

Cerebrospinal Fluid Markers of Post-Hemorrhagic Hydrocephalus (CSF Markers of PHH)

- In preliminary studies, we explored the relationship between PHH and lowabundance CSF proteins using quantitative proteomics and found that PHH was associated with elevations in the CSF levels of neurodevelopmental proteins such as L1CAM, NCAM-1, APP, brevican, and others. The protocol builds on these preliminary findings with the hypotheses that the CSF levels of these and other protein mediators of neurodevelopment are increased in PHH and that protracted elevations of these proteins are associated with adverse neurological outcome. These studies will provide crucial data evaluating potential CSF markers for use in this role.

Specific Aim 1: Compare the levels of CSF L1CAM, NCAM1, APP, brevican, and other proteins in control, PHH, and other neurological conditions.

Specific Aim 2: Determine the relationship of PHH-associated elevations in CSF L1CAM, NCAM-1, APP, brevican, and other proteins to neurodevelopmental outcomes at 18-26 months corrected age