

Abstract

Resting-state fMRI is commonly used to extracting brain-connectivity information. However, the use of the blood-oxygenation level-dependent (BOLD) signal in this case can induce a number of vascular confounds. In this talk, I will speak about three ways that my lab has discovered in which vascular contributions can confound BOLD-based resting-state functional connectivity measures: (1) the effect of cerebrovascular reactivity; (2) the effect of age-related vascular stiffening; (3) the effect of intra-extravascular magnetic susceptibility. These findings call for caution in interpreting resting-state fMRI measurements, but also provide opportunities for gleaning useful vascular information.