

MR Neuroimaging White Matter Disease

The brain's
response
during immune
recovery

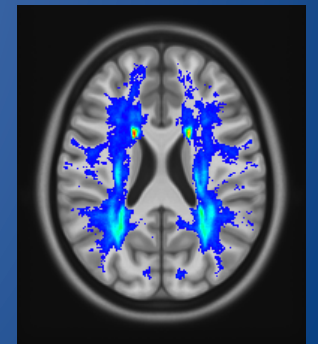
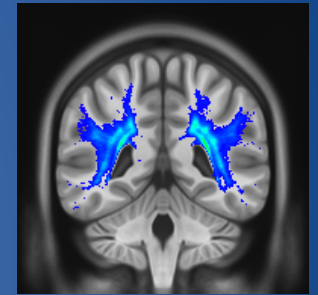
- Suggestions of inflammation in white matter and subcortical gray nuclei with clinically meaningful increase in CD4+ T cell count

Effects of
Hepatitis C on
the brain

- HCV seropositivity independently associated with more white matter disease and cognitive impairment

White matter
disease in
midlife

- Highly heritable; early control of hypertension may help, although only partial genetic overlap



MR Neuroimaging Methods

Impact of different head coils (8- vs. 32-channel) on structural outcomes

- Less gray matter volume (~11%), more CSF (~13%), thinner cortex (6-22%) with regional variation, and interactions with image processing pathways

Improved estimation of metabolite levels in single-voxel MR spectroscopy

- Statistically controlling for the amount of relevant tissue increases sensitivity to detect disease specific effects

Frontal Gray	72% (47-94%) gray
Frontal White	82% (48-95%) white
Basal Ganglia	43% (20-69%) gray

