## Programing amylin secretion to slow AD

Han Ly <sup>1</sup> • Nirmal Verma, PhD <sup>1</sup> • Tammaryn Lashley, PhD <sup>2</sup> • John Hardy <sup>3</sup> • Gopal Thinakaran <sup>4</sup>

<sup>1</sup>Pharmacology and Nutritional Sciences, University of Kentucky • <sup>2</sup>Neurology • <sup>3</sup>Molecular Biology of Neurological Disease, University College London • <sup>4</sup>Neuroscience, University of Chicago

Mutations in A $\beta$  and/or in proteins participating in the processing mechanisms were linked to the development of familial AD. Here, we showed that, in addition to A $\beta$  pathology, brains of patients suffering with familial AD have large deposits of amylin, an amyloidogenic hormone co-secreted with insulin. Amylin forms neuritic deposits, co-localizes with A $\beta$  as mixed A $\beta$ -amylin plaques and also accumulates intracellularly in neurons. Ameliorating amylin dyshomeostasis in the periphery reduced AD in a preclinical model.