Research Center Jülich, Jülich, Germany

376 WTh Mapping the interaction between APOE-epsilon4 and TOMM40 SNPs and Brain Atrophy: An N=705 ADNI study
Priya Rajagopalan[1], Xue Hua[1], Omid Kohannim[2], April Ryles[3], Arthur Toga[4], Clifford Jack[5,6], Michael Weiner[7], Paul Thompson[1]
[1]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA, [2]Laboratory of Neuro Imaging, UCLA, Los Angeles, CA, [3]Laboratory of Neuro Imaging, Dept. of Neurology, UCLA School of Medicine, Los Angeles, CA, USA, N/A, [4]University of California - Los Angeles, Los Angeles, CA, [5]Department of Radiology, Mayo Clinic and Foundation, Rochester, MN, [6]Department of Veterans Affairs Medical Center, San Francisco, CA, [7]Department of Radiology and Biomedical Imaging, UCSF School of Medicine, San Francisco, CA

377 WTh White matter Hyperintensities, MTHFR genotype and Brain Volumes in 509 Cognitively Impaired subjects
Priya Rajagopalan[1], Neda Jahanshad[2], Arthur Toga[3], Clifford Jack[4], Michael Weiner[5], Paul Thompson[1], The ADNI[6]
[1]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA, [2]University of California Los Angeles, Los Angeles, CA, [3]University of California - Los Angeles, Los Angeles, CA, [4]Department of Radiology, Mayo Clinic and Foundation, Rochester, MN, [5]Department of Radiology and Biomedical Imaging, UCSF School of Medicine, San Francisco, CA, [6]The Alzheimer's Disease Neuroimaging Initiative, San Francisco, United States

378 WTh Heritability of Graph Theoretic Characteristics of Resting State fMRI Networks
Benjamin Sinclair[1], Katie McMahon[2], Greig de Zubicaray[1], Margaret Wright[3], Nicholas Martin[3], Paul Thompson[4], Gabriella Blokland[5], Miriam Mosing[6]
[1]University of Queensland, Brisbane, Australia, [2]Centre for Adavance Imaging, The University of Queensland, Brisbane, Australia, [3]Genetic Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Australia, [4]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States, [5]Queensland Institute of Medical Research, Brisbane, Australia, [6]Queensland Insititute of Medical Research, Brisbane, Australia

379 WTh Does the BDNF Val66Met polymorphism influence cognitive function in patients with mTLE?
Jason Stretton[1], Alexandra Foulkes[2], Pamela Thompson[1], Sallie Baxendale[1], Meneka Sidhu[1], Elaine Williams[2], Jane Burdett[2], Sanjay Sisodiya[1], John Duncan[1], Mar Matarin[1]
[1]UCL, Institute of Neurology, London, United Kingdom, [2]UCL, London, United Kingdom

GENETICS

Genetic Modeling and Analysis Methods

380 WTh The heritability of brain structure in the elderly: results from the Older Australian Twins Study
Seyed Amir Hosein Batouli[1], Perminder Sachdev[2], Wei Wen[3], Julian Trollor[4]
[1]Neuroimaging Lab, School of Psychiatry, University of New South Wales, Sydney, Australia, [2]University of New South Wales, Sydney, NSW, [3]Brain and Ageing research program, The University of New South Wales, Sydney, Australia, [4]Department of Developmental Disability Neuropsychiatry, School of Psychiatry, University of New Sout, Sydney, Australia

381 WTh Heritability of perisylvian language anatomy as measured by diffusion tensor imaging
Sanja Budisavljevic[1], Flavio Dell'Acqua[2], Fruhling Rijsdijk[3], Fergus Kane[4], Marco Picchioni[4], Philip McGuire[4], Robin Murray[4], Marco Catani[1]
[1]Natbrainlab, Institute of Psychiatry, King's College London, London, United Kingdom, [2]Natbrainlab, Centre for Neuroimaging Sciences, Institute of Psychiatry, King's College London, London, United Kingdom, [3]SGDP Centre, Institute of Psychiatry, King's College London, London, United Kingdom, [4]Institute of Psychiatry, King's College London, London, United Kingdom

382 WTh Hierarchical genetic organization of human cortical surface area
Chi-Hua Chen[1], E. Gutierrez[1], Wes Thompson[2], Matthew Panizzon[1], Terry Jernigan[1], Lisa Eyler[1], Christine Fennema-Notestine[1], Amy Jak[1], Mike Neale[3], Carol Franz[1], Michael Lyons[4], Michael Grant[4], Bruce Fischl[5], Larry Seidman[6], Ming Tsuang[1], Anders Dale[1], William Kremen[1]
[1]University of California, San Diego, La Jolla, United States, [2]Unversity of California, San Diego, La Jolla, United States, [3]Virginia Commonwealth, Richmond, United States, [4]Boston University, Boston, United States, [5]Massachusetts General Hospital, Boston, MA, [6]Harvard University, Boston, United States

383 WTh Heritability Estimation by Restricted Maximum Likelihood for fMRI Data
Xu Chen[1], Thomas Nichols[2], Essi Viding[3], Alice Jones[4]
[1]University of Warwick, Department of Statistics, Coventry, United Kingdom, [2]University of Warwick, Dept. of Statistics, Coventry, United Kingdom, [3]University College London, Department of Psychology, London, United Kingdom, [4]University of London, Goldsmiths College, Department of Psychology, London, United Kingdom

384 WTh Fast vGWAS with Correction for Multiple Tests using Map-Reduce in Cloud or HPC
Benoit Da Mota[1,2], Edouard Duchesnay[2], Vincent Frouin[2], Jean-Baptiste Poline[2,1], Gael Varoquaux[1,2], Bertrand Thirion[1,2]
[1]Parietal Team, INRIA Saclay - Île-de-France, Saclay, France, [2]CEA, DSV, I2BM, Neurospin bât 145, Gif-sur-Yvette, France

385 WTh Sulcal Shape Heritability on the Cortex
Shantanu Joshi[1], Anand Joshi[2], Arthur Toga[1], Katie McMahon[3], Greig de Zubicaray[4], Nicholas Martin[5], Paul Thompson[6]
[1]UCLA, Los Angeles, CA, [2]University of California, Los Angeles, Los Angeles, CA, [3]Centre for Advanced Imaging, The University of Queensland, Brisbane, QLD, [4]University of Queensland, Brisbane, Australia, [5]Genetic Epidemiology Laboratory, Queensland Institute of Medical Research, Brisbane, Australia, [6]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States

***386 WTh Stem-cell signaling pathways and cerebral aging: Transcriptome-wide analysis (O-W3)**
Peter Kochunov[1], Jac Charlesworth[2], Joanna Curran[2], Elliot Hong[3], David Glahn[4], John Blangero[5]
[1]Maryland Psychiatric Research Center, baltimore, United States, [2]Texas Biomedical Foundation, San Antonio, TX, [3]Maryland Psychiatrie Research Center, Baltimore, United States, [4]Yale University, Hartford, United States, [5]Texas Biomedical Foundation, San Antonio, United States

387 WTh Multiscale Adaptive Generalized Estimating Equations for Longitudinal Neuroimaging Data
Yimei Li[1], John Gilmore[2], Weili Lin[2], Dinggang Shen[3], Hongtu Zhu[4], Joseph Ibrahim[5]
[1]St. Jude Children's Research Hospital, Memphis, TN, [2]UNC-Chapel Hill, Chapel Hill, NC, [3]UNC-CH, Chapel Hill, NC, [4]University of North Carolina, Chapel Hill, Chapel Hill, NC, [5]Department of Biostatistics, The University of North Carolina at Chapel Hill, Chapel Hill, NC

***388 WTh Relationship of Human Brain Anatomy and Gene Expression: Analysis of Allen Human Brain Atlas Data (O-W3)**
Elaine Shen[1], Angela Guillozet-Bongaarts[1], Michael Hawrylycz[1], Ed Lein[1], Amy Bernard[1], Darren Bertagnolli[1], Preston Cartagena[2], Barry Daly[3], Chinh Dang[1], Amanda Ebbert[1], Jeff Goldy[1], Rao Gullapalli[3], John Hohmann[1], Christopher Lau[1], Changkyu Lee[1], Alan McMillan[3], Jeremy Miller[1], Lydia Ng[1], Patrick Parker[1], Dharmendra Patel[2], John Phillips[1], Zackery Riley[1], Adolfo Sequeira[2], Kimberly Smith[1], Susan Sunkin[1], Marquis Vawter[2], Paul Wohnoutka[1], Christof Koch[1], Allan Jones[1]
[1]Allen Institute for Brain Science, Seattle, WA, [2]University of California Irvine, Irvine, CA, [3]University of Maryland School of Medicine, Baltimore, MD

389 WTh Permutation Methods for Imaging Genetic Analysis on Pedigrees
Anderson Winkler[1], Peter Kochunov[2], John Blangero[3], David Glahn[1], Thomas Nichols[4]
[1]Yale University School of Medicine, New Haven, United States, [2]Maryland Psychiatric Research Center, Baltimore, United States, [3]Texas Biomedical Research Institute, San Antonio, United States, [4]University of Warwick, Dept. of Statistics, Coventry, United Kingdom

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

GENETICS

Neurogenetic Syndromes

390 WTh Area and Shape Analysis of the Corpus Callosum in Supernumerary Sexual Chromosome Aneuploidies
Benjamin Wade[1], Martin Reuter[2], Michael Stockman[3], Jay Giedd[1]
[1]National Institute of Mental Health, Bethesda, MD, [2]Massachusetts General Hospital, Boston, MA, [3]National Institute of Mental Health, Bethesda, MD

HIGHER COGNITIVE FUNCTIONS

Decision Making

391 WTh Equal but not the same: neural underpinnings of aesthetic and moral judgments
Mihai Avram[1], Yan Bao[2], Janusch Blautzik[3], Evgeny Gutyrchik[1], Maximilian Reiser[4], Ernst Poeppel[5]
[1]Human Science Center, Munich, Germany, [2]Department of Psychology, Peking, China, [3]N/A, 80336 München, Germany, [4]Ludwig Maximilians University Munich, Institute of Clinical Radiology, Munich, Germany, [5]Ludwig Maximilian University, Institute of Medical Psychology, Munich, Germany

392 WTh Rostrolateral prefrontal cortex and uncertainty-driven exploration
David Badre[1], Bradley Doll[2], Nicole Long[3], Michael Frank[1]
[1]Brown University, Providence, RI, [2]NYU, New York, NY, [3]University of Pennsylvania, Philadelphia, PA

393 WTh Contrasting roles for ventromedial prefrontal and cingulate cortex during repetitive trinary choice
Erie Boorman[1], Tim Behrens[2], Matthew Rushworth[2]
[1]California Institute of Technology, Pasadena, United States, [2]University of Oxford, Oxford, United Kingdom

394 WTh The neuromagnetic responses elicited by dynamic value computations during decision making
Acer Yu-Chan Chang[1,2], S.-W. Wu[2,3], Ovid J.-L. Tzeng[1,2,3,4], Denise H. Wu[1,2]
[1]Institute of Cognitive Neuroscience, National Central University, Jhongli City, Chinese Taipei, [2]Laboratories for Cognitive Neuroscience, National Yang-Ming University, Taipei, Chinese Taipei, [3]Institute of Neuroscience, National Yang-Ming University, Taipei, Chinese Taipei, [4]Institute of Linguistics, Academia Sinica, Taipei, Chinese Taipei

395 WTh Functional MRI of challenging food choices: choices between equally liked high- & low-calorie foods
Lisette Charbonnier[1], Max Viergever[1], Paul Smeets[1]
[1]University Medical Center Utrecht, Utrecht, Netherlands

396 WTh Neurobehavioral substrates of peer influence on risk preferences of cocaine addicts
Dongil Chung[1,2], George Christopoulos[3,4], Katherine McCurry[1,2], Thomas Newton[5], Richard De La Garza[5], Pearl Chiu[1,2,6]
[1]Virginia Tech Carilion Research Institute, Roanoke, United States, [2]Salem Veteran Affairs Medical Center, Salem, VA, [3]NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE, Singapore, [4]Culture Science Institute, Singapore, Singapore, [5]Baylor College of Medicine & Michael E. DeBakey VA Medical Center, Houston, TX, [6]Department of Psychology, Virginia Tech, Blacksburg, VA

397 WTh Withdrawn

398 WTh Inferential Capacity of the Human Anterior Prefrontal Function
Mael Donoso[1], Anne Collins[2], Etienne Koechlin[1]
[1]Ecole Normale Superieure, Paris, France, [2]Brown University, Providence, RI

399 WTh The Retention of Parametric Responses to Sensory Stimuli in Response Areas: an fMRI Study
Drew Erickson[1], Andrew Kayser[1]
[1]UC San Francisco, Emeryville, CA

400 WTh Neural Differences between Preference and Non-preference Judgments
Jerome Foo[1], Katsuyuki Sakai[1]
[1]Department of Cognitive Neuroscience, University of Tokyo, Tokyo, Japan

401 WTh Neural Correlates of Clinical Decision-making: a functional Magnetic Resonance Imaging Study
Serena Goon[1], Emmanuel Stamatakis[1], Ram Adapa[1], Maki Kasahara[1], Steven Bishop[1], Diana Wood[2], Daniel Wheeler[1], David Menon[2], Arun Gupta[1]
[1]University Division of Anaesthesia, Addenbrooke's Hospital, Cambridge, United Kingdom, [2]University of Cambridge, Cambridge, United Kingdom

****402 WTh Beta-band Modulation and Motor-Related Decision Making in the Human Brain: Correlation and Causation**
Ian Gould[1], Anna Nobre[1], Matthew Rushworth[1]
[1]University of Oxford, Oxford, United Kingdom

403 WTh What eating popcorn has to do with playing tennis: Abstract utility decoding across categories
Joerg Gross[1], Jan Zimmermann[1], Eva Woelbert[1], Sanae Barth[1], Arno Riedl[1], Rainer Goebel[1]
[1]Maastricht University, Maastricht, Netherlands

404 WTh Deficits in Social Decision Making Following Striatum Lesion
Xiaosi Gu[1], Zhixian Gao[2], Gecia Hermsdoff[3], Xingchao Wang[2], Shiwei Wang[2], Read Montague[3]
[1]Virginia Tech Carilion Research Institute, Roanoke, VA, United States, [2]Beijing Tiantan Hospital of Capital University of Medical Sciences, Beijing, China, [3]Virginia Tech Carilion Research Institute, Roanoke, VA

***405 WTh Neural substrate for adaptive learning in dynamic environments (O-W2)**
Chaohui Guo[1], Yosuke Morishima[1], Christoph Mathys[2], Ernst Fehr[1], Peter Bossaerts[3], Kerstin Preuschoff[4,5]
[1]Laboratory for Social and Neural Systems Research, Department of Economics, Zurich University, Zurich, Switzerland, [2]Translational Neuromodeling Unit (TNU), University of Zurich & ETH Zurich, Zürich, Switzerland, [3]California Institute of Technology, Pasadena, United States, [4]Laboratory of Computational Neuroscience, Lausanne, Switzerland, [5]LREN Neuroimaging Research Lab, Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne, Switzerland

406 WTh The Relationship between Body Mass Index (BMI) and Gray Matter Density in a Large Chinese Sample
Qinghua He[1], Gui Xue[2], Antoine Bechara[2], Qi Dong[3]
[1]University of Southern California, Los Angeles, United States, [2]University of Southern California, Los Angeles, CA, [3]Beijing Normal University, Beijing, China

407 WTh Functional Connectivity between Frontal Area and Insula Affects Rule-learning in Iowa Gambling Task
Xiao-Song He[1], Ying Wang[1], Nan Li[1], Ying Liu[2], Zheng-De Wei[1], Ning Ma[1], Xian-Ming Fu[2], Xiaochu Zhang[1]
[1]CAS Key Laboratory of Brain Function and Disease and School of Life Sciences, USTC, Hefei, China, [2]Provincial Hospital Affiliated to Anhui Medical University, Hefei, China

408 WTh Decoding perceptual decisions and the associated confidence from human brain signals
Martin Hebart[1,2,3], Tobias Donner[4], Yoren Schriever[5], John-Dylan Haynes[1,6,3]
[1]Bernstein Center for Computational Neuroscience, Charité Universitätsmedizin, Berlin, Germany, [2]Berlin Center for Advanced Neuroimaging, Charité Universitätsmedizin, Berlin, Germany, [3]Berlin School of Mind and Brain, Humboldt-Universität, Berlin, Germany, [4]Department of Psychology, University of Amsterdam, Amsterdam, Netherlands, [5]Utrecht University, Utrecht, Netherlands, [6]Berlin Center for Advanced Neuroimaging, Charité Universitätmedizin, Berlin, Germany

409 WTh Integration of emotional information in social decision-making
Susanne Henningsson[1,2], Kristoffer Madsen[1,3], Hartwig Siebner[1,2]
[1]Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital, Hvidovre, Denmark, [2]Centre for Integrated Molecular Brain Imaging, Copenhagen University Hospital, Copenhagen, Denmark, [3]DTU Informatics, Technical University of Denmark, Lyngby, Denmark

410 WTh Assessing cognitive phenotype using a neuroeconomic battery
Kevin Hill[1,2], Gecia Hermsdorff[1,2], Ann Harvey[1,2], Read Montague[1,3,4,5,2]
[1]Virginia Tech Carilion Research Institute, Roanoke, VA, United States, [2]Human Neuroimaging Laboratory, Roanoke, VA, United States, [3]University College London, London, United Kingdom, [4]Department of Physics, Virginia Tech, Blacksburg, VA, United States, [5]Wellcome Trust Centre for Neuroimaging, University College London, London, United Kingdom

411 WTh The encoding of the real value and the face value of money in the human brain
Yi Huang[1], Rongjun Yu[1]
[1]South China Normal University, Guangzhou, China

412 WTh Generic and task-specific effects of uncertainty and prediction errors in associative learning
Sandra Iglesias[1], Christoph Mathys[1], Kay H. Brodersen[2], Lars Kasper[2], Marco Piccirelli[3], Klaas Enno Stephan[4,5]
[1]Translational Neuromodeling Unit (TNU), University of Zurich & ETH Zurich, Zürich, Switzerland, [2]Translational Neuromodeling Unit (TNU), University of Zurich & ETH Zurich, Zurich, Switzerland, [3]Laboratory for Social and Neural Systems Research, University of Zurich, Switzerland, Zurich, Switzerland, [4]Translational Neuromodeling Unit (TNU), University & ETH Zurich, Zurich, Switzerland, [5]Wellcome Trust Centre for Neuroimaging, University College London, United Kingdom, London, United Kingdom

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

413 WTh Feedback-related negativity in the Iowa gambling task: An event-related potential
Kyoung-Mi Jang[1], Myung-Sun Kim[2], Chang-Hwan Im[3]
[1]Department of Psychology, Sungshin Women's University, seoul, Korea, Republic of, [2]Department of Psychology, Sungshin Women's University, Seoul, Korea, Republic of, [3]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of

414 WTh Increased risk-taking behavior in Internet addicts: An fMRI study using the framing effect paradigm
Hyo-Eun Kim[1], SangSup Choi[1], Mi-Sook Park[1], Ji- Eun Park[1], Jin-Hun Sohn[1]
[1]Department of Psychology, Institute for Brain Research, Chungnam National University, dae jeon, Korea, Republic of

415 WTh Risky decision-making: The relationship between neural activation and white-matter microstructure
Milky Kohno[1], Angelica Morales[1], Dara Ghahremani[1], Edythe London[1]
[1]University of California, Los Angeles, Los Angeles, United States

416 WTh Estrogen affects neural processing underlying risk taking in the Balloon Analogue Risk Task in women
Georg Kranz[1], Jan Losak[1], Ronald Sladky[2], Anna Hoeflich[1], Pia Baldinger[1], Andreas Hahn[1], Jasmin Tröstl[2], Thomas Vanicek[1], Ulrike Kaufmann[3], Christian Windischberger[2], Siegfried Kasper[1], Rupert Lanzenberger[1]
[1]Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria, [2]MR Centre of Excellence, Medical University of Vienna, Vienna, Austria, [3]Department of Obstetrics and Gynecology, Medical University of Vienna, Vienna, Austria

417 WTh Neural substrates of probability discounting and enhanced risk-aversion in depressed patients
JaeHyung Kwon[1], Kwangyeol Baek[1], Jeong-Ho Chae[2], Po-Song Yang[3], Jung-a Min[2], Kyung-mook Choi[2], Ga-yeong Kim[2], Gook-in Jang[2], Jaeseung Jeong[1]
[1]Korea Advanced Institute of Science and Technology, Daejeon, Korea, Republic of, [2]Department of Psychiatry, College of Medicine, Catholic University of Korea, Seoul, Korea, Republic of, [3]Department of Diagnostic Radiology, Daejeon St. Mary's Hospital, Daejeon, Korea, Republic of

418 WTh Uncovering task-common and task-specific networks across multiple datasets using fMRI-CPCA
Katie Lavigne[1], Paul Metzak[1], Jen Whitman[1], Todd Woodward[1]
[1]University of British Columbia, Vancouver, Canada

419 WTh May the force be with you: neural mechanisms underlying social drives of effort production
Raphaël Le Bouc[1], Mathias Pessiglione[1]
[1]Motivation, Brain & Behavior (MBB) team, Institut du Cerveau et de la Moelle épinière (ICM), Paris, France

420 WTh Neural valuation of food under fed and fasted conditions
Ying Lee[1], Camilo Libedinsky[1], Jean C.J. Liu[1], Mingyi Zhou[1], Verena Tan[2], Mary Chong[2], Michael Meaney[2], Yung Seng Lee[2,3], Michael W.L. Chee[1]
[1]Neuroscience and Behavioural Disorders Program, Duke-NUS Graduate Medical School, Singapore, Singapore, [2]Singapore Institute for Clinical Sciences, A*STAR, Singapore, Singapore, [3]Department of Paediatrics, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore

***421 WTh Resting State Functional Connectivity Predicts Impulsivity in Economic Decision-making (O-W2)**
Nan Li[1], Ning Ma[1], Ying Liu[2], Xiao-Song He[1], De-Lin Sun[1], Xian-Ming Fu[2], Xiaochu Zhang[1], Shihui Han[3], Da-Ren Zhang[1]
[1]CAS Key Laboratory of Brain Function and Disease and School of Life Sciences, USTC, Hefei, China, [2]Provincial Hospital Affiliated to Anhui Medical University, Hefei, China, [3]Peking University, Beijing, China

422 WTh Cascade of Cortical Processes in Tactile Decision Making
Yiwen Li Hegner[1,2], Axel Lindner[3], Christoph Braun[1,2,4]
[1]MEG Center, University of Tuebingen, Tuebingen, Germany, [2]Institute of Medical Psychology and Behavioral Neurobiology, University of Tuebingen, Tuebingen, Germany, [3]Hertie Institute for Clinical Brain Research, Department of Cognitive Neurology, Tuebingen, Germany, [4]Center for Mind/Brain Sciences, University of Trento, Trento, Italy

423 WTh Dissociable Brain Regions Encode Value of Rewards Discounted by Delay and Effort
Camilo Libedinsky[1], Weiyan Chee[1], Aiqing Ling[1], Michael W.L. Chee[1]
[1]Neuroscience and Behavioural Disorders Program, Duke-NUS Graduate Medical School, Singapore, Singapore

424 WTh Value Signal Modulations in the Ventromedial Prefrontal Cortex Induced by Post-Hypnotic Suggestion
Vera Ludwig[1,2,3], Christine Stelzel[1,2,3], Harald Krutiak[1,4], Rosa Steimke[1,2,3], Amadeus Magrabi[5,1], Henrik Walter[1,2]
[1]Department of Psychiatry & Psychotherapy, Charité Universitaetsmedizin Berlin, Berlin, Germany, [2]Berlin School of Mind and Brain, Humboldt-Universitaet zu Berlin, Berlin, Germany, [3]Department of Psychology, Humboldt-Universitaet zu Berlin, Berlin, Germany, [4]Fortbildungszentrum OST der Deutschen Gesellschaft für Hypnose und Hypnotherapie e.V., Berlin, Germany, [5]Institute of Cognitive Science, Universitaet Osnabrueck, Osnabrueck, Germany

425 WTh "To accept or to reject? It depends on who proposes it". An fMRI study on the Ultimatum Game
Fausta Lui[1], Armando Bauleo[1], Francesca Pesciarelli[1], Davide Duzzi[1], Lorella Lotto[2], Cristina Cacciari[1], Rino Rumiati[2], Carlo Porro[1]
[1]Univ Modena & Reggio Emilia, Dept. Scienze Biomediche, Modena, Italy, [2]Univ Padova, Dept. Psicologia dello Sviluppo e della Socializzazione, Padova, Italy

426 WTh Cost evidence accumulation for online management of effort production: convergent MEG and fMRI data
Florent Meyniel[1], Claire Sergent[2], Jean Daunizeau[1], Mathias Pessiglione[1]
[1]Motivation, Brain & Behavior (MBB) team, Institut du Cerveau et de la Moelle épinière (ICM), Paris, France, [2]ICM, CNRS-INSERM, Universite Pierre et Marie Curie (Paris 6), Paris, France

427 WTh Distinct computations at perceptual, central and motor stages during perceptual choice
Nicholas Myers[1], Valentin Wyart[1], Vincent de Gardelle[1], Christopher Summerfield[1]
[1]Oxford University, Oxford, United Kingdom

428 WTh The persistency of bottom-up processes in self-regulatory behavior
Karolien Notebaert[1], Sabrina Bruyneel[2], Siegfried Dewitte[2], Suna kinnunen[3], Sabine Windmann[3]
[1]1Department of Cognitive Psychology II, Johann Wolfgang Goethe University, Frankfurt, Germany, [2]Katholieke Universiteit Leuven, Leuven, Belgium, [3]Department of Cognitive Psychology II, Johann Wolfgang Goethe Universität, Frankfurt am Main, Germany

429 WTh Withdrawn

430 WTh Cognitive control and the immediacy-bias in inter-temporal choice
Jan Peters[1], Christian Büchel[1]
[1]University Medical Center Hamburg-Eppendorf, Department of Systems Neuroscience, Hamburg, Germany

431 WTh Effects of framing on the evaluation of outcomes in the human brain
zhang ping[1], LI LI[1], Rongjun Yu[1]
[1]South China Normal University, Guangzhou, China

****432 WTh Optimal Experimental Design for Economic Decision Making**
Kerstin Preuschoff[1,2], Kay H. Brodersen[3,4], Damian Karrer[3], Alberto Busetto[3], Tony Williams[5], Wulfram Gerstner[1]
[1]Computational Neuroscience Lab, EPFL, Lausanne, Switzerland, [2]LREN Neuroimaging Research Lab, Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne, Switzerland, [3]ETH Zurich, Zurich, Switzerland, [4]Translational Neuromodeling Unit (TNU), University of Zurich & ETH Zurich, Zurich, Switzerland, [5]Laboratory for Social and Neural Systems Research, Department of Economics, University of Zurich, Zurich, Switzerland

433 WTh The effect of positive and negative financial motivation on decision-making strategy
Greg Reckless[1,2], Ole Andreassen[1,2], Jimmy Jensen[3]
[1]Department of Psychiatry, Oslo University Hospital, Oslo, Norway, [2]Department of Clinical Medicine, University of Oslo, Oslo, Norway, [3]Department of Psychiatry and Psychotherapy, Charité Universitätsmedizin, Berlin, Germany

434 WTh Neural Correlates of Risk Evaluation Reflect Risk Preferences
Sarah Rudorf[1], Kerstin Preuschoff[2], Bernd Weber[3]
[1]Center for Economics and Neuroscience, University of Bonn, Bonn, Germany, [2]Social and Neural Systems Lab, Department of Economics, University of Zurich, Zurich, Switzerland, [3]Department of NeuroCognition Imaging, Life & Brain Center, University of Bonn, Bonn, Germany

435 WTh The feedback related negativity encodes expectancy violation but not outcome valence
Sun Sai[1], Rongjun Yu[1]
[1]South China Normal University, Guangzhou, China

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

436 WTh Updating an action vs. updating an action prior
Urs Schuffelgen[1], Jill O'Reilly[1], Rogier Mars[1], Timothy Behrens[1], Matthew Rushworth[1]
[1]University of Oxford, Oxford, United Kingdom

437 WTh Neurofunctional Imaging of Brand Evaluation Based on Brand Logos
Fabian Simmank[1], Evgeny Gutyrchik[2], Thomas Meindl[3], Maximilian Reiser[3], Ernst Pöppel[4], Kai Fehse[5]
[1]University of Vienna, Vienna, Austria, [2]Institute of Medical Psychology, Munich, Germany, [3]Ludwig Maximilians University Munich, Institute of Clinical Radiology, Munich, Germany, [4]Human Science Center, Munich, Germany, [5]Ludwig-Maximilians-University, Human Science Center, Munich, Germany

438 WTh Dissociable signals for evidence accumulation and action planning during perceptual decision-making
Annalisa Tosoni[1], Maurizio Corbetta[2], Giorgia Committeri[3], Cinzia Calluso[3], Gian Luca Romani[4], Gaspare Galati[5]
[1]Department of Neuroscience and Imaging, University G.d'Annunzio, Chieti, Italy, [2]Dept. Neurology, Radiology, and Anatomy and Neurobiology, Washington University School of Medicine, St. Louis, MO, [3]Department of Neuroscience e Imaging, University G. d'Annunzio, Chieti, Italy, [4]Department of Neuroscience and Imaging – G. D'Annunzio University, Chieti, Italy, [5]Department of Psychology, Sapienza University, Rome

439 WTh On resisting forbidden fruit: The neural correlates of self-control in food choice
Laura Van Der Laan[1], Denise de Ridder[2], Max Viergever[1], Paul Smeets[1,3]
[1]University Medical Center Utrecht, Utrecht, Netherlands, [2]Utrecht University, Utrecht, Netherlands, [3]Wageningen University, Utrecht, Netherlands

440 WTh The interaction of feedback and context on learning preferences
John Wang[1,2], Lusha Zhu[1], Dharol Tankersley[3], George Christopoulos[4], BROOKS KING-CASAS[1,2], Pearl Chiu[1,2]
[1]Virginia Tech Carilion Research Institute, Roanoke, VA, [2]Virginia Polytechnic Institute and State University, Blacksburg, VA, [3]Schipul Technologies, Houston, TX, [4]Nanyang Technological University, Singapore, Singapore

441 WTh Time course of moral judgment
Yan Wang[1], Song Li[1], Yi-Yuan Tang[1,2,3]
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442 WTh Withdrawn

443 WTh An fNIRS evaluation of executive control during operative decision-making
Gabriella Yongue[1], Daniel Leff[1,2], David James[1,2], Felipe Orihuela-Espina[1,2], Ivo Vlaev[3], Ben Seymour[3], Professor Ray Dolan[3], Professor Thanos Athanasiou[2], Professor Guang-Zhong Yang[1], Professor Ara Darzi[1]
[1]Hamlyn Centre for Robotic Surgery, Imperial College London, United Kingdom, [2]Department of BioSurgery and Surgical Technology, United Kingdom, [3]Wellcome Trust Centre for Neuroimaging, University College London, United Kingdom

444 WTh Neural basis of risky propensity: sex matters
Yuan Zhou[1], Huandong Li[2], Maohu Zhu[2], Shu Li[1], Chunshui Yu[3], Tianzi Jiang[2]
[1]Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]Institute Of Automation, Chinese Academy Of Sciences, Beijing, China, [3]Department of Radiology, Tianjin Medical University General Hospital, Tianjin, China

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

HIGHER COGNITIVE FUNCTIONS

Executive Function

445 WTh Adding a short term memory task to a dual task: fMRI study of the neural mechanisms of multitasking

sabine deprez[1], Mathieu Vandenbulcke[2], Ronald Peeters[1], frederic amant[3], stefan sunaert[4]
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446 WTh Feedback Effect on Deception Detection: a functional MRI study

Shanshan Dong[1], Feiyan Chen[1], Heshan Zhou[2], Hongjian He[3,1]
[1]Bio-X Laboratory, Department of Physics, Zhejiang University, Hangzhou, China, [2]Hangzhou First People's Hospital, Hangzhou, China, [3]State Key Lab of Modern Optical Instrumentation, Zhejiang University, Hangzhou, China

447 WTh Functional brain maps of relevance to self-control in adolescence

Dominic Dwyer[1], Ben J Harrison[1], Alex Fornito[1], Murat Yücel[1], Nicholas Allen[2]
[1]Melbourne Neuropsychiatry Centre, Department of Psychiatry, the University of Melbourne, Melbourne, Australia, [2]Department of Psychology, The University of Melbourne, Melbourne, Australia

448 WTh Large-scale functional brain networks supporting self-control in adolescence

Dominic Dwyer[1], Alex Fornito[2], Ben J Harrison[1], Nicholas Allen[3], Murat Yücel[4]
[1]The University of Melbourne, Melbourne, Australia, [2]Melbourne Neuropsychiatry Centre, Melbourne, Australia, [3]Department of Psychology, The University of Melbourne, Melbourne, Australia, [4]Melbourne Neuropsychiatry Centre, Department of Psychiatry, the University of Melbourne, Melbourne, Australia

449 WTh Hippocampal-prefrontal Activity Changes in Young Adults during Learning of Novel Associations

Zainab Fatima[1], Maher Quraan[2], Natasa Kovacevic[3], Michael Cheung[3], Sandra Moses[4], Randy McIntosh[3]
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450 WTh Losing control under alcohol: behavioral and neural correlates

Gabriela Gan[1], Maike Grabitz[2], Michael Marxen[1], Maximilian Pilhatsch[2], Ulrich Zimmermann[2], Eva Mennigen[1], Michael Smolka[1]
[1]Technische Universität Dresden, Dresden, Germany, [2]Department of Psychiatry and Psychotherapy, University Hospital Dresden, Dresden, Germany

***451 WTh The Functional Neuroanatomic Bases of Bilingual Cognitive Control Advantages in Aging (O-W2)**

Brian Gold[1,2,3], Nathan Johnson[1], Sara Cilles[1], Chobok Kim[1]
[1]Department of Anatomy and Neurobiology, University of Kentucky, Lexington, KY, USA, [2]Magnetic Resonance Imaging and Spectroscopy Center, University of Kentucky, Lexington, KY, USA, [3]Sanders-Brown Center on Aging, University of Kentucky, Lexington, KY, USA

452 WTh Identification of Cortical Thickness and Area Patterns Associated With Cognitive Processes

Eva Janousova[1,2], Lars Westlye[3,4], Andrea Christoforou[1,4], Astri Lundervold[5,6], Ivar Reinvang[3,4], Vidar Steen[1,4], Thomas Espeseth[4,7], Giovanni Montana[8], Stephanie Le Hellard[1,4]
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453 WTh Modulating effect of COMT genotype on the brain regions underlying proactive control process

Mathieu Jaspar[1], Julien Grandjean[2], Eric Salmon[3], Pierre Maquet[4], Fabienne Collette[5]
[1]Cyclotron Research Centre and Cognitive and Behavioral Neuroscience Centre, University of Liège, Liège, Belgium, [2]Cyclotron Research Center and Cognitive and Behavioral Neuroscience Centre, University of Liège, Liège, Belgium, [3]Cyclotron Research Centre, University of Liège, Liège, Belgium, [4]Cyclotron Research Centre, University of Liège, Liege, Belgium, [5]Cyclotron Research Centre and Cognitive and Behavioral Neuroscience Centre, University of Liège, Liège, Belgium

454 WTh Language And Non-Language Hierarchy within The Prefrontal Cortex
Hyeon-Ae Jeon[1], Angela Friederici[1]
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455 WTh ERP correlates of feedback processing for deterministic and probabilistic outcomes
Lydia Kogler[1,2], Uta Sailer[3], Daniela M. Pfabigan[1]
[1]Social, Cognitive and Affective Neuroscience Unit, Faculty of Psychology, University of Vienna, Vienna, Austria, [2]Department of Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen, Aachen, Germany, [3]Department of Psychology, Faculty of Social Sciences, University of Gothenburg, Gothenburg, Sweden

456 WTh Neural Correlates of Conflict Control on Facial Expressions with A Flanker Paradigm
Tongran Liu[1], Tong Xiao[2]
[1]Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]Natural Language Processing Laboratory, Northeastern University, Shenyang, China

457 WTh What are the factors driving the variability of verbal and spatial skills? A study in 434 subjects
Emmanuel Mellet[1], Fabrice Crivello[1], Laurent Petit[1], Laure Zago[1], Pierre-Yves Hervé[1], Gael Jobard[1], Marc Joliot[1], Bernard Mazoyer[1], Nathalie Tzourio-Mazoyer[1]
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458 WTh Functional brain network activity is related to changes in stimulus valency
Paul Metzak[1], Todd Woodward[1]
[1]University of British Columbia, Vancouver, Canada

459 WTh Differential Functional Connectivity for Rule and Item Information in Working Memory
Caroline Montojo[1], Susan Courtney[1]
[1]Johns Hopkins University, Baltimore, United States

460 WTh How task-specific are the neural correlates of cognitive control?
Paul Simon Muhle-Karbe[1], Marcel Brass[1], Wouter De Baene[1]
[1]Department of Experimental Psychology, Ghent University, Ghent, Belgium

461 WTh Separable effects of error, ambiguity, and reaction time in anterior cingulate and opercular regions
Maital Neta[1], Bradley Schlaggar[1], Steven Petersen[1]
[1]Washington University, St. Louis, MO, United States

462 WTh Modulation of short intra-cortical inhibition during action reprogramming
Franz-Xaver Neubert[1], Rogier Mars[1], Etienne Olivier[2], Matthew Rushworth[1]
[1]University of Oxford, Oxford, United Kingdom, [2]Université Catholique de Louvain, Brussels, Belgium

463 WTh ERP correlates of performance monitoring in learned helplessness
Daniela M. Pfabigan[1], Nina Pintzinger[2], Diana Siedek[1], Claus Lamm[1], Birgit Derntl[2,3], Uta Sailer[1,4]
[1]Social, Cognitive and Affective Neuroscience Unit, Faculty of Psychology, University of Vienna, Vienna, Austria, [2]Faculty of Psychology, University of Vienna, Vienna, Austria, [3]Department of Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen University, Aachen, Germany, [4]Department of Psychology, Faculty of Social Sciences, University of Gothenburg, Gothenburg, Sweden

464 WTh Selection and inhibition: two sides of voluntary action
Charlotte Rae[1], Laura Hughes[1,2], Chelan Weaver[1], Michael Anderson[1], james rowe[1,2,3]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom, [2]Department of Clinical Neurosciences, University of Cambridge, Cambridge, United Kingdom, [3]Behavioural and Clinical Neuroscience Institute, University of Cambridge, Cambridge, United Kingdom

465 WTh Processing Speed and White Matter Association in Children Three Years Post Treatment for Brain Tumor
Wilburn Reddick[1], Shawna Palmer[2], John Glass[1], Ibrahim Qaddoumi[3], Gregory Armstrong[4], Karen Wright[3], Alberto Broniscer[3], Robert Ogg[1], Amar Gajjar[3]
[1]Department of Radiological Sciences, St. Jude Children's Research Hospital, Memphis, TN, [2]Department of Psychology, St. Jude Children's Research Hospital, Memphis, TN, [3]Department of Oncology, St. Jude Children's Research Hospital, Memphis, TN, [4]Department of Epidemiology and Cancer Control, St. Jude Children's Research Hospital, Memphis, TN

466 WTh Connectivity between the left anterior lateral prefrontal cortex and other working memory regions
Claudia Rottschy[1], Angela Laird[2], Peter Fox[3], Simon Eickhoff[4]
[1]Department of Neurology, University Hospital Aachen, N/A, [2]University of Texas Health Science Center San Antonio, San Antonio, United States, [3]Research Imaging Institute, San Antonio, TX, [4]Research Center Jülich, Jülich, Germany

467 WTh Non-incentive differential outcomes enhance fronto-striatal coupling in instruction-based learning
Hannes Ruge[1], Uta Wolfensteller[1]
[1]Technische Universität Dresden, Dresden, Germany

468 WTh Reward-related activity in the VLPFC depends on individual differences in reward sensitivity
Rosa Steimke[1,2,3], Lena Paschke[1], Vera Ludwig[1,2,3], Robert Gaschler[3,1], Henrik Walter[1,2], Christine Stelzel[1,2,3]
[1]Department of Psychiatry and Psychotherapy, Charité - Universitätsmedizin Berlin, Berlin, Germany, [2]Berlin School of Mind and Brain, Humboldt-Universität zu Berlin, Berlin, Germany, [3]Department of Psychology, Humboldt-Universität zu Berlin, Berlin, Germany

469 WTh The Relationship between Node Centrality and Inhibition Performance: A Resting State fMRI Study
Lixia Tian[1]
[1]Department of Biomedical Engineering, Beijing Jiaotong University, Beijing, China

470 WTh Distinct ERP profiles of stimulus-stimulus and stimulus-response compatibility effects
Kai Wang[1], Qi Li[1], Xun Liu[1]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China

471 WTh Neural correlates of the Simon effect influenced by practice of incompatible location-relevant task
Ling Wang[1], Brendan Weekes[1]
[1]The University of Hong Kong, Hong Kong, China

****472 WTh Surprise and error: Common neuronal architecture for the processing of errors and novelty**
Jan R Wessel[1,2], Claudia Danielmeier[3], J Morton[4], Markus Ullsperger[3,2]
[1]University of California, San Diego, La Jolla, United States, [2]Max Planck Institute for Neurological Research, Cologne, Germany, [3]Radboud University, Nijmegen, Netherlands, [4]University of Western Ontario, London, Canada

473 WTh Extensive Practice Improves Stroop Task Performance by Increasing Efficiency in Conflict Resolution
Feng Xue[1], Gui Xue[1], Xuemei Lei[1], Leilei Mei[2], Chuansheng Chen[3], Xiaolong Fan[4], Zhong-lin Lu[5], Qi Dong[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Department of Psychology and Social Behavior, University of California, Irvine, Irvine, CA, [3]Department of Psychology and Social Behavior, Irvine, United States, [4]Department of Physiology, Life Science College, Beijing Normal University, Beijing, China, [5]Centre for Cognitive Science, Ohio State University, Columbus, OH

474 WTh Neural time course of emotional conflict control: an ERP study
Song Xue[1]
[1]Southwest University, Chongqing, China

475 WTh Modules of cognitive control network: A computational modeling approach
Yan Zhu[1,2], Chen Liang[2], Hongbin Wang[3], Xun Liu[1]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]Soochow University, Suzhou, China, [3]University of Texas Health Science Center at Houston, Houston, TX

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

Imagery

476 WTh Brain motor functions after spinal cord injury: a MEG single-case study with a tetraplegic patient
Franck Di Rienzo[1], Aymeric GUILLOT[2], Claude DELPUECH[3], Sébastien DALIGAULT[3], Gilles RODE[4], Christian COLLET[2]
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477 WTh The Beauty Around Us: Neurofunctional Processing of the Different Environment Types
Evgeny Gutyrchik[1], Edmund Russell[2], Lukasz Smigielski[1], Janusch Blautzik[3], Maximilian Reiser[3], Ernst Pöppel[1]
[1]Human Science Center, LMU Munich, Munich, Germany, [2]University of Virginia, Charlottesville, VA, [3]Institute of Clinical Radiology, LMU Munich, Munich, Germany

478 WTh Common and dissociated neural activity for the different modalities of movement imagery
dan Jiang[1], Nichola Callow[2], Martin Edwards[3], Paul Mullins[4]
[1]Bangor University, Bangor(Gwynedd), United Kingdom, [2]Bangor University, Bangor, United Kingdom, [3]Université catholique de Louvain, Brussels, Belgium, [4]Bangor university, Bangor, United Kingdom

479 WTh Distinct cortex response to 3D verse 2D stimuli in mental rotation based on ALE meta-analysis
Jingjing Ma[1], Delong Zhang[1], Yuanyuan Fan[1], Xiaoling Peng[1], Junjing Wang[1], Xue Wen[1], Ming Liu[1], Ruiwang Huang[1]
[1]Center for the Study of Applied Psychology, Key Laboratory of Mental Health and Cognitive Science of Guangdong Province, South China Normal University, Guangzhou, China

480 WTh Eyedness and handedness interact on functional lateralization during hand identification
Emmanuel Mellet[1], Nathalie Tzourio-Mazoyer[1], Laurent Petit[1], Laure Zago[1], Pierre-Yves Hervé[1], Gael Jobard[1], Marc Joliot[1], Fabrice Crivello[1], Bernard Mazoyer[1]
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HIGHER COGNITIVE FUNCTIONS

Music

481 WTh Musical expertise shapes auditory cortex connectivity to emotion-linked areas during music listening
Brigitte Bogert[1], Elvira Brattico[1]
[1]Cognitive Brain Research Unit, Institute of Behavioral Sciences, University of Helsinki, Helsinki, Finland

482 WTh Music-Induced Dynamics: Musical training, MEG signal complexity, and auditory perception
Sarah Carpentier[1,2], Takako Fujioka[1], Bernhard Ross[2], Anthony McIntosh[1]
[1]Rotman Research Institute at Baycrest, Toronto, Canada, [2]University of Toronto, Toronto, Canada

483 WTh Verbal and Manual Reproduction of Rhythmic Sequences – an fMRI study with sparse temporal sampling
Irene I.-T. Chiu[1,2], Shu-Jen Kung[1,2], Esther Y.-C Lin[1,2], Wen-Jui Kuo[1,2], Ovid J.-L. Tzeng[2,3], Daisy Hung[2,4], Denise H. Wu[2,4]
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484 WTh NEURAL ACTIVITY RELATED TO DISCRIMINATION AND VOCAL PRODUCTION OF MUSICAL INTERVALS
Nadia Gonzalez[1], Martha González-Montiel[2], Pilar Dies[1], Pablo Rendón[3]
[1]Hospital Infantil de México, México, Mexico, [2]Universidad Nacional Autónoma de México, México, Mexico, [3]CCADET, Universidad Nacional Autónoma de México, México, Mexico

485 WTh Cortical plasticity differences in musicians depend on the nature of their training
Jessica Grahn[1], Jonathan Peelle[2]
[1]University of Western Ontario, London, Canada, [2]University of Pennsylvania, Philadelphia, United States

486 WTh Resting State Functional Connectivity (RSFC) in Individuals with Excellent Pitch Identification Abil
Hou Jiancheng[1], Chen CHuansheng[2], Li Jin[3], Dong Qi[4], He Qinghua[5], Wang Yapeng[3], He Yong[3], Liu Yuyun[3]
[1]School of Brain and Cognitive Science, Beijing Normal University, Beijing City, China, [2]Psychology and Social Behavior, University of California, Irvine, United States, [3]School of Brain and Cognitive Science, Beijing Normal University, Beijing, China, [4]Resting State Functional Connectivity (RSFC) in Individuals with Excellent Pitch Identification Abil, Beijing, China, [5]Brain and Creativity Institute, University of Southern California, Los Angeles, CA

487 WTh Neural correlates of musical creativity and communication: an fMRI study of freestyle rap
Siyuan Liu[1], Ho Ming Chow[1], Yisheng Xu[1], Michael Erkkinen[1], Katherine Swett[1], Daniel Rizik-Baer[2], Michael Eagle[2], Allen Braun[1]
[1]National Institutes of Health, Bethesda, United States, [2]Justice by Uniting Creative Energy, Los Angeles, United States

488 WTh Music training induced changes in functional connectivity density
Cheng Luo[1], Li Dong[1], Shipeng Tu[1], Yongxiu Lai[1], dezhong yao[1]
[1]Key Laboratory for NeuroInformation of MOE, School of Life Science and Technology, UESTC, ChengDu, China

489 WTh Listen to the Rhythm of Brain: Electroencephalogram Gamma Band Activity During Key Shift Perception
weiyi Ma[1], Yongxiu Lai[2], Xiaojing Zheng[2], Dezhong Yao[2]
[1]Key Laboratory for NeuroInformation of Ministry of Education, School of Life Science and Technology, ChengDu, China, [2]Key Laboratory for NeuroInformation of Ministry of Education, School of Life Science and Technology, Chengdu, Sichuan

****490 WTh Hippocampus size predicts fluid intelligence in musically trained people**
Mathias Oechslin[1], Céline Descloux[2], Alexandre Croquelois[3], Julien Chanal[4], Dimitri Van De Ville[5], François Lazeyras[6], Claude-Alain Hauert[4], Clara James[1]
[1]Geneva Neuroscience Center, FPSE, Geneva, Switzerland, [2]Medical University of Lausanne, Lausanne, Switzerland, [3]Department of Cell Biology and Morphology, University of Lausanne, Lausanne, Switzerland, [4]FPSE, University of Geneva, Geneva, Switzerland, [5]UniGE/EPFL, Lausanne, Switzerland, [6]Department of Radiology & CIBM, University of Geneva, Geneva, Switzerland

491 WTh Expectation violation from single-trial EEG decoding: Differences between expert and novice cellists
Jason Sherwin[1,2], Paul Sajda[1]
[1]Columbia University, New York, United States, [2]U.S. Army Research Laboratory, Aberdeen, United States

HIGHER COGNITIVE FUNCTIONS

Reasoning and Problem Solving

492 WTh Intelligence modulates default network activity during working memory performance
Ulrike Basten[1], Christine Stelzel[2], Christian Fiebach[1]
[1]University of Frankfurt, Frankfurt am Main, Germany, [2]Charité Universitaetsmedizin, Berlin, Germany

493 WTh Brain topography and dynamics associated with cognitive reasoning during the Wason Selection Task
Luca Cocchi[1], Graeme Halford[2], Ian Harding[3], Tim Cutmore[4], Brentyn Ramm[4], David Shum[4], Jason Mattingley[1]
[1]Queensland Brain Institute, The University of Queensland, Brisbane, Australia, [2]School of Psychology, The University of Queensland, Brisbane, Australia, [3]Melbourne Neuropsychiatry Centre, University of Melbourne, Melbourne, Australia, [4]School of Psychology, Griffith University, Brisbane, Australia

494 WTh Brain mechanisms of error detection during arithmetic verification
Roland H. Grabner[1], Daniel Ansari[2], Gernot Reishofer[3], Karl Koschutnig[4], Franz Ebner[3]
[1]Swiss Federal Institute of Technology (ETH) Zurich, Zurich, Switzerland, [2]University of Western Ontario, London, Canada, [3]Medical University of Graz, Graz, Austria, [4]University of Graz, Graz, Austria

495 WTh Structural brain network of general fluid type intelligence in 101 healthy elderly subjects
Judit Haasz[1], Erling Westlye[1], Thomas Espeseth[2], Arvid Lundervold[1], Astri Lundervold[1]
[1]University of Bergen, Bergen, Norway, [2]Centre for Advanced Study, Oslo, Norway

***496 WTh Is it time to say goodbye to the general intelligence factor 'g'? (O-W2)**
Adam Hampshire[1], Roger Highfield[2], Beth Parkin[3], Adrian M Owen[4]
[1]University of Western Ontario, London, Canada, [2]New Scientist, London, United Kingdom, [3]MRC-CBU, Cambridge, United Kingdom, [4]University of Western Ontario, London, Ontario

497 WTh Right precentral gyrus and cognitive reappraisal in Chinese middle-aged men
Mei-kei Leung[1], Tatia Lee[1]
[1]The University of Hong Kong, Hong Kong, China

498 WTh Mental Rotation Strategies used by Males/Females and Physical/Social Science Majors: An EEG Study
Yingli Li[1], Michael OBoyle[2]
[1]Suzhou University, Suzhou, China, [2]Texas Tech University, Lubbock, Texas, United States

499 WTh The Effects of Task Difficulty on Hemispheric EEG Power upon Performing Mathematic Games
Chun-Ling Lin[1,2], Melody Jung[1,3], Ying Choon Wu[1], Chin-Teng Lin[1,2], Hsiao-Ching She[1,4]
[1]Institute for Neural Computation, University of California, San Diego, CA, USA, [2]Department of Electrical and Control Engineering, National Chiao-Tung University, Hsinchu, [3]Canyon Crest Academy, San Diego, CA, USA, [4]Institute of Education, National Chiao-Tung University, Hsinchu

500 WTh On the functional neuroanatomy of contradictory judgments: an EEG + fMRI study
Maria Medaglia[1,2], Pia Rotshtein[3], Franca Tecchio[4], Camillo Porcaro[1,5]
[1]Institute of Neuroscience, Newcastle University, Medical School, Newcastle upon Tyne, United Kingdom, [2]Philosophy Department, Facoltà di Lettere e Filosofia, University 'Roma Tre', Rome, Italy, [3]University of Birmingham, Birmingham, United Kingdom, [4]LET'S ISTC-CNR, Ospedale Fatebenefratelli, Isola Tiberina, Rome, Italy, [5]LET'S - ISTC-CNR, Ospedale Fatebenefratelli, Isola Tiberina, Rome, Italy, Italy

501 WTh Modulation of the frontoparietal reasoning network by task complexity and performance
Isabelle Simard[1], Isabelle Soulières[2], Tom Zeffiro[3]
[1]Université de Montréal, Montréal, Canada, [2]University of Quebec in Montreal, Montréal, Québec, [3]Neural Systems Group, Boston, MA

502 WTh Neural networks of complex mental calculation: How do addition and multiplication differ?
Nadja Tschentscher[1], Olaf Hauk[1]
[1]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom

503 WTh The Metacognitive Functional Role of Human Lateral Frontopolar Cortex in Problem Solving
Xiaohong Wan[1], Takeshi Asamizuya[1], Chisato Suzuki[1], Hironori Nakatani[1], Kenichi Ueno[1], Kang Cheng[1], Keiji Tanaka[1]
[1]RIKEN Brain Science Institute, Wako, Japan

504 WTh Neural Correlates of the Visual-Verbal Cognitive Style in Solving Word Problems
Sabrina Zarnhofer[1], Verena Braunstein[1], franz ebner[2], Karl Koschutnig[2], Gernot Reishofer[2], Christa Neuper[1], Anja Ischebeck[1]
[1]Karl Franzens University, Graz, Austria, [2]Medical University, Graz, Austria

505 WTh The neuromechanism underlying verbal analogical reasoning: Evidence from an ERP study
Ming Zhao[1,2], Tao Liu[3], Yongxin Li[2], Fenglei Du[2], Feiyan Chen[2]
[1]Center for the Study of Language and Cognition, Zhejiang University, Hangzhou, China, [2]Bio-X Laboratory, Department of Physics, Zhejiang University, Hangzhou, China, [3]Jiangsu Key Laboratory of Language and Cognitive Neuroscience, Xuzhou Normal University, Xuzhou, China

HIGHER COGNITIVE FUNCTIONS

Space, Time and Number Coding

506 WTh Differential Contribution of Velocity and Distance to Collision: Behavioural and Neural Evidence
Qi Chen[1], You Li[1]
[1]South China Normal University, Guangzhou, China

507 WTh Geons: 4D dynamics in neural correlates of rudimental shapes between "round" and "square"
Andrew CHEN*[1]
[1]Center for Higher Brain Functions, Capital Medical Univers, Beijing, China

508 WTh Common Neural Substrates of Reading and Arithmetic
Tanya Evans[1], Erin Ingala[1], D. Lynn Flowers[1], Guinevere Eden[1]
[1]Georgetown University - CSL, Washington, DC

509 WTh Lateralization of attention and procedural memory engagement in number processing in the human brain
Malgorzata Gut[1], Marek Binder[2], Wojciech Szeszkowski[3], Robert Winiarski[3]
[1]University of Finance and Management, Warszawa, Poland, [2]Institute of Psychology, Jagiellonian University, Krakow, Poland, [3]2nd Department of Clinical Radiology MRI Laboratory, Medical University of Warsaw, Warszawa, Poland

510 WTh What is counted: numerosity perception based on objects defined by topological attributes
Lixia He[1], Lin Chen[1], Tiangang Zhou[1]
[1]Institute of Biophysics, Beijing, China

511 WTh Hippocampus and cerebellum ensure place and route representations together
Kinga Igloi[1], Christian Doeller[2], Karim Benchenane[3], Alain Berthoz[4], Neil Burgess[2], Laure Rondi-Reig[3]
[1]University of Geneva, Geneva, Switzerland, [2]University College London, London, United Kingdom, [3]Université Pierre et Marie Curie, Paris, France, [4]College de France, Paris, France

512 WTh Non-symbolic numerical distance effect in children with and without developmental dyscalculia
Karin Kucian[1,2], Thomas Loenneker[1], Ernst Martin[1,2,3], Michael von Aster[1,2,4]
[1]Center for MR-Research, University Children's Hospital, Zurich, Switzerland, [2]Children's Research Center, University Children's Hospital, Zurich, Switzerland, [3]Center for Integrative Human Physiology, University of Zurich, Zurich, Switzerland, [4]Department of Child and Adolescent Psychiatry, German Red-Cross-Hospitals Westend, Berlin, Germany

513 WTh Training in Children with Developmental Dyscalculia
Karin Kucian[1,2], Ursina Grond[1,2], Stephanie Rotzer[1,3], Barbara Henzi[1], Claudia Schönmann[1], Fabienne Plangger[1], Markus Gälli[4], Ernst Martin[1,2,5], Michael von Aster[1,2,6]
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514 WTh Diffusion Tensor Imaging in Children with Developmental Dyscalculia
Karin Kucian[1,2], Simone Schwizer Ashkenazi[1,3], Jürgen Hänggi[3], Stephanie Rotzer[1,3], Lutz Jänke[3], Ruth O'Gorman[1,2,4], Ernst Martin[1,2,4], Michael von Aster[1,2,5]
[1]Center for MR-Research, University Children's Hospital, Zurich, Switzerland, [2]Children's Research Center, University Children's Hospital, Zurich, Switzerland, [3]Division of Neuropsychology, University of Zurich, Zurich, Switzerland, [4]Center for Integrative Human Physiology, University of Zurich, Zurich, Switzerland, [5]Department of Child and Adolescent Psychiatry, German Red-Cross-Hospitals, Zurich, Switzerland

515 WTh Comparison of auditory top-down spatial and temporal attention: an fMRI study
Chunlin Li[1], Kewei Chen[2], Dehua Chui[3], Hongbin Han[4], Jinglong Wu[5]
[1]Okayama University, Okayama, Japan, [2]Banner Good Samaritan PET Center, Phoenix, AZ, [3]Neuroscience Research Institute/Third Hospital of Peking University, Beijing, China, [4]Peking University Third Hospital, Beijing, China, [5]Graduate School of Natural Science and Technology, Okayama University, Okayama, Japan

516 WTh Encoding and retrieval of object-related spatial cues during navigation: an fMRI study
Joost Wegman[1], Anna Tyborowska[2], Gabriele Janzen[1]
[1]Behavioural Science Institute, Radboud University Nijmegen, Nijmegen, Netherlands, [2]Donders Institute for Brain, Cognition and Behaviour, Radboud University Nijmegen, Nijmegen, Netherlands

517 WTh Numerical processing in visual and auditory modalities in the Asperger brain
Yang Zhang[1], Tess Koerner[1], Meri Blumenkron[2], Philip Burton[1]
[1]University of Minnesota, Minneapolis, MN, USA, [2]Berlin School of Mind and Brain, Berlin, Germany

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

IMAGING METHODS

Anatomical MRI

518 WTh Effects of distortion and inhomogeneity correction on brain morphometry with 3T MRI using SIENA
Osamu Abe[1], Shigeki Aoki[2], Masami Goto[3], Kiyoto Kasai[4], Takashi Shizukuishi[1], Hidemasa Takao[4], Haruyasu Yamada[4], Hidenori Yamasue[4]
[1]Nihon University School of Medicine, Tokyo, Japan, [2]Juntendo University, Tokyo, Japan, [3]University of Tokyo Hospital, Tokyo, Japan, [4]University of Tokyo, Tokyo, Japan

519 WTh Morphological Differences in Chinese, Malay and Indian Neonatal Brains
Jordan Bai[1], Anne Rifkin-Graboi[2], Marielle Fortier[3], Michael Meaney[2,4], anqi qiu[1,5,2]
[1]Department of Bioengineering, National University of Singapore, Singapore, Singapore, [2]Singapore Institute for Clinical Sciences, the Agency for Science, Technology and Research, Singapore, Singapore, [3]Radiology Department, KK Women's and Children's Hospital, Singapore, Singapore, [4]Departments of Psychiatry and Neurology & Neurosurgery, McGill University, Montreal, Canada, [5]Clinical Imaging Research Center, National University of Singapore, Singapore, Singapore

520 WTh Tissue thickness and central surface estimation using a projection scheme
Robert Dahnke[1], Christian Gaser[1]
[1]Structural Brain Mapping Group, Department of Psychiatry, University of Jena, Jena, Germany

521 WTh Local adaptive segmentation
Robert Dahnke[1], Gabriel Ziegler[1], Christian Gaser[1]
[1]Structural Brain Mapping Group, Department of Psychiatry, University of Jena, Jena, Germany

522 WTh Comparison of Cerebral Volumes derived from T1 MR Images acquired with 8 and 32 channel head coils
François De Guio[1,2], Aurélien Monnet[3], Nicolas Vibet[1,4], Chabha Azouani[1,4], christine delmaire[3], Marie CHUPIN[1,4]
[1]CATI, multicentre neuroimaging platform, Paris, France, [2]LNAO, NeuroSpin, CEA, Gif-sur-Yvette, France, [3]Department of Neuroradiology, AP-HP, Lille, France, [4]CRICM, UPMC URMR_S975, INSERM U975, CNRS UMR7225, ICM, Paris, France

523 WTh Fast Quantitative Susceptibility Mapping using Spiral Trajectories
Weiran Deng[1], Benedikt Poser[2], V Andrew Stenger[1]
[1]University of Hawaii, Honolulu, HI, [2]University of Hawaii, Honolulu, United States

524 WTh Multi-Site Voxel-Based Morphometry – Quantitative Multi-Parameter Mapping Can Provide A Solution
Chloe Hutton[1], Antoine Lutti[1], Christian Lambert[1], Thomas Fitzgerald[1], Steve Fleming[2], Rumana Chowdhury[1], John Ashburner[1], Nikolaus Weiskopf[1]
[1]Wellcome Trust Centre for Neuroimaging, UCL Institute of Neurology, UCL, London, United Kingdom, [2]The Center for Neural Science at NYU, New York, NY

525 WTh Hemispherically-unified Projection Map of Human Cortical Surface
Xiaojian Kang[1], Timothy Herron[2], David Woods[3]
[1]University of California at Davis, Martinez, United States, [2]Human Cognitive Neurophysiology Lab, VA-NCHCS, Martinez, CA, [3]University of California at Davis, Martinez, CA

526 WTh Structural compensation following unilateral vestibular neuritis - longitudinal VBM study
JaHee Kim[1], Sung-Kwang Hong[1], Hyo-Jeong Lee[1]
[1]Department of Otolaryngology, Hallym University College of Medicine, Anyang, Korea, Republic of

527 WTh Individual differences in temperament traits reflect gray matter volume alteration
Sunghyon Kyeong[1,2,3], Won Sup Kim[1], Dong-Uk Hwang[1], Hae-Jeong Park[4,5]
[1]Division of Computational Sciences in Mathematics, National Institute for Mathematical Sciences, Daejeon, Republic of Korea, [2]Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Republic of Korea, [3]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Republic of Korea, [4]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Republic of Korea, [5]Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Republic of Korea, Seoul, Republic of Korea

528 WTh Patch structure in white matter detected by T2*-weighted microscopic MRI
tieqiang Li[1], Guochun Fu[2], S. Dodd[3], M. Fukunaga[3], K. Shmueli[3], Jeff Duyn[3]
[1]Kaorlinska Institute, Stockholm, Sweden, [2]Karolinska Institute, Stockholm, Sweden, [3]National Institute of Neurological Disorders and Stroke, Bethesda, United States

529 WTh A novel approach to generate a B0 orientation dependent R2* map: a potential biomarker for myelin
Se-Hong Oh[1], Sung-Yeon Park[2], Young-Bo Kim[2], Zang-Hee Cho[2], John Detre[3], Jongho Lee[3]
[1]University of Pennsylvania, Philadelphia, PA, [2]Gachon University, Incheon, Korea, Republic of, [3]University of Pennsylvania, Philadelphia, United States

530 WTh The role of VBM in the detection of temporopolar dysplasia in patients with mesial temporal epilepsy
Martin Pail[1,2], Radek Mareček[1], Markéta Hermanová[3], Ivana Tyrlíková[2], Robert Kuba[1,2], Milan Brázdil[1,2]
[1]Behavioral and Social Neuroscience Research Group, CEITEC-Central European Institute of Technology, Masaryk University, Brno, Czech Republic, [2]Brno Epilepsy Center, Department of Neurology, St. Anne's University Hospital and Faculty of Medicine, Masaryk University, Brno, Czech Republic, [3]Brno Epilepsy Center, First Department of Pathological Anatomy, St. Anne's University Hospital and Faculty of Medicine, Masaryk University, Brno, Czech Republic

531 WTh Evidence of Possible Matter Shift in Human Brain due to Neurodegeneration
Pradeep Reddy Raamana[1], Lei Wang[2], Mirza Beg[1]
[1]Simon Fraser University, Burnaby, Canada, [2]Northwestern University, Chicago, IL

532 WTh A Longitudinal Structural Neuroimaging Study of Birth Weight Variation in Human Twins and Singletons
Armin Raznahan[1], Dede Greenstein[2], Francois Lalonde[2], Nancy Lee[2], Jay Giedd[1]
[1]NIMH, Bethesda, United States, [2]NIMH, Bethesda, MD

533 WTh Focal cortical thinning following subcortical infarcts in humans
Ruthger Righart[1,2], Marco Duering[1], Endy Csanadi[1,3], Eric Jouvent[4], Dominique Hervé[4], Hugues Chabriat[4], Martin Dichgans[1,2]
[1]Institute for Stroke and Dementia, Munich, Germany, [2]German Center for Neurodegenerative Diseases (DZNE), Munich, Germany, [3]Ludwig-Maximilians-University, Munich, Germany, [4]CHU Lariboisière, Assistance Publique des Hôpitaux de Paris, Paris, France

***534 WTh Human cortical layers detected with high resolution diffusion MRI at 9.4T (O-Th2)**
Alard Roebroeck[1], Anca Oros-Peusquens[2], Daniel Brenner[2], Klaus Moellenhoff[2], Avdo Celik[2], Joerg Felder[2], A Matusch[2], Ralf Galuske[3], Hans-Juergen Bratzke[4], Nadim Shah[2]
[1]Dept. of Cognitive Neuroscience, Faculty of Psychology and Neuroscience, Maastricht University, Maastricht, Netherlands, [2]Institute of Neuroscience and Medicine (INM-4), Research Centre Jülich, Juelich, Germany, [3]Dept. of Biology, TU Darmstadt, Darmstadt, Germany, [4]Dept. of Forensic Medicine, Faculty of Medicine, JWG-University, Frankfurt/M, Frankfurt, Germany

535 WTh Validation of an embedded optical tracking system with interleaved motion-correction
Jessica Schulz[1], Thomas Siegert[1], Christian Labadie[1], Enrico Reimer[1], Maxim Zaitsev[2], Julian Maclaren[3], Michael Herbst[2], Robert Turner[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Medical Physics, Dept. of Radiology, University Medical Center Freiburg, Freiburg, Germany, [3]Dept. of Radiology, Stanford University, Stanford, CA, USA

536 WTh Effects of Mild Motion Artifact on Cortical Measures from Structural MRI
Michael Stockman[1], Aaron Alexander-Bloch[2], Armin Raznahan[2], Jay Giedd[3]
[1]NIH, Bethesda, United States, [2]NIH, Bethesda, MD, [3]NIMH, Bethesda, United States

537 WTh Grey matter volume changes associated with the affective and cognitive components of alexithymia
Jorien van der Velde[1], Katharina Goerlich[1,2], Marie-Jose van Tol[3,4], Marte Swart[1,5], Richard Bruggeman[6], A. Aleman[7]
[1]Neuroimaging Center UMCG, Groningen, Netherlands, [2]Department of Neurology, Christian-Albrechts University, Kiel, Germany, [3]University Medical Center Groningen, Groningen, Netherlands, [4]Clinical Affective NeuroImaing Laboratory, Ottovon-Guericke University of Magdeburg, Magdeburg, Germany, [5]Lentis, Center for Mental Healthcare, Groningen, Netherlands, [6]Department of Neuroscience and Psychiatry UMCG, Groningen, Netherlands, [7]NeuroImaging Center, Groningen, Netherlands

538 WTh Evaluation of MR Bias Field Correction Algorithms
Jinghua Wang[1], Lili He[2], Xin Liu[3], Zhong-lin Lu[4]
[1]Center for Cognitive and Behavioral Brain Imaging, The Ohio State University, Columbus, United States, [2]Center for Perinatal Research, Nationwide Children's Hospital, Columbus, OH, [3]Paul C. Lauterbur Research Center for Biomedical Imaging, Shenzhen Institutes of Advanced Technology, Shenzhen, China, [4]Centre for Cognitive Science, Ohio State University, Columbus, OH

539 WTh Effect of flip angle variations on MP2RAGE data quality at ultra-high magnetic field
Christian Windischberger[1,2], Jacqueline Atanelov[3,2], Ronald Sladky[4,2], Jasmin Tröstl[5,2], Ewald Moser[6,1]
[1]MR Center, Medical University of Vienna, Vienna, Austria, [2]Centre for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria, [3]MR Center of Excellence, Vienna, Austria, [4]MR Centre Of Excellence, Medical University Of Vienna, Austria, [5]MR Centre Of Excellence, Medical University Of Vienna, Vienna, Austria, [6]Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria

540 WTh Studying Cortical Facewise Area and other Areal Quantities
Anderson Winkler[1], Mert Sabuncu[2], B. T. Yeo[3], Bruce Fischl[4], Douglas Greve[5], Peter Kochunov[6], Thomas Nichols[7], John Blangero[8], David Glahn[1]
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541 WTh Robust Sensitivity Estimation for SENSE Imaging Using Global Fitting Method
ma yajun[1], Wentao Liu[1], Xin Tang[1], Jia-Hong Gao[1,2]
[1]Beijing City Key Lab for Medical Physics and Engineering, School of Physics, Peking University, Beijing, China, [2]University of Chicago, Chicago, IL

542 WTh Increased Grey Matter and White Matter Density in the Social Brain of Shy Adults: A Voxel-Based Morp
Xun Yang[1], Qizhu Wu[2], xiaoqi huang[3], Sunima Lama[4], Lihua Qiu[2], Bochao Chen[5], Xiaoxiao Lei[6], Keith Kendrick[7], Qiyong Gong[8]
[1]Huaxi MR Research Center, Department of Radiology, West China Hospital of Sichuan University, Chengdu, China, [2]West China Hospital of Sichuan University, Chengdu, China, [3]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University, chengdu, sichuan, [4]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University, chengdu, China, [5]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan Universit, chengdu, China, [6]University of Pittsburgh, Pennsylvania, United States, [7]Key Laboratory for Neuroinformation, School of Life Science and Technology, University of Electronic, chengdu, China, [8]Huaxi Magnetic Resonance Research Center, West China Hospital, Sichuan University, Chengdu, China

543 WTh Brain structural adaptation to High-Altitude
Jiaxing Zhang[1], Haiyan Zhang[1], Shuhong Liu[2], Qiyong Gong[3], ming fan[4]
[1]Department of Physiology and Neurobiology, Medical College of Xiamen University, Xiamen, China, [2]Department of Brain Protection and Plasticity, Institute of Basic Medical Sciences, Beijing, China, [3]Huaxi Magnetic Resonance Research Center, West China Hospital, Sichuan University, Chengdu, China, [4]Department of Brain Protection and Plasticity, Institute of Basic Medical Sciences, beijing, China

544 WTh Multi-Channel System for Combined Magnetoencephalography and Ultra-Low-Field MRI
Andrey Zhdanov[1,2], Panu Vesanen[1], Jaakko Nieminen[1], Koos Zevenhoven[1], Juhani Dabek[1], Juho Luomahaara[3], Juha Hassel[3], Jari Penttilä[4], Fa-Hsuan Lin[1,5], Yi-Cheng Hsu[1,5], Jyrki Mäkelä[2], Lauri Parkkonen[1,6], Juha Simola[6], Antti Ahonen[6], Risto Ilmoniemi[1]
[1]Aalto University School of Science, Espoo, Finland, [2]BioMag Laboratory, Helsinki University Central Hospiltal, Helsinki, Finland, [3]VTT Technical Research Centre of Finland, Espoo, Finland, [4]Aivon Oy, Espoo, Finland, [5]National Taiwan University, Taipei, [6]Elekta Oy, Helsinki, Finland

545 WTh Heterogeneity in Cerebral Blood Flow in Brain White Matter
Yuxiang Zhou[1], Priya Goel[1], Xiaojun Sun[1], Narayana Ponnada[1]
[1]Diagnostic & Interventional Imaging, University of Texas Health Science Center at Houston, Houston, TX

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

IMAGING METHODS

BOLD fMRI

546 WTh A graph-theoretic approach to neuroimaging experimental design
Geoffrey Aguirre[1]
[1]University of Pennsylvania, Philadelphia, PA

547 WTh Combination of VAT and Z-shimming in EPI for Distortion Correction and Signal Recovery
Sinyeob Ahn[1], Xiaoping Hu[1]
[1]Georgia Tech/Emory University, Atlanta, GA

548 WTh Hemodynamic Response of Repeated Median Nerve Stimulation Using Functional MRI
Leo Ai[1], Hiroyuki Oya[1], Jinhu Xiong[1]
[1]University of Iowa, Iowa City, IA

549 WTh Quantitative fMRI-Based Evaluation of Caffeine's Effects on Brain Physiology
Eva Alonso Ortiz[1], G. Bruce Pike[1]
[1]McGill University, Montreal, Canada

550 WTh Functional Magnetic Resonance Imaging of Cerebral Blood Oxygenation Changes During Breath Holding Us
Jacqueline Atanelov[1], Jasmin Tröstl[2], Ronald Sladky[3], Nikolaus Weiskopf[4], Christian Windischberger[5]
[1]MR Center of Excellence, Vienna, Austria, [2]MR Centre Of Excellence, Medical University Of Vienna, Vienna, Austria, [3]MR Centre Of Excellence, Medical University Of Vienna, Austria, [4]Wellcome Trust Centre for Neuroimaging, Institute of Neurology, London, United Kingdom, [5]MR Center, Medical University of Vienna, Vienna, Austria

551 WTh Functional Connectivity in Imaging Genetics: Considerations on Methods and Data Interpretation
Johannes Bedenbender[1], Andreas Jansen[1], Tilo Kircher[1], Soeren Krach[1], Axel Krug[1], Marcella Rietschel[2], Jens Sommer[1], Stephanie Witt[2], Frieder Paulus[3], Martin Pyka[4], Davide Laneri[5]
[1]Philipps-University, Marburg, Germany, [2]Central Institute of Mental Health, Mannheim, Germany, [3]Department of Psychiatry, Philipps University Marburg, Germany, Marburg, Germany, [4]Department of Psychiatry and Psychotherapy, Philipps-University Marburg, Marburg, Germany, [5]University of Marburg, N/A

552 WTh The minimum number of discharges needed to detect BOLD signals using intracranial EEG-fMRI at 3 T
Craig Beers[1,2,3], Daniel Pittman[1,2,3], Ismael Gaxiola[1,2,3], Bradley Goodyear[1,2,3], Paolo Federico[1,2,3]
[1]University of Calgary, Calgary, Alberta, [2]Hotchkiss Brain Institute, Calgary, Canada, [3]Seaman Family MR Research Centre, Calgary, Canada

553 WTh A nearly model-free fMRI analysis method based on reproducible responses applied to 7T clinical fMRI
Pedro Cardoso[1,2], Alexander Geißler[3,2], Florian Fischmeister[3,2], Siegfried Trattnig[1,2], Roland Beisteiner[3,2], Simon Robinson[1,2]
[1]Department of Radiology, Medical University of Vienna, Vienna, Austria, [2]MR Center of Excellence, Medical University of Vienna, Vienna, Austria, [3]Department of Neurology, Medical University of Vienna, Vienna, Austria

554 WTh Different Modulation of Default Mode Network with Real and Sham Acupuncture
Suk-tak Chan[1], Erica Nixon[1], Tara Sporko[1], Ji-liang Fang[2], Jing Liu[3], Ming Li[4], Kenneth Kwong[1], Bruce Rosen[1], Kathleen Hui[1]
[1]Massachusetts General Hospital, Boston, United States, [2]Guang An Men Hospital, China Academy of Traditional Chinese Medicine, Beijing, China, [3]The Marino Center for Progressive Health, Cambridge, United States, [4]Ming's Clinic for Acupuncture, Newton Center, United States

555 WTh Sparse source cluster reconstruction by compressed magnetic resonance inverse imaging (clnl)
Wei-Tang Chang[1], Fa-Hsuan Lin[2], Jyrki Ahveninen[3], Samantha Huang[4], John Belliveau[5]
[1]Martinos Center for Biomedical Imaging, Mass General Hospital, Charlestown, United States, [2]Martinos Center for Biomedical Imaging, Mass General Hospital, Charlestown, MA, [3]Martinos Center, Massachusetts General Hospital, Charlestown, MA, [4]Harvard Medical School - Martinos Center, Department of Radiology, Massachusetts General Hospital, Charlestown, MA, [5]Harvard Medical School – Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA

556 WTh The Spatial and Temporal Limits of Brain Mapping in Awake Subjects: an Alert Primate MRI Study
gang chen[1], Feng Wang[1], John Gore[1], Anna Roe[1]
[1]Vanderbilt University, Nashville, TN United States

557 WTh Susceptibility-Based Functional Neuroimaging: A Simulation Study
zikuan chen[1], Jingyu Liu[2], Vince Calhoun[3]
[1]Mind Research Network, Albuquerque, United States, [2]The Mind Research Network, Albuquerque, NM, [3]The Mind Research Network and UNM, ALBUQUERQUE, NM

558 WTh Intrinsic functional connectivity based brain parcellation using regularized weighted kernel k-means
Hewei Cheng[1], Yong Fan[1]
[1]Institute of Automation, Chinese Academy of Sciences, Beijing, China

559 WTh Sensitivity of BOLD response to increasing visual contrast: spin echo versus gradient echo EPI
Piero Chiacchiaretta[1], Cosimo Del Gratta[1], Armando Tartaro[1], Gian Luca Romani[1], Ferretti Antonio[1]
[1]Department of Neuroscience and Imaging – G. D'Annunzio University of Chieti, Chieti, Italy

560 WTh Withdrawn

561 WTh Lateralised perirhinal cortex activity during semantic and non-semantic within-domain memory tasks
Marshall Dalton[1], Michael Hornberger[1], Olivier Piguet[1]
[1]Neuroscience Research Australia, Sydney, Australia

562 WTh Using functional and anatomical contrast at 7 Tesla to localize primary auditory regions in-vivo
Federico De Martino[1], Michelle Moerel[2], Junqian Xu[3], Pierre-Francois Van de Moortele[4], Kamil Ugurbil[5], Rainer Goebel[1], Essa Yacoub[6], Elia Formisano[1]
[1]Maastricht University, Maastricht, Netherlands, [2]Maastricht University, Netherlands, [3]Univeristy of Minnesota, Minneapolis, MN, [4]CMRR - UNIVERSITY OF MINNESOTA, MINNEAPOLIS, United States, [5]Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, United States, [6]University of Minnesota, Minneapolis, United States

563 WTh Multi-Band GE EPI improves auditory functional responses to simple and complex sounds
Federico De Martino[1], Junqian Xu[2], Edward Auerbach[3], Michelle Moerel[4], Kamil Ugurbil[3], Elia Formisano[1], Essa Yacoub[5]
[1]Maastricht University, Maastricht, Netherlands, [2]Univeristy of Minnesota, Minneapolis, MN, [3]University of Minnesota, Minneapolis, MN, [4]Maastricht University, Netherlands, [5]University of Minnesota, Minneapolis, United States

564 WTh SE fMRI in human bilateral auditory cortex using B1 shimming
Federico De Martino[1], Sebastian Schmitter[2], Kamil Ugurbil[2], Elia Formisano[1], Essa Yacoub[3], Pierre-Francois Van de Moortele[4]
[1]Maastricht University, Maastricht, Netherlands, [2]University of Minnesota, Minneapolis, MN, [3]University of Minnesota, Minneapolis, United States, [4]CMRR - UNIVERSITY OF MINNESOTA, MINNEAPOLIS, United States

565 WTh An fMRI investigation of acupuncture-modulated hearing improvement in patients with hearing loss
Yanjun Diao[1,2], Xiaojing Long[1], Haibo Yu[2], Ling Mei[3], Yanyan Wang[1], Bensheng Qiu[1]
[1]Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China, [2]Shenzhen Hospital of Traditional Chinese Medicine, Shenzhen, China, [3]School of Electronic and Information Engineering, South China University of Technology, Guangzhou, China

566 WTh *Reward circuitry is modulated by the dorsolateral prefrontal cortex in social comparisons*
Xue Du[1], Jiang Qiu[2], Meng Zhang[2], Yuejia Luo[3]
[1]Key laboratory of cognition and personality (SWU), Ministry of Education, ChongQing, China, [2]Key laboratory of cognition and personality (Southwest University), Ministry of Education, Chongqing, China, [3]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

567 WTh Prediction methods for ADHD 200 competition
Ani Eloyan[1], John Muschelli[2], Ciprian Crainiceanu[3], Fang Han[3], Han Liu[3], Tuo Zhao[4], Mary Beth Nebel[5], Brian Caffo[1]
[1]Johns Hopkins University, Baltimore, United States, [2]Kennedy Krieger Institute, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, [3]Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, [4]Whiting School of Engineering, Johns Hopkins University, Baltimore, MD, [5]Kennedy Krieger Institute, N/A

568 WTh Microstate Analysis of Spontaneous BOLD signal
Nurhan Erbil[1], Gopikrishna Deshpande[2]
[1]AU MRI Reseacrh Center, Auburn, AL, [2]AU MRI Research Center, Auburn, AL

569 WTh Brain Tissue Specific Spatial Distribution of fMRI Physiological Noise: CSF Noise High or Low?
Maryam Falahpour[1,2], Hazem Refai[2], Jerzy Bodurka[1]
[1]Laureate Institute for Brain Research, Tulsa, OK, [2]Department of Electrical and Computer Engineering, University of Oklahoma, Tulsa, OK

570 WTh Average white matter fMRI signal characterization using Weisskoff plot flip angle dependence
Maryam Falahpour[1,2], Hazem Refai[2], Jerzy Bodurka[1]
[1]Laureate Institute for Brain Research, Tulsa, OK, [2]Department of Electrical and Computer Engineering, University of Oklahoma, Tulsa, OK

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

571 WTh Stability of Functional Connectivity networks in the Basal Ganglia in ADHD
Manuel Garcia-Garcia[1], Brian Cheung[2], Adriana Di Martino[3], Pierre Bellec[4], Clare Kelly[5], F. Xavier Castellanos[6], Michael Milham[7]
[1]Phyllis Green and Randolph Cowen Institute for Pediatric Neuroscience, NYU Langone Medical Center, N, N/A, [2]Child Mind Institute, New York, NY, [3]Phyllis Green and Randolph Cowen Institute for Pediatric Neuroscience, NYU Langone Medical Center, New York, NY, [4]CRIUGM, Montreal, Quebec, [5]Phyllis Green and Randolph Cowen Institute for Pediatric Neuroscience at the NYU Child Study Center, New York, NY, [6]New York University Child Study Center, New York, NY, [7]Nathan Kline Institute for Psychiatric Research, New York, NY

572 WTh Moment-to-moment brain variability is experimentally "tunable"
Douglas Garrett[1], Anthony McIntosh[2], CHERYL GRADY[3]
[1]Center for Lifespan Psychology, Max Planck Institute for Human Development, Berlin, Germany, [2]Rotman Research Institute, Baycrest; Department of Psychology, University of Toronto, Toronto, Ontario, [3]Rotman Research Institute, Baycrest; Departments of Psychology and Psychiatry, University of Toronto, Toronto, Ontario

573 WTh High spatial resolution GE-EPI – functional micro-vascular specificity at 3T and 7T
Alexander Geissler[1], Florian Fischmeister[1], Moritz Wurnig[1], Marie-Luise Pinter[1], Jakob Rath[1], Thomas Foki[1], Siegfried Trattnig[2], Roland Beisteiner[1], Simon Robinson[2]
[1]Study Group Clinical fMRI, Department of Neurology, Medical University of Vienna, Vienna, Austria, [2]MR Center of Excellence, Medical University of Vienna, Vienna, Austria

574 WTh Measuring the draining vein contribution using Breath holding – a comparative study with SWI at 3T&7T
Alexander Geissler[1], Florian Fischmeister[1], Moritz Wurnig[1], Marie-Luise Pinter[1], Jakob Rath[1], Thomas Foki[1], Siegfried Trattnig[2], Roland Beisteiner[1], Simon Robinson[2]
[1]Study Group Clinical fMRI, Department of Neurology, Medical University of Vienna, Vienna, Austria, [2]MR Center of Excellence, Medical University of Vienna, Vienna, Austria

575 WTh Neural Correlates of Simple Syntactic as Compared to Complex Syntactic and Semantic Processes
Sarah Gierhan[1,2], Angela Friederici[1,2]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Berlin School of Mind and Brain, Humboldt University, Berlin, Germany

576 WTh Changes in Default Network Connectivity With Verbal IQ in Patients with Multiple Sclerosis
Michael Gregory[1,2,3], R. Philip Kinkel[4], Caterina Mainero[5]
[1]Beth Israel Deaconess Medical Center, Boston, MA, United States, [2]A. A. Martinos Center for Biomedical Imaging, Boston, MA, United States, [3]Harvard Medical School, Boston, MA, United States, [4]Beth Israel Deaconess Medical Center, Boston, MA, [5]A. A. Martinos Center for Biomedical Imaging, Boston, MA

577 WTh FMRI - BOLD activation during a Stroop working memory task in children born extremely preterm
Silja T Griffiths[1], Emanuel Neto[2,3], Hilde Gundersen[4], Irene Elgen[5], Kenneth Hugdahl[6,7]
[1]Department of clinical medicine, Bergen, Norway, [2]Institute of Biological and Medical Pshychology, University of Bergen, Bergen, Norway, [3]Department of Neurophysiology, Haukeland University Hospital, Bergen, Norway, [4]Department of Public Health and Primary Health Care, University of Bergen, Norway, Bergen, Norway, [5]Department of clinical medicine, University of Bergen, Bergen, Norway, Bergen, Norway, [6]Dept.Biological and Medical Psychology, University of bergen, Norway, Bergen, Norway, [7]Psychiatry, Haukeland University Hospital, Bergen, Norway

578 WTh Acute and Delayed Effects of Ketamine On Brain Activation and Glutamatergic Neurotransmission
Simone Grimm[1,2,3], Milan Scheidegger[1], Mick Lehmann[1], Anke Henning[4,5], Martin Walter[6], Heinz Boeker[1], Anne Weigand[2,7], Malek Bajbouj[8,2], Erich Seifritz[1,5]
[1]Clinic for Affective Disorders and General Psychiatry, Psychiatric University Hospital Zurich, Zurich, Switzerland, [2]Cluster of Excellence 'Languages of Emotion', Freie Universitaet Berlin, Berlin, Germany, [3]Department of Psychiatry, Charité, CBF, Berlin, Germany, [4]Institute for Biomedical Engineering, University and ETH Zurich, Zurich, Switzerland, [5]Zurich Center for Integrative Human Physiology (ZIHP), University of Zurich, Zurich, Switzerland, [6]Clinical Affective Neuroimaging Laboratory, Magdeburg, Germany, [7]Department of Psychiatry, Charité, CBF, Berlin, Berlin, Germany, [8]Department of Psychiatry, Charité-Universitätsmedizin Berlin, Berlin, Germany

579 WTh Alterations of Regional Homogeneity in Nasopharyngeal Carcinoma Patients after Radiotherapy
Fangfang He[1], Li Li[2], Zengjian Wang[1], Lizhi Liu[2], Shumei Li[1], Xiaoling Peng[1], Rui Zhong[2], Xue Wen[1], Meng Li[1], Ming Liu[1], Ruiwang Huang[1]
[1]Center for the Study of Applied Psychology, Key Lab of Mental Health and Cognitive Science of Guangdong Province, South China Normal University, Guangzhou,510631, China, [2]State Key Laboratory of Oncology in South China; Cancer Center, Sun Yat–sen University, Guangzhou, China

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

580 WTh Data analysis and dynamically adapting designs for real-time fMRI
Lydia Hellrung[1], Maurice Hollmann[1], Torsten Schlumm[1], Oliver Zscheyge[1], Hadas Okon-Singer[1], Arno Villringer[1], Burkhard Pleger[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences Leipzig, Leipzig, Germany

581 WTh Making sense of subsequent action: frontal signatures of spontaneous interpretation
Mari Hrkač[1,2], Moritz Wurm[1,3], Anne Kühn[1], Ricarda Schubotz[1,2]
[1]Max Planck Institute for Neurological Research, Cologne, Germany, [2]Westfälische-Wilhelms-Universität, Münster, Germany, [3]University of Trento, Mattarello, Italy

582 WTh Caffeine Altered Cerebral Cortical Activations Induced by 2-Hz Modulation Laser Acupuncture
Chao-Hsien Hsieh[1,2], Chang-Wei Hsieh[3], Qwa-Fun Wang[4], Jyh-Horng Chen[2]
[1]Neurobiology and Cognitive Science Center, National Taiwan University, Taipei, [2]Interdisciplinary MRI/MRS Lab, Department of Electrical Engineering, National Taiwan University, Taipei, [3]Department of Photonic and Communication Engineering, Asia University, Taichung, [4]School of Post-Baccalaureate Chinese Medicine, Taichung

583 WTh Posterior cingulate connectivity changes in different wandering minds: A resting-state fMRI study
Nantu Hu[1], Shanshan Dong[2], Hongjian He[1], Feiyan Chen[2]
[1]Zhejiang University, Hangzhou, China, [2]Bio-X Laboratory, Department of Physics, Zhejiang University, Hangzhou, China

584 WTh A dual echo approach to motion correction in BOLD fcMRI
Alex Ing[1], Christian Schwarzbauer[1]
[1]University of Aberdeen, Aberdeen, United Kingdom

585 WTh The impact of genetic variation in COMT and BDNF on resting-state functional connectivity
Joon Hwan Jang[1], Je-Yeon Yun[1], Wi Hoon Jung[2], Geumsook Shim[1], Min Soo Byun[1], Jae Yeon Hwang[1], Sung Nyun Kim[1], Chi-Hoon Choi[3], Jun Soo Kwon[1]
[1]Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, Republic of, [2]Interdisciplinary Program in Neuroscience, College of Natural Sciences, Seoul National University, Seoul, Korea, Republic of, [3]Department of Diagnostic Radiology, National Medical Center, Seoul, Korea, Republic of

586 WTh Functional MRI of the Olfactory System in Awake and Anesthetized Dogs
Hao Jia[1], Gopikrishna Deshpande[2], Vitaly Vodyanoy[3], Jay Barrett[3], Thomas Denney[4], Robert Gillette[5], Edward Morrison[6], John Schumacher[5], Ronald Beyers[7], Oleg Pustovyy[6], Paul Waggoner[8]
[1]AU MRI research center, Dept. of ECE, Auburn University, Auburn, United States, [2]AU MRI Research Center, Auburn, AL, [3]College of Veterinary Medicine, Auburn University, Auburn, AL, [4]AU MRI research center, Dept. of ECE, Dept. of Psychology, Auburn University, Auburn, AL, [5]Dept. of Clinical Sciences, Auburn University, Auburn, AL, [6]Dept. of Anatomy, Physiology & Pharmacology, Auburn University, Auburn, AL, [7]AU MRI research center, Dept. of ECE, Auburn University, Auburn, AL, [8]Canine Detection Research Institute, Auburn University, Auburn, AL

587 WTh Localizing the human medial geniculate nucleus using fMRI
Fang Jiang[1], G. Christopher Stecker[1], Ione Fine[1]
[1]University of Washington, Seattle, WA

588 WTh Slice Timing Correction in Volume Selective z-shim fMRI Acquisition
Xia Jiang[1], Xiaodong Guo[1], Fang Zhu[1], Michael Vannier[1], Jia-Hong Gao[1]
[1]Brain Research Imaging Center and Department of Radiology, University of Chicago, Chicago, IL

589 WTh Dysfunctional resting State Functional Connectivity in PDS using seed Based analysis
Lorena Jimenez-Castro[1], Donald Robin[1], Roger Ingham[2], Peter Fox[1]
[1]Research Imaging Institute at University of Texas Health Science Center at San Antonio, San Antonio, Unites Sates, [2]Department of Speech and Hearing Sciences, University of California, Santa Barbara, Santa Barbara, CA

590 WTh Filling in Black Holes in fMRI: Dual Gradient Echo EPI with Optimized Z-Shim
Oliver Josephs[1,2], Robert Leech[3], Sonia Brownsett[3], Peter Hellyer[3], Nikolaus Weiskopf[2]
[1]Birkbeck / University College NeuroImaging Centre, London, United Kingdom, [2]Wellcome Trust Centre for Neuroimaging, UCL Institute of Neurology, UCL, London, United Kingdom, [3]Imperial College London, London, United Kingdom

591 WTh Brain Networks of the Stroop Effect Using fMRI
Prasanna Karunanayaka[1], Jonathan Harris[2], Jianli wang[1], Paul Eslinger[1], Qing X Yang[1]
[1]Department of Radiology (Center for NMR Research), The Pennsylvania State University, Hershey, PA, [2]Department of Psychiatry, Penn State University College of Medicine, Hershey, PA

592 WTh Parallel Olfactory Networks and the Dynamic Behavior of the BOLD Signal
Prasanna Karunanayaka[1], Jianli wang[1], Paul Eslinger[1], Kathleen Gates[2], Qing X Yang[1]
[1]Department of Radiology (Center for NMR Research), The Pennsylvania State University, Hershey, PA, [2]The Pennsylvania State University, University Park, PA

593 WTh Converging Evidence on the Predictability Modulation in Saccadic fMRI Task: A Cross Country Validati
Lukasova katerina[1], Jens Sommer[2], Mariana Nucci-da-Silva[1], João Sato[3], Marius Blanke[4], Frank Bremmer[4], Tilo Kircher[2], Edson Amaro Junior[1]
[1]NIF - University of São Paulo, São Paulo, Brazil, [2]Philipps-University, Marburg, Germany, [3]ABC Federal University, Santo André, Brazil, [4]Department of Neurophysics, Philipps-University, Marburg, Germany

594 WTh Multi-slice DANTE-EPI: A Novel CSF-suppression Technique for Spinal Cord fMRI
Yazhuo Kong[1], Linqing Li[1], Karla Miller[1], Peter Jezzard[1], Jonathan Brooks[1,2]
[1]FMRIB centre, University Of Oxford, Oxford, United Kingdom, [2]CRICBristol, University of Bristol, Bristol, United Kingdom

***595 WTh Resting State fMRI Predicts Task Activation of Individual Subjects (O-Th2)**
Prantik Kundu[1], Noah Brenowitz[1], Souheil Inati[1], Paul Guillod[1], Ziad Saad[1], Peter Bandettini[1]
[1]National Institutes of Health, Bethesda, MD

596 WTh Real-time system for monitoring a subject's attentiveness and performance
Dongha Lee[1], Changwon Jang[1], Bumhee Park[1], Hae-Jeong Park[2]
[1]Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea, Republic of, [2]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Korea, Republic of

597 WTh Withdrawn

598 WTh Impaired Pulvinar-Cortical Connectivity during Sustained Attention Processing in Children with ADHD
Xiaobo Li[1]
[1]Albert Einstein College of Medicine, NY, United States

599 WTh Region and frequency specific oscillatory characteristics of fMRI signals in the human brain
Yi-Chia Li[1], Jyh-Horng Chen[2]
[1]Graduate Institute of Biomedical Engineering and Bioinformatics, National Taiwan University, Taipei, Chinese Taipei, [2]Interdisciplinary MRI/MRS Lab, Department of Electrical Engineering, National Taiwan University, Taipei, Chinese Taipei

600 WTh Event order drives interregional BOLD timing
Fa-Hsuan Lin[1], Tommi Raij[2], Jyrki Ahveninen[2], Kevin Tsai[1], Thomas Witzel[2], Ying-Hua Chu[1], John Belliveau[2]
[1]National Taiwan University, Taipei, [2]Martinos Center, Massachusetts General Hospital, Charlestown, MA, USA

601 WTh Mapping motor area by Brain surface fMRI in epilepsy surgery
Jiuluan Lin[1], Wenjing Zhou[1], Dan zhang[2], Yang Luo[1], Huancong Zuo[1]
[1]Dept. of Neurosurgery, Yuquan Hospital, Tsinghua University, Beijing, China, [2]Dept.of Biomedicine, Tsinghua University, Beijing, China

602 WTh Altered Resting-state Brain Activities After Alcohol Intoxication
Huan Liu[1], Xu Anbing[1], Zhiying Zhao[1], Hong Li[1], Xu Lei[1]
[1]School of Psychology, Southwest University, Chongqing, China

603 WTh Comparison of Cerebral Oxygenation Quantification using ASL and Steady State Free Precession Imaging
Xin Liu[1], Duan Xu[1]
[1]Department of Radiology and Biomedical Imaging, University of California, San Francisco, CA, United States

604 WTh Cerebellar-Cerebral Connectivity Reliably Differentiates Major Depressives from Healthy Controls
Qiongmin Ma[1], Ling-Li Zeng[1], Hui Shen[1], Dewen Hu[1]
[1]College of Mechatronics and Automation, National University of Defense Technology, Changsha, Hunan, China

605 WTh An fMRI investigation on brain effects of ultrasound stimulation: Compared with manual acupuncture
Ling Mei[1,2], Xiaojing Long[1], Yanjun Diao[1,3], Yanyan Wang[1,4], Qian Huang[2], Haibo Yu[3], Lijuan Zhang[1], Yanli Pan[1], Bensheng Qiu[1]
[1]Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China, [2]South China University of Technology, Guangzhou, China, [3]Shenzhen Hospital of Traditional Chinese Medicine, Shenzhen, China, [4]Hunan University, Changsha, China

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

606 WTh Parcellation of Subregions of Primary Somatosensory Cortex in Humans and Monkeys
Arabinda Mishra[1], Elizabeth Stringer[2], John Gore[1], Li Chen[1]
[1]Vanderbilt University, Nashville, TN, USA, [2]Stanford University, Stanford, CA, USA

607 WTh Statistical Sensitivity of fMRI Time Series Analysis for Different Image Reconstruction Modes
Marius Moisa[1,2], Marco Piccirelli[1,2], Klaas Pruessmann[2], Christian Ruff[1,3]
[1]Laboratory for Social and Neuronal Systems Research, Department of Economics, University of Zurich, Zurich, Switzerland, [2]Institute for Biomedical Engineering, University and ETH Zurich, Zurich, Switzerland, [3]UCL Institute of Neurology, University College London, London, United Kingdom

608 WTh Functional connectivity of the limbic system in adolescent cannabis users
Rowen Morioka[1], Brendan Behan[2], Karen Weierstall[1], Clare Kelly[3], Hugh Garavan[4]
[1]University of Vermont, Burlington, United States, [2]Trinity College Institute of Neuroscience, Dublin, Ireland, [3]New York University, New York City, NY, [4]University of Vermont, Burlington, VT

609 WTh Effective connectivity between Left BA 22, 44 & 45 during Sentence completion and Verb generation
Deepika Nandiraju[1], Feroze Mohamed[2], Gerry Stefenatos[3], Mohammed Bermo[4], Chris Conklin[3], Andrew DeMarco[3], Scott Faro[3]
[1]Temple University, Philadelphia, United States, [2]Temple university, philadelphia, PA, [3]Temple University, Philadelphia, PA, [4]University of Alexandria, Alexandria, Egypt

610 WTh Altered Regional Homogeneity in the development of Minimal Hepatic Encephalopathy
Ling Ni[1], Longjiang Zhang[2], Rongfeng Qi[3], Guangming Lu[4], Zhiqiang Zhang[5]
[1]Department of Medical Imaging, Jinling Hospital, Nanjing University School of Medicine, Nanjing, China, [2]Department of Medical Imaging, Jinling Hospital, Nanjing, China, [3]Department of Medical Imaging, Jinling Hospital, Clinical School of Medical College, Nanjing Univer, Nanjing, China, [4]Dept. Med. Img., Jinling Hospital, Nanjing, China, [5]Jinling Hospital, Clinical School of Medical College, Nanjing University, Nanjing, China

611 WTh Rapid multi-shot segmented EPI using the Simultaneous Multi-Slice acquisition method
Jonathan Polimeni[1,2], Kawin Setsompop[1,2], Borjan Gagoski[3,4], Jennifer McNab[5,2], Christina Triantafyllou[3,1,2], Lawrence Wald[1,3]
[1]Massachusetts General Hospital, Charlestown, MA, [2]Harvard Medical School, Boston, MA, [3]Massachusetts Institute of Technology, Cambridge, MA, [4]Children's Hospital, Boston, MA, [5]Massachusetts General Hospital, Boston, MA

612 WTh Multiplexed spiral sequence for high temporal resolution resting state fMRI
Benedikt Poser[1], V Andrew Stenger[1]
[1]University of Hawaii, Honolulu, United States

613 WTh Physiological Noise Reduction using Digital Filtering in Real-Time Multi-Slab Echo-Volumar-Imaging
Stefan Posse[1], Elena Ackley[1]
[1]University of New Mexico, Department of Neurology, Albuquerque, NM

614 WTh Voxel-based morpahometry revealed brain size abnormality in patients with hepatic encephalopathy
Rongfeng Qi[1], Shengyong Wu[2], Longjiang Zhang[3], Jianhui Zhong[4], Zhiqiang Zhang[5], Yuan Zhong[6], Qiang Xu[7], Ling Ni[8]
[1]Department of Medical Imaging, Jinling Hospital, Clinical School of Medical College, Nanjing Univer, Nanjing, China, [2]Medical Imaging Institute of Tianjin, Tianjin, China, [3]Department of Medical Imaging, Jinling Hospital, Nanjing, China, [4]Dept. Imaging Sciences, University of Rochester, Rochester, NY, [5]Jinling Hospital, Clinical School of Medical College, Nanjing University, Nanjing, China, [6]3Department of Psychology, Nanjing Normal University, Nanjing, China, [7]University of Electronic Science and Technology of China, Chengdu, China, [8]Department of Medical Imaging, Jinling Hospital, Nanjing University School of Medicine, Nanjing, China

615 WTh Motor cortex changes after amputation are modulated by phantom limb motor control rather than pain
Estelle Raffin[1], Pascal Giraux[2], Karen Reilly[3], Nathalie Richard[4]
[1]DRCMR, Copenhagen, Denmark, [2]Department of Physical Medicine and Rehabilitation, Faculty of Medicine, University Jean Monnet of S, Saint Etienne, France, [3]INSERM U1028, CNRS UMR5292, Lyon Neuroscience Research Center, ImpAct Team, Lyon, France, [4]Center for Cognitive Neuroscience, UMR 5229, CNRS, Lyon, France

616 WTh Assessing the spatial precision of high-resolution dual SE and GE-BOLD at 7T
Rosa Maria Sanchez Panchuelo[1], Richard Bowtell[1], Sue Francis[1], Denis Schluppeck[1]
[1]University of Nottingham, Nottingham, United Kingdom

617 WTh Stability and Test-Retest Reproducibility of Baseline BOLD Signals in Awake Nonhuman Primate
Stephanie Seah[1], Elaine Manigbas[2], Richard Baumgartner[3], Dai Feng[3], Donald Williams[4], John Beaver[2], Brian Henry[1], Jeffrey Evelhoch[4], Chih-Liang Chin[1]
[1]TMRC, MSD, Singapore, Singapore, [2]Maccine Pte Ltd, Singapore, Singapore, [3]BARDS, Merck & Co., Rahway, NJ, [4]Imaging, Merck & Co., West Point, PA

618 WTh Comparison of Two SRC tasks: Shared Neural Basis for Different Spatial Stimulus Modes
chunhong shao[1]
[1]huashan hospital, fudan university, Shanghai, China

619 WTh 3D Keyhole fMRI Using EVI Sequences with Dimensionally-Weighted Cluster Pixel Analysis
Tingqi Shi[1], Yuhui Chai[2], Jia-Hong Gao[3], Jinhu Xiong[4]
[1]University of Chicago, Chicago, United States, [2]Peking University, Beijing, China, [3]University of Chicago, Chicago, IL, [4]University of Iowa, Iowa City, IA

620 WTh Neural Correlates of Impaired Perception of Social situation with Negative Affect in Schizophrenia
Jung Eun Shin[1], Soo Hee Choi[1,2], Hyeongrae Lee[3], YoungSeok Shin[3], Sun I. Kim[3], Jae-Jin Kim[1,2]
[1]Institute of Behavioral Science in Medicine, Yonsei University College of Medicine, Seoul, Korea, Republic of, [2]Department of Psychiatry, Yonsei University College of Medicine, Seoul, Korea, Republic of, [3]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of

621 WTh A quantitative comparison of functional MRI of the human amygdala at 3 and 7 Tesla
Ronald Sladky[1], Pia Baldinger[2], Georg Kranz[2], Jasmin Tröstl[1], Anna Höflich[2], Jacqueline Atanelov[1], Thomas Vanicek[2], Ewald Moser[1], Rupert Lanzenberger[3], Christian Windischberger[1]
[1]MR Centre of Excellence, Medical University of Vienna, Vienna, Austria, [2]Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria, [3]Department of Psychiatry and Psychotherapy, Medical University of Vienna, Wien, Austria

622 WTh Low-pass component correction (LCompCor) improves fMRI activation maps
David Soltysik[1], David Thomasson[2], Sunder Rajan[3], Nadia Biassou[2]
[1]U.S. Food & Drug Administration, Silver Spring, United States, [2]National Institutes of Health, Bethesda, MD, United States, [3]U.S. Food & Drug Administration, Silver Spring, MD, United States

623 WTh Examining the effects of data processing steps on fMRI reproducibility
David Soltysik[1], David Thomasson[2], Javier Gonzalez-Castillo[3], Sunder Rajan[4], Nadia Biassou[2]
[1]U.S. Food & Drug Administration, Silver Spring, United States, [2]National Institutes of Health, Bethesda, MD, United States, [3]National Institute of Mental Health, Bethesda, United States, [4]U.S. Food & Drug Administration, Silver Spring, MD, United States

624 WTh Prior information guided brain parcellation based on resting state fMRI data
Dandan Song[1], Hewei Cheng[1], Yong Fan[1]
[1]National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China

625 WTh Susceptibility Artifacts in Resting State BOLD fMRI
V Andrew Stenger[1], Benedikt Poser[1], Weiran Deng[1], Robert Anderson[1]
[1]University of Hawaii, Honolulu, HI

626 WTh Dissociation of Functional MRI Response and Cerebrovascular Perfusion in Cardiovascular Disease
Lawrence Sweet[1], Beth Jerskey[1], Denise Cote[1], Edward Walsh[2], Jason Hassenstab[3], Maura Ladino[4], Uraina Clark[2], Xiaomeng Xu[1], Donald Labbe[1], John Gunstad[5], Athena Poppas[1], Richard Hoge[6], Ronald Cohen[7]
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627 WTh Neural correlates of cross auditory-visuospatial learning of high resolution sound: A pilot study
Qian TAO[1], Chetwyn Chan[2], Yuejia Luo[3], Jianjun Li[4], Kin-hung Ting[2], Jun Wang[5], Tatia Lee[6]
[1]Hong Kong Polytechnic University, Hong Kong, China, [2]Applied Cognitive Neuroscience Laboratory, The Hong Kong Polytechnic University, Hong Kong, Hong Kong, [3]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [4]China Rehabilitation Research Center, Beijing, China, [5]Beijing Normal University, Beijing, China, [6]University of Hong Kong, Hong Kong, China

628 WTh Laminar-specific BOLD Fingerprints of Sensorimotor Areas during Imagined and Actual Finger Tapping
Robert Trampel[1], Pierre-Louis Bazin[1], Andreas Schaefer[1], Robin Heidemann[1], Dimo Ivanov[1], Gabriele Lohmann[1], Stefan Geyer[1], Robert Turner[1]
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›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

629 WTh The Influence of Risky and Conservative Mental Sets on the Cerebral Activations of Cognitive Control
Alissa Winkler[1,2], Sien Hu[2], Yuan-Chi Tseng[3], Chiang-shan Li[4]
[1]Dept. Of Psychiatry, Friedrich-Schiller-University, Jena, Germany, [2]Dept. Of Psychiatry, Yale University, New Haven, CT, [3]Dept. Of Industrial Design, National Cheng Kung University, Tainan, [4]Depts. Of Psychiatry, Neurobiology, & Interdepartmental Neuroscience Program, Yale University, New Haven, CT

630 WTh Occipital resting state networks agree with cytoarchitectonically defined retinotopic areas
Afra Wohlschlaeger[1,2], Christian Sorg[3], Lina Köhler[4], Johanna Löser[4], Valentin Riedl[5]
[1]Klinikum rechts der Isar der TU Munich, Munich, Germany, [2]Klinikum rechts der Isar, Dept. of Neurology, Munich, Germany, [3]Department of Psychiatry, Neuroradiology and Nuclear Medicine, Technische Universität München, Munich, Germany, [4]Klinikum rechts der Isar, Dept. of Neuroradiology, Munich, Germany, [5]Department of Neuroradiology and Neurology, Technische Universität München, Munich, Germany

631 WTh Relevance of data quality for between site variability in clinical fMRI
Moritz Wurnig[1], Jakob Rath[2], Nicolaus Klinger[2], Ilse Höllinger[2], Alexander Geissler[3], Markus Aichhorn[4], Thomas Foki[3], Martin Kronbichler[5], Janpeter Nickel[6], Christian Siedentopf[7], Wolfgang Staffen[8], Michael Verius[7], Stephan Felber[9], Stefan Golaszewski[10], Florian Koppelstaetter[7], Rudiger Seitz[11], Roland Beisteiner[12]
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632 WTh Interleaved-TE fMRI Acquisitions with Highly Accelerated Multiband EPI
Junqian Xu[1], Edward Auerbach[1], Steen Moeller[1], Federico De Martino[1,2], Essa Yacoub[1], Kamil Ugurbil[1]
[1]Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, United States, [2]Department of Cognitive Neuroscience, Faculty of Psychology and Neuroscience, Maastricht, Netherlands

633 WTh Mapping of Olfactory Networks in the Human Brain Using Resting-State fMRI
Qing X Yang[1], Han Zhang[2], Jianli wang[1], Prasanna Karunanayaka[3], Megha Patel[1], Paul Eslinger[1]
[1]Penn State College of Medicine, Hershey, PA, [2]Center for Cognition and Brain Disorder, Hangzhou Normal University, Hang Zhou, China, [3]Department of Radiology (Center for NMR Research), The Pennsylvania State University, Hershey, United States

634 WTh Real time visualisation of retinotopic mapping using concentric shells MR-Encephalography (MREG)
Benjamin Zahneisen[1,2], Pierre LeVan[2], Thomas Ernst[3], Jürgen Hennig[2]
[1]Neuroscience and MR Research Program Department of Medicine, Honolulu, United States, [2]University Medical Center Freiburg, Freiburg, Germany, [3]Department of Medicine, University of Hawaii at Manoa, Honolulu, HI

635 WTh Neural mechanisms on the deliberate modification of emotional responses to negative stimuli
Jingna Zhang[1], mingguo qiu[1], lin qiong Sang[1], ye zhang[1], Bing Xie[2], Li Wang[1]
[1]Department of medical informatics and medical image, Third Military Medical University, chongqing, China, [2]Department of Radiology, Southwest Hospital, chongqing, China

636 WTh Improved response to face recognition in UHF fMRI through parallel transmission RF pulse design
Hai Zheng[1], Tiejun Zhao[2], Kathryn Edelman[3], Yongxian Qian[4], Tamer Ibrahim[5], Howard Aizenstein[6], Fernando Boada[5]
[1]Department of Bioengineering, University of Pittsburgh, Pittsburgh, United States, [2]Siemens Medical Solutions, Pittsburgh, United States, [3]Department of Psychiatry, University of Pittsburgh, Pittsburgh, United States, [4]Department of Radiology University of Pittsburgh, Pittsburgh, United States, [5]Department of Bioengineering and Radiology University of Pittsburgh, Pittsburgh, United States, [6]Department of Bioengineering and Psychiatry, Pittsburgh, United States

637 WTh Sensitivity and specificity of gradient echo and GRASE signals at different relative cortical depths
Jan Zimmermann[1], Federico De Martino[1], Lars Muckli[2], Kamil Ugurbil[3], Essa Yacoub[4], Rainer Goebel[1]
[1]Maastricht University, Maastricht, Netherlands, [2]Centre for Cognitive NeuroImaging, Glasgow University, Glasgow, United Kingdom, [3]Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, United States, [4]University of Minnesota, Minneapolis, United States

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

IMAGING METHODS

Diffusion MRI

638 WTh Manual dexterity is linked to asymmetry in the corticospinal tract: a DTI study in adolescents

Steffen Angstmann[1], Kathrine Skak Madsen[1,2], Terry Jernigan[1,2,3], William Baaré[1,2], Hartwig Siebner[1,2]
[1]Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital, Hvidovre, Denmark, [2]Center for Integrated Molecular Brain Imaging, Copenhagen, Denmark, [3]Center for Human Development, University of California, San Diego, CA

639 WTh DTI in the Normal and Injured Pediatric Spinal Cord: Reliability and Clinical Correlation

Nadia Barakat[1], Feroze Mohamed[2], Devon Middleton[3], John Gaughan[4], Pallav Shah[3], Jürgen Finsterbusch[5], Amer Samdani[6], Scott Faro[7], MJ Mulcahey[8]
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640 WTh Demonstration of a novel prospective motion correction technique for diffusion neuroimaging

Himanshu Bhat[1], Julien Cohen-Adad[2], M. Dylan Tisdall[2], André Van der Kouwe[2], Keith Heberlein[1]
[1]Siemens Medical Solutions USA Inc., Charlestown, MA, USA., [2]A.A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Harvard Medical School, Charlestown, MA, USA.

641 WTh Evidence of uncrossed corticospinal tract using TMS and DTI

Marie-Hélène Boudrias[1], Nagako Murase[1], Chang-hyun Park[1], John Rothwell[1], Nick Ward[1], Christian Lambert[1]
[1]UCL Institute of Neurology, London, United Kingdom

642 WTh Associations between Cortical Tissue Microstructure and Cerebral Blood Flow in Aging

Jean Chen[1,2], H. Diana Rosas[2,3], David Salat[2,4,5]
[1]Rotman Research Institute, Toronto, Canada, [2]Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA, [3]Massachusetts General Hospital, Boston, MA, [4]VA Boston Health Care System, Boston, MA, [5]Dept. of Radiology, Massachusetts General Hospital, Boston, MA

643 WTh Left/Right Asymmetries in Brain Connectivity Intensify with Age: An N=569 HARDI Study

Madelaine Daianu[1], Neda Jahanshad[1], Emily Dennis[1], Arthur Toga[1], Katie McMahon[2], Greig de Zubicaray[2], Nicholas Martin[3], Margaret Wright[3,2], Ian Hickie[4], Paul Thompson[1]
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644 WTh Can Spherical Deconvolution provide more information than fibre orientations?

Flavio Dell'Acqua[1], Andrew Simmons[1], Steven Williams[1], Marco Catani[1]
[1]Institute of Psychiatry - King's College London, London, United Kingdom

645 WTh Intrinsic Anisotropy of Crossing Fibers Estimated by Multiple Kernel Spherical Deconvolution

Qiuyun Fan[1,2], Xin Hong[2], Nicole Davis[2,3], Laurie Cutting[4,3,5,6,7], Adam Anderson[1,2,3]
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646 WTh Functional and clinical correlates of fronto-occipital connections

Stephanie Forkel[1], Adrian Danek[2], Jamie Kawadler[3], Flavio Dell'Acqua[4], Michel Thiebaut de Schotten[5]
[1]King's College London, London, United Kingdom, [2]Ludwigs-Maximilian-University Munich, Munich, Germany, [3]University College London, London, United Kingdom, [4]Natbrainlab - Institute of Psychiatry, London, United Kingdom, [5]Institute of Psychiatry, London, United Kingdom

647 WTh Tract based spatial statistics of diffusion weighted MRI in adults with Parkinson's disease

Amanmeet Garg[1], Ali Khan[1], Martin McKeown[2], Mirza Faisal Beg[1]
[1]Simon Fraser University, Burnaby, Canada, [2]University of British Columbia, Vancouver, Canada

648 WTh Healthy Human Brain and Patient Customized Quantitative MRI Templates and their interplay using VBM
Khader Hasan[1], Joel Steinberg[2], Gerry Moeller[2], Liangsuo Ma[2], Richard Frye[3], ponnada narayana[2]
[1]University of Texas Health Science Center at Houston, Houston, United States, [2]University of Texas Health Science Center at Houston, Houston, TX, [3]University of Arkansas for Medical Sciences, Little Rock, AR

649 WTh Engineering the Human Connectome Project: Concepts and Realization of High Performace MR
Keith Heberlein[1], Ralph Kimmlingen[2], Eva Eberlein[2], Philipp Hoecht[1], Dingxin Wang[3], Thomas Witzel[4], M. Dylan Tisdall[4], Boris Keil[4], Gregor Adriany[5], Edward Auerbach[5], Junqian Xu[5], Essa Yacoub[5], Steen Moeller[5], David Feinberg[6], Lawrence Wald[4], Kamil Ugurbil[5], David Van Essen[7], Van Wedeen[8], Franz Schmitt[2]
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650 WTh Sex difference of white matter anisotropic diffusion in developing adolescent brain
Scott Holland[1,2], Yingying Wang[1,2], Weihong Yuan[1], Mekibib Altaye[1], Chris Adamson[3], Akila Rajagopal[1]
[1]Cincinnati Children's Hospital Research Foundation, Cincinnati, OH, United States, [2]University of Cincinnati, Cincinnati, OH, United States, [3]Murdoch Children's Research Institute, Victoria, Australia

651 WTh Head Motion Artifact Index in Diffusion Weighted Imaging
Lejian Huang[1], Kristina Herrmann[1], Marwan Baliki[1], Ali Mansour[1], A. Vania Apkarian[1]
[1]Northwestern University, Chicago, IL, United States

652 WTh A biomimetic phantom of white matter for diffusion MRI - reproducibility and transportability
Penny Hubbard[1], Feng-Lei Zhou[1], Tim Dyrby[2], Stephen Eichhorn[3], Geoff Parker[1]
[1]Imaging Sciences, The University of Manchester, Manchester, United Kingdom, [2]Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital Hvidovre, Hvidovre, Denmark, [3]The University of Exeter, Exeter, United Kingdom

***653 WTh Automatic HARDI White Matter Tract Labeling with Multiple Atlas Fusion (O-Th2)**
Yan Jin[1], Yonggang Shi[1], Liang Zhan[1], Jesse Brown[1], Susan Bookheimer[1], Arthur Toga[1], Greig de Zubicaray[2], Katie McMahon[2], Nicholas Martin[3], Margaret Wright[3], Paul Thompson[1]
[1]University of California, Los Angeles, Los Angeles, CA, [2]University of Queensland, Brisbane St. Lucia, Queensland, [3]Queensland Institute of Medical Research, Herston, Queensland

654 WTh New Non-linear Color Look-up Table for Fractional Anisotropy Demonstrated on Multiple System Atrophy
Jiří Keller[1,2], Aaron Rulseh[2], Josef Vymazal[2], Iva Latnerová[2], Arnost Komárek[3], Robert Rusina[4], Hana Brožová[5]
[1]Third Faculty of Medicine, Charles University, Prague, Czech Republic, [2]Na Homolce Hospital, Prague, Czech Republic, [3]Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic, [4]Thomayer hospital, Prague, Czech Republic, [5]Department of Neurology & Center of Clinical Neuroscience, 1st Faculty of Medicine,Charles University, Prague, Czech Republic

655 WTh BDNF Polymorphism Influence the Degeneration of Corticospinal Tract in Subacute Stroke Patients
Yun-Hee Kim[1], Won Hyuk Chang[1], Oh Young Bang[1], Sung-Tae Kim[1], Jun Seok Kim[1], Ji-Young` Park[1], Ahee Lee[1]
[1]Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

656 WTh Microstructure of multiple sclerosis lesions
Zsigmond Tamas Kincses[1,2], Eszter Tóth[1], Nikoletta Szabó[1,2], Judit Füvesi[1], Krisztina Bencsik[1], László Vécsei[1]
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657 WTh The Brain Networks using diffusion tensor imaging tractography Based on Data-Driven Nodes and Edges
Hunki Kwon[1], Uicheul Yoon[2], Jun Sung Park[1], Sang Won Seo[3], Duk L. Na[3], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

658 WTh Cortical thickness Guided Mean Diffusivity mapping to cortical surface
Ohhun Kwon[1], Uicheul Yoon[2], Sang Won Seo[3], Jun Sung Park[1], Duk L. Na[3], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

659 WTh DTI analysis along fibre tracts in depression. A preliminary tractography study
Davide Laneri[1], Bruno Dietsche[2], Alexandra Hellerbach[3], Heidelore Backes[2], Tilo Kircher[4], Carsten Konrad[5], Axel Krug[5], Andreas Jansen[6], Jens Sommer[5]
[1]University of Marburg, N/A, [2]Department of Psychiatry and Psychotherapy, Philipps-University Marburg, Marburg, Germany, [3]Department of Psychiatry and Psychotherapy, Section of BrainImaging, University of Marburg, Marburg, Germany, [4]Klinik für Psychiatrie und Psychotherapie der Philipps-Universität Marburg, Germany, Marburg, Germany, [5]Philipps-University, Marburg, Germany, [6]University of Marburg, Marburg, Germany

660 WTh Acceleration of Probabilistic Tractography Using Multi-GPU Parallel Processing
Jungsoo Lee[1], Sun Mi Park[1], Dae-Shik Kim[1]
[1]Korea Advanced Institute of Science and Technology, Daejeon, Korea, Republic of

661 WTh A Dffusion Tensor Imaging Study of White Matter Integrity in Violent Offenders with Schizophrenia
Yi Liao[1], Xiaoqi Huang[1], Qizhu Wu[1], Fei Li[1], Lihua Qiu[1], Jianmei Liu[2], Danlin Shen[2], Junmei Hu[2], Qiyong Gong[1]
[1]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University, Chengdu, China, [2]School of Basic Science and Forensic Medicine, Sichuan University, Chengdu, Sichuan

662 WTh Impact of Geometric Distortion Correction on Fiber Orientation Distributions
Jian Lin[1], Erik Beall[1], Mark Lowe[1], Lael Stone[1], Ken Sakaie[1]
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663 WTh Diffusion Imaging Assessment Methodology
Kecheng Liu[1], David Porter[2], Wanyong Shin[3], Erik Beall[4], Ken Sakaie[3]
[1]Siemens Medical Solutions, Inc, Malvern, PA, [2]Siemens Healthcare, Erlangne, Germany, [3]Cleveland Clinic, Cleveland, OH, [4]Cleveland Clinic Foundation, Cleveland, OH

664 WTh DWI at 7T with a High Performance Gradient System and a 32 Channel Head Coil: Resolution vs Time
Ralf Lützkendorf[1], Robin Heidemann[2], Alfred Anwander[2], Joerg Stadler[3], Thorsten Feiweier[4], Johannes Bernarding[1]
[1]IBMI, Otto-von-Guericke University, Magdeburg, Germany, [2]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [3]Leibniz Institute for Neurobiology, Magdeburg, Germany, [4]Siemens Healthcare, Erlangen, Germany

***665 WTh In Vivo Human Brain Measurements of Axon Diameter Using 300 mT/m Maximum Gradient Strengths (O-Th2)**
Jennifer McNab[1], M. Dylan Tisdall[1], Boris Keil[1], Thomas Witzel[2], Himanshu Bhat[3], Keith Heberlein[3], Julien Cohen-Adad[1], Lawrence Wald[1]
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666 WTh Altered white matter integrity in Children with Prelingual deafness: A high resolution DTI study
Wen Miao[1], Jianhong Li[2], Ming Tang[3], Junfang Xian[2], Wenjing Li[1], Zhaohui Liu[2], Sha Liu[4], Bernhard Sabel[5], Zhenchang Wang[2], Huiguang He[1]
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667 WTh Quality check on results of DTI analysis: stability effects due to motion artifacts
Hans-Peter Müller[1], Bernhard Landwehrmeyer[1], Albert Ludolph[1], Stefan Klöppel[2], Jan Kassubek[1]
[1]Dept. of Neurology, University of Ulm, Ulm, Germany, [2]Freiburg Brain Imaging, Dept. of Psychiatry and Psychotherapy. University of Freiburg, Freiburg, Germany

668 WTh Thalamocortical pathways for pain and touch in thin fiber denervated patients: a DTI study
Irene Perini[1], Simon Bergstrand[1], Håkan Olausson[1], India Morrison[1]
[1]Institute of Neuroscience and Physiology, University of Gothenburg, Gothenburg, Sweden

669 WTh Could high-resolution acquisition performed on clinical 3T scanner increase the quality of DTI data?
Eric Peterson[1], Olivier Periot[2], Gwénaëlle Catheline[2,3], jean-michel FRANCONI[1], Michèle Allard[2,3], Bassem Hiba[1]
[1]UMR 5536 CNRS/Université Victor Segalen, bordeaux, France, [2]INCIA, UMR CNRS 5287, Bordeaux, France, [3]EPHE, Bordeaux, France

670 WTh Genetic Analysis of Fibers in White Matter Pathways from HARDI Images
Gautam Prasad[1], Shantanu Joshi[2], Neda Jahanshad[2], Julio Villalon Reina[3], Iman Aganj[4], Christophe Lenglet[5], Guillermo Sapiro[5], Katie McMahon[6], Greig de Zubicaray[7], Nicholas Martin[8], Margaret Wright[9], Arthur Toga[2], Paul Thompson[10]
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671 WTh VLPFC-Striatum Pathway in First-Episode Schizophrenia: A Cross-Sectional and Longitudinal DTI Study
Meina Quan[1,2,3], Yingying Tang[1,4], Marek Kubicki[1,2,3], Robert McCarley[1,2,3], James Levitt[1,2], Jijun Wang[4], Martha Shenton[1,2,3]
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672 WTh Spatial regularized high resolution DTI using independent component analysis and total variation
Gernot Reishofer[1], Karl Koschutnig[2], Christian Langkammer[1], Margit Jehna[1], Franz Ebner[1]
[1]Medical University of Graz, Graz, Austria, [2]University of Graz, Graz, Austria

673 WTh The effect of iron on diffusion tensor-derived scalars
Aaron Rulseh[1], Jiří Keller[2], Jaroslav Tintera[3], Milan Kozisek[4], Josef Vymazal[5]
[1]Na Homolce Hospital, Prague, Czech Republic, [2]Nemocnice Na Homolce, Prague, Czech Republic, [3]Department of Radiology, Institute for Clinical and Experimental Medicine, Prague, Czech Republic, [4]Institute of Organic Chemistry and Biochemistry, Gilead Sciences and IOCB Research Center, Prague, Czech Republic, [5]Na Homolce hospital, Prague, Czech Republic

674 WTh Corrections to Diffusivity Values in Fornix
Ken Sakaie[1], Katherine Koenig[1], Micheal Phillips[1], Robert Bermel[1], Lael Stone[2], Mark Lowe[1]
[1]Imaging Institute, The Cleveland Clinic, Cleveland, United States, [2]Mellen Center, The Cleveland Clinic, Cleveland, United States

675 WTh Experimental Calculation of Difference in Shannon Information Between QBI ODF and DSI ODF
Carlos Santos[1], Rui Lavrador[1], Nicolás Lori[1,2]
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676 WTh MRI mean diffusivity detects widespread brain degeneration in multiple sclerosis
Joe Senda[1], Takashi Tsuboi[1], Kazuhiro Hara[1], Ryoichi Nakamura[1], Hazuki Watanabe[1], Mizuki Ito[1], Naoki Atsuta[1], Hirohisa Watanabe[1], Shinji Naganawa[2], Gen Sobue[1]
[1]Department of Neurology, Nagoya University Graduate School of Medicine, Nagoya, Japan, [2]Department of Radiology, Nagoya University Graduate School of Medicine, Nagoya, Japan

677 WTh Neural injury of uncinate fasciculus in patients with diffuse axonal injury
Jeong Pyo Seo[1], Mi Young Lee[2], Sung Ho Jang[3]
[1]Department of Physical Therapy, Graduate School of Rehabilitation Science, Daegu University, Daegu, Korea, Republic of, [2]Dept. of Physical Therapy, College of Health and Therapy, Daegu Haany University, Daegu, Korea, Republic of, [3]Department of Physical Medicine and Rehabilitation, College of Medicine, Yeungnam University, Daegu, Korea, Republic of

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

678 WTh 3D Trajectory of ROtating Planes using Fast spin Echo (3D TROPFE) for Sub-millimeter Resolution DTI
Ashish Tamhane[1], Yonghua Xu[2], Lixia Yang[2], Bin Chen[3], Xiaodong Guo[1], Michael Vannier[1], Jia-Hong Gao[1]
[1]Brain Research Imaging Center and Department of Radiology, University of Chicago, Chicago, IL, United States, [2]Xuhui Central Hospital of Shanghai and Chinese Academy of Sciences Shanghai Medical Center, Shanghai, China, [3]Department of Electrical and Computer Engineering, Purdue University Calumet, Hammond, IN, United States

679 WTh Reproducibility of Fractional Anisotropy
Jasmin Tröstl[1], Ronald Sladky[1], Roland Boubela[1], Jacqueline Atanelov[1], Emrah Kacar[1], Claus Lamm[2], Ewald Moser[1], Christian Windischberger[1]
[1]MR Centre Of Excellence, Medical University Of Vienna, Vienna, Austria, [2]SCAN-Unit, Faculty of Psychology, University of Vienna, Vienna, Austria

680 WTh How do cortical thickness profiles depend on thalamic connectivity?
Julio Villalon Reina[1], Neda Jahanshad[2], Anand Joshi[3], Katie McMahon[4], Greig Zubicaray[5], Nicholas Martin[6], Margie Wright[7], Arthur Toga[2], Richard Leahy[8], Paul Thompson[9]
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681 WTh Optimization of qDTI for Accessing Orientationally Invariant Human Axonal Diameter
Jun-Cheng Weng[1], Yu-Han Hong[1], Yeu-Sheng Tyan[2]
[1]School of Medical Imaging and Radiological Sciences, Chung Shan Medical University, Taichung, [2]Department of Medical Imaging, Chung Shan Medical University Hospital, Taichung

682 WTh Thalamocortical tract between anterior thalamic nuclei and cingulate gyrus in the human brain
Sang Seok Yeo[1], Mi Young Lee[2], Sung Ho Jang[3]
[1]Department of Rehabilitation Science, Graduate School, Daegu University, Daegu, Korea, Republic of, [2]Dept. of Physical Therapy, College of Health and Therapy, Daegu Haany University, Daegu, Korea, Republic of, [3]Department of Physical Medicine and Rehabilitation, College of Medicine, Yeungnam University, Daegu, Korea, Republic of

683 WTh Field strength effects on brain structural connectivity and networks in HARDI
Liang Zhan[1], Neda Jahanshad[2], Christophe Lenglet[3], Bryon A. Mueller[3], Guillermo Sapiro[3], Noam Harel[3], Kelvin O. Lim[3], Paul Thompson[4]
[1]University of California, Los Angeles, Los Angeles, United States, [2]University of California Los Angeles, Los Angeles, CA, [3]University of Minnesota, Minneapolis, MN, [4]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States

684 WTh How does spatial resolution affect brain connectivity maps?
Liang Zhan[1], Daniel Franc[2], Vishal Patel[2], Neda Jahanshad[3], Yan Jin[2], Bryon A. Mueller[4], Matt Bernstein[5], Bret Borowski[5], Clifford Jack[5], Kelvin O. Lim[4], Paul Thompson[6]
[1]University of California, Los Angeles, Los Angeles, United States, [2]University of California, Los Angeles, Los Angeles, CA, [3]UCLA, Los Angeles, United States, [4]University of Minnesota, Minneapolis, MN, [5]Department of Radiology, Mayo Clinic and Foundation, Rochester, MN, [6]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States

685 WTh Registration of Spherical Functions from HARDI using Heat Kernel Signature and Möbius Transformation
Liang Zhan[1], Yalin Wang[2], Paul Thompson[3]
[1]University of California, Los Angeles, Los Angeles, United States, [2]Arizona State University, Mesa, AZ, [3]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, United States

686 WTh Latent State-Trait Structure of Resting CBF Before and after Sleep Deprivation
Senhua Zhu[1,2], Siyuan Hu[2], Julian Lim[2], Fang Zhuo[1,2], Wenchau Wu[2], David Dinges[2], John Detre[2], Hengyi Rao[1,2]
[1]Sun Yat-sen University, Guangzhou, China, [2]University of Pennsylvania, Philadelphia, United States

IMAGING METHODS

EEG

687 WTh EEG DMN: Where is the Light?
Andrew CHEN*[1], Kung WANG[1], Weiqi CUI[2]
[1]Center for Higher Brain Functions, Capital Medical Univers, Beijing, China, [2]Center for Higher Brain Functions, Capital Medical University, Beijing, China

688 WTh EEG spectral field power (SFP), event-related field potential (ERFP): Human 3D-4D brain function
Andrew CHEN*[1]
[1]Center for Higher Brain Functions, Capital Medical University, Beijing, China

689 WTh EEG default mode network: Effects of eyes-closed vs. eyes-open on event-related field potentials
Weiqi CUI[1], Andrew CHEN*[1]
[1]Center for Higher Brain Functions, Capital Medical Univers, Beijing, China

690 WTh A novel BCG-artefact correction algorithm for co-registered EEG/fMRI
Jan De Munck[1], Petra van Houdt[2], Pauly Ossenblok[3]
[1]VU University Medical Center, Amsterdam, Netherlands, [2]Epilepsy Centre Kempenhaeghe, Heeze, Netherlands, [3]Epilepsy center kempenhaeghe, Heeze, Netherlands

691 WTh Statistical inference using EEG and fMRI collections of event-related trials from multiple subjects
Arnaud Delorme[1], Jung Tzyy-Ping[1], Scott Makeig[1]
[1]Swartz Center for Computational Neuroscience, UCSD, La Jolla, CA, United States

692 WTh Spectral alteration of brain waves during MBSR meditation: a longitudinal EEG study
Junling Gao[1], Shan Li[2], Zhiguo Zhang[2], Hinhung Sik[3], Yeungsam Hung[2], Shingchow Chan[2], Raymond Cheung[1], Chunqi Chang[2]
[1]Dept. of Medicine, The University of Hong Kong, Hong Kong, Hong Kong, [2]Dept. of EEE, The University of Hong Kong, Hong Kong, Hong Kong, [3]Centre of Buddhism Studies, The University of Hong Kong, Hong Kong, Hong Kong

693 WTh Human cortical traveling waves: Dynamical properties and correlations with responses
Pulin Gong[1], Tim Patten[2]
[1]University of Sydney, Sydney, Australia, [2]The University of Sydney, Sydney, Australia

694 WTh The Coding of Decision and Action in Stimulus-response Binding
Yi-Fang Hsu[1], Florian Waszak[1]
[1]Universite Paris Descartes & CNRS, Paris, France

695 WTh ESI in epilepsy: An evaluation of different methods to solve the inverse problem in EEG real data
Danilo Maziero[1], Tonicarlo Velasco[1], Marcio Sturzbecher[1], Agustin Castellanos[2], Carlos Salmon[1]
[1]University of São Paulo, Ribeirão Preto, Brazil, [2]Cuban Neurosciences Center, Havana, Cuba

696 WTh Withdrawn

697 WTh Electric fields for anisotropic spherical shell model and their application to brain imaging
Yury Petrov[1]
[1]Northeastern University, Boston, United States

698 WTh Withdrawn

699 WTh Subsequent Memory Effect in Transient Responses of Photic Flicker-Induced EEG
Naoyuki Sato[1]
[1]Future University Hakodate, Hakodate, Japan

700 WTh Comparing Finite Difference Forward Models Using Free Energy based on Multiple Sparse Priors
Gregor Strobbe[1], José David Lopez[2], Victoria Montes[1], Pieter van Mierlo[1], Hans Hallez[3,1], Stefaan Vandenberghe[1]
[1]MEDISIP, Ghent University - IBBT, Ghent, Belgium, [2]Universidad Nacional de Colombia, Medellín, Colombia, [3]Department of Industrial Sciences (IW&T), University College of Bruges-Ostend, Ostend, Belgium

701 WTh EEG Mapping of the Brain Listening to Music with Different Tempo: Evidences from Zero Reference EEG
Yin Tian[1,2], Yongxiu Lai[2], Peng Xu[2], weiyi Ma[2], Dezhong Yao[2]
[1]Bio-information College, ChongQing University of Posts and Telecommunications, ChongQing, China, [2]Key Laboratory for NeuroInformation of Ministry of Education, School of Life Science and Technology, University of Electronic Science and Technology of China, ChengDu, China

702 WTh Exposure to Emotional Films Moulates Late Positive Potentials As Viewing Pictures of Same Emotion
SHAO-YANG TSAI[1,2], KAI-LUN HSIEH[1], SHIAU-HUA LIU[1]
[1]Department of Counseling and Clinical Psychology, National Dong-hwu University, Hua-Lien, Chinese Taipei, [2]Department of Life Science, National Dong-hwu University, Hua-Lien, Chinese Taipei

703 WTh Influence of the DYX1C1 Gene on Orthographic Processing in Chinese Children: an ERP Study
Jiuju Wang[1], Hua Shu[1], Mengmeng Su[1], Yuping Zhang[1]
[1]National Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

704 WTh EEG default mode network (EEG DMN): Effects of unilateral eyes-closed and eyes-open stimulation
Kun WANG[1], Andrew CHEN*[2]
[1]Center for Hin Functions, Capital Medical Universityigher Bra, Beijing, China, [2]Center for Higher Brain Functions, Capital Medical University, Beijing, China

705 WTh Reduced late positivity in younger adults, but not older adults, during short-term repetition
Ting Zhou[1], Juan Li[2], Lucas Broster[3], Yanan Niu[4], Pengyun Wang[4]
[1]Institute of Psychology, Chinese Academy of sciences, Beijing, China, [2]Chinese Academy of Sciences, Beijing, China, [3]Department of Behavioral Science, University of Kentucky College of Medicine, Lexington, KY, [4]Institute of Psychology, Chinese Academy of Sciences, Beijing, China

IMAGING METHODS
MEG

***706 WTh "Investigating the temporal dynamics of resting state connectivity with MEG" (O-Th2)**
Adam Baker[1], Matthew Brookes[2], Penny Probert Smith[1], Mark Woolrich[1]
[1]University of Oxford, Oxford, United Kingdom, [2]University of Nottingham, Nottingham, United Kingdom

707 WTh Sparse MEG Inversion with an L0 penalty
Ben Cassidy[1], Victor Solo[2], Akila Seneviratne[1]
[1]The University of New South Wales, Sydney, Australia, [2]University of New South Wales, Sydney, Australia

708 WTh Divergence of expressive and receptive MEG defined Language in Refractory Partial Epilepsy
Dawn Eliashiv[1], Jeffrey Chung[2], Nicole Gage[3]
[1]Cedars Sinai Medical Center, Los Angeles, United States, [2]Cedars Sinai Medical Center, Los Angeles, CA, [3]University of California at Irvine, Irvine, CA

709 WTh Measurement of Brain Function in Special Populations with Custom-Engineered MEG Systems
Blake Johnson[1], Stephen Crain[1], Graciela Tesan[1]
[1]Macquarie University, Sydney, Australia

710 WTh Extracting resting state networks from Elekta Neuromag MEG data using independent component analysis
Henry Luckhoo[1], Matthew Brookes[2], Verena Heise[3], Clare Mackay[3], Klaus Ebmeier[4], Peter Morris[5], Mark Woolrich[1]
[1]Oxford Centre for Human Brain Activity, University of Oxford, Oxford, United Kingdom, [2]Sir Peter Mansfield Magnetic Resonance Centre, University of Nottingham, Nottingham, United Kingdom, [3]FMRIB Centre, University of Oxford, Oxford, United Kingdom, [4]Dept. of Psychiatry, University of Oxford, Oxford, United Kingdom, [5]Sir Peter Mansfield Magnetic Resonance Centre, University of Nottingham, Oxford, United Kingdom

****711 WTh Investigating the frequency composition of resting state networks in MEG using ICA**
Henry Luckhoo[1], Matthew Brookes[2], Verena Heise[3], Clare Mackay[3], Klaus Ebmeier[4], Peter Morris[2], Mark Woolrich[1]
[1]Oxford Centre for Human Brain Activity, University of Oxford, Oxford, United Kingdom, [2]Sir Peter Mansfield Magnetic Resonance Centre, University of Nottingham, Nottingham, United Kingdom, [3]FMRIB Centre, University of Oxford, Oxford, United Kingdom, [4]Dept. of Psychiatry, University of Oxford, Oxford, United Kingdom

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

712 WTh Imaging Complexity
Stephen Robinson[1], Arnold Mandell[2], Richard Coppola[3]
[1]MEG Core Group, NIMH/NIH, Bethesda, United States, [2]UCSD & SRI, La Jolla, CA, [3]NIMH/NIH, Bethesda, MD

713 WTh Neuromagnetic response and its relation to cortical thickness in ultra-high-risk for psychosis
Kyungsoon Shin[1], Wi Hoon Jung[2], June Sic Kim[3], Joon Hwan Jang[4], Jae Yeon Hwang[4], Chun Kee Chung[2], Jun Soo Kwon[4]
[1]Clinical Cognitive Neuroscience Center, Seoul, Korea, Republic of, [2]Seoul National University, Seoul, Korea, Republic of, [3]MEG Center, Department of Neurosurgery, Seoul National University College of Medicine, Seoul, Korea, Republic of, [4]Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, Republic of

714 WTh Posture effects on perspective taking as revealed by evoked and oscillatory responses in the MEG
Hongfang Wang[1], Klaus Kessler[1]
[1]University of Glasgow, Glasgow, United Kingdom

715 WTh Linking Behavior and Magnetoencephalographic Recordings with Video
Andrey Zhdanov[1,2], Juha Wilenius[2], Ritva Paetau[3,4], Antti Ahonen[5], Jyrki Mäkelä[2]
[1]Aalto University School of Science, Espoo, Finland, [2]BioMag Laboratory, Helsinki University Central Hospital, Helsinki, Finland, [3]Department of Clinical Neurophysiology, Helsinki University Central Hospital, Helsinki, Finland, [4]Department of Pediatric Neurology, Helsinki University Central Hospital, Helsinki, Finland, [5]Elekta Oy, Helsinki, Finland

IMAGING METHODS

MR Spectroscopy

716 WTh Dynamic 31P-MRS during Visual Stimulation Protocols in healthy young adult subjects
Felipe Barreto[1,2], Carlos Salmon[1,2], Thiago Costa[3,4], Ricardo Landim[5,4], Gabriela Castellano[5,4]
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717 WTh Long-term investigation of primary motor cortex metabolism in concussed athletes
Vincent Beaulé[1], Sara Tremblay[1], Louis De Beaumont[2], Sebastien Proulx[1], Julien Doyon[1], Malgorzata Marjanska[3], Maryse Lassonde[1], Hugo Théoret[1]
[1]Université de Montréal, Montréal, Canada, [2]Université de Québec à Trois-Rivières, Trois-Rivières, Canada, [3]University of Minnesota, Minnesota, United States

718 WTh 31P-fMRS investigation of metabolite changes in visual cortex due to stimulus frequency variations
Thiago Costa[1], Ricardo Landim[1], Elvis Silva[1], Felipe Barreto[2], Carlos Salmon[2], Roberto Covolan[1], Gabriela Castellano[1]
[1]Neurophysics Group, Gleb Wataghin Physics Institute, University of Campinas - UNICAMP, Campinas, Brazil, [2]Dept. of Physics and Mathematics, University of São Paulo at Ribeirão Preto - USP-RP, Ribeirão Preto, Brazil

719 WTh Neurochemical Effects of Fetal Alcohol Exposure in the Deep Cerebellar Nuclei
Lindie Du Plessis[1,2], Aaron Hess[1,2], Christopher Molteno[3,4], Joseph Jacobson[5,4,6], Sandra Jacobson[5,4,6], Ernesta Meintjes[1,2], André Van der Kouwe[7,8]
[1]MRC/UCT Medical Imaging Research Unit, University of Cape Town, Cape Town, South Africa, [2]Department of Human Biology, University of Cape Town, Cape Town, South Africa, [3]University of Cape Town Faculty of Health Sciences, Cape Town, South Africa, [4]Department of Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine, Detroit, MI, [5]Wayne State University School of Medicine, Detroit, MI, [6]Department of Psychiatry, University of Cape Town, Cape Town, South Africa, [7]Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA, [8]Department of Radiology, Harvard Medical School, Boston, MA

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

720 WTh Glutamate concentration in the anterior cingulate cortex and sensation seeking over the lifespan
Tobias Gleich[1], Robert Lorenz[1], Simone Kühn[1], Michael Rapp[1], Juergen GALLINAT[1]
[1]Charité Universitätsmedizin Berlin, Berlin, Germany

721 WTh Withdrawn

722 WTh Pictorial Review, analysis and comparison of MR spectroscopy of normal brain at 1.5T and 4T MRI
Muhammad Naeem Khan[1], Hina Mohsin[2]
[1]IWK health centre, Dalhousie University, Halifax, Nova Scotia, N/A, [2]IWK health centre, Halifax, Canada

723 WTh LCModel Identification of Macromolecule Resonances in the Human Brain
Jack Knight-Scott[1], Grace Fong[2], Yevgeniya Lyubich[2], Susan Palasis[2]
[1]CHOA, Atlanta, United States, [2]CHOA, Atlanta, GA

724 WTh Investigation of NAA and NAAG dynamics underlying visual stimulation using MEGA-PRESS
Ricardo Landim[1,2], Richard Edden[3], Bernd Foerster[4,2], Li Li[5,2], Roberto Covolan[1,2], Gabriela Castellano[1,2]
[1]Neurophysics Group, Gleb Wataghin Physics Institute, University of Campinas - UNICAMP, Campinas, Brazil, [2]CInAPCe Program (Cooperação Interinstitucional de Apoio a Pesquisas sobre o Cérebro), Sao Paulo State, Brazil, [3]Johns Hopkins University School of Medicine, Baltimore, United States, [4]Philips Medical Systems, Sao Paulo, Brazil, [5]Neurology Department, Medical Sciences School, UNICAMP, Campinas, Brazil

725 WTh The Limits of Detection and Estimation of a Biomarker from MRS Data with an SVD-based Method
yao li[1], Lauren B. Krupp[2], Petar M. Djurić[2], Mirjana M. Savatić[3], Huijing Yu[2]
[1]Shanghai Jiao Tong university, Shanghai, China, [2]Stony Brook University, Stony Brook, NY, [3]Baylor College of Medicine, Houston, TX

726 WTh Spectral Edited 1H MR Spectroscopy for the Investigation of Functional Brain Disorders
Nouha Salibi[1], Ravi Seethamraju[1], Chun Zuo[2], Keith Heberlein[1]
[1]Siemens Healthcare, Malvern, PA, [2]McLean Hospital, Belmont, MA

727 WTh Relationship between TMS-derived measures of GABAB and 1H-MRS measures of glutamate and GABA in M1
Sara Tremblay[1], Vincent Beaulé[1], Louis De Beaumont[2], Sebastien Proulx[1], Julien Doyon[1], Malgorzata Marjanska[3], Maryse Lassonde[1], Hugo Théoret[1]
[1]Université de Montréal, Montréal, Canada, [2]Université de Québec à Trois-Rivières, Trois-Rivières, Canada, [3]University of Minnesota, Minnesota, United States

728 WTh Human Neurogenesis Signal Predicts Hippocampal Structural Plasticity following ECT
Michael Valenzuela[1], Perminder Sachdev[1], Colleen Loo[1], Christos Pantelis[2], Jesus Pujol[3], Dennis Velakoulis[2], Murat Yücel[2], Narcis Cardoner[4], Mirjana Maletić Savatić[5], Oren Contreras Rodríguez[3], Mikel Urretavizcaya[4], Jose Menchón[4], Chao Suo[1], Petar Djurić[6]
[1]University of New South Wales, Sydney, Australia, [2]Melbourne Neuropsychiatry Centre, Department of Psychiatry, the University of Melbourne, Melbourne, Australia, [3]Institut d'Alta Tecnologia–PRBB, CRC Mar, Hospital de Mar, Barcelona, Spain, [4]Bellvitge University Hospital-IDIBELL, Barcelona, Spain, [5]Texas Children's Hospital, Baylor College of Medicine, Houston, United States, [6]Stony Brook University, Stony Brook, United States

***729 WTh Reduced GABA in the Visual Cortex of Patients with NF1 – A New Perspective on the Disease Mechanism (O-W4)**
Ines Violante[1], Maria Ribeiro[1], Richard Edden[2], Inês Bernardino[1], Jose Rebola[1], Pedro Guimarães[3], Gil Cunha[1], Eduardo Silva[1], Miguel Castelo-Branco[1]
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730 WTh Functional Imaging with Simultaneous Double Voxel Spectroscopy
Paul Wighton[1], M. Dylan Tisdall[1], Jodi Gilman[1], Sang Lee[1], Hans Breiter[1], Andre van der Kouwe[1]
[1]Massachusetts General Hospital, Boston, MA

731 WTh *In vivo* high-resolution localized ^{1}H MRS in the awake rat brain at 7 Tesla
Su Xu[1,2], Xi Chen[3], Yadong Ji[4], Yihong Yang[3], Rao Gullapalli[1,2], Radi Masri[4]
[1]Department of Diagnostic Radiology and Nuclear Medicine, University of Maryland School of Medicine, Baltimore, United States, [2]Core for Translational Research in Imaging @ Maryland, University of Maryland School of Medicine, Baltimore, United States, [3]Neuroimaging Research Branch, National Institute on Drug Abuse, National Institutes of Health, Baltimore, United States, [4]Department of Endodontics, Prosthodontics and Operative Dentistry, Univ. of Maryland Dental School, Baltimore, United States

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

IMAGING METHODS

Multi-Modal Imaging

732 WTh A Programmable Biomimetic Testbed for Evaluation of Functional Brain Activation
Randall Barbour[1], Randall Andronica[1], S. S. Barbour[2], Harry Graber[1], Daniel Lee[1], Pflieger Mark[3], J. D. Nicoles[3], Yaling Pei[2], Douglas Pfeil[1], Christoph Schmitz[4], Anandita Tyagi[2], Yong Xu[1]
[1]SUNY Downstate Medical Center, Brooklyn, NY, [2]NIRx Medical Technologies LLC, Glen Head, NY, [3]Source Signal Imaging Inc, San Diego, CA, [4]4NIRx Medizintechnik GmbH, Berlin, Germany

733 WTh Integration of Concurrent Real-time fMRI and EEG data: Real-time fMRI and EEG Neurofeedback
Jerzy Bodurka[1], Vadim Zotev[1], Raquel Phillips[1], Han Yuan[1]
[1]Laureate Institute for Brain Research, Tulsa, OK

734 WTh Integration of EEG and MEG in Sparse Source Imaging
Lei Ding[1], Han Yuan[2], Min Zhu[3]
[1]University of Oklahoma, Norman, United States, [2]Laureate Institute for Brain research, Tulsa, OK, [3]University of Oklahoma, Norman, OK

735 WTh Resting-state fMRI and MEG brain networks in epilepsy
Linda Douw[1,2,3], Naoaki Tanaka[4,3], Matti Hamalainen[4,3], Cornelis Stam[5], Steven Stufflebeam[4,3,6]
[1]Martinos center for biomedical imaging, Charlestown, United States, [2]VU University Medical Center, Amsterdam, Netherlands, [3]Harvard Medical School, Boston, MA, [4]Martinos center for biomedical imaging, Charlestown, MA, [5]Department of Clinical Neurophysiology, VU University Medical Centre, Amsterdam, Netherlands, [6]Harvard-MIT division of health sciences and technology, Cambridge, MA

736 WTh Correlation analysis between the simultaneously recorded resting-state fNIRS and fMRI signals
Lian Duan[1], Rui-na Dai[1], Rui Li[1], Wei-jie Liu[1], Chen Zhao[1], Chao-Zhe Zhu[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

737 WTh BOLD Correlates of Upper and Lower Alpha Rhythms
Xu Lei[1], Xu Anbing[1], Huan Liu[1], Zhiying Zhao[1], Yanhan Zhu[2]
[1]School of Psychology, Southwest University, Chongqing, China, [2]School of Political Science and Public Management, Southwest University, Chongqing, China

738 WTh Suppress ultra-low-field MRI noise using a data consistency constraint
Fa-Hsuan Lin[1], Panu Vesanen[2], Yi-Cheng Hsu[1], Jaakko Nieminen[2], Koos Zevenhoven[2], Juhani Dabek[2], Andrey Zhdanov[2], Lauri Parkkonen[3], Risto Ilmoniemi[2]
[1]National Taiwan University, Taipei, [2]Aalto University School of Science, Espoo, Finland, [3]Aalto University School of Science and Technology, Espoo, Finland

739 WTh Neuroimaging of the periaqueductal gray: State of the field
Clas Linnman[1], Eric Moulton[1], Gabi Barmettler[1], Lino Becerra[2], David Borsook[3]
[1]McLean Hospital, Harvard Medical School, Belmont, United States, [2]Departments of Psychiatry and Radiology, Massachusetts General Hospital, Harvard Medical School, Charlestown, MA, [3]Department of Radiology, Children's Hospital Boston, Harvard Medical School, Boston, MA

740 WTh Inferring Deep Brain Activity from Cortical Activation on Cognitive Tasks Using fMRI and fNIRS
Ning Liu[1], Xu Cui[1], Allan Reiss[1]
[1]Stanford University, Stanford, United States

741 WTh EEG power spectrum and BOLD signal in the irritable tissue in patient with refractory epilepsy
Radek Marecek[1], Michal Mikl[1], Milan Brázdil[1]
[1]CEITEC, Masaryk University, Brno, Czech Republic

742 WTh Electrophysiological correlation patterns of resting state networks in single subjects
Matthias Meyer[1], Erik van Oort[2], Markus Barth[1]
[1]Radboud University Nijmegen, Donders Institute For Brain, Cognition And Behaviour, Nijmegen, Netherlands, [2]MIRA Institute, University of Twente, Donders Institute, Radboud University Nijmegen, Nijmegen, Netherlands

743 WTh Performance evaluation of an integrative software environment for analysis of multi-modality neuroim
Otto Muzik[1], Eishi Asano[2], Jing Hua[2], Csaba Juhasz[2], Darshan Pai[2]
[1]Wayne State University, Detroit, United States, [2]Wayne State University, Detroit, MI

744 WTh Functional Interhemispheric Connectivity Related with Morphological Asymmetry
Jun Sung Park[1], Uicheul Yoon[2], Sang Won Seo[3], Duk L. Na[3], Jong-Min Lee[4]
[1]Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of, [4]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of

745 WTh A Comparison Study of Parkinson's Disease-related Patterns between FDG PET and fMRI at Rest State
Shichun Peng[1], Tao Wu[2], Yilong Ma[1], Phoebe Spetsieris[1], Zheng Zheng[2], xiaoli wu[2], piu chan[2], David Eidelberg[1]
[1]Feinstein Institute for Medical Research, Manhasset, NY, USA, [2]Xuanwu Hospital, Beijing, China

746 WTh A new approach to auditory attention network examination: a simultaneous ERP-fMRI study
Mateusz Rusiniak[1], Monika Lewandowska[1], Tomasz Wolak[1], Agnieszka Pluta[1], Malgorzata Ganc[1], Rafal Milner[1], Lech ðiwa[1]
[1]The Institute of Physiology and Pathology of Hearing, Warsaw, Poland

747 WTh Does a high-density (256 channels) EEG net reduce BOLD sensitivity in combined EEG-fMRI?
Johan van der Meer[1], Jennifer Ramautar[1], Ysbrand van der Werf[1,2], Marcus Spaan[3], Eus Van Someren[1,2]
[1]Netherlands Institute for Neuroscience, Royal Netherlands Academy of Arts and Sciences, Amsterdam, Netherlands, [2]VU University Medical Center, Amsterdam, Netherlands, [3]Universiteit of Amsterdam, Amsterdam, Netherlands

748 WTh The Superposition of Task-dependent and Default Mode Networks During a Mundane Target Detection Task
Jennifer Walz[1], Jordan Muraskin[1], Robin Goldman[1], Truman Brown[2], Paul Sajda[1]
[1]Columbia University, New York, NY, [2]Medical University of South Carolina, Charleston, SC

749 WTh Concordance of MEG and fMRI Patterns in Adolescents during Verb Generation
Yingying Wang[1,2], Scott Holland[1,2], Jennifer Vannest[3]
[1]Cincinnati Children's Hospital Research Foundation, Cincinnati, OH, United States, [2]University of Cincinnati, Cincinnati, OH, United States, [3]Cincinnati Children's Hospital Medical Center, Cincinnati, OH, United States

750 WTh Variational Bayes Inverse Solution for Simultaneous EEG/MEG
William Winter[1], Javier Garcia[2], Mingxiong Huang[3], Ramesh Srinivasan[2], Samuel Thorpe[2]
[1]UC Irvine, Irvine, CA, United States, [2]UC Irvine, Irvine, CA, [3]UC San Diego, San Diego, CA

751 WTh Regional Variations in the time course of EEG-fMRI signal coupling
HONGJING XIA[1], Mark Cohen[1], Dan Ruan[1]
[1]University of California Los Angeles, Los Angeles, United States

752 WTh Development of Biosignal Integration Analysis System for Human Brain Function and Behavior
Yui Yamaguchi[1], Akihiro Ishikawa[2], Yoshiharu Ito[3]
[1]Shimadzu Corp., Tokyo, Japan, [2]Shimadzu Corp., Kyoto, Japan, [3]KISSEI COMTEC Co.,Ltd., Matsumoto, Japan

753 WTh Roles of posterior parietal regions in the control of alerting, orienting and executive control
Xuntao Yin[1], Lu Zhao[2], Shuwei Liu[1], Alan Evans[2]
[1]Research Center for Sectional and Imaging Anatomy, Shandong University School of Medicine, Jinan, China, [2]Montreal Neurological Institute, Montreal, Quebec

754 WTh Interhemispheric Asymmetry of Cardioballistic Artifacts in Simultaneous EEG-fMRI
Vadim Zotev[1], Han Yuan[1], Raquel Phillips[1], Jerzy Bodurka[1]
[1]Laureate Institute for Brain Research, Tulsa, OK

755 WTh Simultaneous Real-Time fMRI and EEG Neurofeedback for Self-Regulation of Human Brain Activity
Vadim Zotev[1], Raquel Phillips[1], Han Yuan[1], Wayne Drevets[1], Jerzy Bodurka[1]
[1]Laureate Institute for Brain Research, Tulsa, OK

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

IMAGING METHODS

Non-BOLD fMRI

756 WTh Assessment of hierarchy of motor function under sedation- using continuous arterial spin labeling
Ram Adapa[1], Emmanuel Stamatakis[1], David Menon[1]
[1]Division of Anaesthesia, University of Cambridge, Cambridge, United Kingdom

757 WTh Comparison of cASL and BOLD fMRI to investigate auditory processing under sedation
Ram Adapa[1], David Menon[1], Emmanuel Stamatakis[1]
[1]Division of Anaesthesia, University of Cambridge, Cambridge, United Kingdom

758 WTh Automated multiple vascular territories mapping from VEPCASL MRI using spatial consistent k-means
Hewei Cheng[1], Rui Wang[2], Rong Xue[2], Danny JJ Wang[3], Yong Fan[1]
[1]Institute of Automation, Chinese Academy of Sciences, Beijing, China, [2]Institute of Biophysics, Chinese Academy of Sciences, Beijing, China, [3]Department of Neurology, UCLA, Los Angeles, United States

759 WTh BOLD and CBF responses during the Valsalva maneuver
Daniel Handwerker[1], Wen-Ming Luh[1], Paula Wu[1], Peter Bandettini[1]
[1]National Institute of Mental Health, Bethesda, MD

760 WTh Classical pathways and quantum clouds — implication in functional brain mapping
Cameron Leith[1], L. D. Robbins[2], L. B. Siegel[3], S. Ouyang[4], H. Sun[1]
[1]Neurodynamics Research Institute, Chicago, United States, [2]Robbins Headache Clinic, Northbrook, IL, [3]North Shore Rheumatology, Lake Forest, IL, [4]University of California, Los Angeles, CA

761 WTh White matter fMRI using intra-voxel phase gradient
Guoxiang Liu[1]
[1]National Institute of Information and Communications Technology, Kobe, Japan

762 WTh Whole Brain Cerebral Perfusion among Older Adults is Moderated by Strength Training and Gender
Xiaomeng Xu[1], Beth Jerskey[2], Denise Cote[2], Edward Walsh[3], Jason Hassenstab[4], Maura Ladino[5], Uraina Clark[3], Donald Labbe[2], John Gunstad[6], Athena Poppas[2], Ronald Cohen[7], Richard Hoge[8], Lawrence Sweet[3]
[1]Alpert Medical School of Brown University, Providence, United States, [2]Alpert Medical School of Brown University, Providence, RI, [3]Brown University, Providence, RI, [4]Washington University in St. Louis, St. Louis, United States, [5]Columbia University, New York, NY, [6]Kent State University, East Liverpool, OH, [7]Warren Alpert Medical School of Brown University, Providence, RI, [8]Université de Montréal, Montréal, Canada

763 WTh A Flexible Framework of Perfusion fMRI with Asymmetric Label and Control Acquisitions by pCASL GRASE
Lirong Yan[1], Emily Kilroy[1], Danny Wang[1]
[1]UCLA, Los Angeles, United States

764 WTh Turbo-flash based multi-slice ASL for fMRI and functional connectivity at 7T
Zhentao Zuo[1], Rui Wang[1], Rong Xue[1], Yan Zhuo[1], Danny Wang[2]
[1]Institute of Biophysics, Chinese Academy of Sciences, Beijing, China, [2]Department of Neurology, University of California Los Angeles, Los Angeles, CA

IMAGING METHODS

Optical Imaging/NIRS

765 WTh Development of Newly fNIRS+EEG System for Whole Brain Studies of Seamless Area
Ishikawa Akihiro[1], Udagawa Haruhide[1], Masuda Yoshinori[1], Yamaguchi Shumpei[1], Kohno Satoru[1], Amita Takashi[1], Inoue Yoshihiro[1]
[1]SHIMADZU Corporation, Kyoto, Japan

766 WTh Hemodynamic observer model for blind identification of evoked human brain activity
Muhammad Aqil[1], Keum-Shik Hong[1], Myung-Yung Jeong[1], Shuzhi Sam Ge[2]
[1]Pusan National University, Busan, Korea, Republic of, [2]Pusan National University; National University of Singapore, Busan, Korea, Republic of

767 WTh Functional brain imaging during exercise of muscles of mastication using vectors derived from NIRS
Masaaki Arai[1], Kayoko Yoshino[2,3], Noriyuki Oka[2], Toshinori Kato[2]
[1]Total Health Advisers Co., Ltd., Chiba, Japan, [2]Department of Brain Environmental Research, KATOBRAIN Co., Ltd., Tokyo, Japan, [3]Graduate school of Media and Governance, Keio University, Kanagawa, Japan

768 WTh NIRS-Based Hyperscanning Reveals Increased Interpersonal Coherence in Superior Frontal Cortex during
Xu Cui[1], Daniel Bryant[2], Allan Reiss[2]
[1]Stanford University, Stanford, United States, [2]Stanford University, Stanford, CA

769 WTh Functional near-infrared brain imaging assisted by a low-cost mobile phone camera
Qianqian Fang[1]
[1]Massachusetts General Hospital, Charlestown, United States

770 WTh Evaluation of Scalp Blood Contribution on NIRS Signal Using Multi-distance Optodes and ICA
Tsukasa Funane[1], Hirokazu Atsumori[1], Takusige Katura[1], Masashi Kiguchi[1], Akiko Obata[1], Hiroki Sato[1]
[1]Hitachi, Ltd., Central Research Laboratory, Hatoyama, Japan

771 WTh Simulation of Near-Infrared Light Considering Individual Anatomy: Impact on Optical Neuroimaging
Florian Haeussinger[1], Sebastian Heinzel[2], Tim Hahn[3], Martin Schecklmann[4], Ann-Christine Ehlis[2], Andreas Fallgatter[5]
[1]Department of Psychiatry and Psychotherapy at the University Hospital, Tuebingen, Germany, [2]University of Tuebingen, Dept. of Psychiatry and Psychotherapy, Tuebingen, Germany, [3]University of Frankfurt, Frankfurt, Germany, [4]Department of Psychiatry and Psychotherapy at the University Hospital, Regensburg, Germany, [5]University of Tuebingen, Department of Psychiatry and Psychotherapy, Tübingen, Germany

772 WTh The impact of age and gender on prefrontal cortex processing during verbal fluency: an fNIRS study
Sebastian Heinzel[1,2], Florian Metzger[1], Ann-Christine Ehlis[1], Robert Korell[1], Ahmed Alboji[1], Florian Haeussinger[1], Katja Hagen[1,2], Gerhard Eschweiler[1], Daniela Berg[3,2], Andreas Fallgatter[1]
[1]University of Tuebingen, Dept. of Psychiatry and Psychotherapy, Tuebingen, Germany, [2]German Center for Neurodegenerative Diseases (DZNE), Tuebingen, Germany, [3]University of Tuebingen, Dept. of Neurodegeneration, Hertie-Institute of Clinical Brain Research, Tuebingen, Germany

773 WTh Spontaneous fluctuation contributed to the trail-to-trail variability in fNIRS signal
Xiaosu Hu[1], Noman Naseer[1], Keum-Shik Hong[1], Shuzhi Sam Ge[2]
[1]Pusan National University, Busan, Korea, Republic of, [2]Pusan National University; National University of Singapore, Busan, Korea, Republic of

774 WTh Theoretical and physiological explanation of two types of initial dip using vector phase contrasts
Toshinori Kato[1], Kayoko Yoshino[1,2]
[1]Department of Brain Environmental Research, KATOBRAIN Co., Ltd., Tokyo, Japan, [2]Graduate school of Media and Governance, Keio University, Kanagawa, Japan

775 WTh Low Frequency Physiological Noise in Functional Infrared Spectroscopy
Evgeniya Kirilina[1,2], Daniel Adebiyi[1], Arthur Jacobs[1,2]
[1]Free University Berlin, Berlin, Germany, [2]Dahlem Institute of Neuroimaging of Emotions, Berlin, Germany

776 WTh Resting State Connectivity in the Prefrontal Cortex Measured By Hemodynamic Optical Signal
Andrei V. Medvedev[1]
[1]Center for Functional and Molecular Imaging, Georgetown University, Washington, DC

777 WTh Topological functional organization of the human brain as revealed by resting-state fNIRS
Haijing Niu[1], Jinhui Wang[1], Tengda Zhao[1], Ni Shu[1], Yong He[1]
[1]State key laboratory of cognitive neuroscience and learning, Beijing Normal University, Beijing, China

778 WTh Monitoring of functional cortical recovery during exercise after a stroke using Vector-NIRS
Noriyuki Oka[1], Kayoko Yoshino[1,2], Toshinori Kato[1]
[1]Department of Brain Environmental Research, KATOBRAIN Co., Ltd., Tokyo, Japan, [2]Graduate school of Media and Governance, Keio University, Kanagawa, Japan

779 WTh Brain haemodynamics captured with optical topography
Felipe Orihuela-Espina[1], Daniel Leff[1], David James[2], Ara Darzi[1], Guang-Zhong Yang[1]
[1]Imperial College London, London, United Kingdom, [2]Imperial College, London, United Kingdom

780 WTh Signal to noise ratio improvement in functional NIRS signal
Hendrik Santosa[1], Keum-Shik Hong[1], Se-ho Lee[2]
[1]Pusan National University, Busan, Korea, Republic of, [2]Pusan National University, Busan, Korea, Republic of

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

781 WTh Near-Infrared Spectroscopy (NIRS) Brain-Computer Interface (BCI) study with haptic FES feedback
Markus Schürholz[1], mohit rana[2], Josué Dalboni[3], Woosang Cho[1], Martin Rohm[4], Niels Birbaumer[5], Ranganatha Sitaram[6]
[1]Institute for Medical Psychology and Behavioural Neurobiology, Tübingen, Germany, [2]institute of medical psychology and behavioural neurobiology,tuebingen, tuebingen, Germany, [3]Institute of Medical Psychology and Behavioural Neurobiology, Tübingen, Germany, [4]Klinik für Paraplegiologie, Heidelberg, Germany, [5]University of Tübingen, Tübingen, Germany, [6]Institute of medical psychology and behavioral neurobiology, Tuebingen, Germany

782 WTh Neural Correlates of Heart Rate during Mental Arithmetic Task and Verbal Fluency Tasks
Jie Shi[1], Huancong Zuo[2], Masako Okomoto[3], Kaoru Sakatani[4]
[1]Institute of Neurological Disorder, Yuquan Hospital, School of Medicine Tsinghua University, Beijing, China, [2]Department of Neurosurgery, Yuquan Hospital, School of Medicine Tsinghua University, Beijing, China, [3]Center for Development of Advanced Medical Technology, Jichi Medical University, Tokyo, Japan, [4]Department of Neurological Surgery, Nihon University School of Medicine, Tokyo, Japan

783 WTh Effective Connectivity based on Granger Causality in NIRS data evoked by Motor execution and Imagery
MASAKO SUGAI[1], MASAHARU ADACHI[1]
[1]TOKYO DENKI UNIVERSITY, TOKYO, Japan

784 WTh Gender difference in the brain hemodynamic responses during an emotional Go/NoGo task
Toshio Watanuki[1], Koji Matsuo[2], Kazuteru Egashira[3], Mami Nakashima[4], Masayuki Nakano[5], Toshio Matsubara[1], Yoshifumi Watanabe[1]
[1]Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan, Ube, Japan, [2]Yamaguchi University Graduate Shool Of Medicine, Ube, Yamaguchi, Japan, [3]Department of Psychiatry, Yamaguchi Grand Medical Center, Yamaguchi, Japan, Ube, Japan, [4]Division Of Neuropsychiatry, Department Of Neuroscience, Yamaguchi University Gr, Ube, Yamaguchi, [5]Division Of Neuropsychiatry, Department Of Neuroscience, Yamaguchi University Gr, Japan

785 WTh Spatial and frequential structures of superficial physiological interference in fNIRS measurement
Xu Xu[1], Yu-Jin Zhang[1], Fenghua Tian[2], Lian Duan[1], Hanli Liu[2], Chao-Zhe Zhu[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]University of Texas at Arlington, Tx, United States

786 WTh Neurophysiological language test by event-related oxygen regulation using vectors derived from NIRS
Kayoko Yoshino[1], Toshinori Kato[2]
[1]Graduate school of Media and Governance, Keio University, Kanagawa, Japan, [2]Department of Brain Environmental Research, KATOBRAIN Co.,Ltd., Tokyo, Japan

787 WTh Prefrontal lobe function in Chinese depression: a study with 45-channel near-infrared spectroscopy
XQ Zhang[1], HC Zuo[2], XM Liu[2], LJ Shi[1], CY Shen[1], B Xu[2], PZ Liu[2]
[1]Tsinghua University School of Medicine, Beijing, China, [2]Tsinghua University Yuquan Hospital, Beijing, China

IMAGING METHODS

PET

788 WTh Reference cluster normalization improves detection of frontotemporal lobar degeneration
Juergen Dukart[1], Henryk Barthel[2], Janine Diel-Schmid[3], Andreas Fellgiebel[4], Stefan Förster[3], Alexander Kurz[3], Robert Perneczky[3], Osama Sabri[2], Igor Yakushev[3], Bogdan Draganski[5], Richard Frackowiak[6], Alexander Drzezga[3], Karsten Müller[7], Matthias Schroeter[8]
[1]Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland, [2]University Hospital Leipzig, Leipzig, Germany, [3]Technische Universität München, Munich, Germany, [4]University Hospital Mainz, Mainz, Germany, [5]LREN, Département des neurosciences cliniques - CHUV, Lausanne, Switzerland, [6]LREN, Département des Neurosciences Cliniques, CHUV, Université de Lausanne, Lausanne, Switzerland, Lausanne, Switzerland, [7]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [8]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

789 WTh A new method of brain extract from PET using CT brain mask
Chan mi Kim[1], Uicheul Yoon[2], Hunki Kwon[1], Dong-Kyun Lee[1], Sang Won Seo[3], Duk L. Na[3], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

790 WTh GABA-A receptors and the transition from resting-state to stimulus induced activity
Pengmin Qin[1], Simone Grimm[2], Niall Duncan[3], Christine Wiebking[4], Oliver Lyttelton[5], Dave Hayes[6], Paul Gravel[7], Jeroen Verhaeghe[7], Alexey Kostikov[7], Ralf Schirrmacher[7], Andrew Reader[7], Juergen Baudewig[8], Malek Bajbouj[9], Georg Northoff[3]
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791 WTh Normal database of the serotonergic system in healthy subjects using multi-tracer PET
Markus Savli[1], Andreas Bauer[2], Daniela Haeusler[3], Yu-Shin Ding[4], Andreas Hahn[1], Tina kroll[2], Johanna Ungersboeck[3], Alexander Neumeister[4], Shannan Henry[5], Markus Mitterhauser[3], Wolfgang Wadsak[3], Siegfried Kasper[1], Rupert Lanzenberger[1]
[1]Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria, [2]Institute of Neuroscience and Medicine (INM-2), Research Centre Jülich, Jülich, Germany, [3]Department of Nuclear Medicine, Medical University of Vienna, Vienna, Austria, [4]Department of Radiology and Psychiatry, New York University School of Medicine, New York, USA, [5]Department of Psychiatry, Yale University School of Medicine, New Haven, USA

***792 WTh Quantification of dopamine in the human striatum in anatomical and connectivity derived subdivisions (O-Th2)**
Andri Tziortzi[1], Suzanne Haber[2], Graham Searle[3], Charalampos Tsoumpas[4], Christopher Long[5], Paul Shotbolt[6], Eugenii Rabiner[3], Roger Gunn[3], Mark Jenkinson[1]
[1]University of Oxford, UK, [2]University of Rochester, NY, USA, [3]Imanova London, UK, [4]King's College London, UK, [5]MIT Center for Neuroeconomics Boston, USA, [6]Imperial College London, UK

INFORMATICS

Atlases

793 WTh Longitudinal T2 and DTI Atlases of Neonatal Brain
Jordan Bai[1], Marielle Fortier[2], Michael Meaney[3,4], anqi qiu[1,5,3]
[1]Department of Bioengineering, National University of Singapore, Singapore, Singapore, [2]Radiology Department, KK Women's and Children's Hospital, Singapore, Singapore, [3]Singapore Institute for Clinical Sciences, the Agency for Science, Technology and Research, Singapore, Singapore, [4]Departments of Psychiatry and Neurology & Neurosurgery, McGill University, Montreal, Canada, [5]Clinical Imaging Research Center, National University of Singapore, Singapore, Singapore

794 WTh Creating an MRI anatomic atlas of the human cervical spine: Implications for spinal fMRI
David Cadotte[1], Michael Fehlings[2], David Mikulis[2], Natalia Nugaeva[2], Jefferson Wilson[2]
[1]University of Toronto, Toronto, Canada, [2]University of Toronto, Toronto, Ontario

***795 WTh Establishing homotopic inter-hemispheric regional correspondences via rest functional connectivity (O-M4)**
Marc Joliot[1], Mikaël Naveau[1], Pierre-Yves Hervé[1], Laurent Petit[1], Laure Zago[1], Fabrice Crivello[1], Gael Jobard[1], Emmanuel Mellet[1], Nathalie Tzourio-Mazoyer[1], Bernard Mazoyer[1]
[1]GIN UMR5296 CNRS CEA Bordeaux University, Bordeaux, France

796 WTh Surface-based Brodmann's area Atlas in individual subject
Yoon Jeong Koo[1], Uicheul Yoon[2], Jun Sung Park[1], Hyuk Jin Yun[1], Dong Young Lee[3], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]Department of Psychiatry, Seoul National University, Seoul, Korea, Republic of

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

797 WTh Integrated Visualization of the Human Brain Transcriptome, Anatomy, and Cytoarchitecture
Christopher Lau[1], David Feng[1], Yang Li[1], Angela Guillozet-Bongaarts[1], Tim Dolbeare[1], Changkyu Lee[1], Zackery Riley[1], Barry Daly[2], Rao Gullipalli[2], Alan McMillan[2], Dharmendra Patel[3], Adolfo Sequeira[3], Elaine Shen[1], Michael Hawrylycz[1], Chinh Dang[1], Allan Jones[1], Lydia Ng[1]
[1]Allen Institute for Brain Science, Seattle, United States, [2]University of Maryland School of Medicine, Baltimore, United States, [3]University of California Irvine, Irvine, United States

798 WTh A new processing pipeline and release of cytoarchitectonic probabilistic maps – JuBrain
Hartmut Mohlberg[1], Simon Eickhoff[1,2,3], Axel Schleicher[1], Karl Zilles[4,5,3], Katrin Amunts[1,6,3]
[1]Institute of Neurosciences and Medicine INM-1, Research Centre Juelich, Juelich, Germany, [2]Institute for Clinical Neuroscience and Medical psychology, Duesseldorf, Germany, [3]JARA-BRAIN, Juelich-Aachen Research Alliance, Aachen, Germany, [4]Institute of Neurosciences and Medicine INM-2, Research Centre Juelich, Juelich, Germany, [5]C. and O. Vogt Institute for Brain Research, Heinrich-Heine University, Duesseldorf, Germany, [6]Department of Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen University, Aachen, Germany

799 WTh Multimodal Brain Atlas of the New Zealand Rabbit based on Diffusion and Structural MRI
Emma Muñoz-Moreno[1,2,3], Ariadna Arbat-Plana[1,2,3], Elisenda Eixarch[1,2,3], Dafnis Batalle[1,2,3], Miriam Illa[1,2,3], Eduard Gratacos[1,2,3]
[1]Department of Maternal-Fetal Medicine, ICGON, Hospital Clínic of Barcelona, Barcelona, Spain, [2]Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), University of Barcelona, Barcelona, Spain, [3]Centro de Investigación Biomédica en Red de Enfermedades Raras (CIBERER), Barcelona, Spain

800 WTh Tractography-based parcellation of human left Wernicke's area
Jiaojian Wang[1], Lingzhong Fan[2], Yu Zhang[3], Jinping Xu[1], Chunshui Yu[4], Tianzi Jiang[5]
[1]Key Laboratory for NeuroInformation of the Ministry of Education, School of Life Science and Technol, Chengdu, China, [2]Institution of Automation,Chinese Academy of Sciences, Beijing, China, [3]Institution of Automation, Beijing, China, [4]Department of Radiology, Tianjin Medical University General Hospital, Tianjin, China, [5]Key Laboratory for NeuroInformation of the Ministry of Education, School of Life Science and Technol, chengdu, China

INFORMATICS

Databasing and Data Sharing

801 WTh A databank, rather than statistical, model of normal ageing brain structure to indicate pathology
David Alexander Dickie[1], Dominic Job[1], David Rodriguez Gonzalez[1], Susan Shenkin[2], Joanna Wardlaw[1]
[1]Brain Research Imaging Centre (BRIC) and the SINAPSE collaboration, The University of Edinburgh, Edinburgh, United Kingdom, [2]Geriatric Medicine Unit and the SINAPSE collaboration, The University of Edinburgh, Edinburgh, United Kingdom

802 WTh Graphically-Driven Exploration and Informatics of Neuroimaging Data Archives
Ian Bowman[1], Shantanu Joshi[1], Jack Van Horn[1]
[1]UCLA, Los Angeles, CA

803 WTh LORIS: A web-based data management system for multi-center studies
Samir Das[1], Alex Zijdenbos[2], Dave MacFarlane[3], Zia Mohaddes[3], Mirela Petkova[4], Christine Rogers[3], Penelope Kostopoulos[3], Alan Evans[3]
[1]Montreal Neurological Institute, Montreal, Canada, [2]Biospective, Montreal, Quebec, [3]Montreal Neurological Institute, Montreal, Quebec, [4]Douglas Hospital, Montreal, Quebec

804 WTh NITRC: Neuroimaging Informatics Tools and Resources Clearinghouse - An Update
Christian Haselgrove[1], David Kennedy[2]
[1]UMass Medical School, Worcester, MA, [2]University of Massachusetts Medical Center, Worcester, United States

805 WTh BIL&GIN: a database for the study of hemispheric specialization
Laurent Petit[1], Fabrice Crivello[1], Emmanuel Mellet[1], Gael Jobard[1], Laure Zago[1], Marc Joliot[1], Guy Perchey[1], Bernard Mazoyer[1], Nathalie Tzourio-Mazoyer[1]
[1]GIN-UMR5296 CNRS CEA Bordeaux University, Bordeaux, France

806 WTh Discovering the relations between mind, brain, and mental disorders using topic mapping
Russell Poldrack[1], Jeanette Mumford[2], Tom Schonberg[2], Bishal Barman[3], Donald Kalar[4], Tal Yarkoni[5]
[1]UT Austin, Austin, United States, [2]University of Texas at Austin, Austin, United States, [3]University of Texas at Austin, Austin, TX, [4]NASA Ames Research Center, Mountain View, CA, [5]University of Colorado, Boulder, CO

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

807 WTh Child Psychiatry NeuroImaging Portal
Pallavi Rane[1], Steven Hodge[1], Christian Haselgrove[1], David Kennedy[1]
[1]University of Massachusetts Medical Center, Worcester, United States

808 WTh Co-Author Network of Neuroimaging Researchers: A Decade of OHBM Conference Oral Presentations
Qawi Telesford[1], Satoru Hayasaka[2]
[1]Wake Forest University, Winston-Salem, NC, [2]Wake Forest University School of Medicine, Winston-Salem, NC

809 WTh Extensions and improvements to the Neurosynth framework for automated meta-analysis
Tal Yarkoni[1], Russell Poldrack[2], Thomas Nichols[3], David Van Essen[4], Tor Wager[5]
[1]University of Colorado Boulder, Boulder, United States, [2]UT Austin, Austin, United States, [3]University of Warwick, Dept. of Statistics, Coventry, United Kingdom, [4]Washington University, N/A, [5]Department of Psychology and Neuroscience, University of Colorado at Boulder, Boulder, CO

INFORMATICS

Pipelines

810 WTh A Highly Parallelized Framework for Computationally Intensive MRI/MRS Data Analysis
Roland Boubela[1,2,3], Wolfgang Huf[1,2,3], Klaudius Kalcher[1,2,3], Ronald Sladky[1], Peter Filzmoser[2], Siegfried Kasper[4], Lukas Pezawas[4], Ewald Moser[1], Christian Windischberger[1]
[1]Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria, [2]Department of Statistics and Probability Theory, Vienna University of Technology, Vienna, Austria, [3]Division of Biological Psychiatry, Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria, [4]Department of Psychiatry and Psychotherapy, Medical University of Vienna, Vienna, Austria

811 WTh AFNI: State of the Software — 2012
Robert Cox[1], Richard Reynolds[1], Daniel Glen[1], Ziad Saad[1], Gang Chen[1]
[1]SSCC/NIMH/NIH/DHHS/USA, Bethesda, MD

812 WTh PANDA: a Pipeline for Analysing braiN Diffusion imAges
Zaixu Cui[1], Suyu Zhong[1], Yong He[1], Gaolang Gong[1]
[1]State key laboratory of cognitive neuroscience and learning, Beijing Normal University, Beijing, China

813 WTh "aa": Parallel Processing and Efficient Workflows with Matlab on your Cluster or in the Cloud
Rhodri Cusack[1], Alejandro Vicente-Grabovetsky[2], Daniel Mitchell[3], Jonathan Peelle[4]
[1]University of Western Ontario, London, Ontario, [2]Donders Centre for Cognitive Neuroimaging, Nijmegen, Netherlands, [3]MRC Cognition and Brain Sciences Unit, Cambridge, United Kingdom, [4]University of Pennsylvania, Philadelphia, United States

814 WTh Pipeline methodology for structural connectivity analysis: application to the normal brain
Hugo Ferreira[1], Carmen Ferra[2], Pedro Gonçalves-Pereira[3,2], Rui Manaças[3,4], Alexandre Andrade[1]
[1]Institute of Biophysics and Biomedical Engineering, Faculty of Sciences of the University of Lisbon, Lisboa, Portugal, [2]Escola Superior de Tecnologias da Saúde, Instituto Politécnico de Lisboa, Lisboa, Portugal, [3]Serviço de Radiologia, Hospital dos Lusíadas, Lisboa, Portugal, [4]Serviço de Neurorradiologia, Hospital dos Capuchos, Lisboa, Portugal

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

815 WTh Nipype 2012: more packages, more reusable workflows and more reproducible research
Krzysztof Gorgolewski[1], Yaroslav Halchenko[2], Michael Notter[3], Gaël Varoquaux[4], Michael Waskom[5], Erik Ziegler[6], Satrajit Ghosh[7]
[1]University of Edinburgh, Edinburgh, United Kingdom, [2]Dartmouth College, Hannover, NH, [3]University of Zurich, Zurich, Switzerland, [4]INRIA, Saclay, France, [5]Stanford University, Palo Alto, CA, [6]Université de Liège, Liège, Belgium, [7]MIT, Cambridge, MA

816 WTh BrainVoyager MRI Data Processing Without Human Assistance by Use of AutoIT in Pipeline-Like Design
Rui Lavrador[1], Carlos Santos[1], Nicolás Lori[1,2]
[1]IBILI, Faculty of Medicine, University of Coimbra, Coimbra, Portugal, [2]BINP - Brain Imaging Network in Portugal, Coimbra, Portugal

817 WTh The State of SUMA: Group Methods, Atlases, Automation & Resting-State
Ziad Saad[1], Richard Reynolds[2], Michael Beauchamp[3], Robert Cox[2]
[1]National Institutes of Health, Bethesda, MD, [2]National Institute of Mental Health, Bethesda, MD, [3]UT Health Science Center at Houston, Houston, TX

818 WTh Withdrawn

LEARNING AND MEMORY

Implicit Memory

819 WTh Rapid amygdala responses during trace fear conditioning without awareness
Nicholas Balderston[1], Doug Schultz[1], Fred Helmstetter[1,2]
[1]University of Wisconsin-Milwaukee, Milwaukee, WI, [2]Medical College of Wisconsin, Milwaukee, WI

820 WTh Role of N250 in Encoding Human Faces: An ERP Study
Chetwyn Chan[1], Sam Chan[1], Zhong-lin Lu[2], Kin-hung Ting[1]
[1]Applied Cognitive Neuroscience Laboratory, The Hong Kong Polytechnic University, Hong Kong, Hong Kong, [2]Centre for Cognitive Science, Ohio State University, Columbus, OH

821 WTh FMRI repetition effects in priming and recognition memory tasks
Chi-Lan Yang[1], Han-Yuan Lai[1], Yu-Yun Hsu[1], Yun-Shin Wen[1], YU-YI CHENG[1], Yuong-Hsuen Ni[1], Chun-Yu Lin[1]
[1]Department of Psychology, National Cheng Kung University, Tainan, Chinese Taipei

LEARNING AND MEMORY

Long-Term Memory (Episodic and Semantic)

822 WTh Memantine impairs declarative learning and associated hippocampal function in healthy human subjects
Benjamin Becker[1], Eva Klein[1], Nadine Striepens[1], Yoan Mihov[1], Keith Kendrick[2], Juergen Reul[3], Koen Schruers[4], Liesbet Goossens[4], Thomas Schlaepfer[1], Rene Hurlemann[1]
[1]University of Bonn, Bonn, Germany, [2]University of Electronic Science and Technology of China, Chengdu, China, [3]Beta Clinic, Bonn, Germany, [4]Maastricht University, Maastricht, Netherlands

823 WTh Recognition Memory Performance is modulated by tDCS over the Left Posterior Parietal Cortex
Shih-kuen Cheng[1], Nei-Feng Chen[1], Chi-Hung Juan[2], Daisy Hung[3], Ovid J.-L. Tzeng[4]
[1]National Central University, Jhongli City, Chinese Taipei, [2]National Central University, Jhongli, Chinese Taipei, [3]Institute of Cognitive Neuroscience, National Central University, Jhongli City, Chinese Taipei, [4]Laboratories for Cognitive Neuroscience, National Yang-Ming University, Taipei, Chinese Taipei

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

824 WTh Memory Activation for Recollection and Familiarity in the Medial Temporal Lobes using fMRI
Dietmar Cordes[1], Grit Herzmann[2], Rajesh Nandy[3], Tim Curran[2]
[1]University of Colorado-Denver, Aurora, CO, [2]University of Colorado-Boulder, Boulder, CO, [3]University of California (UCLA), Los Angeles, CA

825 WTh Reactivating Memory Traces during Sleep: A Localized Sleep Spindle Response
Roy Cox[1], Marieke de Boer[1], Winni Hofman[1], Lucia Talamini[1]
[1]University of Amsterdam, Amsterdam, Netherlands

826 WTh Retention-Dependent Increases in Sleep Spindle Density: a Slow Wave Sleep-Specific Phenomenon
Roy Cox[1], Winni Hofman[1], Lucia Talamini[1]
[1]University of Amsterdam, Amsterdam, Netherlands

827 WTh Withdrawn

828 WTh A 7T resting state fMRI study of MTL-Neocortical Connectivity Changes after Spatial Learning
Raphael Kaplan[1], Wen-Ming Luh[1], Christian Doeller[2], Neil Burgess[3], Peter Bandettini[4]
[1]National Institute of Mental Health, Bethesda, United States, [2]Donders Centre for Cognitive Neuroimaging: Radboud University, Nijmegen, Netherlands, [3]University College London, London, United Kingdom, [4]National Institutes of Health, Bethesda, United States

***829 WTh The role of classical speech areas in auditory long-term memory (O-Th3)**
Anke Karabanov[1], Rainer Paine[2], Mark Hallett[2], Mortimer Mishkin[3]
[1]Danish Research Center for Magnetic Imaging, Copenhagen, Denmark, [2]National Institute of Neurological Disorder and Stroke, Bethesda, MD, [3]National Institute of Mental Health, Bethesda, MD

830 WTh Consolidation of social memories in resting state networks
Peter Klaver[1], Maximilian Geiger[1]
[1]Institute of Psychology, Zurich, Switzerland

831 WTh Magnetoencephalographic features of semantic and episodic memory deficit in Alzheimer's disease
Valentina La Corte[1], Gianfranco Dalla Barba[2,3], Jean-Didier Lemaréchal[2], Nathalie George[2]
[1]aUniversité Pierre et Marie Curie-Paris VI, CRICM, Paris, France, bINSERM, UMR_S975, Paris, France c, France, [2]aUniversité Pierre et Marie Curie-Paris VI, CRICM, Paris, France, bINSERM, UMR_S975, Paris, France c, Paris, France, [3]aUniversité Pierre et Marie Curie-Paris VI, CRICM, Paris, France, bINSERM, UMR_S975, Paris, France cCNRS, UMR 7225, Paris, France, Paris, France

832 WTh The Neural Mechanisms Underlying Different Memory Durations
Qi Liu[1], Gui Xue[1,2], Hongli Xue[1], Yunxin Wang[1], Chuansheng Chen[3], Qi Dong[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing, China, [2]University of Southern California, Los Angeles, CA, [3]Department of Psychology and Social Behavior, University of California, Irvine, Irvine, United States

833 WTh Late posterior negativity and color source retrieval
Aiqing Nie[1,1]
[1]Zhejiang University, Hangzhou, Zhejiang Provience, China

834 WTh Memory encoding is boosted by blocking irrelevant memories by posterior alpha activity
Hyojin Park[1], Jarang Hahm[1], Hyejin Kang[1], Eunjoo Kang[2], June Sic Kim[3], Chun Kee Chung[3], Ole Jensen[4], Dong Soo Lee[1]
[1]Department of Nuclear Medicine, Seoul National University College of Medicine, Seoul, Korea, Republic of, [2]Kangwon National University, Chuncheon, Korea, Republic of, [3]MEG Center, Department of Neurosurgery, Seoul National University College of Medicine, Seoul, Korea, Republic of, [4]Donders Centre for Cognitive Neuroimaging, Radboud University Nijmegen, Nijmegen, Netherlands

835 WTh Hippocampal Lateralization Predicts Spatial Memory Performance: A Study of Sex Differences
Jonas Persson[1], Jonas Engman[1], Arvid Morell[1], Johan Wikström[1], Hedvig Söderlund[1]
[1]Uppsala University, Uppsala, Sweden

***836 WTh Sub-Regions in Human Entorhinal Cortex are Domain-Sensitive (O-Th3)**
Heidrun Schultz[1], Tobias Sommer[1], Jan Peters[1]
[1]Department of Systems Neuroscience, University Medical Center Hamburg-Eppendorf, Hamburg, Germany

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

837 WTh Interference with memory retrieval following rTMS stimulation of the inferior parietal lobule
Carlo Sestieri[1], Maurizio Corbetta[2], Paolo Capotosto[1], Annalisa Tosoni[3], Gian Luca Romani[4]
[1]Dept. of Neuroscience and Imaging, University G.d'Annunzio, Chieti, Italy, [2]Dept. Neurology, Radiology, and Anatomy and Neurobiology, Washington University School of Medicine, St. Louis, MO, [3]Dept. of Neuroscience and Imaging, University G.d'Annunzio, Chieti, Italy, [4]Department of Neuroscience and Imaging – G. D'Annunzio University of Chieti, Chieti, Chieti

838 WTh Qualitatively different memory signals in human rhinal cortex and hippocampus revealed via iEEG
Bernhard Staresina[1], Juergen Fell[2], Anne Do Lam[3], Nikolai Axmacher[2], Richard Henson[1]
[1]MRC Cognition & Brain Sciences Unit, Cambridge, United Kingdom, [2]Dept. of Epileptology, Univ. of Bonn, Bonn, Germany, [3]Epileptology, University of Bonn, Bonn, Germany

839 WTh The Role of the Hippocampus in Consolidating Episodic Regularities
carly sweegers[1], atsuko takashima[2], Guillén Fernández[2], Lucia Talamini[1]
[1]University of Amsterdam, Amsterdam, Netherlands, [2]Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands

840 WTh Changes in resting-state correlations following the encoding of complex scenes
Arielle Tambini[1], Eyal Bar-David[1], Lila Davachi[1], Elizabeth Phelps[1], Ulrike Rimmele[1]
[1]New York University, New York, United States

841 WTh High field MRI reveals specific episodic memory correlates in the subfields of the hippocampus
Scott Travis[1], Rawle Carter[1], Esther Fujiwara[1], Yushan Huang[2], Ashley Radomski[1], Peter Seres[2], Nikolai Malykhin[3]
[1]University of Alberta, Edmonton, Alberta, [2]University of Aberta, Edmonton, Alberta, [3]University of Alberta, Edmonton, Canada

***842 WTh Posterior Hippocampus and Fornix Contributes to Long-Term Memory Consolidation of Contextual Memory (O-Th3)**
Sicong Tu[1,2], Michael Hornberger[1]
[1]Neuroscience Research Australia, Sydney, Australia, [2]University of New South Wales, Sydney, Australia

843 WTh Differential congruency effects on memory retrieval owing to consolidation and memory type
Marlieke van Kesteren[1], Mark Rijpkema[1], Dirk Ruiter[2], Guillén Fernández[2]
[1]Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands, [2]Radboud University Medical Centre, Nijmegen, Netherlands

844 WTh Temporal neocortex shows antero-posterior functional dissociation during retrieval of remote memory
Takamitsu Watanabe[1], Hiroko Kimura[1], Satoshi Hirose[1], Hiroyuki Wada[2], Yoshio Imai[2], Toru Machida[2], Ichiro Shirouzu[2], Yasushi Miyashita[1], Seiki Konishi[1]
[1]Department of Physiology, The University of Tokyo School of Medicine, Tokyo, Japan, [2]Department of Radiology, NTT Medical Center Tokyo, Tokyo, Japan

***845 WTh Increased functional connectivity between hippocampus and striatum during memory consolidation (O-Th3)**
Daniel Woolley[1], Dante Mantini[1], Rudi D'Hooge[1], Stephan Swinnen[1], Nicole Wenderoth[1]
[1]KU Leuven, Leuven, Belgium

846 WTh The Relationship between Repetition Interval and Memory Performance: An fMRI Study
Hongli Xue[1], Gui Xue[1], Qi Liu[1], Chuansheng Chen[2], Qi Dong[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing, China, [2]University of California, Irvine, Irvine, CA

LEARNING AND MEMORY

Neural Plasticity and Recovery of Function

847 WTh Structural, perfusion and behavioral correlations in children with hemiplegic cerebral palsy
Moran Artzi[1,2], Maya Weinstein[3,4], Dido Green[5,6], Vicki Myers[3], Shelly Shiran[7], Liat Ben-Sira[7], Elka Miller[8], Mitchell Schertz[9], Andrew Gordon[10], Aviva Fattal-Valevski[9,11], Dafna Ben Bashat[3]
[1]Functional Brain Center, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, [2]Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel, [3]Functional Brain Center, Tel Aviv Sourasky Medical Center, Tel-Aviv, Israel, Tel Aviv, Israel, [4]Gonda Multidisciplinary Brain Research Center, Bar Ilan University, Ramat Gan, Israel, [5]Department occupational therapy, Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel, [6]Reader in Rehabilitation, Oxford Brookes University, Oxford, United Kingdom, [7]Department of Radiology, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, [8]Diagnostic Imaging, Children's Hospital of Eastern Ontario, University of Ottawa, Ottawa, Canada, [9]Paediatric Neurology Unit, Tel Aviv Medical Center, Tel Aviv, Israel, [10]Department of Biobehavioral Sciences, Columbia University, New York, United States, [11]Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel, Tel Aviv, Israel

848 WTh Parietofrontal integrity after stroke determines neural modulation skill acquired via BCI training
Ethan Buch[1], Amir Modir Shanechi[1,2], Alissa Fourkas[1], Cornelia Weber[3], Niels Birbaumer[3,4], Leonardo Cohen[1]
[1]National Institute of Neurological Disorders and Stroke (NINDS), NIH, Bethesda, MD, United States, [2]University School of Medicine, St. Louis, MO, [3]Institute of Medical Psychology and Behavioral Neurobiology, University of Tübingen, Tübingen, Germany, [4]Ospedale San Camillo, IRCCS, Venice, Italy

849 WTh The varied cortical activation is prompted by 2×2 levels of thermal pain stimuli: an fMRI study
Sharon Chia-Ju Chen[1], Hsin-Yun Lee[1], Chuan-Li Lin[2], Yen-Yu Chiu[3], Pei-Rong Chen[2], Yi Lu[2], Guan-Wen Chih[4], Gin-Chung Liu[3], Jau-Hong Lin[2]
[1]Department of Medical Imaging and Radiological Sciences, Kaohsiung Medical University, Kaohsiung, [2]Department of Physical Theray, Kaohsiung Medical University, Kaohsiung, [3]Department of Medical Imaging, Kaohsiung Medical University, Kaohsiung, [4]Department of Medical Imaging and Radiological Sciences, Kaohsiung Medical University, Kaohsiung

850 WTh Neural field theory of calcium dependent plasticity
Park Fung[1], Peter Robinson[1]
[1]University of Sydney, Sydney, Australia

851 WTh Long term, hebbian-like, traces of prior neuronal activations are revealed in resting state fMRI
Tal Harmelech[1], Eliahu Wertman[2], Son Preminger[1], Rafael Malach[1]
[1]Weizmann Institute of Science, Rehovot, Israel, [2]Hebrew University, Jerusalem, Israel

852 WTh The paradox of expertise: musical training intensity both increases and decreases brain structures
Clara James[1], Mathias Oechslin[1], Dimitri Van De Ville[2], Claude-Alain Hauert[1], Céline Descloux[3], François Lazeyras[4]
[1]FPSE, University of Geneva, Geneva, Switzerland, [2]UniGE/EPFL, Lausanne, Switzerland, [3]Medical University of Lausanne, Lausanne, Switzerland, [4]Department of Radiology & CIBM, University of Geneva, Geneva, Switzerland

853 WTh The effects of limb immobilization on brain plasticity
Nicolas Langer[1], Alexandra Müller[2], Hans-Peter Simmen[2], Lutz Jäncke[3], Jürgen Hänggi[4]
[1]University Zurich, N/A, [2]University Hospital Zurich, Zurich, Switzerland, [3]University of Zurich, Zurich, Switzerland, [4]Division of Neuropsychology, University of Zurich, Zurich, Switzerland

854 WTh Increased BOLD variability and functional connectivity changes in congenitally blind individuals
Andrea Leo[1], Giulio Bernardi[1], Giacomo Handjaras[1], Emiliano Ricciardi[1], Pietro Pietrini[1]
[1]Laboratory of Clinical Biochemistry and Molecular Biology, University of Pisa Medical School, Pisa, Italy

855 WTh Assessment of cortical reorganization after face transplantation by fEEG – a three year experience
Vlodek Siemionow[1], Katarzyna Kisiel-Sajewicz[2], Alexandria Wyant[3], Guang Yue[4], Maria Siemionow[5]
[1]Departments of Biomedical Engineering and Rehabilitaion, Cleveland Clinic, Cleveland, OH, USA, [2]University School of Physical Education in Wrocław, Wroclaw, Poland, [3]Department of Biomedical Engineering, Cleveland Clinic, Cleveland, OH, USA, [4]Kessler Foundation Research Center, West Orange, NJ, USA, [5]Department of Plastic Surgery, Cleveland Clinic, Cleveland, OH, USA

856 WTh Training-induced structural changes after 45 minutes of balance training: A 7 Tesla MRI study
Marco Taubert[1], Bernhard Sehm[1], Robert Trampel[1], Virginia Conde Ruiz[1], Marcel Weiss[1], Dimo Ivanov[1], Thomas Fritz[1], Robert Turner[1], Arno Villringer[1], Patrick Ragert[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

857 WTh Insights into the brain of an elite athlete: Evidence from structural neuroimaging
Marco Taubert[1], Uwe Wenzel[2], Bogdan Draganski[3], Maren Witt[2], Patrick Ragert[1], Jürgen Krug[2], Arno Villringer[1]
[1]Max-Planck-Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Faculty of Sports Sciences, University of Leipzig, Leipzig, Germany, [3]LREN, Département des neurosciences cliniques - CHUV, Lausanne, Switzerland

858 WTh Rapid changes in brain structure in response to exercise in sedentary adults
Adam Thomas[1,2], Andrea Dennis[2], Nancy Rawlings[2], Lucy Matthews[3], Charlotte Stagg[3], Martyn Morris[4], Shannon Kolind[3], Peter Bandettini[5], Helen Dawes[4], Heidi Johansen-Berg[3]
[1]NIMH, Bethesda, MD, [2]FMRIB, University of Oxford, Oxford, United Kingdom, [3]University of Oxford, Oxford, United Kingdom, [4]Oxford Brookes University, Oxford, United Kingdom, [5]National Institutes of Health, Bethesda, United States

859 WTh Functional Plasticity of the Resting Human Brain Induced by Long-Term Driving
Lubin Wang[1], Qiang Liu[2,3], Hong Li[2,3], Dewen Hu[1]
[1]College of Mechatronics and Automation, National University of Defense Technology, Changsha, China, [2]Key Laboratory of Cognition and Personality (SWU), Ministry of Education, Chongqing, China, [3]School of Psychology, Southwest University, Chongqing, China

860 WTh Effects of l-dopa in an auditory operant conditioning task
Tina Weis[1], Sebastian Puschmann[1], Andre Brechmann[2], Christiane Thiel[1,3]
[1]Biological Psychology Lab, Institute of Psychology, Carl von Ossietzky University, Oldenburg, Germany, [2]Leibniz Institute of Neurobiology, Special Lab Non-Invasive Brain Imaging, Magdeburg, Germany, [3]Research Center Neurosensory Science, Carl von Ossietzky University, Oldenburg, Germany

LEARNING AND MEMORY

Skill Learning

861 WTh Individual Differences in Sensitivity to Interference during Motor Sequence Learning: an fMRI Study
Genevieve Albouy[1], Luca Matarazzo[2], Christina Schmidt[3], Ariane Foret[2], Laura Mascetti[4], Martin Desseilles[5], Thien Thanh Dang-Vu[3], Pierre Orban[1], Evelyne Balteau[3], Christophe Phillips[6], Christian Degueldre[3], Habib Benali[7], Philippe PEIGNEUX[8], Andre Luxen[3], Avi Karni[9], Pierre Maquet[3], Maria Korman[9], Julien Doyon[10]
[1]CRIUGM, University of Montreal, Montreal, Canada, [2]Cyclotron Research Centre, University of Liege, Liege, Belgium, [3]Cyclotron Research Centre, Liege, Belgium, [4]University of Liège, Cyclotron Research Centre, Liège, Belgium, [5]University of Liège and Massachusetts General Hospital, N/A, [6]Cyclotron Research Centre, University of Liege, Sart Tilman, Liege, Belgium, [7]INSERM, Paris, France, [8]Université Libre de Bruxelles (ULB), Bruxelles, Belgium, [9]University of Haifa, Haifa, Israel, [10]Functional Neuroimaging Unit, CRIUGM, University of Montreal, Montreal, PQ

862 WTh Expertise modulates brain activity during passive driving: a study in professional and naïve drivers
Giulio Bernardi[1], Emiliano Ricciardi[1,2,3], Giacomo Handjaras[1], Anna Gaglianese[1], Lorenzo Sani[1,2,3], Alessandra Papasogli[4], Riccardo Ceccarelli[1], Ferdinando Franzoni[5], Fabio Galetta[5], Gino Santoro[5], Rainer Goebel[6], Pietro Pietrini[1,2]
[1]Laboratory of Clinical Biochemistry and Molecular Biology, University of Pisa, Pisa, Italy, [2]Department of Laboratory Medicine and Molecular Diagnostics, AOUP, Pisa, Italy, [3]MRI Laboratory, Fondazione Regione Toscana/CNR 'G.Monasterio', Pisa, Italy, [4]Formula Medicine, Viareggio, Italy, [5]Department of Internal Medicine, University of Pisa, Pisa, Italy, [6]Maastricht University, Maastricht, Netherlands

863 WTh Long-term motor training improves manual dexterity and reduces neural activity in motor cortex
Dorothee Callaert[1], Katrien Vercauteren[1], Stefan Sunaert[2], Stephan Swinnen[1], Nicole Wenderoth[1]
[1]Movement Control and Neuroplasticity Research Group, Department of Kinesiology, KU Leuven, Leuven, Belgium, [2]Radiology, KU Leuven, Leuven, Belgium

864 WTh Dissociable brain mechanisms of short-term and long-term preservation of perceptual learning
Yulong Ding[1], You Wang[1], Zhe Qu[1]
[1]Sun Yat-Sen University, Guangzhou, China

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

865 WTh Basal Ganglia Network Dysfunction during Motor Sequence Learning in Writer's Cramp Patients
Cécile Galléa[1], Meirav Balas[2], David Grabli[3], Melanie Pelegrini-Issac[4], Marie Vidailhet[5], Lehéricy Stéphane[6]
[1]Institut du Cerveau et de la Moelle - ICM, Paris, France, [2]Centre de Neuroimagerie de Recherche (CENIR), Paris, France, [3]Federation de Neurologie, Groupe Hospitalier Pitié-Salpêtrière, Paris, France, [4]Université Pierre et Marie Curie, U678, Paris, France, [5]Université Pierre et Marie Curie-Paris 6, Centre de Recherche de l'Institut du Cerveau et de la Moe, Paris, France, [6]Centre de Neuro-Imagerie de Recherche (CENIR), CR-ICM, Inserm, U975, CNRS, UMR 7225, Paris, France

***866 WTh Motor learning and offline processes of consolidation associated with rapid GABA modulation (O-T2)**
Christel Gudberg[1], Charlotte Stagg[1], Jamie Near[1], Heidi Johansen-Berg[1]
[1]Nuffield Department of Clinical Neurosciences (FMRIB), University of Oxford, Oxford, United Kingdom

867 WTh A quantitative meta-analysis of motor learning in the human brain
Robert Hardwick[1], Chris Miall[1], Claudia Rottschy[2], Simon Eickhoff[3]
[1]University of Birmingham, Birmingham, United Kingdom, [2]Department of Neurology, University Hospital Aachen, N/A, [3]Research Center Jülich, Jülich, Germany

868 WTh Visuo-motor learning measured via high-resolution PASL fMRI at 7T
Steffen Krieger[1], Robert Turner[1], Leigh Johnston[2], Gary Egan[3]
[1]Max-Plank Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]University of Melbourne, Melbourne, Australia, [3]Monash University, Melbourne, Australia

869 WTh Abacus training effects on numerical memory activates a frontal-parietal network
Yongxin Li[1], Yuzheng Hu[2], Jian Weng[1], Ming Zhao[3], Feiyan Chen[1]
[1]Bio-X Laboratory, Department of Physics, Hangzhou, China, [2]National Institute on Drug Abuse, Baltimore, MD, [3]Zhejiang University, Hangzhou, China

***870 WTh Hippocampal and prefrontal reorganization is associated with the maturation of fact retrieval (O-Th3)**
Shaozheng Qin[1], Soohyun Cho[2], Miriam Rosenberg-Lee[3], Dave Geary[4], Vinod Menon[5]
[1]Stanford University, Stanford, United States, [2]Stanford University, Stanford, CA, [3]Stanford University, N/A, [4]University of Missouri, Missouri, MO, [5]Stanford school of medicine, Palo Alto, CA

871 WTh Motor Memory Consolidation Effects Distinct Resting State Networks
Saber Sami[1], Chris Miall[1], Edwin Robertson[2]
[1]University of Birmingham, Birmingham, United Kingdom, [2]Harvard Medical School, Boston, MA

872 WTh Don't Talk to Me: Reduced Functional Connectivity Following Errors in Task Performance
Benjamin Shannon[1], Marcus Raichle[2], Abraham Snyder[2], Sanjeev Vaishnavi[2]
[1]Washington University, Saint Louis, United States, [2]Washington University, Saint Louis, MO

***873 WTh Differential contribution of BA4a and BA4p to motor learning (O-T2)**
Nikhil Sharma[1], Michael Dimyan[2], Carlo Pierpaoli[2], Lindsay Walker[3], Alissa Fourkas[4], Leonardo Cohen[5]
[1]NINDS, Bethesda, United States, [2]NIH, Bethesda, MD, [3]NIH, Bethesda, United States, [4]NINDS, Bethesda, MD, [5]National Institute of Neurological Disorders and Stroke (NINDS), NIH, Bethesda, MD

874 WTh Experience–dependent Changes in Intrinsic Functional Connectivity: Tool-use and Supramarginal Gyrus
Kwangsun Yoo[1], William Sohn[1], Yong Jeong[1]
[1]KAIST, Daejeon, Korea, Republic of

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

LEARNING AND MEMORY

Working Memory

875 WTh Training-related plasticity in brain activity following visual spatial working memory training
Sharona Atkins[1], Donald Bolger[2], Michael Bunting[3], Michael Dougherty[1]
[1]Department of Psychology, University of Maryland, College Park, MD, [2]Department of Human Development,University of Maryland, College Park, MD, [3]Center for Advanced Study of Language, University of Maryland, College Park, MD

876 WTh Syntactic Contributions to Working Memory: A Neural Basis of the Sentence Superiority Effect
Corinna Bonhage[1], Christian Fiebach[2], Angela Friederici[1], Jörg Bahlmann[3], Jutta Mueller[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]University of Frankfurt, Frankfurt am Main, Germany, [3]University of California, Berkeley, CA

877 WTh Influence of the Visual Context during the Maintenance of Motion Information in Working Memory
Claire Calmels[1], Marion Foutren[2], Cornelis Stam[3]
[1]INSEP, N/A, [2]INSEP Recherche, Paris, France, [3]Department of Clinical Neurophysiology, VU University Medical Centre, Amsterdam, Netherlands

878 WTh EEG Oscillation of encoding concrete biology concepts presented in pictures vs words
Wen-Chi Chou[1], Hsiao-Ching She[2], Tzyy-Ping Jung[3]
[1]Institute of Education, National Chiao-Tung University, Hsinchu, Chinese Taipei, [2]Institute of Education, National Chiao Tung University, HsinChu, Chinese Taipei, [3]University of California, San Diego, California, United States

879 WTh Identifying working memory representations of complex motion patterns in parietal cortex using fMRI
Thomas Christophel[1], John-Dylan Haynes[1]
[1]BCCN, Berlin, Germany

880 WTh EEG correlates associated with maintenance of temporal order information in visual working memory
Barbara Dolenc[1], Grega Repovš[2], Jurij Bon[1], Jurij Dreo[1], Dejan Georgiev[1], Blaž Koritnik[3]
[1]Laboratory for Cognitive Neuroscience, Department of Neurology, University Medical Centre, Ljubljana, Slovenia, [2]Department of Psychology, Faculty of Arts, University of Ljubljana, Ljubljana, Slovenia, [3]Institute of Clinical Neurophysiology, University Medical Centre, Ljubljana, Slovenia

881 WTh Neural Systems Underlying Distracter Inhibition in Verbal Working Memory
Christian Fiebach[1], Christine Stelzel[2], Ulrike Basten[1]
[1]Goethe University Frankfurt, Frankfurt am Main, Germany, [2]Charité Universitaetsmedizin, Berlin, Germany

882 WTh Functional brain reorganization following unilateral lesions of the hippocampal formation
Carsten Finke[1], Hannah Bruehl[2], Emrah Duzel[3], Hauke Heekeren[2], Christoph Ploner[1]
[1]Charité - Universitätsmedizin Berlin, Berlin, Germany, [2]Department of Education and Psychology, Freie Universitaet Berlin, Berlin, Germany, [3]Department of Neurology, University Hospital of Magdeburg, Magdeburg, Germany

883 WTh A Study on Small-World Brain Networks in Schizophrenia Patients during Working Memory Performance
Hao He[1,2], Jing Sui[1], Qingbao Yu[1], Jessica Turner[1], Dara Manoach[3], Scott Sponheim[4], Vince Calhoun[1,2]
[1]The Mind Research Network, Albuquerque, NM, [2]Dept. of Electrical and Computer Engineering, University of New Mexico, Albuquerque, NM, [3]Dept. of Psychiatry, Massachusetts General Hospital, Harvard Medical School, Charlestown, MA, [4]Minneapolis VA Health Care System and Dept. of Psychiatry, University of Minnesota, Minneapolis, MN

884 WTh The EEG dynamic of visual working memory task involving chemistry
Li-Yu Huang[1], Hsiao-Ching She[1], Tzyy-Ping Jung[2], Ming-Hua Chuang[1]
[1]Institute of Education, National Chiao-Tung University, Hsinchu, Chinese Taipei, [2]University of California, San Diego, California, United States

885 WTh Alpha oscillations serve to protect against distracters: a case for pulsed inhibition
Ole Jensen[1], Saskia Haegens[1], Mathilde Bonnefond[1]
[1]Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands

886 WTh Frontal Neuroimaging Indicators for Mild Cognitive Impairment during Working Memory
Yang Jiang[1], Lucas Broster[1], Chunyan Guo[2], Jessica Clark[3,1], Erin Walsh[1], McKinley Heflin[1], Gregory Jicha[1]
[1]University of Kentucky College of Medicine, Lexington, KY, USA, [2]Capital Normal University, Beijing, China, [3]National Rehabilitation Hospital, Washington DC, USA

***887 WTh Influence of acute bouts of submaximal exercise on working memory: An fMRI — study (O-Th3)**
Karl Koschutnig[1], Kerstin Schweitzer[2], Gernot Reishofer[3], Wolfram Mueller[2], Franz Ebner[3], Christa Neuper[4]
[1]Karl-Franzens University, Graz, Austria, [2]Medical University, Graz, Austria, [3]Medical University of Graz, Graz, Austria, [4]Karl Franzens University, Graz, Austria

888 WTh Magnetic resonance morphometric analysis of cingulate cortex and human memory in normal aging
Stanislav Kozlovskiy[1], Alexander Vartanov[1], Evgenia Nikonova[1], Maria Pyasik[1], Boris Velichkovsky[1]
[1]Lomonosov Moscow State University, Moscow, Russian Federation

889 WTh Training of Small-World Networks in the Human Brain
Nicolas Langer[1], Lutz Jäncke[2], Klaus Oberauer[2], Claudia von Bastian[2], Helen Wirz[2]
[1]University Zurich, N/A, [2]University of Zurich, Zurich, Switzerland

890 WTh Electrophysiological correlates of working memory in college students with schizotypal traits
Hyo-Jin Lee[1], Kyoung-Mi Jang[2], Chang-Hwan Im[3], Myung-Sun Kim[4]
[1]Department of Psychology, Sungshin Women's University, Seoul, Korea, Republic of, [2]Department of Psychology, Sungshin Women's University, seoul, Korea, Republic of, [3]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [4]Department of Psychology, Sungshin Women's University, Seoul, Korea, Republic of

891 WTh Effect of gender on auditory "What" and "Where" neural networks – An fMRI study
Ada Leung[1], Sylvain Moreno[2], Claude Alain[2]
[1]Department of Occupational Therapy, University of Alberta, Edmonton, Canada, [2]Rotman Research Institute at Baycrest, University of Toronto, Toronto, Ontario

****892 WTh Using fMRI and TMS to Study Interactions of the Motor System and Working Memory**
Diana Liao[1], Jeffrey Yau[1], Diane Echavarria[1], Monica Faulkner[1], John Desmond[1], Cherie Marvel[1]
[1]Johns Hopkins University School of Medicine, Baltimore, United States

893 WTh Spontaneous Alpha Oscillations Predict Encoding in a Precision Visual Short-term Memory Task
Nicholas Myers[1], Mark Stokes[1], Alexandra Murray[1], Anna Nobre[1]
[1]Oxford University, Oxford, United Kingdom

894 WTh Brain structures associated with working memory performance: a voxel-based morphometric study
Wen-Ju Pan[1], Matthew Magnuson[1], Garth Thompson[1], Hillary Schwarb[2], Eric Schumacher[2], Shella Keilholz[1]
[1]Georgia Institute of Technology and Emory University, Atlanta, GA, [2]Georgia Institute of Technology, Atlanta, GA

895 WTh Load-Dependent Brain Activation for Verbal Working Memory in Stroke Patients
Ji-Young Park[1], Yun-Hee Kim[1], Won Hyuk Chang[1], Chin Wook Chung[1], Ahee Lee[1], Eun-Hee Park[1]
[1]Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

896 WTh Exercise Stressor Subdivides Gulf War Veterans with Chronic Fatigue Syndrome
Megna Raksit[1], Murugan Ravindran[1], Oluwatoyin Adewuyi[1], Rakib Rayhan[1], James Baraniuk[1], John VanMeter[1]
[1]Georgetown University, Washington DC, United States

897 WTh Relationship between Task Performance and Prefrontal Cortex Activity for Working Memory Tasks
Hiroki Sato[1], Ryuta Aoki[2,3], Takusige Katura[1], Ryoichi Matsuda[2], Hideaki Koizumi[1]
[1]Hitachi, Ltd., Central Research Laboratory, Hatoyama, Japan, [2]Graduate School of Arts and Sciences, The University of Tokyo, Tokyo, Japan, [3]Japan Society for the Promotion of Science, Tokyo, Japan

898 WTh Exercise effects on brain and cognition in children: An fMRI study
Kerstin Schweitzer[1], Alexandra Unger[1], Karl Koschutnig[2], Gernot Reishofer[1], Vincent Grote[3], Christa Neuper[4], Wolfram Müller[1]
[1]Medical University, Graz, Austria, [2]Karl-Franzens University, Graz, Austria, [3]Human Research, Institute for Health Technology and Prevention Research, Weiz, Austria, [4]Karl Franzens University, Graz, Austria

899 WTh A Self-Ordered Search task for fMRI
Matthew Scoggins[1], Heather Conklin[1], Yimei Li[1], Tianshu Feng[1], Jason Ashford[1], Ping Zou[1], Melissa Jones[1], Carlos Parra[1], Samina Taherbhoy[1], Robert Ogg[1]
[1]St. Jude Children's Research Hospital, Memphis, United States

900 WTh Shared and Distinct Frontal, Parietal and Striatal Bases for Item and Category Working Memory
Carol Seger[1], Kurt Braunlich[2], Javier Gomez-Larkin[3]
[1]Colorado State University, Fort Collins, United States, [2]Colorado State University, Fort Collins, CO, [3]College of Charleston, Charleston, SC

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

Moved MT to 1070 **The EEG Oscillations Associated with Encoding of Physics Concepts**
Hsiao-Ching She[1], Kevin Lai[1], Sheng-Chen Chen[1], Klaus Germann[2], Tzyy-Ping Jung[3]
[1]Institute of Education, National Chiao Tung University, Hsin Chu, Chinese Taipei, [2]Institute of Cognitive Science, University of Osnabrueck, Osnabrueck, Germany, [3]Institute for Neural Computation, University of California, San Diego, California, United States

902 WTh Parametric processing of multiple tactile stimulus attributes n human working memory
Bernhard Spitzer[1], Matthias Gloel[1], Felix Blankenburg[1]
[1]Department of Neurology and Bernstein Center for Computational Neuroscience, Charité, Berlin, Germany

903 WTh Fronto-Striatal Involvement in Load-Dependent Working Memory Updating
Christine Stelzel[1,2,3], Andreas Bartsch[4], Andreas Heckel[4], Martin Bendszus[4], Henrik Walter[1,2], Christian Fiebach[5]
[1]Department of Psychiatry and Psychotherapy, Charité Universitaetsmedizin, Berlin, Germany, [2]Berlin School of Mind and Brain, Berlin, Germany, [3]Department of Psychology, Humboldt Unviersity Berlin, Berlin, Germany, [4]Department of Neuroradiology, University of Heidelberg, Heidelberg, Germany, [5]Department of Psychology, University of Frankfurt, Frankfurt am Main, Germany

904 WTh Dissociating Attention Load and Working Memory in the Fronto-Parietal Network: an Aging Study
Kamen Tsvetanov[1], Pia Rotshtein[1], Theodoros Arvanitis[2], Glyn Humphreys[3]
[1]School of Psychology, University of Birmingham, Birmingham, United Kingdom, [2]Electronic, Electrical and Computer Engineering, University of Birmingham, Birmingham, United Kingdom, [3]Department of Experimental Psychology, University of Oxford, Oxford, United Kingdom

905 WTh Predicting future Working Memory capacity with high accuracy from MRI
Henrik Ullman[1], Rita Almeida[1], Torkel Klingberg[1]
[1]Neuroscience Department, Karolinska Institutet, Stockholm, Sweden

906 WTh Timing of perceptual mismatch enhancement in the hippocampus revealed by a ECoG study
Ruijie Wu[1], Zuxiang Liu[2], Chencan Qian[2], Bing Ni[3]
[1]institute of biophysics, Beijing, China, [2]Institute of Biophysics, Beijing, Beijing, [3]Department of Functional Neurosurgery Xuanwu hospital, Beijing, Beijing

907 WTh Frontopolar Cortices were Involved during Encoding of a Two-digit Sequence Memory Task in a Memorist
Li-Jun Yin[1,2], Yu-Ting Lou[2], Ming-Xia Fan[3], Yu-Wei Jiang[3], Yi Hu[2], Zhao-Xin Wang[1,3]
[1]Institute of Cognitive Neuroscience, East China Normal University, Shanghai, China, [2]Department of Psychology, School of Psychology and Cognitive Science, East China Normal University, Shanghai, China, [3]Shanghai Key Laboratory of MRI, East China Normal University, Shanghai, China

908 WTh Differential influences of positive emotional arousal on spatial and verbal working memory
Dong Yunying[1], Gao Xin[1], Zhou Renlai[2]
[1]Key Laboratory of Child Development and Learning Science (Southeast University),Ministry of Education, Nanjing, China, [2]Beijing Key Lab of Applied Experimental Psychology, Beijing Normal University, Beijing, China

909 WTh Fusiform & Inferior Frontal Gyrus activation in attentional top-down modulation to emotional stimuli
Maryam Ziaei[1], Rachel Elands[2], Nathalie Peira[3], Jonas Persson[4]
[1]Stockholm University, Stockholm, Sweden, [2]Leiden University, Leiden, Netherlands, [3]Uppsala Universiy and Ghent University, Uppsala, Sweden, [4]Aging Reseach Center, Karolinska Institute and Stockholm University, Stockholm, Sweden

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

LIFESPAN DEVELOPMENT

Aging

910 WTh Connectivity changes during inner speech with healthy ageing
Smriti Agarwal[1], Sharon Geva[2], P Simon Jones[1], Emmanuel Stamatakis[3], Elizabeth Warburton[1]
[1]University of Cambridge, Cambridge, United Kingdom, [2]University College London, London, United Kingdom, [3]Queens' College, Cambridge, Cambridge, United Kingdom

911 WTh Neuroimaging of healthy ageing and stress
Josephine Archer[1], S.H. Annabel Chen[1], Annie Lee[2], anqi qiu[2]
[1]Nanyang Technological University, Singapore, Singapore, [2]National University of Singapore, Singapore, Singapore

912 WTh Age related functional brain connectivity changes
Perrine Bertrand[1], Isabelle Berry[1], Pierre Celsis[1], Helene Gros-Dagnac[1], Jorge Gutierrez[1], Jean-Albert Lotterie[1], Abdel-Kader Boulanouar[2]
[1]INSERM Unit825, Toulouse, France, [2]INSERM, Toulouse, France

913 WTh Changes in Working Memory and Default Mode Networks related to age: a resting state fMRI study
Perrine Bertrand[1], Jorge Gutierrez[1], Helene Gros-Dagnac[1], Jean-Albert Lotterie[1], Isabelle Berry[1], Pierre Celsis[1], Abdel-Kader Boulanouar[2]
[1]INSERM Unit825, Toulouse, France, [2]INSERM, Toulouse, France

914 WTh Fish Consumption and Brain Structure in a Multi-Site Community Cohort
Christina Boyle[1], Cyrus Raji[2], Leonid Teverovskiy[2], Priya Rajagopalan[1], Sarah Madsen[1], Lewis Kuller[2], Owen Carmichael[2], James Becker[2], Oscar Lopez[2], Paul Thompson[1]
[1]Laboratory of Neuro Imaging, UCLA School of Medicine, Los Angeles, CA, USA, [2]University of Pittsburgh, Pittsburgh, PA, USA

***915 WTh Responsiveness to missed chances in successful aging (O-Th4)**
Stefanie Brassen[1], Christian Büchel[1]
[1]University Medical Center Hamburg-Eppendorf, Department of Systems Neuroscience, Hamburg, Germany

916 WTh White matter correlates of BOLD signal responsivity to working memory demands in old age
Agnieszka Z Burzynska[1], Preuschhof Claudia[2], Irene Nagel[2], Douglas Garrett[1], Shu-Chen Li[1], Lars Bäckman[3], Ulman Lindenberger[1], Hauke Heekeren[2]
[1]MPI for Human Development, Berlin, Germany, [2]Freie Universitaet Berlin, Berlin, Germany, [3]Karolinska Institutet, Stockholm, Sweden

917 WTh Mapping Life-span Functional Connectome Changes
Miao Cao[1], Jinhui Wang[1], Zhengjia Dai[1], Xiaoyan Cao[2], Lili Jiang[2], Feng-Mei Fan[3], Xiao-Wei Song[4], Mingrui Xia[1], Ni Shu[1], Xi-Nian Zuo[2], Yong He[1]
[1]State Key laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [3]Psychiatry Research Center, Beijing Huilongguan Hospital, Beijing, China, [4]Institute of Biophysics, Chinese Academy of Sciences, Beijing, China

918 WTh Improving the detection of blood pressure and regional gray matter volume associations in the health
Nicolas Cherbuin[1], Moyra Mortby[2], Andrew Janke[3], Walter Abhayaratna[2], Perminder Sachdev[4], Kaarin Anstey[2]
[1]Australian National University, Canberra, Australia, [2]Australian National University, Canberra, ACT, [3]University of Queensland, Brisbane, QLD, [4]University of New South Wales, Sydney, NSW

***919 WTh Dopamine modulates episodic memories in old age (O-Th4)**
Rumana Chowdhury[1], Marc Guitart-Masip[2], Nico Bunzeck[3], Raymond Dolan[2], Emrah Duzel[1]
[1]Institute of Cognitive Neuroscience, London, United Kingdom, [2]Wellcome Trust Centre for Neuroimaging, London, United Kingdom, [3]University Medical Center, Hamburg, Germany

920 WTh The neural correlates of recollection and familiarity during aging
Fabienne Collette[1], Christine Bastin[1], Sarah Genon[1], Eric Salmon[1], Lucie Angel[2]
[1]Cyclotron Research Centre, LIEGE, Belgium, [2]François-Rabelais University, TOURS, France

921 WTh Evidence of an associated decline in age related hippocampal microstructure and recollection memory
Daniel Cox[1,2,3], Hamied Haroon[1,2], Geoffrey Parker[1,2], Daniela Montaldi[3], Laura Parkes[1,2]
[1]Imaging Sciences, School of Cancer and Enabling Sciences, University of Manchester, Manchester, United Kingdom, [2]Biomedical Imaging Institute, University of Manchester, Manchester, United Kingdom, [3]School of Psychological Sciences, University of Manchester, Manchester, United Kingdom

***922 WTh Sex and Age effects on grey matter loss in late life — A longitudinal study of 1172 healthy elderly (O-Th4)**
Fabrice Crivello[1], Pauline Maillard[1], Blandine Grassiot[1], Carole Dufouil[2], Nicolas Delcroix[1], Nathalie Tzourio-Mazoyer[1], Christophe Tzourio[2,3], Bernard Mazoyer[1]
[1]GIN UMR5296 CNRS CEA Bordeaux University, Bordeaux, France, [2]INSERM, Neuroepidemiology U708, Bordeaux, France, [3]Bordeaux University, Bordeaux, France

923 WTh Impact of glucose levels on memory retrieval, hippocampal volume and hippocampal barrier density
Agnes Flöel[1], Lucia Kerti[2], Angela Winkler[1], Veronica Witte[3]
[1]Charite Universitätsmedizin Berlin, Berlin, Germany, [2]Charité University Hospital, Berlin, Germany, [3]Charite University Berlin, Berlin, Germany

924 WTh Accelerated brain aging in older adults with type 2 diabetes mellitus
Katja Franke[1], Christian Gaser[1], Brad Manor[2], Vera Novak[2]
[1]Structural Brain Mapping Group, Department of Psychiatry, University Hospital, Jena, Germany, [2]Beth Israel Deaconess Medical Center, Boston, MA

925 WTh Decreased specificity of functional networks in the aging brain
Linda Geerligs[1], Natalia Maria Maurits[2], Remco Renken[2], Monicque Lorist[1]
[1]University of Groningen, Groningen, Netherlands, [2]University Medical Center Groningen, Groningen, Netherlands

926 WTh Trajectories of functional brain networks connectivity over life-span brain development
Suril Gohel[1], Xin Di[1], Bharat Biswal[1]
[1]University of Medicine and Dentistry of NewJersey, Newark, United States

927 WTh Dyslipidemia Mediates myo-Inositol Elevation in Obesity
Andreana Haley[1], Mitzi Gonzales[1], Takashi Tarumi[1], Hirofumi Tanaka[1]
[1]University of Texas at Austin, Austin, TX, United States

928 WTh Age-Related Decrease of Functional Connectivity in the Motor Initiation Network
Felix Hoffstaedter[1], Christian Grefkes[2,3], Christian Roski[1], Svenja Caspers[1], Karl Zilles[1,4], Simon Eickhoff[1,5]
[1]Institute of Neuroscience and Medicine, Research Center Jülich, Jülich, Germany, [2]Max Planck Institute for Neurological Research Cologne, Cologne, Germany, [3]Department of Neurology, Cologne University, Cologne, Germany, [4]C. & O. Vogt Institute for Brain Research, Heinrich Heine University, Düsseldorf, Germany, [5]Institute of Clinical Neuroscience and Medical Psychology, Heinrich Heine University, Düsseldorf, Germany

929 WTh Temporal precedence in cortical gray/white matter contrast alteration prior to the cortical thinning
Seun Jeon[1], Uicheul Yoon[2], Eun Kyoung Kim[1], Sang Won Seo[3], Duk L. Na[3], Jong-Min Lee[1]
[1]Department of Biomedical Engineering, Hanyang University, Seoul, Korea, Republic of, [2]Department of Biomedical Engineering, Catholic University of Daegu, Gyeongsan-si, Korea, Republic of, [3]Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, Republic of

930 WTh Increased bilateral neural activity on a semantic judgment task begins in middle age
Kristen Kennedy[1], Andrew Hebrank[2], Denise Park[2], Karen Rodrigue[3]
[1]University of Texas at Dallas, Dallas, United States, [2]University of Texas at Dallas, Dallas, TX, [3]UT Dallas, DALLAS, United States

931 WTh Omega-3 supplementation improves cognitive functions and brain structure in the elderly
Lucia Kerti[1], Veronica Witte[2], Agnes Flöel[3]
[1]Charité University Hospital, Berlin, Germany, [2]Charite University Berlin, Berlin, Germany, [3]Charite Universitätsmedizin Berlin, Berlin, Germany

932 WTh Aging and Top-down Response Selection: Behavioural and Functional Connectivity Changes
Robert Langner[1,2], Simone Behrwind[2], Edna-Clarisse Cieslik[2], Christian Roski[2], Svenja Caspers[2], Karl Zilles[1,2], Simon Eickhoff[1,2]
[1]Heinrich Heine University, Duesseldorf, Germany, [2]Research Centre Juelich, Juelich, Germany

933 WTh Gender Effects on Basal Ganglia Volume across the Lifespan in Healthy Adults
Wenjing Li[1,2], Martin Walter[2,3], Meng Li[1,2], Wen Miao[1], Bernhard Bogerts[2], Marie-José van Tol[2,3], Huiguang He[1]
[1]Institute of Automation, Chinese Academy of Sciences, Beijing, China, [2]Department of Psychiatry and Psychotherapy, Otto-von-Guericke University, Magdeburg, Germany, [3]Leibniz Institute for Neurobiology, Magdeburg, Germany

934 WTh Anatomical Correlates of Longevity in 905 Elderly Subjects
Sarah Madsen[1], Priya Rajagopalan[1], Christina Boyle[1], Lubov Zeifman[2], Cyrus Raji[3], Leonid Teverovskiy[3], Lewis Kuller[3], Michael Gach[4], Owen Carmichael[5], James Becker[3], Oscar Lopez[3], Paul Thompson[1]
[1]UCLA, Los Angeles, CA, [2]Carnegie Mellon University, Pittsburgh, PA, [3]University of Pittsburgh, Pittsburgh, PA, [4]Nevada Cancer Institute, Las Vegas, NV, [5]University of Pittsburgh, Pittsburgh, CA

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

935 WTh High "normal" blood glucose is associated with accelerated brain aging
Moyra Mortby[1], Nicolas Cherbuin[1], Andrew Janke[2], Perminder Sachdev[3], Kaarin Anstey[1]
[1]Australian National University, Canberra, ACT, Australia, [2]University of Queensland, Brisbane, QLD, Australia, [3]University of New South Wales, Sydney, NSW, Australia

936 WTh Brain structural complexity and life course cognitive changes
Nazahah Mustafa[1,2,3], Trevor Ahearn[4,3], Gordon Waiter[1,3], Alison Murray[1,3], Lawrence Whalley[5], Roger Staff[4,3]
[1]Aberdeen Biomedical Imaging Centre, University of Aberdeen, Aberdeen, United Kingdom, [2]Universiti Malaysia Perlis, Perlis, Malaysia, [3]Scottish Imaging Network: A Platform for Scientific Excellence (SINAPSE), Scotland, United Kingdom, [4]Aberdeen Royal Infirmary, NHS Grampian, Aberdeen, United Kingdom, [5]University of Aberdeen, Aberdeen, United Kingdom

937 WTh The Correlation between BOLD Based Aging Index and Neuropsychological Tests
Toshiharu Nakai[1], Naoki Kamiya[2], Kayako Matsuo[3], Makoto Miyakoshi[4], S.H. Annabel Chen[5]
[1]Neuroimaging & Informatics Lab, NCGG, Ohbu, Japan, [2]Neuroimaging & Informatics Lab, NCGG, Ohbu, Aichi, [3]National Taiwan University, Taipei, [4]JSPS, Tokyo, Japan, [5]Nanyang Technological University, Singapore, Singapore

938 WTh Functional connectivity patterns of the right temporoparietal junction become more distinct with age
Thomas Nickl-Jockschat[1], Robert Langner[2], Oliver Jakobs[3], Edna-Clarisse Cieslik[4], Svenja Caspers[5], Christian Roski[6], Karl Zilles[7], Simon Eickhoff[7]
[1]RWTH Aachen University, N/A, [2]RWTH Aachen University, Aachen, Germany, [3]C. & O. Vogt Institute for Brain Research, Heinrich-Heine-University Düsseldorf, Düsseldorf, Germany, [4]Research Center Jülich, Institute of Neuroscience and Medicine, Jülich, Germany, [5]Institute of Neuroscience and Medicine, INM-2, Research Center Julich, Julich, Germany, [6]Institute of Neuroscience and Medicine, Research Center Jülich, Jülich, Germany, [7]Research Center Jülich, Jülich, Germany

939 WTh White Matter Integrity in Older People with HIV
Talia Nir[1], Neda Jahanshad[1], Krista Nicolas[2], Edgar Busovaca[2], Paul Thompson[1], Victor Valcour[2]
[1]Laboratory of Neuro Imaging, Department of Neurology, UCLA School of Medicine, Los Angeles, CA, United States, [2]Memory and Aging Center, UCSF, San Francisco, CA, United States

940 WTh Gender trumps MCI — A Voxel-Based Morphometric Study
Christiane Oedekoven[1], Andreas Jansen[1], Dirk Leube[2]
[1]Clinic for Psychiatry and Psychotherapy, Philipps-University, Marburg, Germany, [2]Clinic for Psychiatry and Psychotherapy, Marburg, Germany

941 WTh A preliminary volumetric study of brain aging in a Brazilian population and the effect of sex
Maria Otaduy[1,2], Khallil Chaim[1], Claudia Leite[1], Edson Amaro Junior[1]
[1]LIM44- Medical School of the University of São Paulo, São Paulo, Brazil, [2]CInAPCe (Cooperação Interinstitucional de Apoio para Pesquisas sobre o Cérebro), São Paulo, Brazil

942 WTh Effects of Cortisol Challenge on Amygdalar Functional Connectivity in Young Women
william ottowitz[1], Michael Gregory[2], Curt LaFrance[3], Lawrence Sweet[3]
[1]Columbia University, New York, United States, [2]Harvard University, Boston, MA, [3]Brown University, Providence, RI

943 WTh Limbic system alteration in aging: multimodal imaging in a large elderly community (AMImage Study)
Amandine Pelletier[1,2], Bixente Dilharreguy[1], Michèle Allard[1,2], Olivier Periot[1], Bassem Hiba[3], Martine Bordessoules[1], Karine Pérès[4], Hélène Amieva[4], Jean-François Dartigues[4], Gwénaëlle Catheline[1,2]
[1]Université de Bordeaux, INCIA, UMR 5287, Bordeaux, France, [2]EPHE, Bordeaux, France, [3]RMSB, UMR 5536, Bordeaux, France, [4]Université de Bordeaux, ISPED, Centre Inserm U897, Bordeaux, France

944 WTh Functional Connectivity of Cognitive and Motor Processing in Healthy Aging
Christian Roski[1], Svenja Caspers[1], Angela Laird[2], Peter Fox[2], Karl Zilles[1,3,4], Simon Eickhoff[1,5]
[1]Institute of Neuroscience and Medicine, Research Center Jülich, Jülich, Germany, [2]University of Texas Health Science Center San Antonio, San Antonio, United States, [3]C. & O. Vogt Institute for Brain Research, Heinrich Heine University, Düsseldorf, Germany, [4]JARA-BRAIN, Jülich-Aachen Research Alliance, Jülich, Germany, [5]Institute of Clinical Neuroscience and Medical Psychology, Heinrich Heine University, Düsseldorf, Germany

***945 WTh Supervisory Experience in Midlife Slows Rate of Hippocampal Atrophy in Late Life (O-Th4)**
Chao Suo[1], Irene Leon[2], Henry Brodaty[1], Julian Trollor[1], Wei Wen[1], Perminder Sachdev[1], Michael Valenzuela[1]
[1]University of New South Wales, Sydney, Australia, [2]University of Almeria, Almeria, Spain

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

946 WTh Age-related changes in local and distributed variability of brain signals with normal aging
Vasily Vakorin[1], Natasa Kovacevic[1], Andreea Oliviana Diaconescu[2], Hongye Wang[1], Bratislav Misic[1], Olga Krakovska[3], Anthony McIntosh[1]
[1]Rotman Research Institute, Baycrest Centre, Toronto, Canada, [2]Translational Neuromodeling Unit (TNU), University & ETH Zürich, Zurich, Switzerland, [3]York University, Toronto, Canada

947 WTh A lateral-medial shift in the prefrontal cortex underlies intact emotion processing in aging
Carien van Reekum[1], Stacey Schaefer[2], Regina Lapate[2], Tom Johnstone[1], Aaron Heller[2], Catherine Norris[3], Patricia Tun[4], Margie Lachman[4], Carol Ryff[2], Richard Davidson[2]
[1]University of Reading, Reading, United Kingdom, [2]University of Wisconsin-Madison, Madison, WI, [3]Dartmouth College, Hanover, NH, [4]Brandeis University, Waltham, MA

948 WTh Aging-related changes of resting-state functional connectivity in the networks of emotional memory
Haibao Wang[1], Yongqiang Yu[1], Liyan Xu[1], Wen Song[1], Zhihao Li[2], Xiaoping Hu[2]
[1]the first affiliated hospital of Anhui medical university, Hefei, Anhui,China, [2]BITC of Emory university, Atlanta, GA,USA

949 WTh Relationship among Elderly's Attentional Brain Networks, Physical Activity, and Body Composition
Yung-Shun Wang[1], Dong-Yang Fong[2], Daisy Hung[3], Erik Chang[4]
[1]National Yang-Mining University, Taipei, Chinese Taipei, [2]National Taiwan University of Technology, Taipei, Chinese Taipei, [3]Institute of Cognitive Neuroscience, National Central University, Jhongli city, Chinese Taipei, [4]Institute of cognitive neuroscience, National Central University, Jhongli City, Chinese Taipei

950 WTh *Diffusion Tensor Imaging of White Matter Degeneration in Aging*
Fan-pei Yang[1], Yi-Ting Ou[2], Yao-Chia Shi[3,4], Kayako Matsuo[4], Shen-Hsin Chen[5], Toshiharu Nakai[6], Wen-Yih Tseng[4,7]
[1]National Tsing Hua University, Hsichu, [2]Department of Foreign Languages and Literature, National Tsing Hua University, Hsinchu, [3]Institute of Biomedical Engineering, National Taiwan University, Taipei, [4]Center for Optoelectronic Biomedicine, National Taiwan University College of Medicine, Taipei, [5]Division of Psychology, School of Humanities and Social Sciences, Nanyang Technological University, Singapore, Singapore, [6]National Center for Geriatrics and Gerontology, Aichi, Japan, [7]Department of Medical Imaging, National Taiwan University Hospital, Taipei

951 WTh Age-related changes in intrinsic functional connectivity across life-span: exploratory analyses
Zhi Yang[1,2], Feng-Mei Fan[3,4], Li-Li Jiang[4,2], Xiao-Yan Cao[5,4], Xiao-Wei Song[6], F. Xavier Castellanos[7,8], Michael Milham[8,9], Xi-Nian Zuo[4,2]
[1]Key Laboratory of Behavioral Science, Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]Magnetic Resonance Imaging Research Center, Institute of Psychology, CAS, Beijing, China, [3]Psychiatry Research Center, Beijing Huilongguan Hospital, Beijing, China, [4]Laboratory for Functional Connectome and Development, Institute of Psychology, CAS, Beijing, China, [5]Center for Cognition and Brain Disorders and The Affiliated Hospital, Hangzhou Normal University, Hangzhou, Zhejiang, China, [6]Institute of Biophysics, Chinese Academy of Sciences, Beijing, China, [7]New York University Child Study Center, New York,NY, [8]Phyllis Green and Randolph Cowen Institute for Pediatric Neuroscience, New York, NY, [9]Center for the Developing Brain, Child Mind Institute, New York, NY

952 WTh The anatomical region- and age- dependence of the 0.9 ppm macromolecule/lipid peak in normal brain
Qiang Yue[1], Zhiyong Yang[2], Hong Quan[2], Wenting Ren[2], Ting Cao[2], Xiaoyun Zhang[3], Hongyan Zhu[4], Haoyang Xing[1], Mengqi Liu[1], Dong Zhou[3], Graham Kemp[5], Qi-Yong Gong[1]
[1]Huaxi MR Research Center (HMRRC), Department of Radiology, West China Hospital of Sichuan University, Chengdu, China, [2]Laboratory of Medical Physics, Physics and Technology School, Wuhan University, Wuhan, China, [3]Department of Neurology, West China Hospital of Sichuan University, Chengdu, China, [4]Laboratory of Stem Cell Biology, State Key laboratory of Biotherapy, West China Hospital of Sichuan, Chengdu, China, [5]University of Liverpool, Liverpool, United Kingdom

953 WTh Age-related changes in expectation-based modulation of motion detectability
Theodore Zanto[1], Robert Sekuler[2], Chad Dube[2], Adam Gazzaley[1]
[1]University of California San Francisco, San Francisco, CA, United States, [2]Brandeis, Waltham, MA, United States

954 WTh "Last in, first out" age-related cortical thinning revealed with scale space search
Lu Zhao[1], Maxime Boucher[1,2], Pedro Rosa-Neto[1], Alan Evans[1]
[1]Montreal Neurological Institute, McGill University, Montreal, Canada, [2]School of Computer Science, McGill University, Montreal, Canada

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

***955 WTh Differential lifespan trajectories and associations of human brain structure and function (O-Th4)**
Juan Zhou[1,2,3], Philip Reiss[3,4], Lei Huang[3], Stan Colcombe[4], Clare Kelly[3], Adriana Di Martino[3], F. Xavier Castellanos[3,4], Michael Milham[4,5]
[1]Duke-NUS Graduate Medical School, Singapore, Singapore, [2]Agency for Science, Technology and Research, Singapore, Singapore, [3]New York University Child Study Center, New York, NY, [4]Nathan Kline Institute for Psychiatric Research, Orangeburg, NY, [5]Child Mind Institute, New York, NY

***956 WTh Individual Change Patterns in Elderly and the Structural Covariance of Decline (O-Th4)**
Gabriel Ziegler[1], Robert Dahnke[1], Christian Gaser[2]
[1]Structural Brain Mapping Group, Jena University Hospital, Jena, Germany, [2]Structural Brain Mapping GrouStructural Brain Mappingp, Department of Psychiatry, University of Jena, Jena, Germany

LIFESPAN DEVELOPMENT

Normal Brain Development: Fetus to Adolescence

957 WTh Profiling regional age dependence of metabolites within human brain during the first year
Hongyu An[1], Yasheng Chen[1], Yang Yang[2], Li Wang[1], Feng Shi[1], Dinggang Shen[1], Lester Kwock[1], Weili Lin[1]
[1]UNC-CH, Chapel Hill, NC, [2]Univ. of Virginia, Charlottesville, VA

958 WTh Increased SES reduces cortical thickness: Consistent evidence from two pediatric MRI datasets
Brian Avants[1], Emily Kilroy[2], Gwen Lawson[3], Jiong Jiong Wang[2]
[1]University of Pennsylvania, Philadelphia, United States, [2]university of california los angeles, los angeles, CA, [3]university of pennsylvania, philadelphia, PA

959 WTh Spatial inhomogeneous cerebral blood flow in the first year brain development
Yasheng Chen[1], Hongyu An[1], Weili Lin[1]
[1]UNC-Chapel Hill, Chapel Hill, NC

960 WTh Hemodynamic responses in the infant brain: Towards a standard model
Alex Cristia[1], Emmanuel Dupoux[2], Yasuyo Minagawa-Kawai[3]
[1]MPI, Nijmegen, Netherlands, [2]LSCP, Paris, France, [3]Keio University, Tokyo, Japan

961 WTh Functional Connectivity Changes in a Developing Brain of Healthy Infants
Eswar Damaraju[1], John Phillips[1,2], Jean Lowe[2], Elena Allen[1], Vince Calhoun[1,2], Arvind Caprihan[1]
[1]The Mind Research Network and LBERI, Albuquerque, USA, [2]University of New Mexico, Albuquerque, USA

962 WTh Cortical thickness and surface area developmental trajectories in the NIH MRI Study of Normal Brain
Simon Ducharme[1], Kelly Botteron[2], Tuong-Vi Nguyen[3], Claude Lepage[3], Alan Evans[3], Sherif Karama[3]
[1]McGill University, Montreal, Canada, [2]Washington University, St-Louis, MO, [3]Montreal Neurological Institute, Montreal, Quebec

963 WTh The Development of Default and Dorsal Attention Networks in Early Infancy
Wei Gao[1], John Gilmore[1], Dinggang Shen[1], Keith Smith[1], Hongtu Zhu[1], Weili Lin[1]
[1]University of North Carolina at Chapel Hill, Chapel Hill, United States

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

964 WTh Development of body language perception: an fmri study
Marie-Helene Grosbras[1], Patrick Ross[1]
[1]University of Glasgow, Glasgow, United Kingdom

965 WTh Brain Plasticity and Reading Ability: A Longitudinal Structural MRI Study of Typical Children
Suzanne Houston[1,2], Tami Katzir[3], Frank Manis[1], Eric Kan[2], Genevieve Rodriguez[2], Elizabeth Sowell[4,2]
[1]Department of Psychology, University of Southern California, Los Angeles, CA, United States, [2]Division of Research on Children, Youth and Families, Children's Hospital Los Angeles, Los Angeles, CA, United States, [3]University of Haifa, Haifa, Israel, [4]Department of Pediatrics, Keck School of Medicine, University of Southern California, Los Angeles, CA, United States

966 WTh Structural network development of human brain with DTI
Hao Huang[1], Ni Shu[2], Virendra Mishra[3], Tina Jeon[3], Gaolang Gong[2], Qi Dong[2], Yong He[2]
[1]University of Texas Southwestern Medical Center, Dallas, United States, [2]Beijing Normal University, Beijing, China, [3]University of Texas Southwestern Medical Center, Dallas, TX

967 WTh Gender differences with development
Budhachandra Khundrakpam[1], Stephanie Ameis[2], John Lewis[1], Andrew Reid[1], Alan Evans[1]
[1]Montreal Neurological Institute, Montreal, Canada, [2]The Hospital for Sick Children, University of Toronto, Toronto, Canada

968 WTh Relationships between Cerebral Blood Flow and IQ in Typically Developing Children and Adolescents
Emily Kilroy[1], Collin Liu[2], Lirong Yan[2], Danny Wang[2]
[1]UCLA, Department of Neurology, Los Angeles, United States, [2]UCLA, Department of Neurology, Los Angeles, CA

969 WTh Sustained attention is associated with right-sided white matter microstructure in children
Brith Klarborg[1], Kathrine Skak Madsen[1,2], Martin Vestergaard[1], Arnold Skimminge[1], Terry Jernigan[3,2], William Baaré[1,2]
[1]Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital Hvidovre, Hvidovre, Denmark, [2]Center for Integrated Molecular Brain Imaging, Copenhagen, Denmark, [3]Center for Human Development, University of California, San Diego, CA, United States

970 WTh Obesity, fitness, and cortical thickness in children
Cynthia Krafft[1], Jordan Pierce[1], Amanda Rodrigue[1], Nicolette Schwarz[1], Lingxi Chi[1], Abby Weinberger[1], Kara Dyckman[1], Patricia Miller[2], Phillip Tomporowski[1], Nathan Yanasak[3], Jerry Allison[3], Catherine Davis[3], Jennifer McDowell[1]
[1]University of Georgia, Athens, GA, United States, [2]San Francisco State University, San Francisco, CA, United States, [3]Georgia Health Sciences University, Augusta, GA, United States

971 WTh Dopamine transporter genotype linked to striatal microstructure in typically-developing children
Kathrine Skak Madsen[1,2], William Baaré[1,2], Terry Jernigan[1,2,3]
[1]Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital, Hvidovre, Denmark, [2]Center for Integrated Molecular Brain Imaging, Copenhagen University Hospital, Copenhagen, Denmark, [3]Center for Human Development, University of California, San Diego, La Jolla, CA

972 WTh Early Maternal Support Predicts Larger Amygdala Volumes at School Age
Natasha Marrus[1], Huong Trinh[2], Joan Luby[1], Rebecca Tillman[1], Timothy Brown[2], Tomoyuki Nishino[1], Andy Belden[1], Hideo Suzuki[1], Deanna Barch[1], Tilak Ratnanather[2], Michael Miller[2], Kelly Botteron[1]
[1]Washington University School of Medicine, St. Louis, MO, [2]Center for Imaging Science, Johns Hopkins University, Baltimore, MD

973 WTh An fMRI Study of Eyeblink Classical Conditioning in Children and Adults
Ernesta Meintjes[1], Dominic Cheng[2], Mark Stanton[3], John Desmond[4], Mariska Pienaar[5], Neil Dodge[6], John Power[7], Christopher Molteno[8], John Disterhoft[9], Joseph Jacobson[10], Sandra Jacobson[10]
[1]University of Cape Town Faculty of Health Sciences; MRC/UCT Medical Imaging Research Unit, Cape Town, South Africa, [2]Johns Hopkins University School of Medicine, Baltimore, United States, [3]University of Delaware, Newark, DE, [4]Johns Hopkins University School of Medicine, Baltimore, MD, [5]MRC/UCT Medical Imaging Research Unit, Cape Town, South Africa, [6]Wayne State University, Detroit, United States, [7]University of Queesland, Brisbane, Australia, [8]University of Cape Town Faculty of Health Sciences, Cape Town, South Africa, [9]Northwestern University School of Medicine, Chicago, IL, [10]Wayne State University School of Medicine, Detroit, MI

974 WTh Cognitive and Executive Capacities Correlate with Corpus Callosum Area in Healthy Children
Beatriz Moreno[1], Luis Concha[1], Leopoldo González-Santos[1], Juan Ortiz[1], Fernando Barrios[1]
[1]Instituto de Neurobiología, Universidad Nacional Autónoma de México, Querétaro, Mexico

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

975 WTh Combined effects of testosterone and dehydroepiandrosterone on cortical thickness
Tuong-Vi Nguyen[1], James McCracken[2], Simon Ducharme[3], Kelly Botteron[4], Alan Evans[5], Sherif Karama[6]
[1]McGill University, N/A, [2]University of California in Los Angeles, Los Angeles, CA, [3]McGill University, Canada, [4]Washington University, St-Louis, MO, [5]McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Quebec, [6]Montreal Neurological Institute, Montreal, Quebec

976 WTh Longitudinal development of cortical thickness correlation network in the first two years of life
Jingxin Nie[1], Gang Li[1], Li Wang[1], Feng Shi[1], Weili Lin[1], John Gilmore[1], Dinggang Shen[1]
[1]UNC-Chapel Hill, Chapel Hill, NC

977 WTh Who becomes impulsive: A longitudinal fMRI-Study of Inter-temporal Decision Making
Stephan Ripke[1], Eva Mennigen[1], Kathrin Müller[1], Michael Smolka[1]
[1]Technische Universität Dresden, Dresden, Germany

978 WTh Radial and Tangential Migrational Pathways Revealed by Diffusion Tractography
Emi Takahashi[1], Rebecca Folkerth[2], P Ellen Grant[1]
[1]Children's Hospital Boston, Boston, United States, [2]Brigham and Women's Hospital, Boston, United States

979 WTh Is she appalled or appealing? Adolescent neural development of affective theory of mind
Nora Vetter[1], Sarah Weigelt[2], Michael Smolka[1], Matthias Kliegel[3]
[1]Technische Universität Dresden, Dresden, Germany, [2]MIT, Cambridge, MA, USA, [3]University of Geneva, Geneva, Switzerland

980 WTh Maturation of reactive and proactive inhibitory control
Matthijs Vink[1], Janna Marie Hoogendam[1], Mariët van Buuren[1], Manon Hillegers[1], Bram Zandbelt[2], René Kahn[1]
[1]Rudolf Magnus Institute of Neuroscience, University Medical Center Utrecht, Department of Psychiatry, Utrecht, Netherlands, [2]Center for Integrative & Cognitive Neuroscience, Vanderbilt University, Nashville, TN, USA

981 WTh Age-related effects of 5-HTTLPR genetic variants on cortico-limbic function in adolescence
Jillian Wiggins[1], Jirair Bedoyan[1], Melisa Carrasco[1], Johnna Swartz[1], Donna Martin[1], Christopher Monk[1]
[1]University of Michigan, Ann Arbor, MI

982 WTh Developing Brain Model of Superficial White Matter in Children and Adolescents
Minjie Wu[1], Lisa Lu[1,2], Allison Lowes[1], Alessandra Passarotti[1], Joe Zhou[1], Mani Pavuluri[1]
[1]University of Illinois at Chicago, Chicago, IL, [2]Roosevelt University, Chicago, IL

983 WTh Extensive Longitudinal Cortical Thinning in Adolescents Relative to Children and Young Adults
Dongming Zhou[1], Catherine Lebel[1], Alan Evans[2], Christian Beaulieu[1]
[1]Department of Biomedical Engineering, University of Alberta, Edmonton, Alberta, Canada, [2]McConnell Brain Imaging Centre, Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada

PHYSIOLOGY, METABOLISM AND NEUROTRANSMISSION

Cerebral Metabolism and Hemodynamics

984 WTh Multiparametric hemodynamic characterization of the normal brain
Moran Artzi[1,2], Oran Aizenstein[1], Rinat Abramovitch[3], Dafna Ben Bashat[1]
[1]Functional Brain Center, Tel Aviv Sourasky Medical Center, Tel-Aviv, Israel, [2]Sackler Faculty of Medicine, Tel Aviv University, Tel-Aviv, Israel, [3]The Goldyne Savad Institute for Gene Therapy, Hadassah Hebrew University Medical Center, Jerusalem, Tel-Aviv, Israel

985 WTh Therapeutic Hypothermia Reduces Oxygen Consumption in Neonates Suffering from Acute Encephalopathy
Mathieu Dehaes[1], Alpna Aggarwal[1], Pei-Yi Lin[2], Janet Soul[3], Maria Angela Franceschini[2], P. Grant[1]
[1]Department of Newborn Medicine, Children's Hospital Boston & Harvard Medical School, Boston, MA, [2]Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA, [3]Department of Neurology, Children's Hospital Boston and Harvard Medical School, Boston, MA

***986 WTh Energetic Basis of Spontaneous Fluctuations in Neuronal Activity and Neuroimaging Signals (O-W4)**
Peter Herman[1], Basavaraju Sanganahalli[1], Daniel Coman[1], Lihong Jiang[1], Robert Sachdev[1], David McCormick[1], Hal Blumenfeld[1], Kevin Behar[1], Douglas Rothman[1], Fahmeed Hyder[1]
[1]Yale University, New Haven, CT

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

987 WTh In vivo Estimation of the Transverse Relaxation Time Dependence of Blood on Oxygenation at 7 Tesla
Dimo Ivanov[1], Andreas Schaefer[1], Andreas Deistung[2], Markus Streicher[1], Stefan Kabisch[1,3], Ilona Henseler[1], Elisabeth Roggenhofer[1], Thies Jochimsen[4], Jürgen Reichenbach[2], Kamil Uludağ[5], Robert Turner[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Medical Physics Group, Institute of Diagnostic and Interventional Radiology 1, Jena University, Jena, Germany, [3]Department of Medicine, University Hospital Leipzig, Leipzig, Germany, [4]Department of Nuclear Medicine, University of Leipzig, Leipzig, Germany, [5]Maastricht Brain Imaging Centre, Faculty of Psychology & Neuroscience, Maastricht University, Maastricht, Netherlands

988 WTh Investigation of the metabolism of the rat barrel cortex during sustained BOLD fMRI
Nathalie Just[1], Rolf Gruetter[2]
[1]EPFL, Lausanne, Switzerland, [2]EPFL, UNIL and HUG, Lausanne, Switzerland

989 WTh Cerebral Asymmetries of Hemodynamic and Oxygen Metabolism in Newborns
Pei-Yi Lin[1], Mathieu Dehaes[2], Nadege Roche-Labarbe[1], Angela Fenoglio[3], P. Grant[2], Maria Angela Franceschini[1]
[1]Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA, [2]Children's Hospital Boston, Harvard Medical School, Boston, MA, [3]Children's Hospital Boston, Boston, MA

***990 WTh Spatiotemporal characteristics of cortical column-specific and -nonspecific BOLD and CBV fMRI signal (O-W4)**
Chan Hong Moon[1], Mitsuhiro Fukuda[2], Seong-Gi Kim[2]
[1]Department of Radiology, University of Pittsburgh, Pittsburgh, PA, [2]Neuroimaging Laboratory, Department of Radiology, University of Pittsburgh, Pittsburgh, PA

991 WTh Modeling neuro-type dependent differences of BOLD fMRI
Sun Mi Park[1], Hyuk Kang[2], Dae-Shik Kim[3]
[1]Korea Advanced Institute of Science & Technology, Daejeon, Korea, Republic of, [2]National Institute for Mathematical Sciences, Daejeon, Korea, Republic of, [3]Korea Advanced Institute of Science and Technology, Daejeon, Korea, Republic of

992 WTh Coupling of unit activity and metabolic/hemodynamic responses in an animal model of epilepsy
Sandrine Saillet[1], Pascale Quilichini[1], Antoine Ghestem[1], Ivo Vanzetta[2], Jan Warnking[3], Olivier David[3], Anton Ivanov[1], Christian G Bénar[1]
[1]Institut de Neurosciences des Systèmes, INSERM U1106, Université Aix-Marseille, Marseille, France, [2]Institut de Neurosciences de la Timone, CNRS, Université Aix-Marseille, Marseille, France, [3]Institut des Neurosciences de Grenoble, INSERM U836, Université Joseph Fourier, Grenoble, France

993 WTh Short-term meditation induces the frontal asymmetry
Yi-Yuan Tang[1,2], Qili Lu[1], Hongbo Feng[1], Michael Posner[3]
[1]Dalian University of Technology, Dalian, China, [2]Texas Tech University, Lubbock, TX, [3]University of Oregon, Eugene, United States

***994 WTh Acute and Chronic Effects of Glucose on Brain Metabolism (O-W4)**
Feng Xu[1], Peiying Liu[1], Juan Pascual[1], Xuchen Zhang[1], Hanzhang Lu[1]
[1]University of Texas Southwestern Medical Center, Dallas, TX

995 WTh Mapping the diurnal alterations of oxygen extraction fraction in basal ganglia and thalami
Lijuan Zhang[1], Chunxiang Jiang[1], Weiqi Liao[1], Xiaojing Long[1], Mengyue He[1]
[1]Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China

996 WTh Direct and Quantitative Imaging of Energy Expenditure in Human Brain using ^{31}P MR Method
Xiao-Hong Zhu[1], Hongyan Qiao[1], Fei Du[2], Qiang Xiong[1], Xiao Liu[1], Xiaoliang Zhang[3], Kamil Ugurbil[1], Wei Chen[1]
[1]University of Minnesota, Minneapolis, MN, [2]Harvard University, Belmont, MA, [3]University of California at San Francisco Medical School, San Francisco, CA

997 WTh Load Dependent Metabolic Activity in Parametric N-Back Working Memory Tasks
Qihong Zou[1,2], Hong Gu[2], Jiongjiong Wang[3], Jia-Hong Gao[1,4], Yihong Yang[2]
[1]Peking University, Beijing, China, [2]NIDA/NIH, Baltimore, MD, [3]University of California Los Angeles, Los Angeles, CA, [4]University of Chicago, Chicago, IL

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

PHYSIOLOGY, METABOLISM AND NEUROTRANSMISSION

Neurophysiology of Imaging Signals

998 WTh Baseline GABA Concentration Predicts Functional Connectivity Strength
Hong Gu*[1], Xi Chen*[1], Yihong Yang[1]
[1]NIDA/NIH, Baltimore, MD

999 WTh Cotinine level in smokers predicts nicotine pharmacological effect on subtle changes in white matter
Peter Kochunov[1], Michael Du[2], Lauren Moran[2], Elliot Hong[3]
[1]Maryland Psychiatric Research Center, baltimore, United States, [2]Maryland Psychiatric Research Center, baltimore, MD, [3]Maryland Psychiatrie Research Center, Baltimore, United States

1000 WTh Cortical-layer- and frequency-band specific neuronal mechanisms of functional connectivity at rest
Shmuel Naaman[1], Aleksandra Bortel[1], Victor Mocanu[1], Amir Shmuel[1]
[1]MNI, McGill University, Montreal, Canada

***1001 WTh Low frequency oscillations measured in the periphery are strongly correlated with cerebral signals (O-W4)**
Yunjie Tong[1], Lia Hocke[2,3], Stephanie Licata[2], Blaise Frederick[2]
[1]McLean Hospital, Harvard University, Belmont, MA, [2]Mclean Hospital, Harvard University, Belmont, MA, [3]Tufts University, Medford, MA

1002 WTh Blood volume fraction dependent BOLD response in ER-fMRI
Xiaopeng Zong[1], Jie Huang[1]
[1]Michigan State University, East Lansing, MI

PHYSIOLOGY, METABOLISM AND NEUROTRANSMISSION

Pharmacology and Neurotransmission

1003 WTh Donepezil Impairs Memory in Healthy Elderly:Behavioural, EEG and Simultaneous EEG/fMRI Biomarkers
Joshua Balsters[1], Redmond O'Connell[1], Mary Martin[2], Alessandra Galli[1], Sarah Cassidy[1], Sophia Kilcullen[1], Sonja Delmonte[1], Sabina Brennan[1], Jim Meaney[3], Andrew Fagan[3], Arun Bokde[1], Neil Upton[4], Robert Lai[4], Marc Laruelle[4], Brian Lawlor[2], Ian Robertson[1]
[1]Trinity College Dublin, Dublin, Ireland, [2]Mercer's Institute for Research on Ageing, Dublin, Ireland, [3]Centre for Advanced Medical Imaging (CAMI), Dublin, Ireland, [4]Neurosciences Centre of Excellence for Drug Discovery, Harlow, United Kingdom

1004 WTh Linear and nonlinear effects of dopamine neuromodulation on resting-state network connectivity
David Cole[1], Christian Beckmann[2], Nicole Oei[3], Roelof Soeter[4], Stephanie Both[3], Joop van Gerven[5], Serge Rombouts[4]
[1]Imperial College London, London, United Kingdom, [2]University of Twente, Enschede, Netherlands, [3]Leiden University Medical Center, Leiden, Netherlands, [4]Leiden Institute for Brain and Cognition, Leiden, Netherlands, [5]Center for Human Drug Research, Leiden, Netherlands

1005 WTh S-ketamine-induced perturbation of bottom-up effective connectivity predicts cognitive impairment
Andreea Oliviana Diaconescu[1], André Schmidt[2], Klaas Enno Stephan[1], Franz Vollenweider[2]
[1]Translational Neuromodeling Unit (TNU), University & ETH Zurich, Zurich, Switzerland, [2]Neuropsychopharmacology and Brain Imaging, University Hospital of Psychiatry, University of Zürich, Zurich, Switzerland

1006 WTh At the basis of a new experimental vaccin: an fMRI-study on neural effects of nicotine
Anne Havermans[1], Eric Vuurman[1], Onno van Schayck[2]
[1]Maastricht University, Maastricht, Netherlands, [2]CAPHRI, Maastricht, Netherlands

1007 WTh Sympathetic stress reactions alters fMRI data
Markus Muehlhan[1,2], Clemens Kirschbaum[3], Ulrike Lueken[4], Hans-Ulrich Wittchen[5], Michael Smolka[6]
[1]Department of Psychology, Technische Universität Dresden, Dresden, Germany, [2]Neuroimaging Center, Department of Psychology, Technische Universität Dresden, Dresden, Germany, [3]Chair of Biopsychology, Department of Psychology, Technische Universität Dresden, Dresden, Germany, [4]Department of Psychology, University of Technology, Dresden, Germany, [5]Department of Psychology, University of Technology Dresden, Dresden, Germany, [6]Technische Universität Dresden, Dresden, Germany

1008 WTh The effects of Methylphenidate on intrinsic functional connectivity in healthy adult subjects
Sophia Mueller[1], Anna Costa[2], Daniel Keeser[1], Albert Berman[1], Ute Coates[1], Maximilian Reiser[1], Michael Riedel[2], Hans Möller[2], Ulrich Ettinger[2], Thomas Meindl[1]
[1]Ludwig Maximilians University Munich, Institute of Clinical Radiology, Munich, Germany, [2]Ludwig Maximilians University Munich, Department of Psychiatry and Psychotherapy, Munich, Germany

1009 WTh Cholinergic enhancement modulates regional functional connectivity during a selective attention task
Emiliano Ricciardi[1], Giacomo Handjaras[1], Giulio Bernardi[1], Pietro Pietrini[1], Maura Furey[2]
[1]Laboratory of Clinical Biochemistry and Molecular Biology, University of Pisa Medical School, Pisa, Italy, [2]Experimental Therapeutics and Pathophysiology Branch, NIH/NIMH, Bethesda, MD

1010 WTh Arterial Spin Labelling based phMRI in healthy subjects following an IV challenge with d-amphetamine
Marieke Schouw[1], A. Kaag[1], Matthan Caan[1], A. Nederveen[1], J. Booij[1], L. Reneman[1]
[1]Academic Medical Center, Amsterdam, Netherlands

1011 WTh ECoG default mode network: Markedly enhancement of spectral field powers in propofol anesthesia
Guoguang ZHAO[1], JinXiu LIU[2], Andrew CHEN*[3]
[1]XuanWu Hospital, Capital Medical University, Beijing, China, [2]Center for Higher Brain Functions, Capital Medical Univers, Beijing, China, [3]Center for Higher Brain Functions, Capital Medical University, Beijing, China

SOCIAL NEUROSCIENCE

Self Processes

1012 WTh Negative self-image causes conflict over correct responses
Sara Bengtsson[1,2], Raymond Dolan[2], Richard Passingham[3,2], William Penny[2]
[1]Karolinska Institutet, Stockholm, Sweden, [2]University College London, London, United Kingdom, [3]University of Oxford, Oxford, United Kingdom

1013 WTh Does medial prefrontal cortex engage equally for representation of self and mother in Chinese?
Pin-Hao Chen[1], William Kelley[1], Todd heatherton[1]
[1]Department of Psychological and Brain Sciences, Dartmouth College, Hanover, NH, United States

1014 WTh Brain correlates of the negative self-schema of depressed individuals
Xi He[1], Rui Shang[1], Gaowa Wuyun[1]
[1]Department of Psychology, Peking University, Beijing, China

****1015 WTh Facing the voice: Neural correlates of explicit social judgments on vocal stimuli**
Lukas Hensel[1], Danilo Bzdok[1,2], Karl Zilles[1,2,3], Simon Eickhoff[1,4]
[1]Institute of Neuroscience and Medicine, INM-2, Research Center Jülich, Germany, [2]JARA-BRAIN, Jülich-Aachen Research Alliance, Jülich, Germany, [3]C. & O. Vogt Institute for Brain Research, Heinrich Heine University, Düsseldorf, Germany, [4]Institute of Clinical Neuroscience and Medical Psychology, Heinrich Heine University, Düsseldorf, Germany

1016 WTh A striatal network and dopaminergic regulation affect how we get along with others
Toru Ishii[1], Nobukatsu Sawamoto[1], Hayato Tabu[1], Tomohisa Okada[2], Kaori Togashi[2], Hidenao Fukuyama[1]
[1]Human Brain Research Center, Graduate School of Medicine, Kyoto University, Kyoto, Japan, [2]Diagnostic Imaging and Nuclear Medicine, Graduate School of Medicine, Kyoto University, Kyoto, Japan

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

1017 WTh Typifying emotional reappraisal by network graph causal organization
Yael Jacob[1,2,3], Gal Raz[4,5], Asaf Madi[6], Gadi Gilam[1], Tamar Lin[7], Eshel Ben-Jacob[6,8], Talma Hendler[7,9,10]
[1]Tel Aviv University, Tel Aviv, Israel, [2]School of Physics and Astronomy, Tel Aviv University, Tel Aviv, Israel, [3]Wohl Institute for Advanced Imaging, Sourasky Medical Center, Tel Aviv, Israel, [4]Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel, [5]Functional Brain Imaging Unit, Wohl Institute for Advanced Imaging, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, [6]School of Physics and Astronomy, Tel Aviv University, Tel Aviv, Israel, [7]Wohl Institute for Advanced Imaging, Sourasky Medical Center, Tel-Aviv, Israel, [8]Center for Theoretical and Biological Physics, University of California San Diego, La Jolla, CA, [9]Department of Psychology, Tel Aviv University, Tel Aviv, Israel, [10]Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel

1018 WTh Suppressive Interaction in S1 during Real and Observed Touch – a 7 Tesla fMRI study
Esther Kuehn[1], Karsten Mueller[2], Robert Turner[3], Simone Schütz-Bosbach[2]
[1]MPI for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [3]Max-Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

1019 WTh Oxytocin Inhibits Neural Responses to Self-referential Processing
Yi Liu[1], Feng Sheng[1], Shihui Han[1]
[1]Peking University, Beijing, China

1020 WTh Temporal dissociation of physical property and identity during self-face recognition
Yina Ma[1], Shihui Han[2]
[1]Department of Psychology, Peking University, Beijing, China, [2]Peking University, Beijing, China

1021 WTh Difference and the Self. Individualism and Collectivism in Cultural Neuroscience
Marina Martínez Mateo[1], Maurice Cabanis[2], Soeren Krach[3]
[1]Department of Philosophy, Frankfurt, Germany, [2]Philipps-University Marburg, N/A, [3]Philipps-University, Marburg, Germany

1022 WTh Neural Oscillations Associated with Self-related Attentional Orienting and Trait Evaluating
Yan Mu[1], Shihui Han[1]
[1]Department of Psychology,Peking University, Beijing, China

1023 WTh The Self Represented in the Dorsomedial Prefrontal Cortex: An fMRI Study
Naoyuki Osaka[1], Ken Yaoi[1], Mariko Osaka[2]
[1]Kyoto University, Kyoto, Japan, [2]Osaka University, Mino, Japan

1024 WTh Reminding Physical Pain and Mortality Influences Neural Activity Underlying Self-Related Processing
Zhenhao Shi[1], Shihui Han[1]
[1]Department of Psychology, Peking University, Beijing, China

1025 WTh Self-referential processing influences functional activation during cognitive control
Gerd Wagner[1], Kathrin Koch[1], Gregor Peikert[1], Claudia Schachtzabel[1], Ralf Schlösser[1], Christoph Schultz[1]
[1]Jena University Hospital, Jena, Germany

1026 WTh Common and Distinct Brain Response to Self Resemblance Faces in Patriarchal and Matriarchal Group
Haiyan Wu[1], Chao Liu[1], Li Luo[2], Suyong Yang[1], Shiyue Sun[1], Hongchang Zhai[2], Yuejia Luo[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China, [2]School of Education, Guangzhou University, Guangzhou, China

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

SOCIAL NEUROSCIENCE

Social Cognition

1027 WTh Social context and fairness perceptions: The role of status
Konstanze Albrecht[1], Armin Falk[1], Klaus Fliessbach[2], Eva Ranehill[3], Emma von Essen[4]
[1]University of Bonn, Bonn, Germany, [2]Clinic of Epileptology Bonn, Bonn, Germany, [3]University of Zurich, Zurich, Switzerland, [4]Stockholm University, Stockholm, Sweden

1028 WTh Functional and structural impairment of the left amygdala in violent non psychopath men
Maria Antonieta Bobes[1], Feggy Ostrosky[2], karla Diaz[2], Cesar Romero[2], karina borjak[2], Yusniel Santos[1], Ana Calzada[1]
[1]Cuban Neuroscience Center, Ciudad Habana, Cuba, [2]Universidad Nacional Autónoma de México, Mexico DF, Mexico

1029 WTh Timing of neural responses to disliked persons
Julie Brefczynski-Lewis[1], Stephanie Donley[2], Aina Puce[3]
[1]West Virginia University, MORGANTOWN, WV, [2]West Virginia University, Morgantown, WV, [3]Indiana University, Bloomington, IN

1030 WTh Structural, Connectional and Functional Segregation in the Human Amygdala
Danilo Bzdok[1], Angela Laird[2], Karl Zilles[3], Peter Fox[4], Simon Eickhoff[3]
[1]N/A, Germany, [2]Research Imaging Institute, San Antonio, United States, [3]Research Center Jülich, Jülich, Germany, [4]Research Imaging Institute, San Antonio, TX

1031 WTh Decomposing neural networks of morality: ALE meta-analysis on morality, theory of mind, and empathy
Danilo Bzdok[1], Leonhard Schilbach[2], Kai Vogeley[3], Angela Laird[4], Robert Langner[5], Simon Eickhoff[6]
[1]Institute of Neuroscience and Medicine, Research Center Jülich, Germany, [2]Department of Psychiatry, University of Cologne, Cologne, Germany, [3]Department of Psychiatry, University Hospital Cologne, Cologne, Germany, [4]University of Texas Health Science Center San Antonio, San Antonio, United States, [5]RWTH Aachen University, Aachen, Germany, [6]Research Center Jülich, Jülich, Germany

***1032 WTh Functional and Structural Correlates of Social Influence in the Human Brain (O-W2)**
Daniel Campbell-Meiklejohn[1,2], Dominik Bach[3], Ryota Kanai[3], Bahador Bahrami[3], Andreas Roepstorff[1], Raymond Dolan[3], Chris Frith[3]
[1]Aarhus University, Aarhus, Denmark, [2]New York University, New York, NY, [3]University College London, London, United Kingdom

1033 WTh Hierarchical clustering of fMRI data probes the conceptual structure of morality
Aleksandr Chakroff[1], Joshua Greene[2]
[1]Harvard University, cambridge, United States, [2]Harvard University, cambridge, MA

1034 WTh Moved to Poster #1112 MT

1035 WTh How does responsibility influence empathy for other´s pain?
Fang Cui[1,2], Valeria Gazzola[2,1], Christian Keysers[1,2]
[1]Netherlands Institute for Neuroscience, Amsterdam, Netherlands, [2]Department of Neuroscience, University Medical Center Groningen, University of Groningen, Groningen, Netherlands

1036 WTh Individual Differences in Anthropomorphic Judgements and Human Brain Structure
Harriet Cullen[1], Ryota Kanai[2], Bahador Bahrami[1], Geraint Rees[3]
[1]UCL Institute of Cognitive Neuroscience, London, United Kingdom, [2]University College London, London, United Kingdom, [3]Institute of Cognitive Neuroscience, University College London, London, United Kingdom

1037 WTh Effects of Intranasal Oxytocin on Face Processing in Asperger Syndrome
Gregor Domes[1], Ekkehardt Kumbier[2], Markus Heinrichs[1], Sabine Herpertz[3]
[1]University of Freiburg, Freiburg, Germany, [2]University of Rostock, Rostock, Germany, [3]University of Heidelberg, Heidelberg, Germany

1038 WTh Understanding the conflicted mental state: a fMRI study
Jianqiao Ge[1], Shihui Han[1]
[1]Peking University, Beijing, China

1039 WTh Would I be shy in a desert? A rest-fMRI study on the neurobiology of the social anxiety dimension
Claudio Gentili[1], Nicola Vanello[2], Emiliano Ricciardi[3], Ioana Cristea[4], Daniel David[5], Mario Guazzelli[6], Pietro Pietrini[7]
[1]Clinica Psichiatrica, Pisa, Italy, [2]4 Department of Information Engineering, University of Pisa, Italy, Pisa, Italy, [3]Laboratory of Clinical Biochemistry and Molecular Biology, University of Pisa, Pisa, Italy, [4]Babes-Bolyai University, Cluj-Napoca, Romania, [5]Clinical Psychology Chair, Department of Psychiatry, Neurobiology, Pharmacology and Biotechnologies, Cluj-Napoca, Romania, [6]Clinical Psychology Chair, Department of Psychiatry, Neurobiology, Pharmacology and Biotechnologies, Pisa, Italy, [7]University of Pisa Medical School, Pisa, Italy

1040 WTh Neural Correlates of the Perception of Nonverbal Behavior Patterns in Communicative Interactions
Alexandra Georgescu[1], Gary Bente[2], Marc Tittgemeyer[3], Kai Vogeley[4]
[1]Dept. of Psychiatry, University Hospital of Cologne, Cologne, Germany, [2]Dept. of Social Psychology, University of Cologne, Cologne, Germany, [3]Max Planck Institute for Neurological Research, Cologne, Germany, [4]Dept. of Psychiatry, University Hospital Cologne, Cologne, Germany

1041 WTh Neural Mechanisms of Social Influence in Young Adult Drug Use
Jodi Gilman[1], Sang Lee[2], Byoung Woo Kim[2], Myoung Joo Lee[2], John Kuster[2], Anne Blood[2], Hans Breiter[2]
[1]Massachusetts General Hospital, Boston, United States, [2]Massachusetts General Hospital, Boston, MA

1042 WTh Trait Empathy as Predictor of Responsiveness to Social Reward
Anna Gossen[1], Lina Winkler[1], Sarah Groppe[1], John Herrington[2], Gregor Kohls[2], Robert Schultz[2], Gerhard Gruender[1], Katja Spreckelmeyer[1]
[1]RWTH Aachen University, Department of Psychiatry, Psychotherapy and Psychosomatics, Aachen, Germany, [2]Center for Autism Research, Children's Hospital of Philadelphia, Philadelphia, PA

1043 WTh The neural basis of using implementation intentions for emotion regulation
Glyn Hallam[1], Thomas Webb[2], Paschal Sheeran[2], Eleanor Miles[2], Iain Wilkinson[3], Peter Totterdell[2], Peter Woodruff[1], Michael Hunter[1], Tom Farrow[1]
[1]SCANlab, Academic Clinical Psychiatry, The University of Sheffield, Sheffield, United Kingdom, [2]Department of Psychology, The University of Sheffield, Sheffield, United Kingdom, [3]Academic Unit of Radiology, The University of Sheffield, Sheffield, United Kingdom

1044 WTh Brain activity in fairness consideration during asset distribution:Does the ownership play a role?
Jie Hu[1], Yin Wu[1,2], Marijke Leliveld[3], Eric van Dijk[4], Xiaolin Zhou[1,5]
[1]Center for Brain and Cognitive Sciences and Department of Psychology, Peking University, Beijing, China, [2]Key Laboratory of Child Development and Learning Science (Ministry of Education), Southeast University, Nanjing, China, [3]Department of Marketing, University of Groningen, Groningen, Netherlands, [4]Department of Social and Organizational Psychology, Leiden University, Leiden, Netherlands, [5]Key Laboratory of Machine Perception (Ministry of Education), Peking University, Beijing, China

1045 WTh Intranasal oxytocin induces a subsequent memory bias towards negative emotional stimuli
Rene Hurlemann[1], Benjamin Becker[1], Keith Kendrick[2], Yoan Mihov[1], Lea Schaefer[1], Juergen Reul[3], Wolfgang Maier[1], Nadine Striepens[1]
[1]University of Bonn, Bonn, Germany, [2]University of Electronic Science and Technology of China, Chengdu, China, [3]Beta Clinic, Bonn, Germany

1046 WTh Self-construal priming modulates neural responses to perceived pain in others
Chao JIANG[1], Youyang Hou[2], Chenbo Wang[3], Siyang Luo[4], Shihui Han[3]
[1]Department of Psychology, Peking University, BEIJING, China, [2]Michigan State University, Michigan, United States, [3]Peking University, Beijing, China, [4]Peking university, Beijing, China

1047 WTh Early neural activation during angry emotional face processing in adolescents and adults
Rachel Leung[1,2], Hamzah Qureshi[1], Elizabeth Pang[1,2], Mary Lou Smith[1,2], Margot Taylor[1,2]
[1]The Hospital for Sick Children, Toronto, Ontario, Canada, [2]University of Toronto, Toronto, Ontario, Canada

1048 WTh Perception of Fairness in the Context of Organizational Justice: an ERP Study
Jia Li[1,2], Lu Lu[3], Yin Wu[1,2], Xiaolin Zhou[4,5]
[1]Key Laboratory of Child Development and Learning Science (Ministry of Education), Southeast Univ., Nanjing, China, [2]Center for Brain and Cognitive Sciences and Department of Psychology, Peking University, Beijing, China, [3]Department of Municipal Engineering, Anhui Water Conservancy Technical College, Hefei, China, [4]Center for Brain and Cognitive Sciences and Department of Psychology, Beijing, China, [5]Key Laboratory of Machine Perception (Ministry of Education), Peking University, Beijing, China

1049 WTh Observing actions performed by a congenital amputee activates one's own sensorimotor regions
Sook-Lei Liew[1], Lisa Aziz-Zadeh[2], Tong Sheng[2]
[1]University of Southern California, Los Angeles, United States, [2]University of Southern California, Los Angeles, CA

1050 WTh Race modulates functional connectivity during imitation
Elizabeth Losin[1], Marco Iacoboni[1], Mirella Dapretto[1]
[1]University of California, Los Angeles, United States

1051 WTh Reminder of death modulates anterior cingulate responses to the suffering of others
Siyang Luo[1], Zhenhao Shi[1], Xiangyu Zuo[1], Shihui Han[1]
[1]Department of Psychology, Peking University, Beijing, China

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

1052 WTh Sad about you: Mood effects on empathy
Jasminka Majdandžić[1], Mikhail Votinov[1], Jean Decety[2], Claus Lamm[1]
[1]SCAN-Unit, Faculty of Psychology, University of Vienna, Vienna, Austria, [2]Departments of Psychology and Psychiatry, University of Chicago, Chicago, United States

***1053 WTh Connectivity-based parcellation of the human right 'temporoparietal junction area' (TPJ) (O-M2)**
Rogier Mars[1], Jerome Sallet[1], Urs Schuffelgen[1], Saad Jbabdi[2], Ivan Toni[3], Matthew Rushworth[1]
[1]University of Oxford, Oxford, United Kingdom, [2]FMRIB Centre, Oxford, United Kingdom, [3]Donders Institute, Nijmegen, Netherlands

1054 WTh Responses to irrational actions in mirror and mentalising regions of the human brain
Lauren Marsh[1], Antonia Hamilton[1]
[1]University of Nottingham, Nottingham, United Kingdom

1055 WTh A data driven method of seed selection for tracking information flow from one brain to another
Lawrie McKay[1], Fabrizio Esposito[2], Filippo Migliorati[1], Rainer Goebel[3], Marleen Schippers[4], Christian Keysers[1]
[1]Netherlands Institute for Neuroscience, Royal Netherlands Academy for Arts and Sciences, Amsterdam, Netherlands, [2]University of Naples, Naples, Italy, [3]Maastricht University, Maastricht, Netherlands, [4]University Medical Center Groningen, Netherlands

1056 WTh The Neuroscience of Group Membership
Pascal Molenberghs[1], Samantha Morrison[2]
[1]University of Queensland, Brisbane, Australia, [2]The University of Queensland, Brisbane, Australia

****1057 WTh Social closeness modulates vicarious embarrassment related neural activation**
Laura Müller-Pinzler[1], Frieder Paulus[1], Jens Sommer[1], Tilo Kircher[1], Andreas Jansen[1], Soeren Krach[1,2]
[1]Department of Psychiatry, Philipps-University Marburg, Marburg, Germany, [2]Department of Neurology, Philipps-University Marburg, Marburg, Germany

1058 WTh The role of conceptual knowledge in understanding goal-directed action
Sasha Ondobaka[1], Floris de Lange[1], Marco Wittmann[1], Chris Frith[2], Harold Bekkering[1]
[1]Donders Institute, Radboud University Nijmegen, Nijmegen, Netherlands, [2]University College London, London, United Kingdom

1059 WTh Neural correlates of alterations in aesthetic judgment of artworks with judgments of others
Seongmin Park[1], Yongjin Jin[2], Chongwook Chung[2], Jaeseung Jeong[2]
[1]KAIST, Daejon, Korea, Republic of, [2]KAIST, Daejeon, Korea, Republic of

1060 WTh Abnormal social pain processing in children with early separation experiences – an fMRI study
Vanessa Puetz[1], Nils Kohn[2,3], Beate Herpertz-Dahlmann[4,3], Kerstin Konrad[1,3,5,4]
[1]Child Neuropsychology Section,Department of Child and Adolescent Psychiatry, UK Aachen, Aachen, Germany, [2]Department of Psychiatry, Psychotherapy and Psychosomatics, University Hospital Aachen, Aachen, Germany, [3]JARA Translational Brain Medicine, Aachen-Juelich, Germany, [4]Department of Child and Adolescent Psychiatry,Psychotherapy and Psychosomatics, UK Aachen, Aachen, Germany, [5]Cognitive Neurology, Section Institute of Neuroscience and Medicine (INM-3), Research Centre Juelich, Juelich, Germany

1061 WTh Moved to Poster #1113 MT

1062 WTh Cry for them or cry with them: dissociating two empathy-related networks during cinematic experience
Gal Raz[1], Yonatan Winetraub[2], Tal Gonen[3], Yael Jacob[2], Gadi Gilam[2], Talma Hendler[4]
[1]Tel Aviv University, N/A, [2]Tel Aviv University, Tel Aviv, Israel, [3]Tel Aviv Universitiy, Israel, N/A, [4]The Wohl Institute for Advanced Imaging, Tel Aviv Sourasky Medical Center, Tel-Aviv, Israel

1063 WTh Neural responses to changes in social attention depicted by biological motion stimuli
Alejandra Rossi[1], Francisco Parada[1], Aina Puce[1]
[1]Indiana University, Bloomington, IN

1064 WTh The neural bases of perspective differences in theory of mind tasks: A meta-analysis
Matthias Schurz[1], Markus Aichhorn[2], Josef Perner[2]
[1]University of Salzburg, Salzburg, Austria, [2]University of Salzburg, Salzburg, Salzburg

1065 WTh Oxytocin Increases Neural Responses to The Suffering of Racial In-group but not Out-group Members
Feng Sheng[1], Yi Liu[1], Shihui Han[1]
[1]Department of Psychology, Peking University, Beijing, China

1066 WTh Maternal Brain Responses to Baby-Stimuli are Modulated by Mood Disorders
James Swain[1,2], Shaun Ho[1], Katherine Rosenblum[1], Eric Finegood[1], Patricia Richardson[1], Carolyn Dayton[1], Leyla Akce[1], Sheila Marcus[1], Luan Phan[1], Maria Muzik[1]
[1]University of Michigan, Ann Arbor, MI, USA, [2]Yale Child Study Center, New Haven, CT, USA

1067 WTh Physical Cleanliness Evokes the Embodied Metaphor of Moral Purity: Evidence from resting-state fNIRS
Honghong Tang[1], Wanqing Li[1], Xu Xu[1], Chao Liu[1]
[1]State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

1068 WTh An Exploration of Empathic Concern, Power, and Neural Responses to Others' Suffering
Michael Varnum[1], Zhenhao Shi[1], Shihui Han[1]
[1]Department of Psychology, Peking University, Beijing, China

****1069 WTh Culture shapes inter-brain synchronization during human goal decoding**
Luca Vizioli[1,2], Junpeng Lao[1], Helen Rodger[2], Roberto Caldara[2]
[1]University of Glasgow, Centre for Cognitive Neuroimaging, Institute of Neuroscience & Psychology, Glasgow, United Kingdom, [2]University of Fribourg, Department of Psychology, Fribourg, Switzerland

****1070 WTh The culturally situated brain: Self-construal priming modulates the default mode activity**
Chenbo Wang[1], Daphna Oyserman[2], Qiang Liu[3], Hong Li[3], Shihui Han[1]
[1]Peking University, Beijing, China, [2]University of Michigan, Ann Arbor, MI, [3]Key Laboratory of Cognition and Personality (SWU), Ministry of Education, Chongqing, China

1071 WTh Empathy Related Brain Spontaneously Activities in Healthy Chinese people
Yi Wang[1], Chao Yan[2], Mingxia Fan[3], Dazhi Yin[4], Raymond Chan[1]
[1]Institute of Psychology, Chinese Academy of Sciences, Beijing, China, [2]Institution of Psychology, Beijing, China, [3]Shanghai Key Laboratory of MRI, East China Normal University, Shanghai, China, [4]Key Laboratory of Brain Functional Genomics, Shanghai Key Laboratory of Magnetic Resonance, ECNU, Shanghai, China

1072 WTh The neural mechanism of Machiavellian control of mimicry in social contexts
Yin Wang[1], Antonia Hamilton[1]
[1]University of Nottingham, Nottingham, United Kingdom

1073 WTh Evaluating self-owned vs. other-owned objects: the modulatory role of oxytocin
Yin Wu[1], Xiaolin Zhou[2]
[1]Research Center for Learning Science, Southeast University, Nanjing, China, [2]Center for Brain and Cognitive Sciences and Department of Psychology, Beijing, China

1074 WTh Gender differences in neural mechanisms underlying moral judgment of disgust: A functional MRI study
Juan Yang[1], Qinglin Zhang[2]
[1]Southwest University, China, Chongqing, China, [2]Southwest University, Chongqing, China

1075 WTh Abnormal temporal lobe activity of female conduct disorder adolescents to emotional visual stimuli
Hyo Woon Yoon[1]
[1]Daegu University, Daegu, Korea, Republic of

1076 WTh Oxytocin and Neural Processing of Pictorial Cues of Death
Dian Yu[1], Shihui Han[1]
[1]Peking University, Beijing, China

1077 WTh Neural response and Physiological activity to emotional images are affected by Cognitive Reappraisal
Lin Yuan[1], Shun Wang[1], Chang Liu[1], Renlai Zhou[1]
[1]School of Psychology,Beijing Normal University, Beijing, China

1078 WTh Neural correlates of traffic educational campaign content evaluation
Jana Zelinkova[1], Michal Mikl[1], Lenka Peterkova[2], Tomas Urbanek[3], Radek Mareček[4], Milan Brázdil[5]
[1]Behavioral and Social Neuroscience Research Group, CEITEC - Central European Institute of Technology, Brno, Czech Republic, [2]Traffic Psychology Department, v. v. i., Transport Research Centre, Brno, Czech Republic, [3]Institute of Psychology, Academy of Sciences of the Czech Republic, Brno, Czech Republic, [4]Behavioral and Social Neuroscience Research Group, CEITEC, Masaryk University, Brno, Czech Republic, [5]Behavioral and Social Neuroscience Research Group, CEITEC-Central European Institute of Technology, Brno, Czech Republic

1079 WTh Rapid potentiation of neuronal response to unattractive faces when expecting beauty
Yuan Zhang[1], Lin Zhou[1], Akaysha Tang[2]
[1]Peking University, Beijing, China, [2]University of New Mexico, Albuquerque, NM

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

SOCIAL NEUROSCIENCE

Social Interaction

1080 WTh The neural basis of gratitude
Qiang Cai[1], Hongbo Yu[1], Xiaolin Zhou[1]
[1]Center for Brain and Cognitive Sciences and Department of Psychology, Peking University, Beijing, China

1081 WTh Variation in Amygdala Size Predicts Prosocial Behavior in Women
Xu Chen[1], Ashley DeMarco[1,2], Alleyne Ross[1], Ebrahim Haroon[3], James Rilling[1,3,4,5]
[1]Department of Anthropology, Emory University, Atlanta, GA, USA, [2]Department of Psychology, University of Kansas, Lawrence, KS, USA, [3]Department of Psychiatry and Behavioral Sciences, Emory University, Atlanta, GA, USA, [4]Center for Behavioral Neuroscience, Emory University, Atlanta, GA, USA, [5]Center for Translational Social Neuroscience, Emory University, Atlanta, GA, USA

1082 WTh Amygdala and striatal responses mirror preferences over social or non-social uncertainty
George Christopoulos[1,2], Nina Lauharatanahirun[3,4,5], BROOKS KING-CASAS[3,6,5]
[1]Nanyang Technological University, Singapore, Singapore, [2]Culture Science Institute, Singapore, Singapore, [3]Virginia Tech Carilion Research Institute, ROANOKE, VA, [4]Department of Psychology, Virginia Tech, VA, [5]Salem Veteran Affairs Medical Center, Salem, VA, [6]Department of Psychology, Blacksburg, VA

1083 WTh Culture modulates brain activity during empathy with anger
Moritz de Greck[1], Zhenhao Shi[2], Gang Wang[3], Xuedong Yang[4], Xiangyu Zuo[3], Xiaoying Wang[4], Georg Northoff[5], Shihui Han[3]
[1]University of Leipzig, Leipzig, Germany, [2]Department of Psychology, Peking University, Beijing, China, [3]Peking University, Beijing, China, [4]Peking University First Hospital, Beijing, China, [5]Institute of Mental Health Research, Ottawa, Canada

1084 WTh Inferring on the intentions of others: Models of reciprocal learning during an interactive game
Andreea Oliviana Diaconescu[1], Christoph Mathys[1], Lilian Weber[1], Jean Daunizeau[2], Klaas Enno Stephan[1]
[1]Translational Neuromodeling Unit (TNU), University & ETH Zurich, Zürich, Switzerland, [2]Institut du Cerveau et de la Moelle épinière (ICM), Hôpital Pitié Salpêtrière, Paris, France

1085 WTh Leaders and followers: an fMRI study of dynamic cooperation with an adaptive virtual partner
Merle Fairhurst[1], Petr Janata[2], Peter Keller[1]
[1]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [2]Center for Mind and Brain, University of California, Davis, Davis, CA

1086 WTh Probing the cerebral bases of a putative "language familiarity effect" in speaker identification
David Fleming[1], Phil McAleer[1], Frances Crabbe[1], Roberto Caldara[2,1], Pascal Belin[1,3]
[1]Institute of Neuroscience and Psychology, University of Glasgow, Glasgow, United Kingdom, [2]Department of Psychology, University of Fribourg, Fribourg, Switzerland, [3]Laboratory for Brain, Music and Sound (BRAMS), Université de Montréal and McGill University, Quebec, Canada

****1087 WTh Regulation benefits: fMRI of negative emotions induced by repeated interactive ultimatum bargaining**
Gadi Gilam[1,2], Gal Raz[3,2,4], Tamar Lin[5,2], Rakefet Sela-Sheffy[6], Talma Hendler[6,2,3]
[1]Department of Psychology, Tel-Aviv University, Tel Aviv, Israel, [2]Functional Brain Center, Tel-Aviv Sourasky Medical Center, Tel-Aviv, Israel, [3]Department of Physiology and Pharmacology, Tel-Aviv University, Tel-Aviv, Israel, [4]Department of Film & Television, Tel-Aviv University, Tel-Aviv, Israel, [5]Department of Psychology, Tel-Aviv University, Tel-Aviv, Israel, [6]Unit of Culture Research, Tel-Aviv University, Tel-Aviv, Israel

1088 WTh Functional Networks in a Competitive Tetris game through a Group Independent Component Analysis
Yun-An Huang[1], Tai-Li Chou[2], Jyh-Horng Chen[3]
[1]National Taiwan University, Taipei, [2]Dept. of Psychology, National Taiwan University, Taipei, [3]Interdisciplinary MRI/MRS Lab, Department of Electrical Engineering, National Taiwan University, Taipei

1089 WTh NeuroAN: The Application for Hyperscanned Real-Time fMRI
Changwon Jang[1], Dongha Lee[2], Bumhee Park[3], Joongil Kim[3], Hae-Jeong Park[4]
[1]Yonsei University, Seoul, Korea, Republic of, [2]Yonsei University College of Medicine, Seoul, Korea, Republic of, [3]Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea, Republic of, [4]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Korea, Republic of

1090 WTh The neural correlates of doctor-patient interaction – fMRI of physicians during admin. of pain relief
Karin Jensen[1], Jian Kong[1], Predrag Petrovic[2], Catherine Kerr[3], Irving Kirsch[4], Jacqueline Raicek[1], Alexandra Cheetham[1], Rosa Spaeth[1], Amanda Cook[1], Randy Gollub[1], Ted Kaptchuk[5]
[1]Dept. of Psychiatry, Massachusetts General Hospital, A.A. Martinos Center for Biomedical Imaging, Charlestown, MA, [2]Department of Clinical Neuroscience Karolinska Institutet, Stockholm, Sweden, [3]Brown University, Providence, RI, [4]Hull University / Beth Israel Deaconess Medical Center / Harvard Medical School, Hull / Boston, United Kingdom, [5]Beth Israel Deaconess Medical Center / Harvard Medical School, Boston, United States

1091 WTh Dual-EEG of social interaction: a machine learning approach to the two-brain problem
Ivana Konvalinka[1,2], Carsten Stahlhut[2], Markus Bauer[3], Lars Hansen[2], Andreas Roepstorff[1], Chris Frith[3]
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1092 WTh Social feedback processing in East Asian and Western culture
Christoph Korn[1,2], Yan Fan[3,4], Kai Zhang[3,4], Chenbo Wang[5], Shihui Han[5], Hauke Heekeren[1,2,3]
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1093 WTh The coupled and decoupled brain states in a visually interactive dyadic fMRI study
Ray Lee[1]
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1094 WTh Mu-Rhythm Modulation And Source-Clusters In Natural Action Observation and Execution for Toddlers
Yu Liao[1], Gedeon Deak[1], Scott Makeig[2], Zeynep Akalin Acar[2]
[1]University of California, San Diego, San Diego, United States, [2]Swartz Center for Computational Neuroscience, UCSD, San Diego, United States

1095 WTh The Neural Basis of Ideal Free Input-Matching in Humans
dean Mobbs[1], Demis Hassabis[2], Rongjun Yu[3], Chia-Yueh Carlton Chu[4], Tim Dalgleish[1]
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1096 WTh Neural correlates of deficient response inhibition as a function of trait impulsiveness
Christina Pawliczek[1], Ruben Gur[2], Birgit Derntl[3], Thilo Kellermann[4], Ute Habel[5]
[1]N/A, Aachen, Germany, [2]University of Pennsylvania, Philadelphia, PA, [3]RWTH Aachen University, Aachen, Germany, [4]RWTH-Aachen, Aachen, Germany, [5]University of Aachen, Aachen, Germany

1097 WTh Morphometric gray matter alterations influence the social Simon effect
Patrick Ragert[1], Roman Liepelt[2], Wolfgang Prinz[1], Arno Villringer[1], Thomas Dolk[1]
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1098 WTh Setup and Apparatus for Two-Person fMRI
Ville Renvall[1], Sanna Malinen[1]
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1099 WTh Resting State Connectivity Links Community Socioeconomic Status to Preclinical Atherosclerosis
Lei Sheu[1], Minjie Wu[2], Israel Christie[3], Timothy Verstynen[3], Pete Gianaros[3]
[1]University of Pittsburgh, Pittsburgh, PA United States, [2]University of Illinois, Chicago, IL, [3]University of Pittsburgh, Pittsburgh, PA

***1100 WTh Neural mechanisms of human communicative innovations (O-W2)**
Arjen Stolk[1], Lennart Verhagen[1], Jan-Mathijs Schoffelen[1], Robert Oostenveld[1], Mark Blokpoel[1], Peter Hagoort[1], Iris van Rooij[1], Ivan Toni[1]
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1101 WTh Neural correlates of receiving an apology and active forgiveness
Sabrina Strang[1], Urs Fischbacher[2], Verena Utikal[3], Armin Falk[1], Bernd Weber[1]
[1]Center for Economics and Neuroscience, University of Bonn, Bonn, Germany, [2]Universität Konstanz, Konstanz, Germany, [3]Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany

1102 WTh A Causal Role for LPFC in Social Norm Compliance
Giuseppe Ugazio[1], Ernst Fehr[1], Christian Ruff[1]
[1]University of Zurich, Zurich, Switzerland

1103 WTh An fMRI study of self-other comparison during competition.
Mikhail Votinov[1], Juergen Pripfl[1], Eva Maria Link[1], Patrick Markey[1], Ewald Moser[2], Christian Windischberger[2], Claus Lamm[1], Uta Sailer[1,3]
[1]SCAN-Unit, Faculty of Psychology, University of Vienna, Vienna, Austria, [2]MR Center of Excellence, Medical University of Vienna, Vienna, Austria, [3]Dept. of Psychology, University of Gothenburg, Gothenburg, Sweden

1104 WTh Content matters: an fMRI study of the efficacy of the anti-tobacco public service announcements
AN-LI WANG[1], James Loughead[2], Kosha Ruparel[2], Dan Romer[1], Daniel Langleben[2,1]
[1]Annenberg Public Policy Center, University of Pennsylvania, Philadelphia, USA, [2]Department of Psychiatry, University of Pennsylvania, Philadelphia, USA

****1105 WTh Intense vicarious social pain is linked to higher-order somatosensory cortex activation**
Stefan Westermann[1], Frieder Paulus[2], Laura Müller-Pinzler[1], Jens Sommer[1], Tilo Kircher[1], Andreas Jansen[3], Soeren Krach[3,3]
[1]Department of Psychiatry, Philipps-University Marburg, Marburg, Germany, [2]Department of Psychiatry, Philipps University Marburg, Marburg, Germany, [3]Department of Neurology, Philipps-University Marburg, Marburg, Germany

1106 WTh Interpersonal context modulates neural responses to emotional stimuli
Kate Woodcock[1], Dian Yu[2], Yi Liu[2], Shihui Han[2]
[1]Peking University, China & University of Birmingham, UK, Beijing, China, [2]Peking University, Beijing, China

1107 WTh Neural Activity of Understanding Polite Utterance in Conversation
Shin-ae Yoon[1], Suh-kyung Kim[2], Ji-Won Chun[3], Joohan Kim[4], Eun-joo Kim[5], Hae-Jeong Park[6]
[1]Department of Radiology, Nuclear Medicine and Research Institute of Radiological Science, Yonsei Uni, Seoul, Korea, Republic of, [2]Department of Radiology and Psychiatry, Severance Biomedical Science Institute, Yonsei University C, Seoul, Korea, Republic of, [3]Yonsei University College of Medicine, Seoul, Korea, Republic of, [4]Department of Communication, Yonsei University, Seoul, Korea, Republic of, [5]Department of Education, Yonsei University, Seoul, Korea, Republic of, [6]Department of Diagnostic Radiology and Research Institute of Radiological Science, Nuclear Medicine, Seoul, Korea, Republic of

›› Wednesday, June 13: 13:30 – 15:30 (even numbers)
›› Thursday, June 14: 10:45 – 12:45 (odd numbers)

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