

Executive Function and Brain Connectivity

Organizer:

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It has been known for quite some time that the fronto-parietal network plays a critical role in executive function. All major theories of executive function assume that the fronto-parietal network implements control by modulating or modifying processing in other brain regions. As such, connectivity between brain regions is likely to play a crucial role in the ways in which the fronto-parietal network allows for executive function. Nonetheless, examining executive function from the perspective of brain connectivity has received relatively little investigation. This symposium serves to address this important and emerging issue from the perspective of both resting-state and task-based functional connectivity.

Individual differences in anatomical and functional aspects of brain connectivity that influence components of executive function

Marie Banich, University of Colorado, Boulder, CO, United States

Functional brain dynamics underlying individual differences in executive function

Lucina Uddin, University of Miami, Miami, FL, United States

It's about time: a dynamic functional connectivity approach to understanding the development of cognitive control

J. Bruce Morton, Western University, London, Ontario, Canada

Default and executive network interactivity involved in goal-directed cognition

R. Nathan Spreng, Cornell University, Ithaca, NY, United States