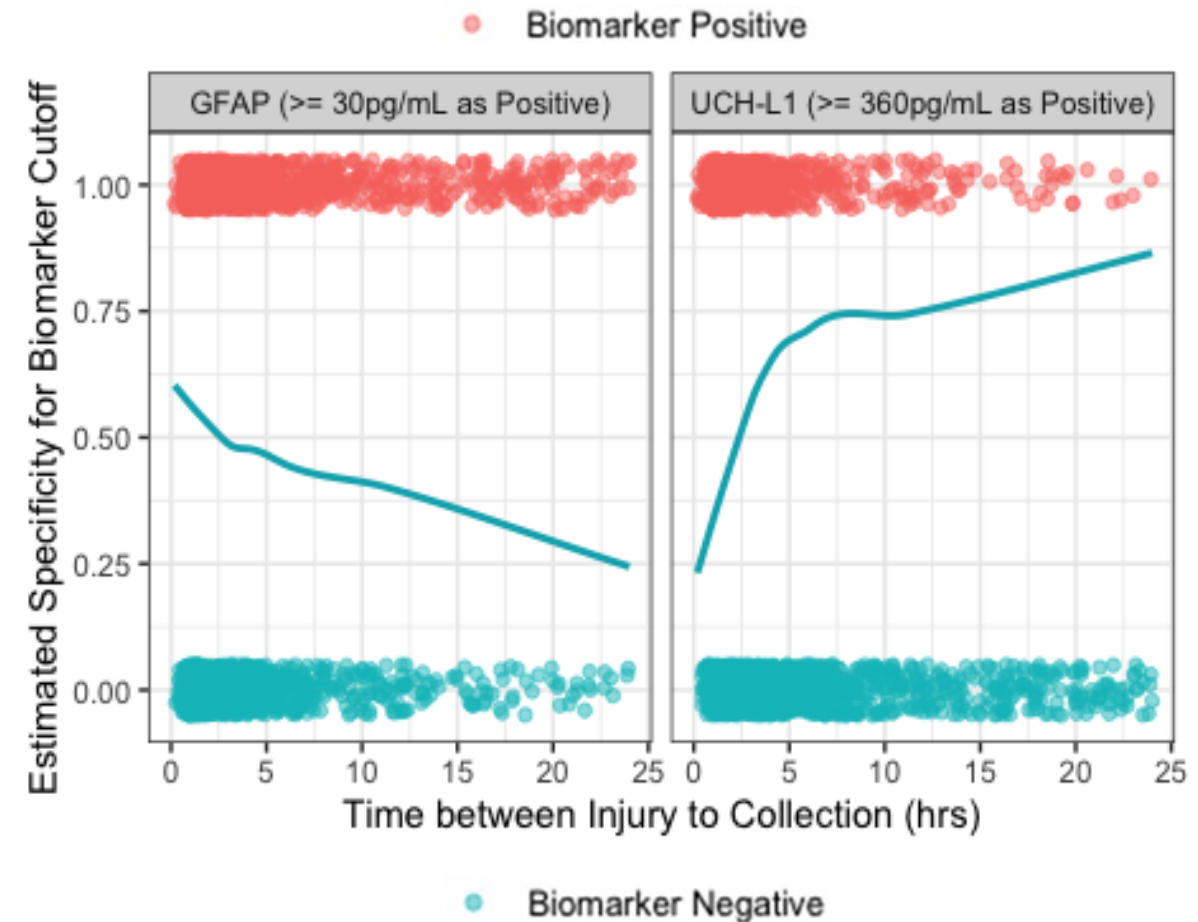
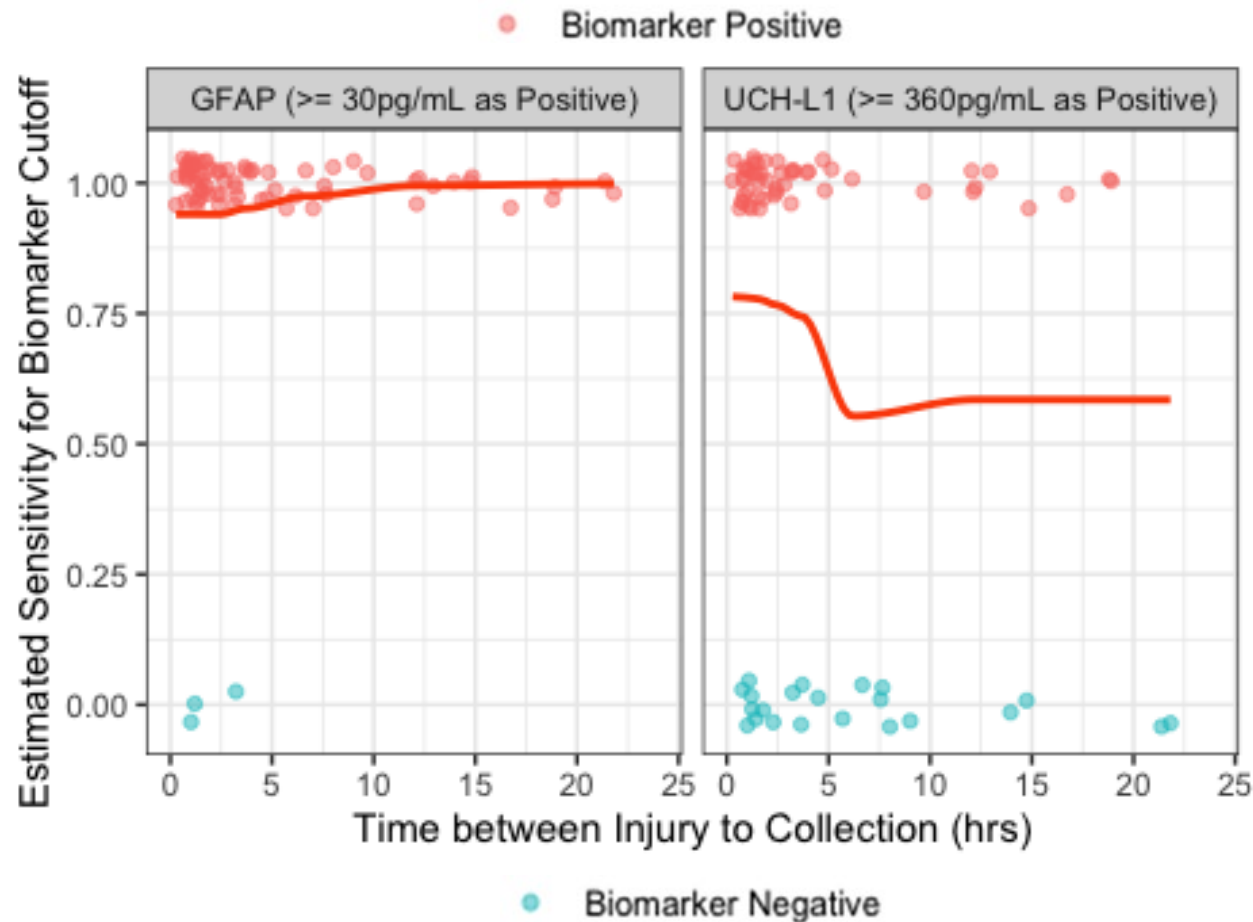


Effect of Age and Time Since Injury on TBI Biomarkers in Older Adults



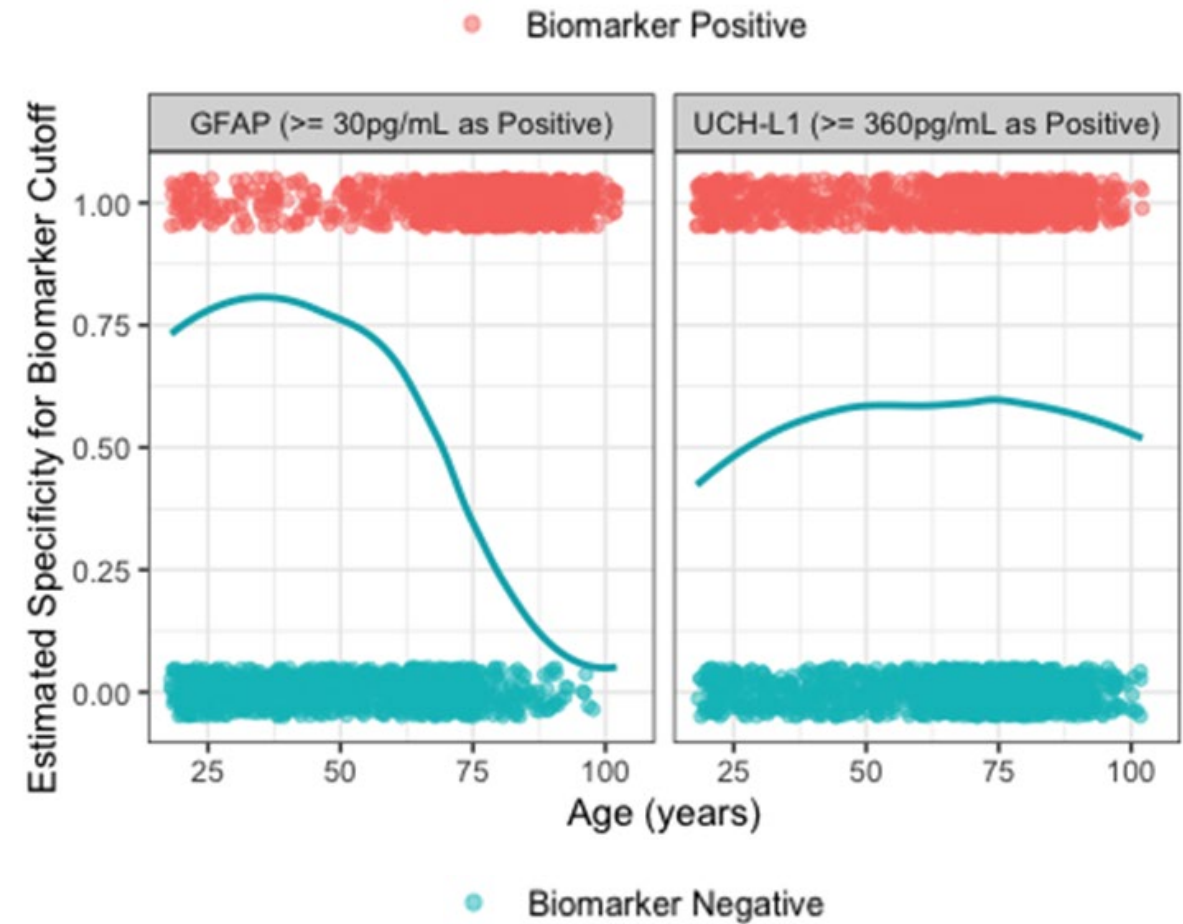
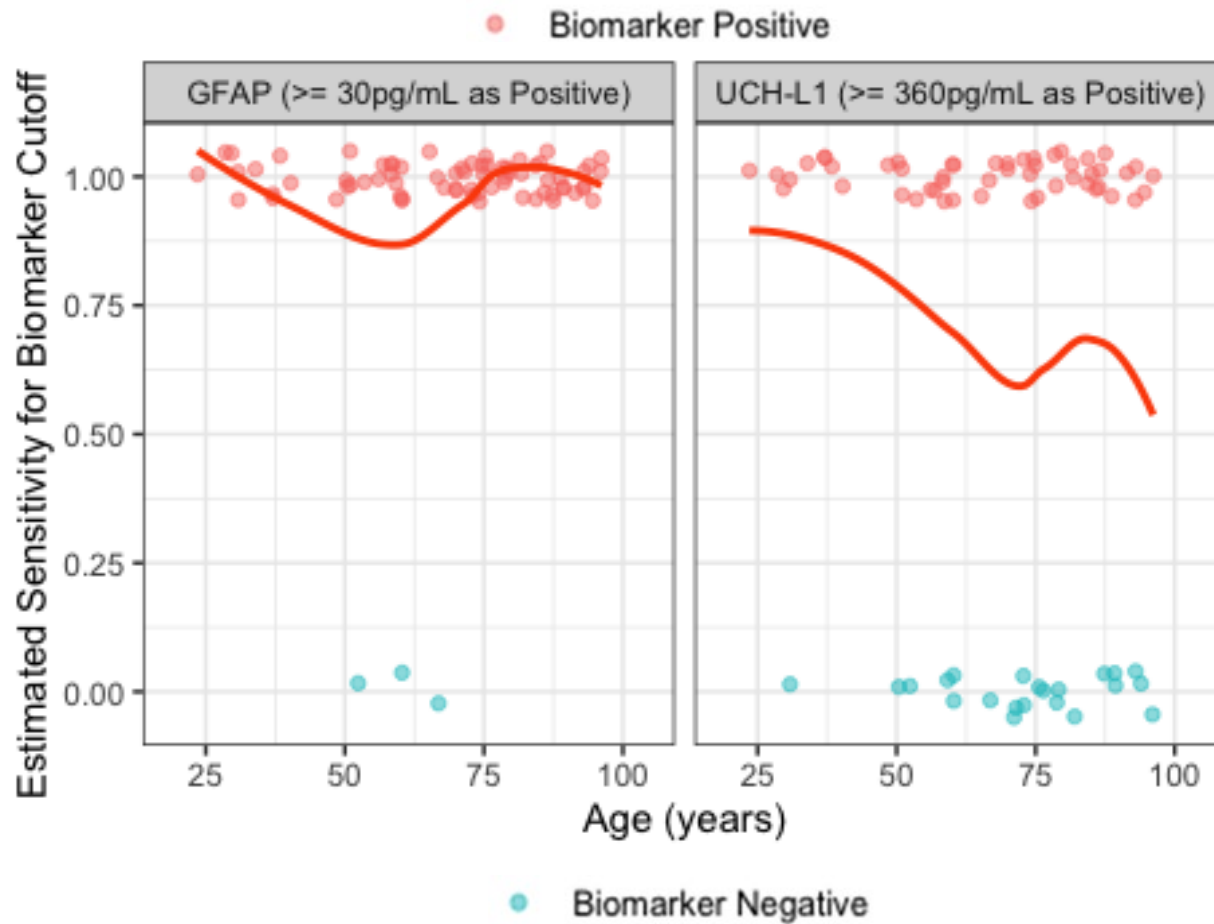
Frederick Korley M.D., Ph.D., Professor & Associate Chair for Research, University of Michigan EM

Time Between Injury and Blood Draw VS Sensitivity and Specificity of GFAP and UCH-L1 for Traumatic Intracranial Hemorrhage



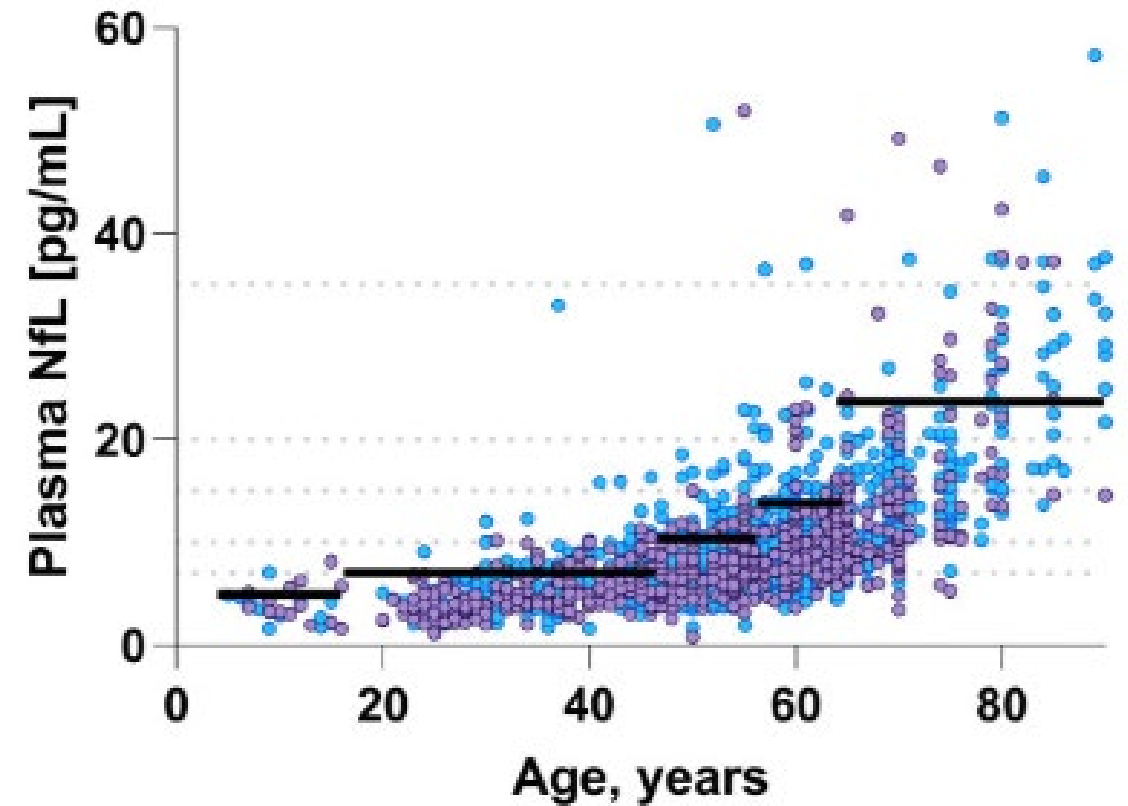
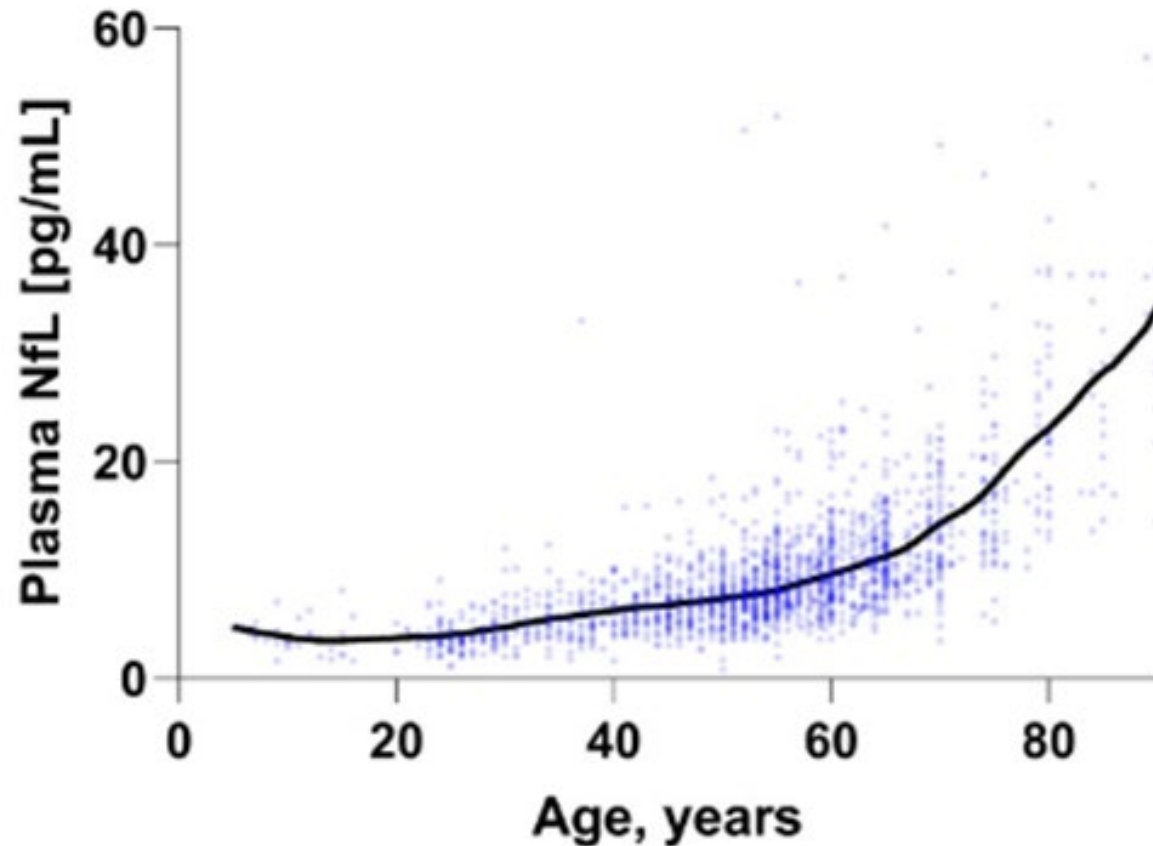
University of Michigan ED patients, N=2043, residual clinical blood samples, iSTAT plasma test

Age Versus Sensitivity and Specificity of GFAP and UCH-L1 for Traumatic Intracranial Hemorrhage



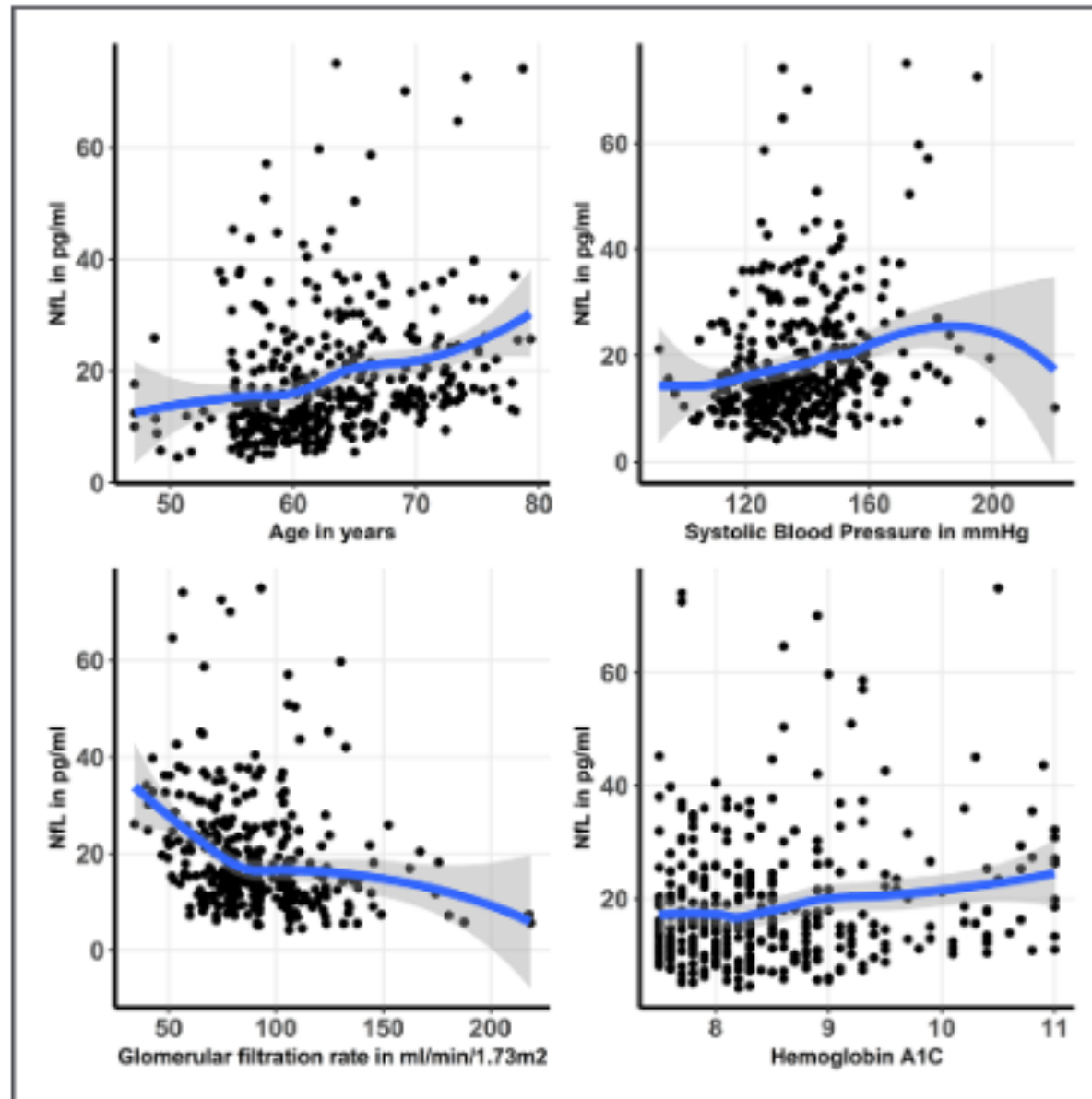
University of Michigan ED patients, N=2043, residual clinical blood samples, iSTAT plasma test

Neurofilament Light Chain Levels Are Also Affected By Age



Simeren et al, Establishment of reference values for plasma neurofilament light based on healthy individuals aged 5–90 years. Brain Communications 2022

How many different cut-offs can we have



Korley et al. Serum NfL (Neurofilament Light Chain) Levels and Incident Stroke in Adults With Diabetes Mellitus. Stroke 2019

Pros and Cons of Age-Specific Cut-offs

Pros

- Increased diagnostic accuracy with reduced false positives in older adults
- Personalization of care

Cons

- Under-diagnosis of healthier patients
- Challenges of conducting a reference range study – variabilities across populations
- Challenges with interpretation and complexities in implementation
- Regulatory considerations