Imaging Brain Plasticity

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The last 15 years have shown us that learning and experience modifies the at a scale detectable by MRI. It is only very recently, however, that are obtaining the first evidence of the molecular underpinnings of MRI detectable plasticity. Similarly, we are beginning to understand the timing of when these changes in the brain are detectable - which turns out to be much faster than initially expected. It is thus a perfect time to provide an update to the community regarding what we know (and what we still do not know) about structural brain plasticity.

Imaging rapid plasticity in the sensorimotor system using high field MRI
Heidi Johansen-Berg, University of Oxford, Oxford, United Kingdom

Predispositions and Plasticity in Auditory Learning
Robert Zatorre, McGill University, Montreal, Quebec

The spatial and temporal dynamics of structural plasticity in the memory domain
Yaniv Assaf, Tel Aviv University, Tel Aviv, Israel

The cellular and molecular bases of structural brain plasticity
Jason Lerch, University of Toronto/Hospital for Sick Children, Toronto, Ontario, Canada