Glycan specificity of Alzheimer's Disease Layla Eatherly, John Finke*

Alzheimer's disease (AD) is one of the leading causes of death in the United States. It is also the most common causes of dementia. In today's current day and age, there are treatments available to delay the effects of AD, but the drug delivery to the brain is poor. This study investigated on a new treatment that can delay or cure AD by extending cognitive health. If sialylated Fab glycans are produced, it will improve antibody drug delivery to the brain. Pure sialylated Fab glycan on antibody 4G8 (G2FS2) was produced by using commercial 4G8, Neuraminidase/alphaGal, ECL column to purify, and 26ST added. The finding concluded that no glycans were present indicating many possibilities. It is hypothesized that the PNGase that was used was expired or not strong enough. There is further testing that are being done to investigate how glycans be shown using HPLC.