

Departmental Seminar

ENIGMA Goes Functional: Worldwide Meta-analysis of Task-based fMRI Data

2:30 p.m. – 3:30 p.m. | July 19, 2019 (Friday)

Chamber, 11/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



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Abstract

The search for biomarkers of mental disorders has been discouraging so far and attempts to map specific psychological and neurobiological dysfunction onto current diagnostic categories with neuroimaging techniques have largely failed. This has motivated the NIMH to initiate the Research Domain Criteria (RDoC) project to develop a biologically informed research classification system for psychiatry. So far, the Enhancing Imaging Genetics through Meta-Analysis (ENIGMA) consortium has focused on structural MRI data (i.e., T1 and DTI) exclusively. From an RDoC perspective, however, it will be crucial to collect functional MRI data from various cognitive/affective domains and subdomains. In addition, brain function is assumed to be more sensitive to genetic variability than brain structure, and it is ultimately more proximal to the RDoC approach as well. Here I will introduce our newly established ENIGMA task-based fMRI workgroup, which will translate the successful ENIGMA meta-analytic collaborative framework to the functional domain, assessing the genetic basis of task-evoked brain activation. Caveats for large-scale meta-analysis of task data will be discussed, alongside proof-of-principle results for a commonly used emotion processing task paradigm.

~All are Welcome~

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