

Studying Lipid Metabolism in the Human Brain

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Signaling lipids, such as the endocannabinoids, play an important role in the brain. They regulate synaptic transmission and control various neurophysiological processes, including pain sensation, neuroinflammation, stress and anxiety. Unlike classical neurotransmitters, lipid messengers are produced on demand and degraded by metabolic enzymes to control their lifespan and signaling actions. Chemical biology approaches have become one of the main driving forces to study and unravel the physiological role of lipid messengers in the brain. In this presentation, I will discuss our program to study lipid metabolism in the brain of multiple sclerosis patients using chemical probes.

Punt JM, van der Vliet D, van der Stelt M. Chemical Probes to Control and Visualize Lipid Metabolism in the Brain. *Acc Chem Res.* 2022;55(22):3205-3217.