## Brain Mapping Center SEMINAR SERIES

## **Sponsored by the UCLA Brain Mapping Center Faculty**

The focus of these talks is on advancing the use of brain mapping methods in neuroscience with an emphasis on contemporary issues of neuroplasticity, neurodevelopment, and biomarker development in neuropsychiatric disease.

Hosted By: Shantanu Joshi, PhD, Neurology, UCLA

## In vivo imaging of neuroimmune activation in humans - insights from chronic pain



## Daniel S. Albrecht, PhD

Research Fellow, Department of Radiology Harvard Medical School

Neuroinflammation is implicated in the pathophysiology of a growing number of human disorders, including multiple sclerosis, chronic pain, traumatic brain injury, and amyotrophic lateral sclerosis. Neuroimaging offers a wide array of non or minimally invasive techniques to characterize neuroinflammatory processes. In particular, my work at MGH has focused on the use of simultaneous MR/PET imaging with [11C]PBR28, which binds to the translocator protein 18 kDa (TSPO). Because of its increased expression in activated glial cells, macrophages and other immune cells, TSPO has been used by our lab and many others as a marker of neuroinflammatory processes. During this talk, I will be discussing several projects using [11C]PBR28 to characterize the presence and spatial extent of neuroimmune activation in several different pathological populations, with a particular emphasis on chronic pain disorders. While most of my talk will be focused on the brain, I will also present the results of our recent experiences with neuroinflammation imaging in the spinal cord and nerve roots. I will also discuss several important caveats and considerations when using

**February 1, 2018 11:00am - 12:00pm** Ahmanson-Lovelace Brain Mapping Center Conference Room (221) 660 Charles E. Young Drive South \*Please note a change in this seminar's venue

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