

Inflammation and Neural Repair

- Experimentally and clinically, stroke is followed by an acute and a prolonged inflammatory response
 - Characterized by inflammatory cytokines, leukocyte and monocyte infiltration in the brain, and the activation of resident glial cells.
- Post-ischemic inflammation plays an important role
 - Unclear if deleterious or beneficial to recovery
- Importance of clarifying the role of the immune response in pathological changes at the site of ischemic lesions in the brain
 - Dual effects of the brain's inflammatory response
 - New evidence for a neuroprotective role of proliferating microglial cells in ischemia
 - A potential role of post-ischemic inflammation in brain regeneration and modulation of synaptic plasticity.

Present Research

- Dysfunctional HDL in Stroke
 - HDL is usually an anti-inflammatory and anti-atherogenic lipoprotein
 - Blocks expression of MCP, blocks LDL oxidation
 - In the acute phase HDL becomes pro-inflammatory and dysfunctional
- Measures of ischemic vascular disease in aging (PI: Chui)
 - Serum measures, CIMT, retinal photography, cognitive performance, pathology

Future Studies

- Inflammation in stroke recovery
 - Serum markers
 - Fluctuation over time
 - Association with functional neuroimaging and outcomes
- Cerebral Blood Flow and Vasomotor Reactivity
 - Cerebrovascular reserve
 - Changes in blood flow to areas involved in recovery