Researchers at the University of South Florida have generated transgenic mice that overexpress soluble amyloid precursor protein (sAPP-alpha) in the brain. This transgenic mouse model aims to serve as a molecular marker or laboratory tool for studying autism and other neurodegenerative disorders.

Autism is a pervasive developmental disorder characterized by impairments in socialization and communication. Currently, the disorder is diagnosed solely using core behavioral criteria selected to define autism, typically during the toddler or preschool years at the earliest.

Studies have identified high sAPP-alpha levels in autistic patients yet no further studies have been performed due to lack of animal models. sAPP-alpha is neurotrophic and important in early brain development. Our transgenic mouse models overexpresses sAPP-alpha and shows behavioral and social impairment that is typically seen among autism-like disorders.

Our invention provides a method of testing the efficacy of compounds for the treatment of autism and other disorders associated with neurodevelopment such as Asperger’s disease, Alzheimer’s disease, Parkinsonism linked dementia and more.

The potential application and benefits of this discovery are profound, since transgenic animals provide tools and plausible markers for the diagnosis of autism as well as providing a better understanding of neurodevelopment.

**ADVANTAGES:**
- Models multiple diseases
  - Autism
  - Asperger’s
  - Alzheimer’s
  - Parkinson’s
- Method of testing potential drug compounds

**Mouse over Expresses**

*sAPP-alpha in Brain*