Jennifer Coughlin, MD
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Title: Imaging immune activation across neuropsychiatric conditions

Abstract:

The promise of precision medicine as an effective clinical approach depends on novel diagnostics to identify subsets of patients that inform group-specific, targeted treatment. To achieve this ultimate goal in treating neuropsychiatric conditions, further identification and understanding of disease biomarkers, in the relevant milieu of brain, is needed. This presentation will review work aimed at detecting and studying the contribution of activated microglia, the resident immune cells in the brain, to neuropsychiatric conditions by using molecular neuroimaging. We are concerned that a subset of individuals develop psychiatric and/or cognitive symptoms that require anti-inflammatory treatment for optimal outcome. Several relevant neuroimmune targets will be discussed in the context of reviewing existing and emerging radiotracer development for human neuroimaging studies. Dr. Coughlin will also provide perspective on her experience as a clinician-scientist and the drive to inform novel therapeutic development through imaging research in this age of high-value, precision medi-

Jennifer M. Coughlin M.D. has been a member of the Johns Hopkins Department of Psychiatry and Behavioral Sciences faculty since July 2012. She directs the Young Adult Affective Disorders Inpatient Service and the Young Adult Affective Disorders Consultation Clinic.

Dr. Coughlin’s research focuses on molecular neuroimaging with positron emission tomography (PET). She leads an interdepartmental initiative to apply new PET-based radiotracers to the study of altered immune signaling that may contribute to neurologic and psychiatric conditions. Specifically, her recent work focuses on imaging markers relevant to the role of neuroimmunity in sports-related traumatic brain injury, Alzheimer’s disease, Major Depressive Disorder, Bipolar Disorder and recent onset of psychosis. Her imaging work aims to inform the development and application of new therapies targeting neuroimmune signaling and inflammation to promote brain health.

Zoom registration is required

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