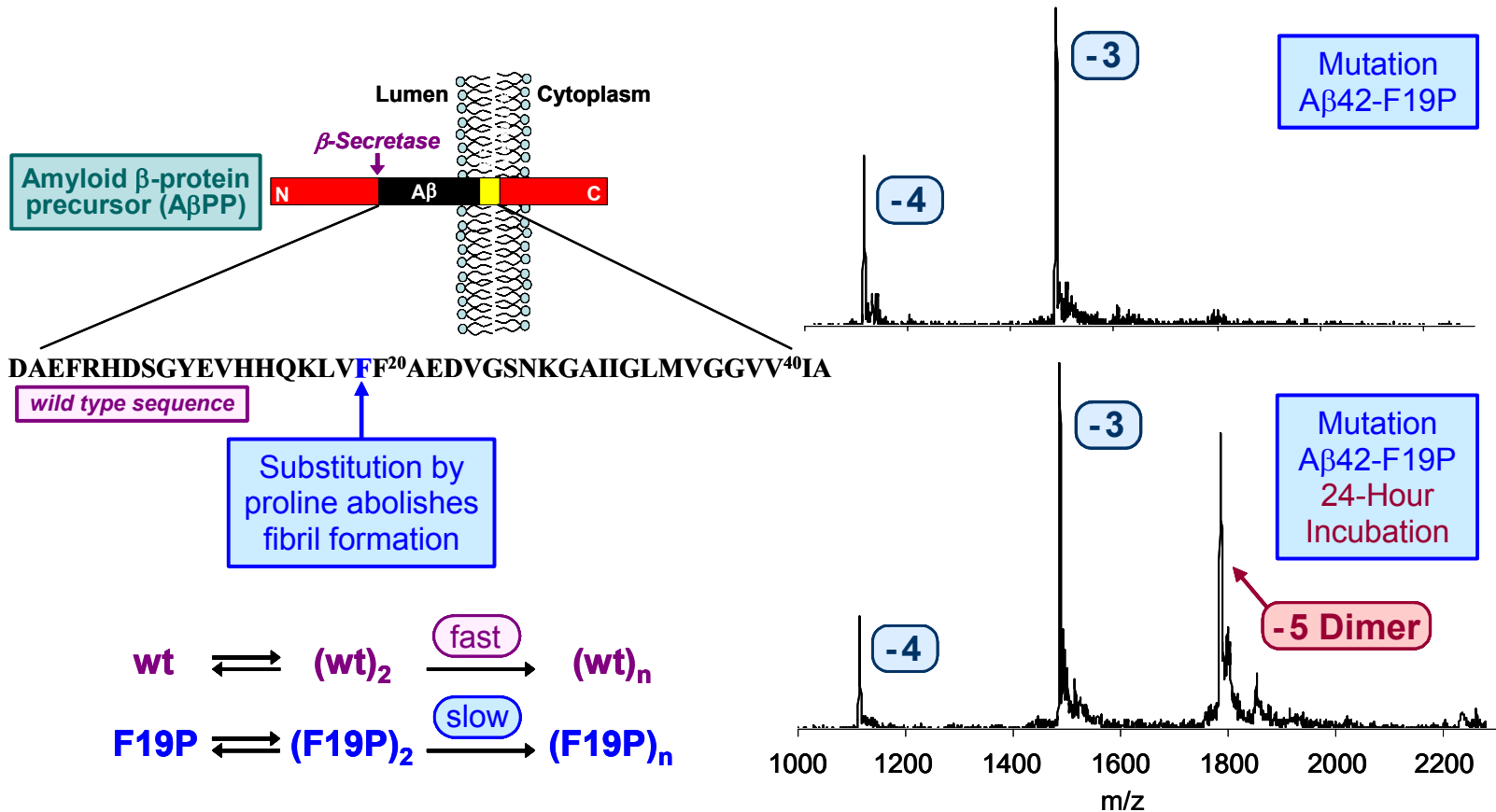


Conformations and Aggregation of Alzheimer's Disease Peptides Studied by Ion Mobility

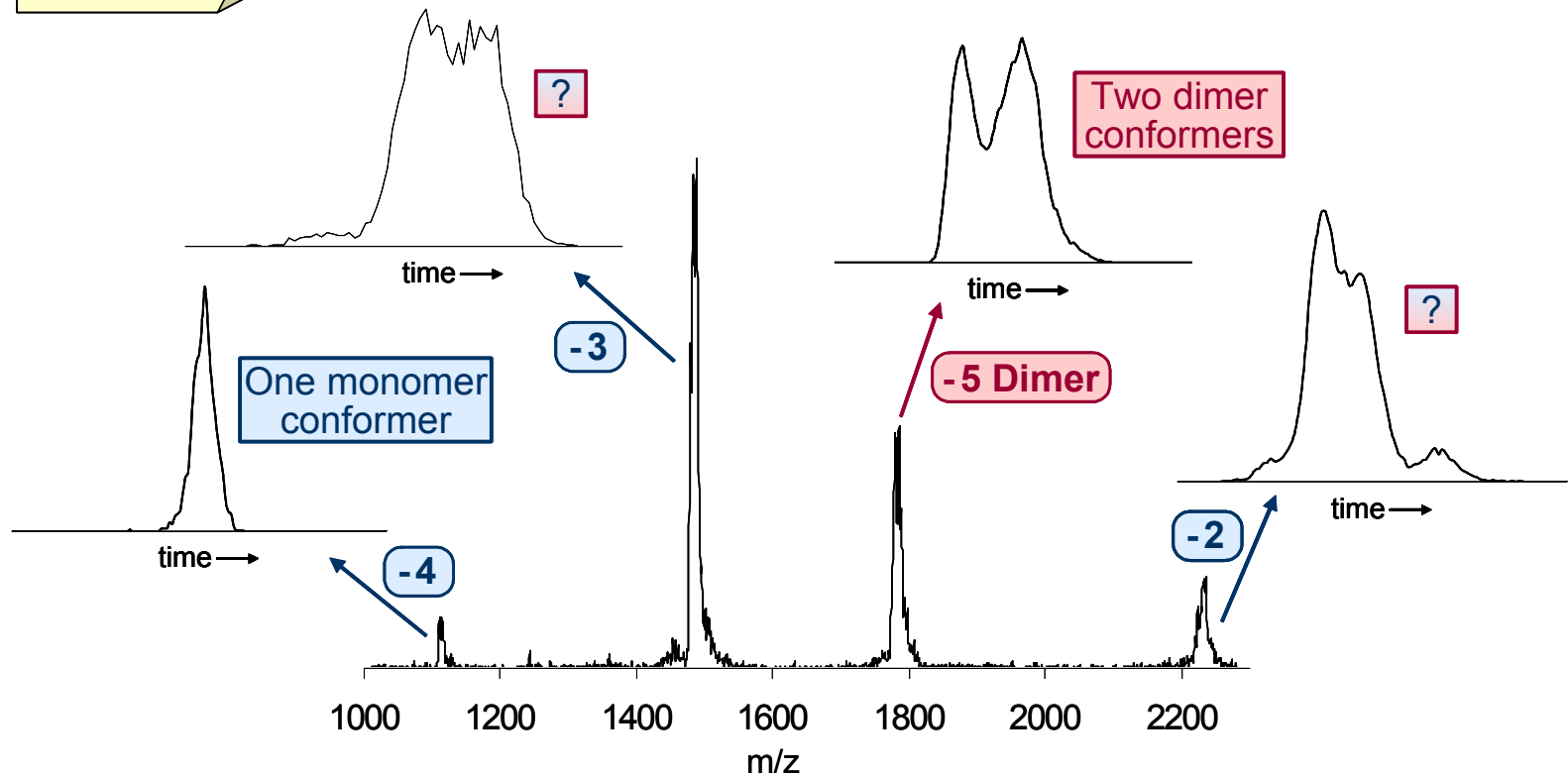
Summer L. Bernstein, Thomas Wytttenbach, Michael T. Bowers, Gal Bitan, and David Teplow

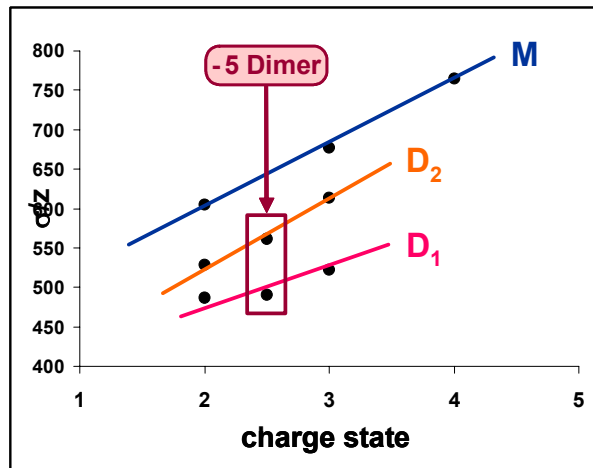
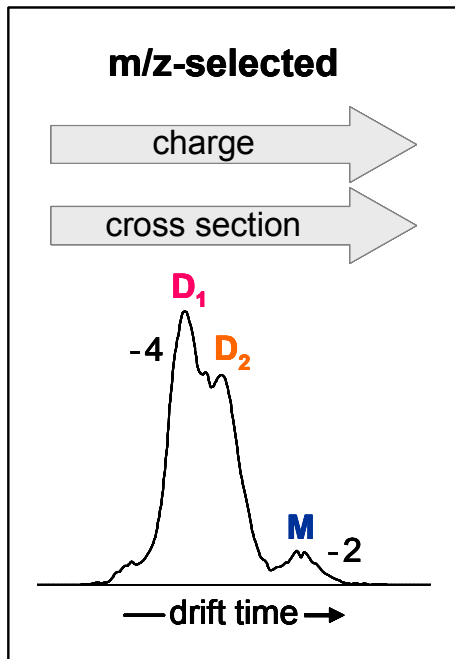


Mutation A β 42-F19P

Mass Spectrum and ATDs

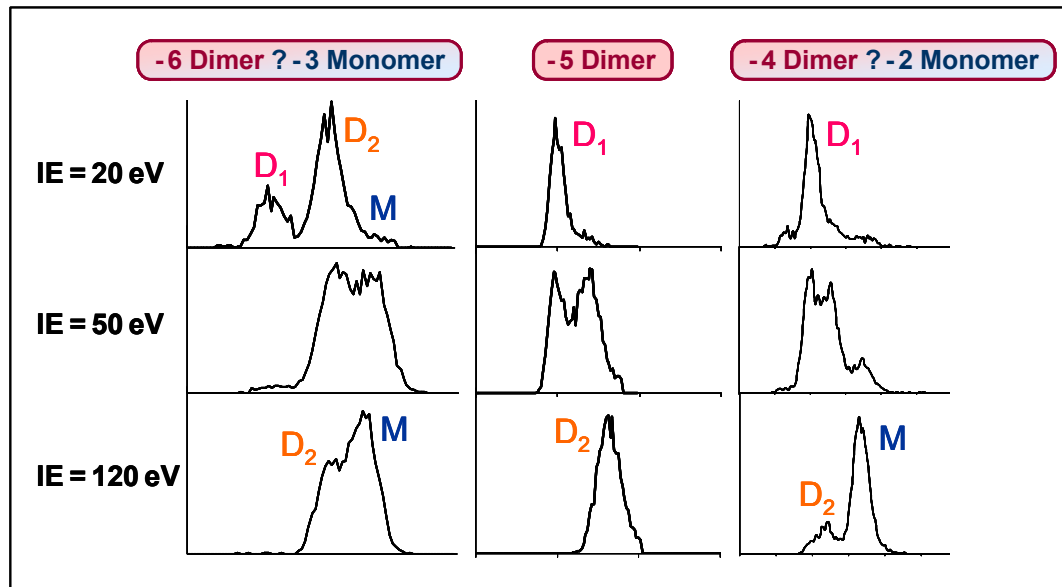
ATDs yield conformational information



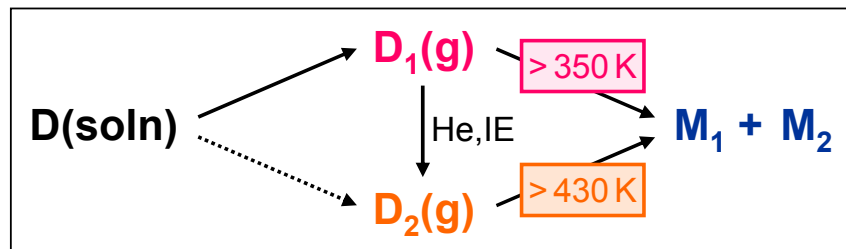


*Dimer
Dissociation*

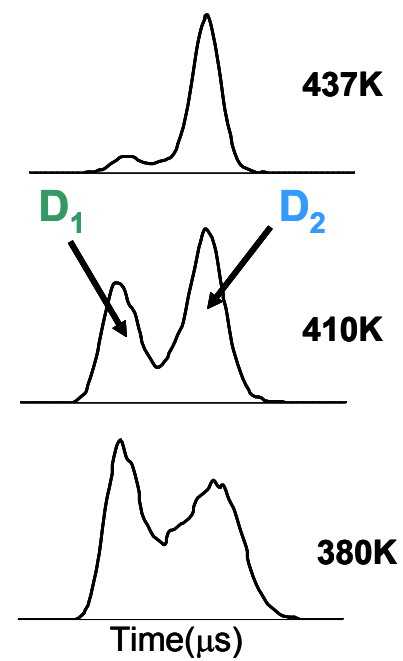
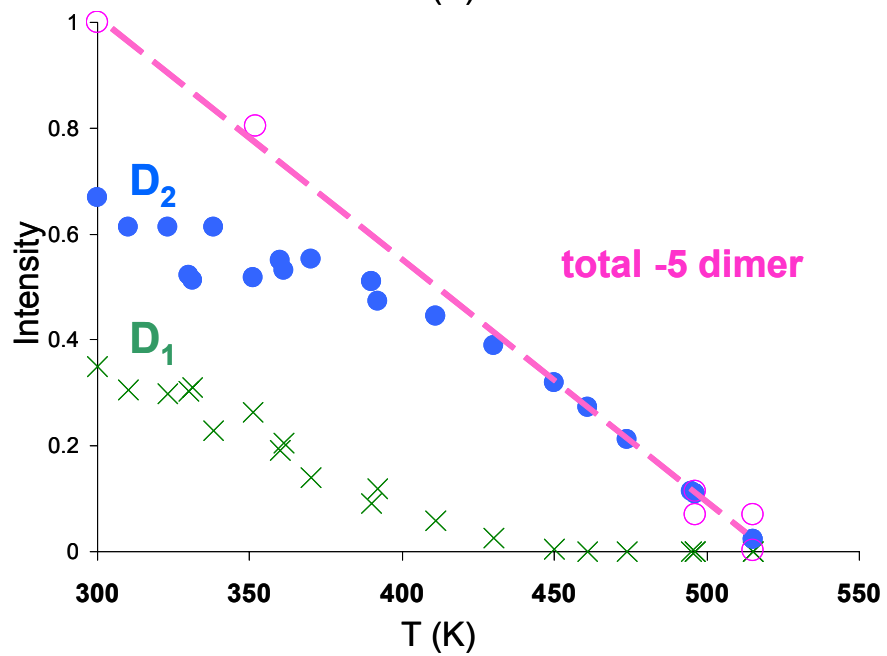
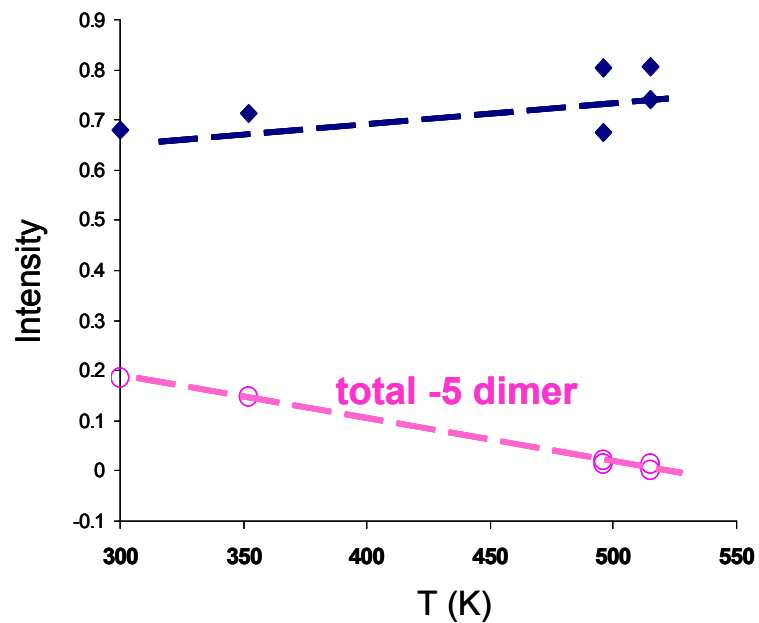
**Mutation
A β 42-F19P**



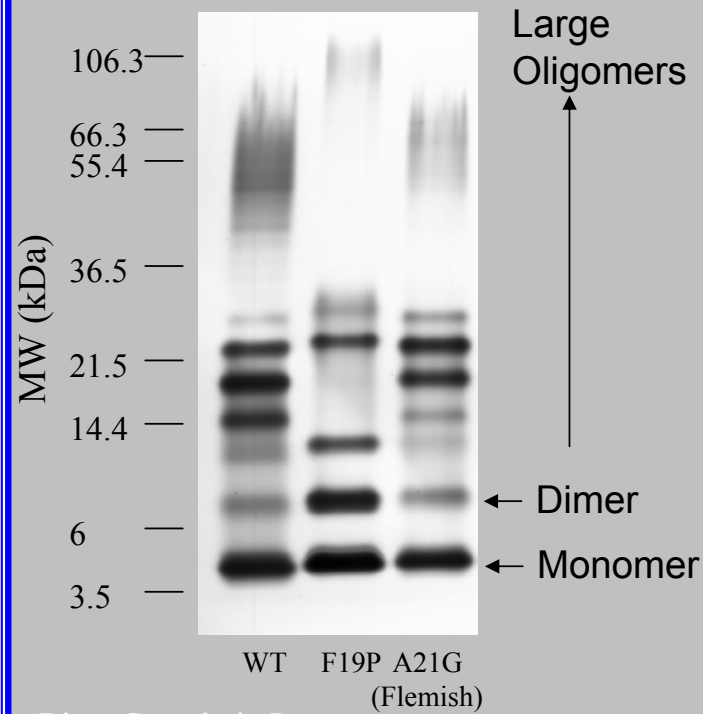
Conclusions



- $A\beta$ -F19P aggregates of dimers and possibly higher-order multimers are detected
- Protein complexes and conformations formed in solution are transferred into the gas phase
- Time and collision energy allow peptide ions to find lower-energy gas-phase conformations



Oligomerization A β 42 by Cross Linking Experiments



Bitan G et al., in Press