

ALZHEIMER'S DISEASE THERAPEUTIC RESEARCH IN 2019

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PS 1, PS 2, AND APP MUTATIONS

DOWN SYNDROME (TRISOMY 21)

β -SECRETASE

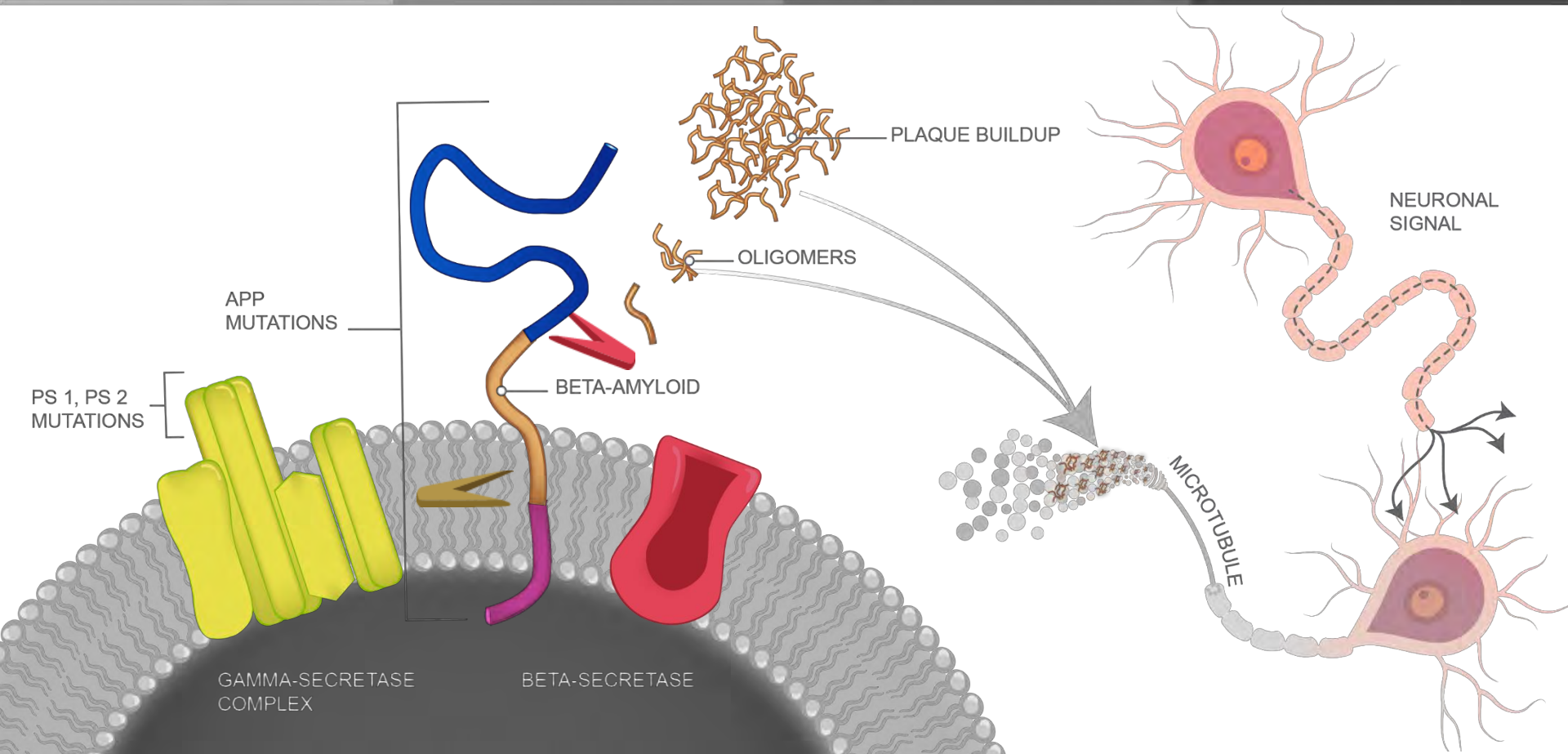
γ -SECRETASE

OXIDATIVE STRESS; INFLAMMATION

DIRECT TOXICITY; EXCITOTOXICITY

SYNAPTIC FAILURE;

NEURON DEATH



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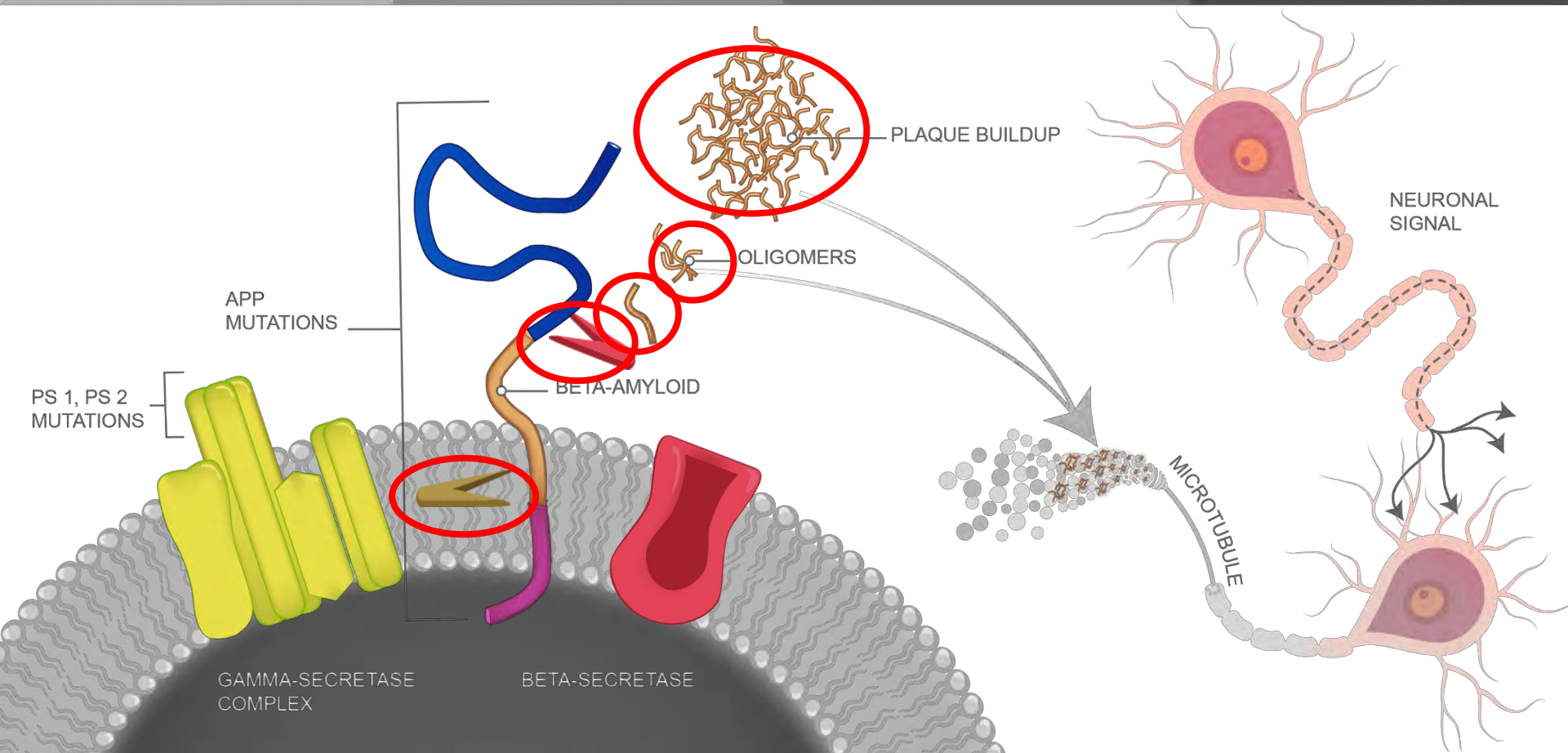
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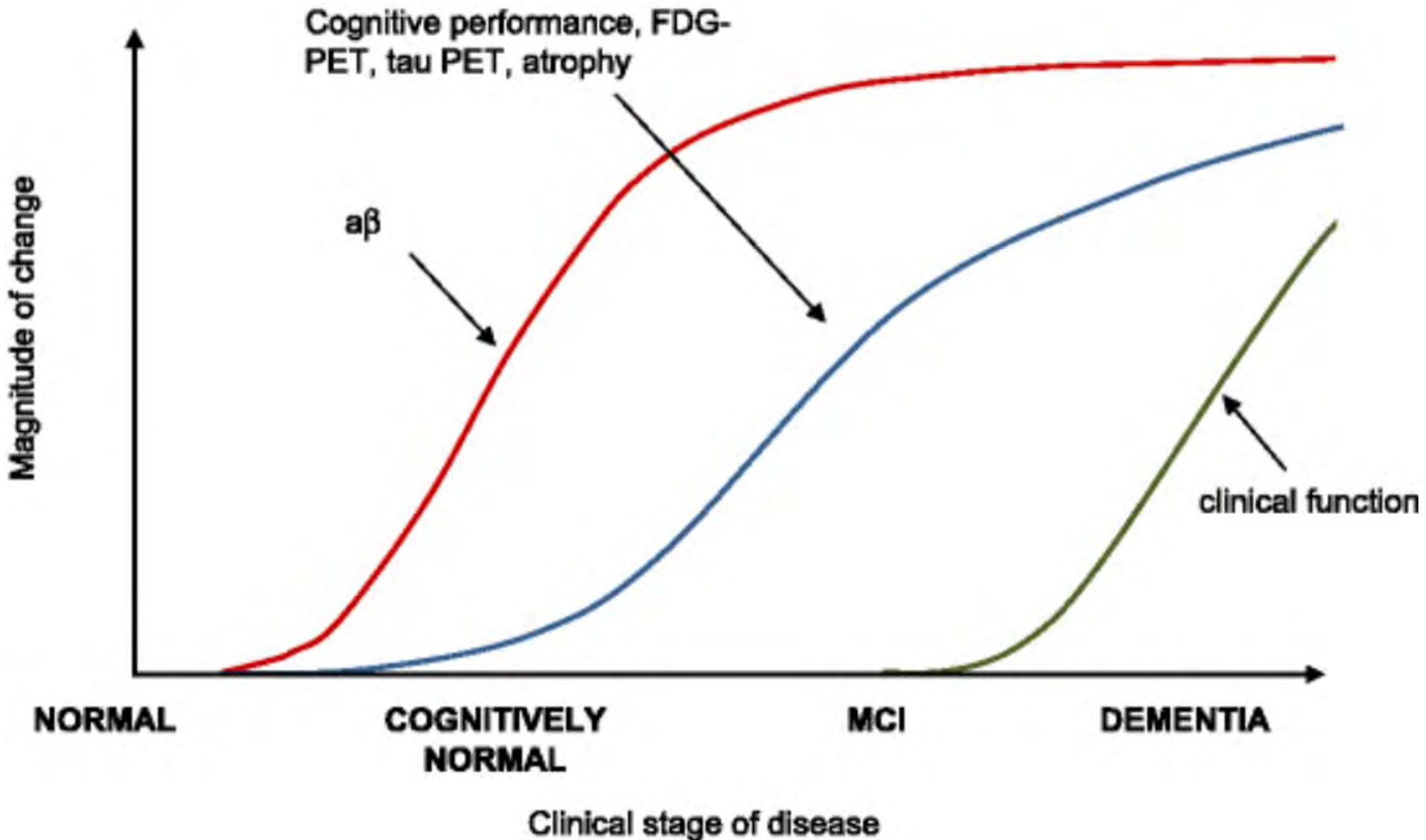
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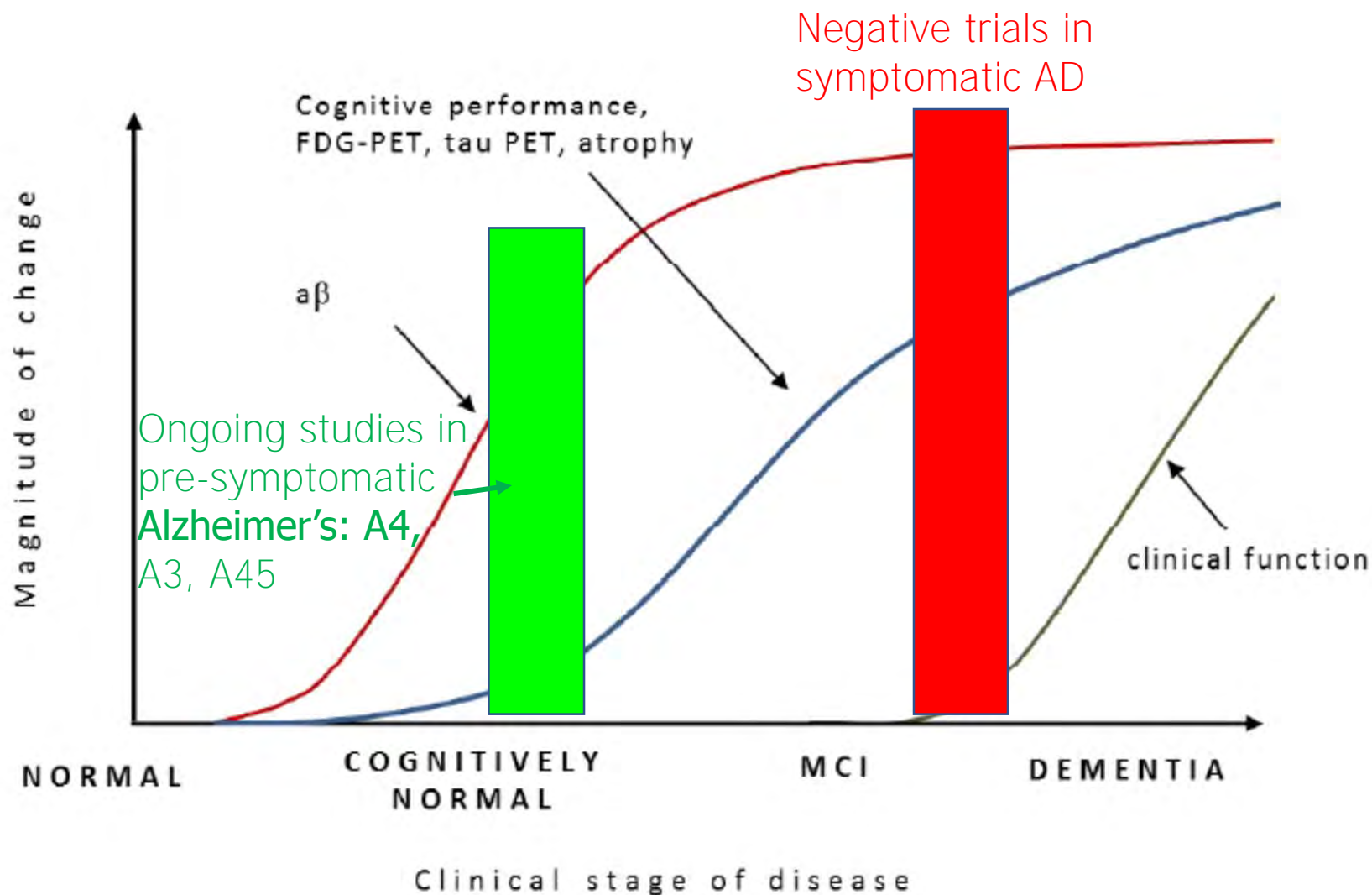
NEURON DEATH



AD Continuum



Remove amyloid for a cure?



2019: the year in AD therapeutic research



- Aducanumab failure
 - Need earlier intervention
- BACE inhibitor cognitive toxicity
 - Dose-related, reversible
 - Path forward requires careful dose selection, cognitive monitoring and early intervention
- Other targets
 - Microglia, tau, many others
- Blood tests for AD
 - Plasma abeta ratio
 - NFL