The big picture
Decreased Gamma during Hippocampal SWRs in AD mice

During “theta” periods

During “sharp-wave ripple” periods

(in 3-month-old mice)

Iaccarino and Singer et al., Nature, 2016
Decreased Gamma during Hippocampal SWRs in AD mice

Iaccarino and Singer et al., Nature, 2016
Stimulation of hippocampal Interneurons at 40Hz reduces Aβ

1 hour of stimulation

Iaccarino and Singer et al., *Nature*, 2016
Through what mechanism might a 40Hz stimulation (but not stimulation at other frequencies) affect Aβ levels?
Morphological changes in microglia

Iaccarino and Singer et al., Nature, 2016
Morphological changes in microglia
Non-invasive light stimulation reduces Aβ
Non-invasive light stimulation influences microglia

Iaccarino and Singer et al., *Nature*, 2016
Non-invasive light stimulation reduces soluble and insoluble Aβ (in 6-month-old mice)
Non-invasive method for stimulation of deep brain structures

Grossman et al., *Cell*, 2017