



John Talbott

ARCS Atlanta Century Award
Ph.D. Student, Chemistry
First Year ARCS Scholar

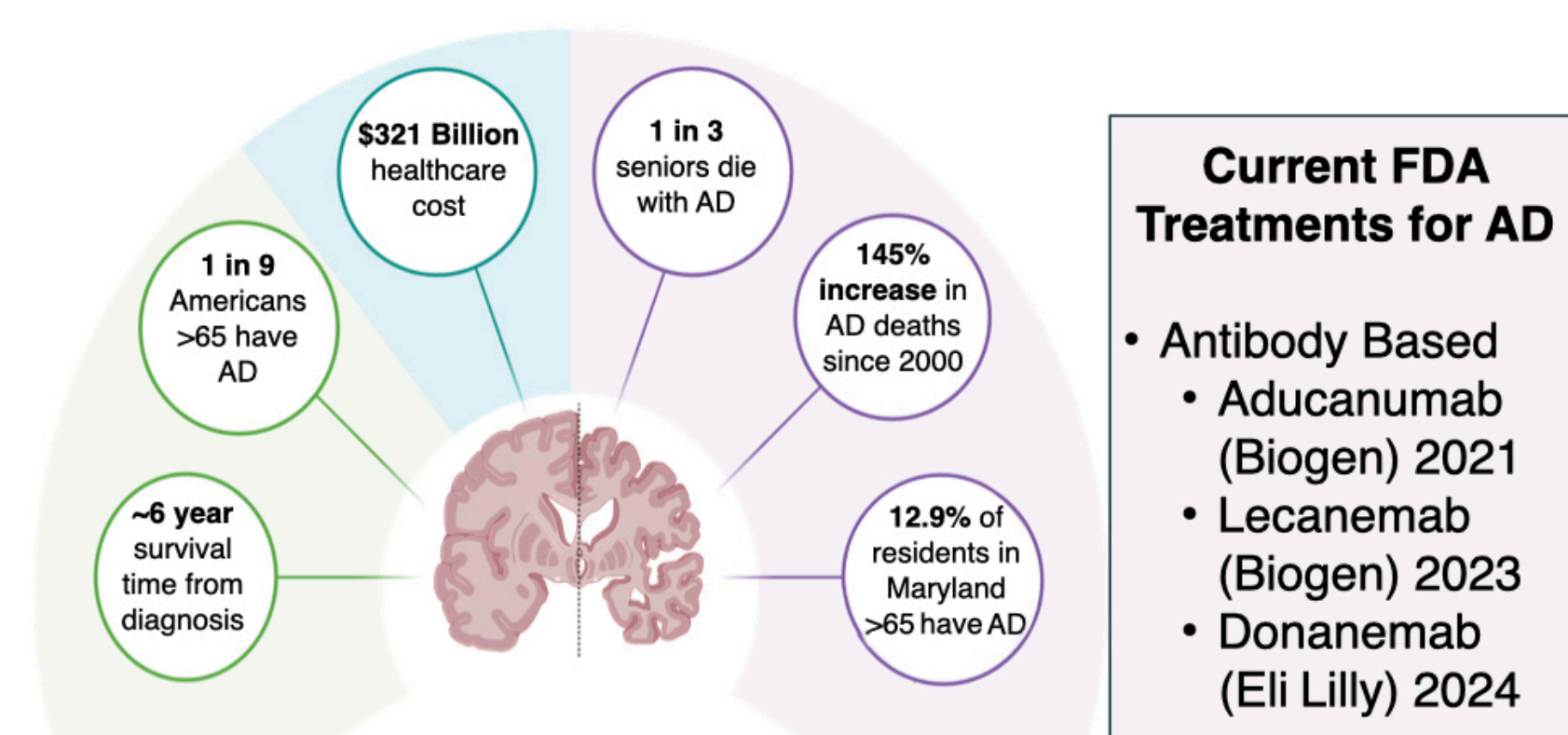


EMORY
UNIVERSITY

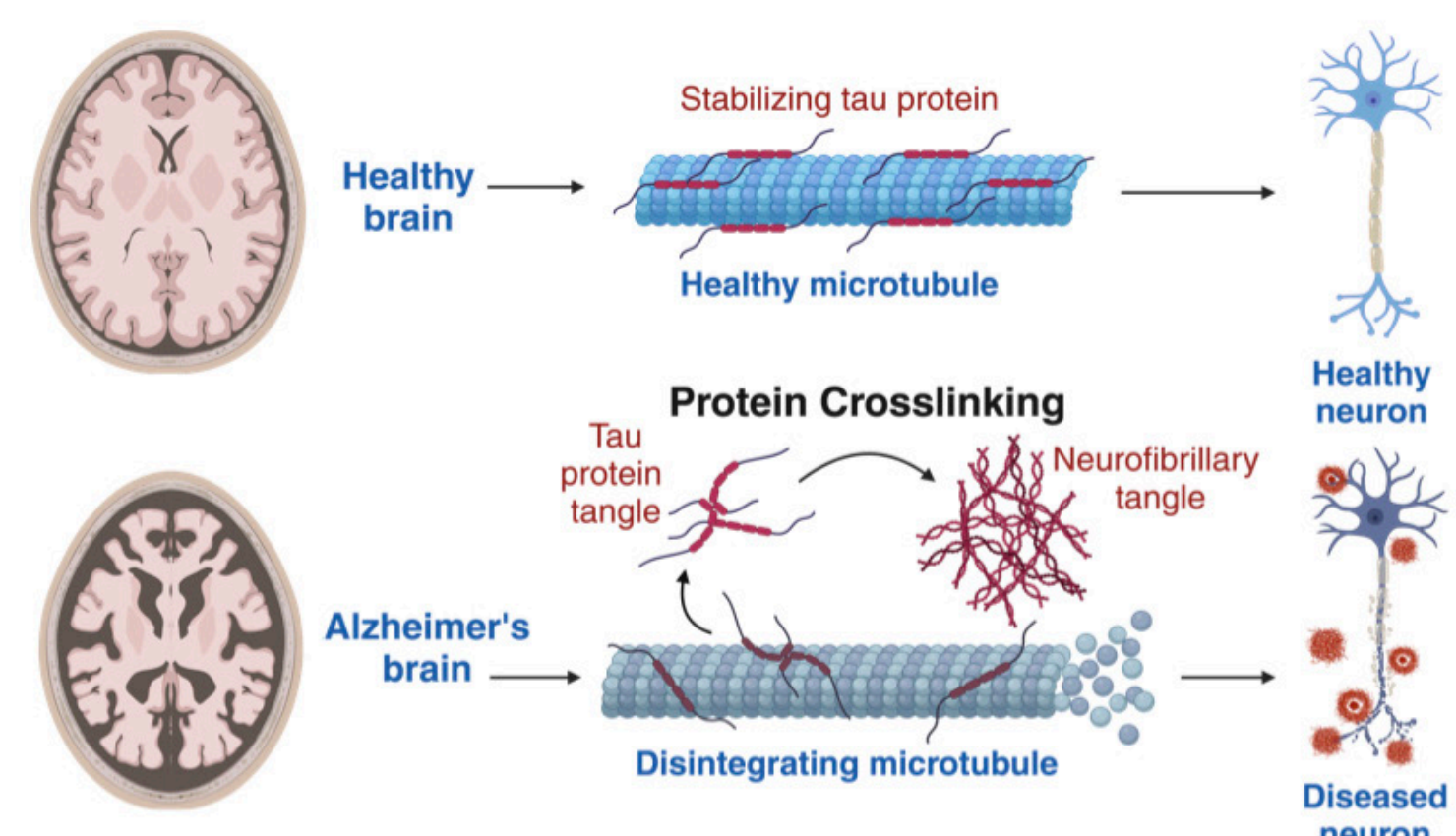
Selective Visualization of Catechol Aldehydes in Living Systems as a Biomarker for Alzheimer's Disease

Utilizing organic chemistry, we have developed a novel fluorophore system to specifically detect catechol aldehydes, a biomarker for neurological diseases, in mice tissue and post-mortem human tissue.

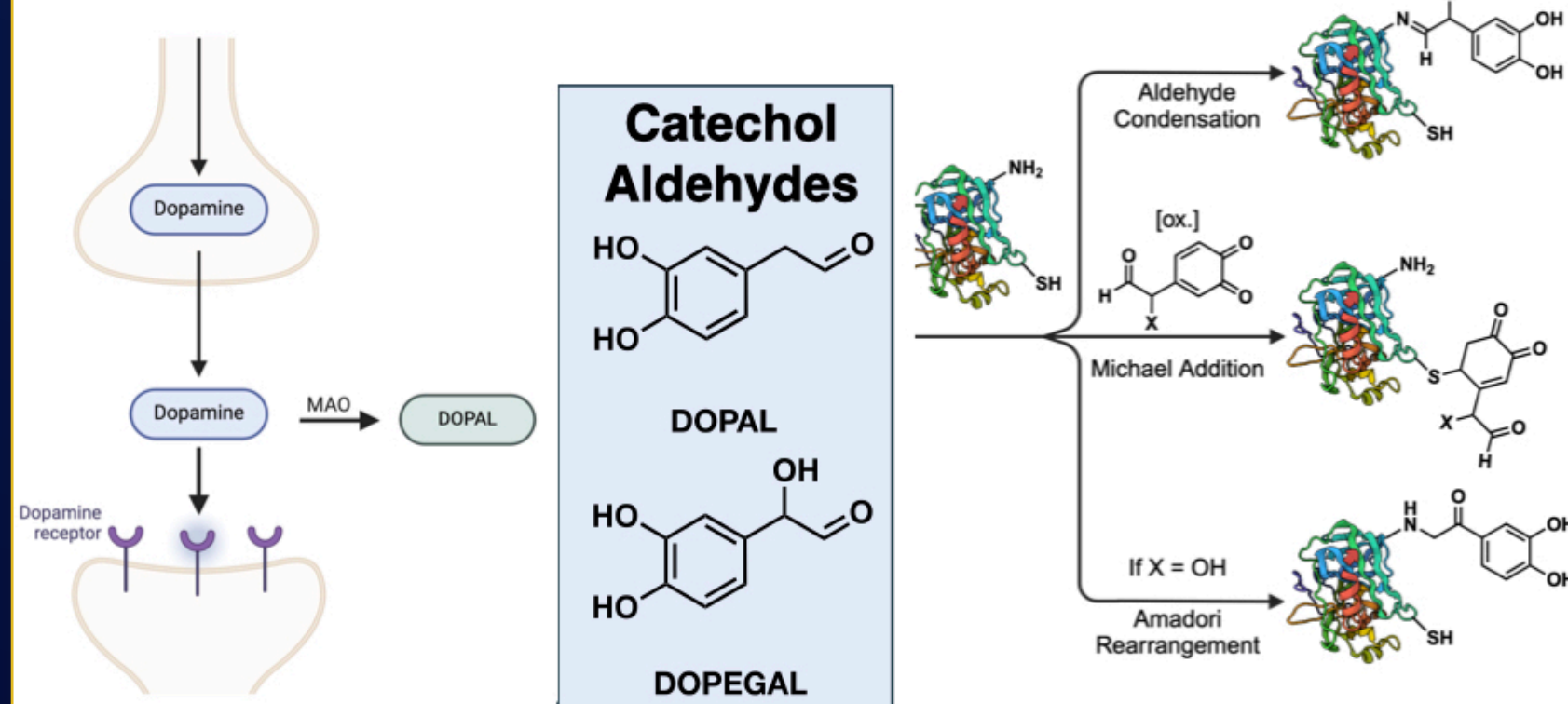
Alzheimer's Disease: Health Crisis



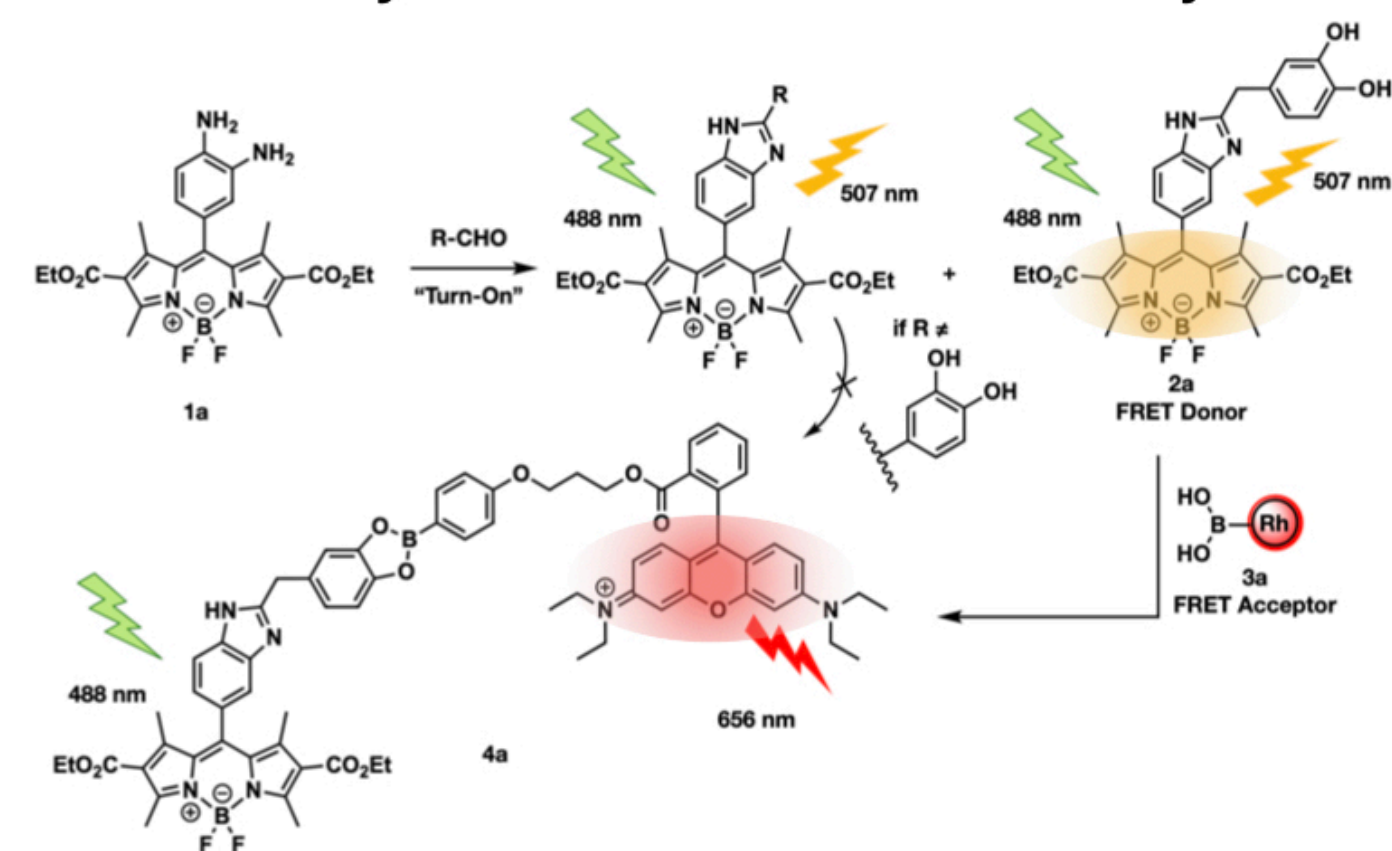
Alzheimer's Results from Protein Crosslinks



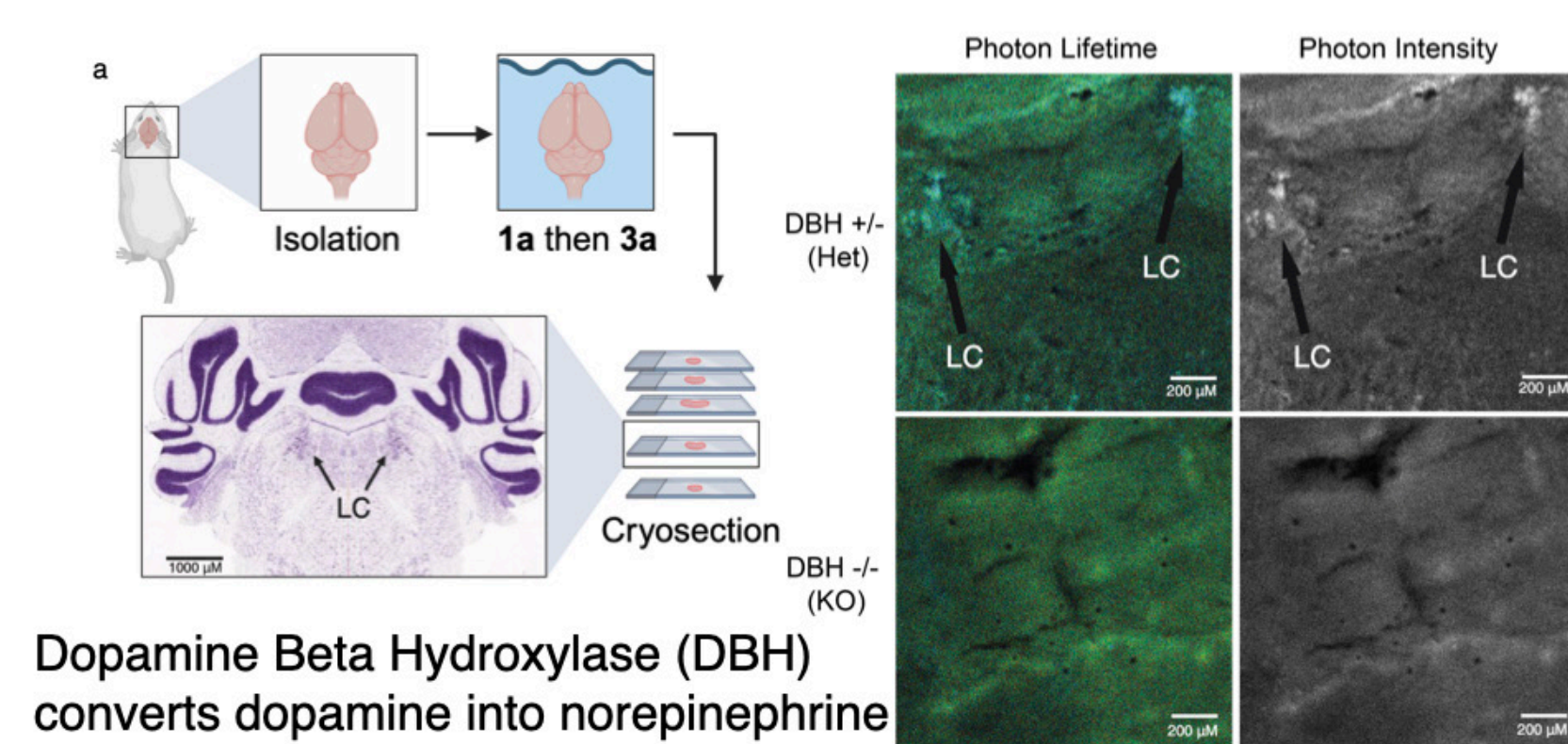
Catechol Aldehydes Crosslink Proteins



FRET System for Catechol Aldehydes



Mice Locus Coeruleus (LC) Tissue Imaging



Dopamine Beta Hydroxylase (DBH) converts dopamine into norepinephrine

Future Studies

