Developing an A-mutant to Fluorescently Label and Elucidate the Endocytosis via the Prion Protein

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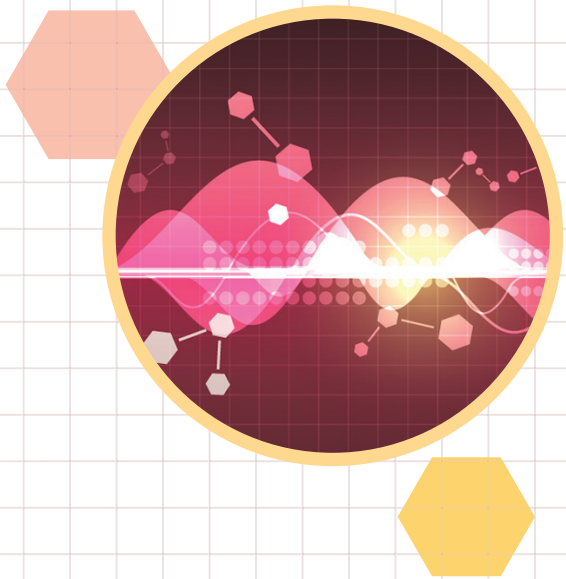
Location: UCSC/ACCESS



The human brain naturally produces the amyloid precursor protein (APP), which has been seen to have a connection to the development of Alzheimer's Disease (AD). In order to formulate a therapeutic that could help inhibit the progression of the neurodegeneration, it is imperative to better understand the factors of causation. The issue arises through the uptake of oligomeric forms, not so much the monomers of amyloid-beta. Uptake of amyloid-beta into the cell will be done by further examination into the uptake and mediation of amyloid beta via the prion protein. In this testing model, a non-toxic form of amyloid beta will be used to better understand its individual form and function. The objective of the project is to create a mutant amyloid-beta (A-) that is recombinantly expressed. The mutant protein can then be labeled with a fluorophore to make it elucidate the endocytosis mechanism of A- via the prion protein.

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