Tuesday the 22nd of September, 2015
14:00-16:00
Conference room of CGFB

TRAIL

Translational Research and
Advanced Imaging Laboratory

Positron Emission Tomography of Human Brain can Monitor Neuroinflammation and cAMP Signaling: Applications to Alzheimer's Disease and Depression

Dr Robert Innis
Chief, Section on PET Neuroimaging Sciences, Molecular Imaging Branch (MIB), NIMH, Bethesda, USA

The conference is organized by the TRAIL workpackage "Tracers and contrast agents"

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Dr. Robert Innis is Chief of the Molecular Imaging Branch at NIMH. Dr. Innis received his MD and PhD degrees from Johns Hopkins, with his thesis work performed under the mentorship of Dr. Solomon Snyder. Dr. Innis then trained in psychiatry at Yale and later joined its faculty. During his 17 years at Yale, his work focused on studying receptors in the brain using radiolabeled probes. His two most important accomplishments at Yale were: One, he discovered a radioligand to label the dopamine transporter, and this radioligand is now approved in the EU and USA to aid in the diagnosis of Parkinson's disease. Two, he used receptor imaging to indirectly measure dopamine released into the synapse. Using this technique, he showed that patients with schizophrenia have elevated dopamine release, which then induces psychotic symptoms.

Dr. Innis moved to the National Institute of Mental Health in 2001 and has worked with Dr. Victor Pike to develop several new PET radioligands. Dr. Innis will speak to us today on PET imaging of two targets in brain. The first is translocator protein (TSPO), a marker of inflammation in brain. The second is phosphodiesterase4 (PDE4), the major enzyme in brain to metabolize the second messenger cAMP.