

Cornelius Faber

Brain states and solute clearance from the brain studied by multimodal MRI

Pathways and mechanisms of fluid transposition in the brain are still a matter of intense discussion, but driving forces underlying waste clearance in the brain remain elusive. Combining optical fiber-based calcium recordings and contrast enhanced MRI in a multimodal approach allows disentangling the individual impact of neuronal activity and cerebrospinal fluid (CSF) formation on waste clearance. We describe a comprehensive approach using a number of MRI and optical recording techniques in rat models under different anesthetic regimens to probe the glymphatic and other hypotheses of waste clearance from the brain.