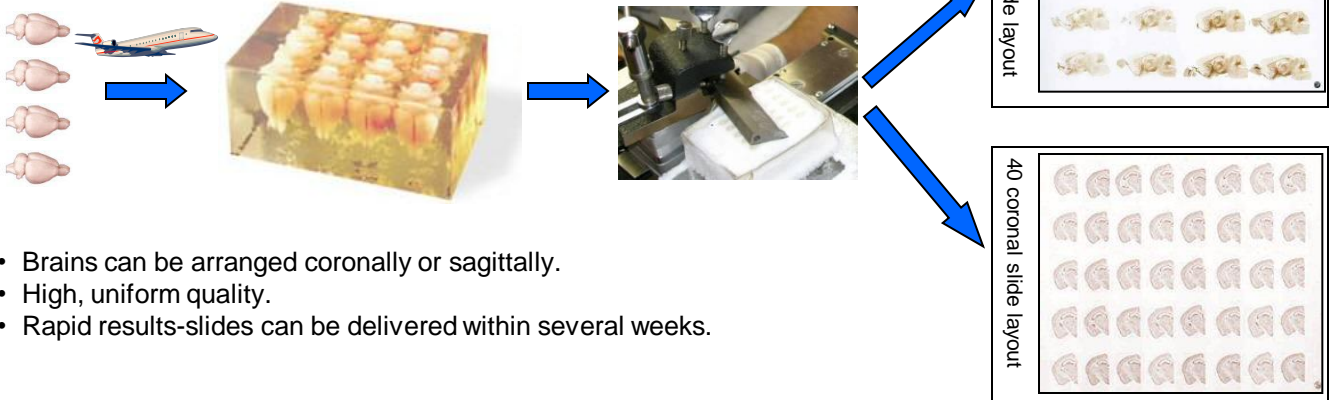




# Introduction to Neurohistology Services for Alzheimer's Disease research

Mass production inspired MultiBrain® technology accelerates R&D Cycle times:

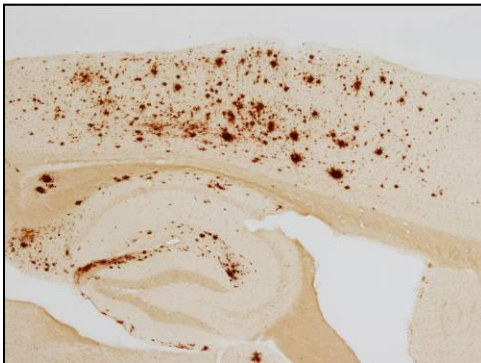
*Following a study, brains are shipped to NSA, multiply embedded with MultiBrain® technology, sectioned, stained and returned as slides and/or sections.*



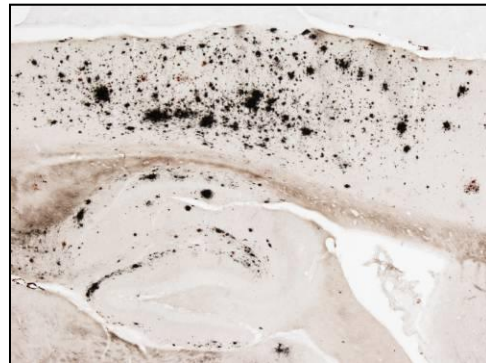
## NSA leverages classical and cutting edge staining approaches

*The images below were taken from sequential sections of a Tg2576 mouse stained with a sample of uniquely advantageous amyloid probes.*

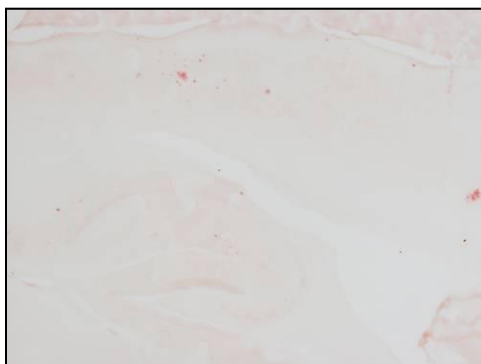
A $\beta$  1-42 IHC is a commonly used total amyloid burden stain



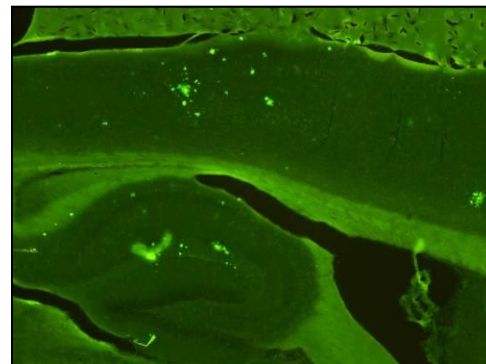
The Campbell-Switzer method reveals amyloid burden with some unique attributes



Congo Red is a commonly used approach in isolating congophilic plaques

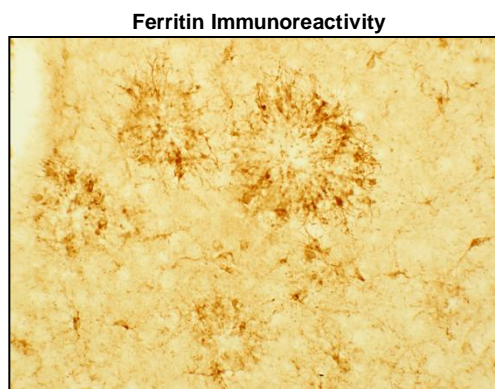
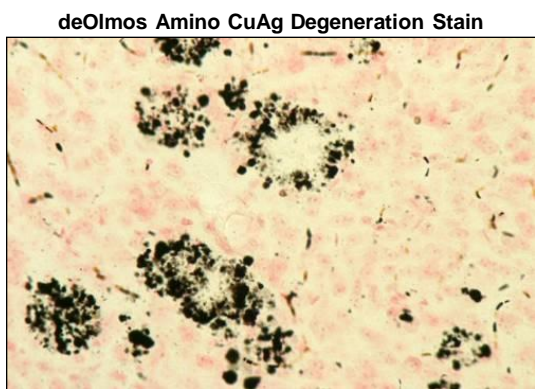
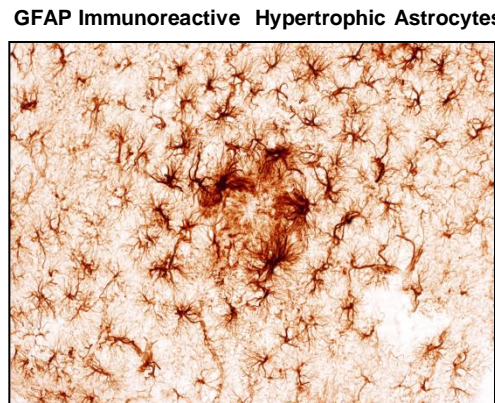
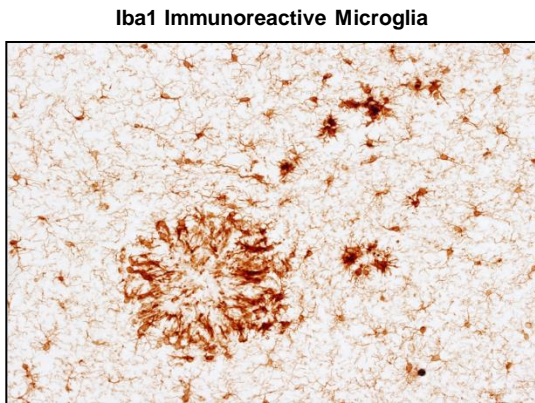


Thioflavin S offers fluorescent imaging of congophilic plaques



# Other approaches to probe the architecture of AD pathology

Secondary to primary amyloid plaque assessments, the images below represent just a few other endpoints visualized in various transgenic AD mouse models:



**Contact NSA to discuss these and many other approaches to determine the best solution for your research model and approach.**

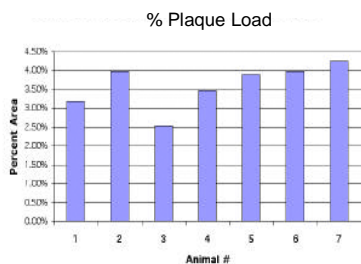
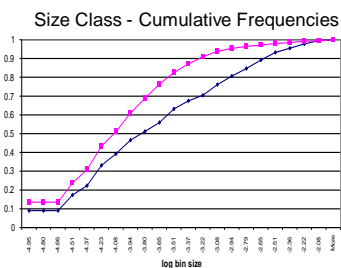
## Optional Analysis: NSA performs amyloid burden and size class analysis of plaques



For each specimen on the MultiBrain slide, neuritic plaques abundant in Cortex and Hippocampus are visualized with the Campbell-Switzer AD Stain



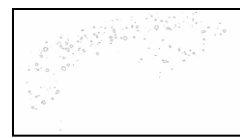
Output: raw thresholding data, % plaque load and optional size class analysis.



Using Image thresholding methods



Outline filled yields area calculation



Plaques outlined yield areas and numbers