Colloquium

The Institute Colloquium: Integrative genomics in human neuropsychiatric disease

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Host:

Genomics and genetics have fulfilled their early promise for identification of risk genes contributing to neuropsychiatric disease. We have leveraged transcriptomic and network biology approaches to elucidate the normal structure of the human brain transcriptional network, so as to understand how risk genes for autism spectrum disorder (ASD) might affect the development of brain circuits. Our findings demonstrate that there is shared, convergent biology and neuropathology involving transcriptional regulation, synaptic function and microglial regulation of neural function. This work identifies key epochs cell types, and molecular pathways where ASD risk genes are likely to act during fetal brain development. We have also begun to use the same systems biology framework to explore convergence and divergence with other neurodevelopmental disorders, and to assess the utility of in vitro model systems for studying human neural development. These studies provide a framework for further functional investigation of disease mechanisms with a goal of accelerating therapeutic development.

Monday, September 7, 2015 12:45pm - 01:45pm
Raiffeisen Lecture Hall, Central Building

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.