

Nim Tottenham, Ph.D.

MIND Institute Distinguished Lecturer Series – March 9, 2016

Biographical Information

Nim Tottenham, Ph.D. is an associate professor of Psychology at Columbia University. Her research uses fMRI and behavioral methods to examine human limbic-cortical development in children and adolescents to understand how early life experiences influence affective development. She is a recipient of the NIMH BRAINS Award, the APA *Distinguished Scientific Award for Early Career Contribution to Psychology*, and the *Developmental Science Early Career Researcher Prize*. She received her graduate and postdoctoral training under BJ Casey, Megan Gunnar, and Chuck Nelson at the University of Minnesota and the Sackler Institute for Developmental Psychobiology at Weill Cornell Medical College.

Presentation Abstract (4:30pm presentation)

Development of human amygdala-prefrontal cortex circuitry and the role of the caregiver

Neurobiologically, the foundation of mature emotion regulation is comprised of connections between the amygdala and medial prefrontal cortex (mPFC). We have shown that this circuitry is slow to develop in humans, and age-related changes in this neurobiology underlie the maturation of affective behaviors. The current talk will present a series of behavioral and functional neuroimaging studies that characterize the development of this circuitry and begin to elucidate the mechanisms by which social environments modulate its development. The talk is dedicated to neural and behavioral findings in typical development and also to development following early caregiving adversity. Discussion will focus on possible sensitive periods of brain development and the role of the social environment in establishing the neural architecture that supports emotional behaviors in maturity.