

**Faculty Candidate Seminar**

***Decoding the genetic landscape***

***of human brain expansion***

A monkey in a tree

Description automatically generated

The 3-fold expansion of the cerebral cortex is one of the defining features of human evolution. This extraordinary transformation occurred over a remarkably short evolutionary time span of ~7 million years. However, the causal mechanisms and pathways that govern size control of the developing brain have not yet been systematically investigated. To discover the genes responsible for this process, my lab will build a functional genomics platform to observe the effects of genetic perturbations on neurodevelopment. We will perform genetic screens in neuronal progenitor cells from humans and great apes. These experiments will identify the key pathways and genes that determine whether neural progenitor cells undergo proliferation or differentiation – a pivotal decision point that ultimately dictates the expansion of the brain.

**Richard She, PhD**

Postdoctoral Fellow, Whitehead Institute

**Candidate for Assistant Professor, Molecular Biology & Genetics**

**Date: Monday May 13, 2024**

**Time: 1:00 p.m.**

**Location: Red Seminar Room Donnelly CCBR**

**Host:** Stephane Angers, PhD