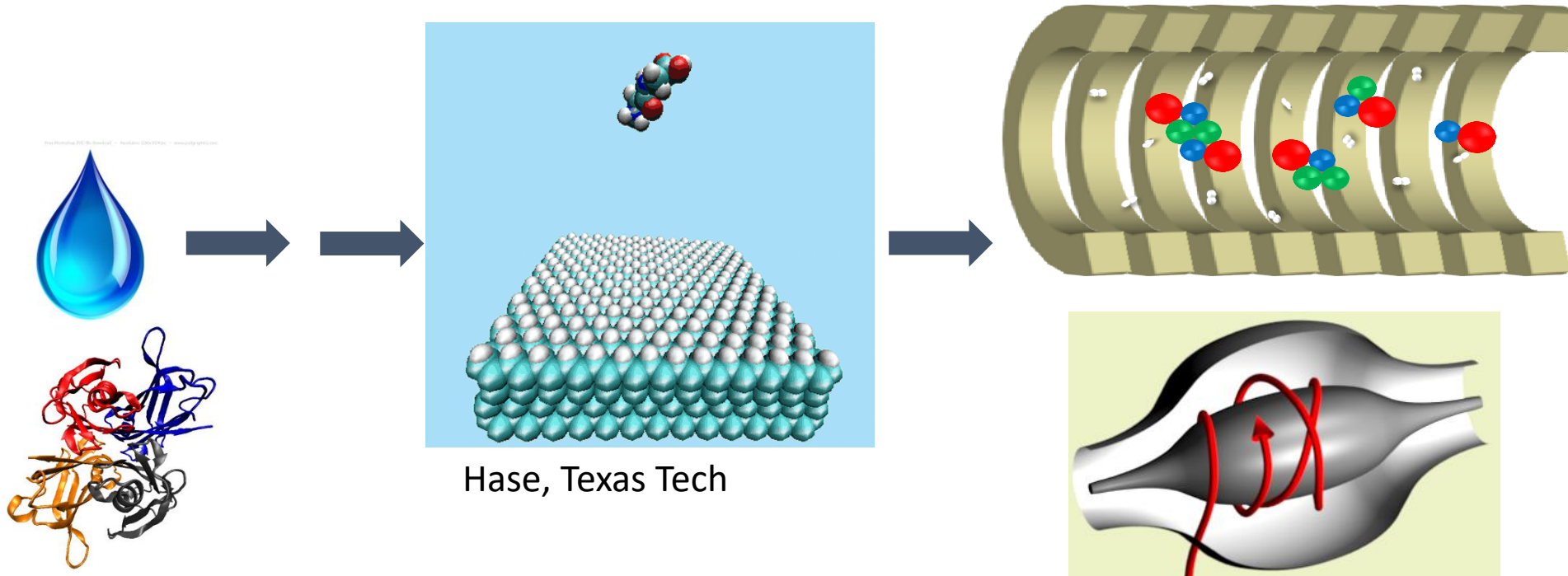


Native MS in Structural Biology

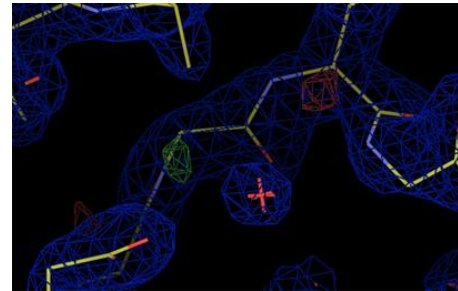
V.H. Wysocki and Sophie Harvey
Ohio State University

David Russell and Art Laganowsky
Texas A&M University

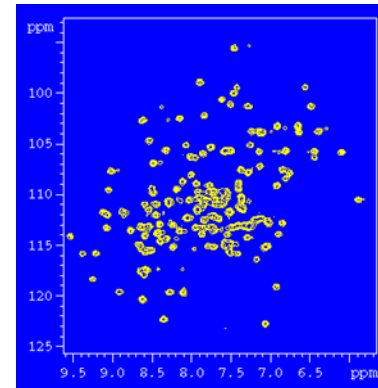


Protein complexes

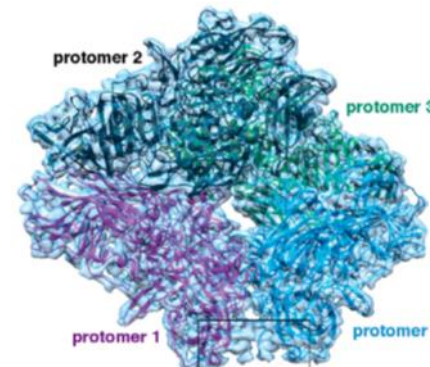
- Many proteins of interest function as large assemblies/complexes.
- Can be difficult to fully characterize complexes (*mixtures, won't crystallize, low amounts available, size mismatch with technique*).
- Native MS useful as quick complementary tool



**X-ray
crystallography**

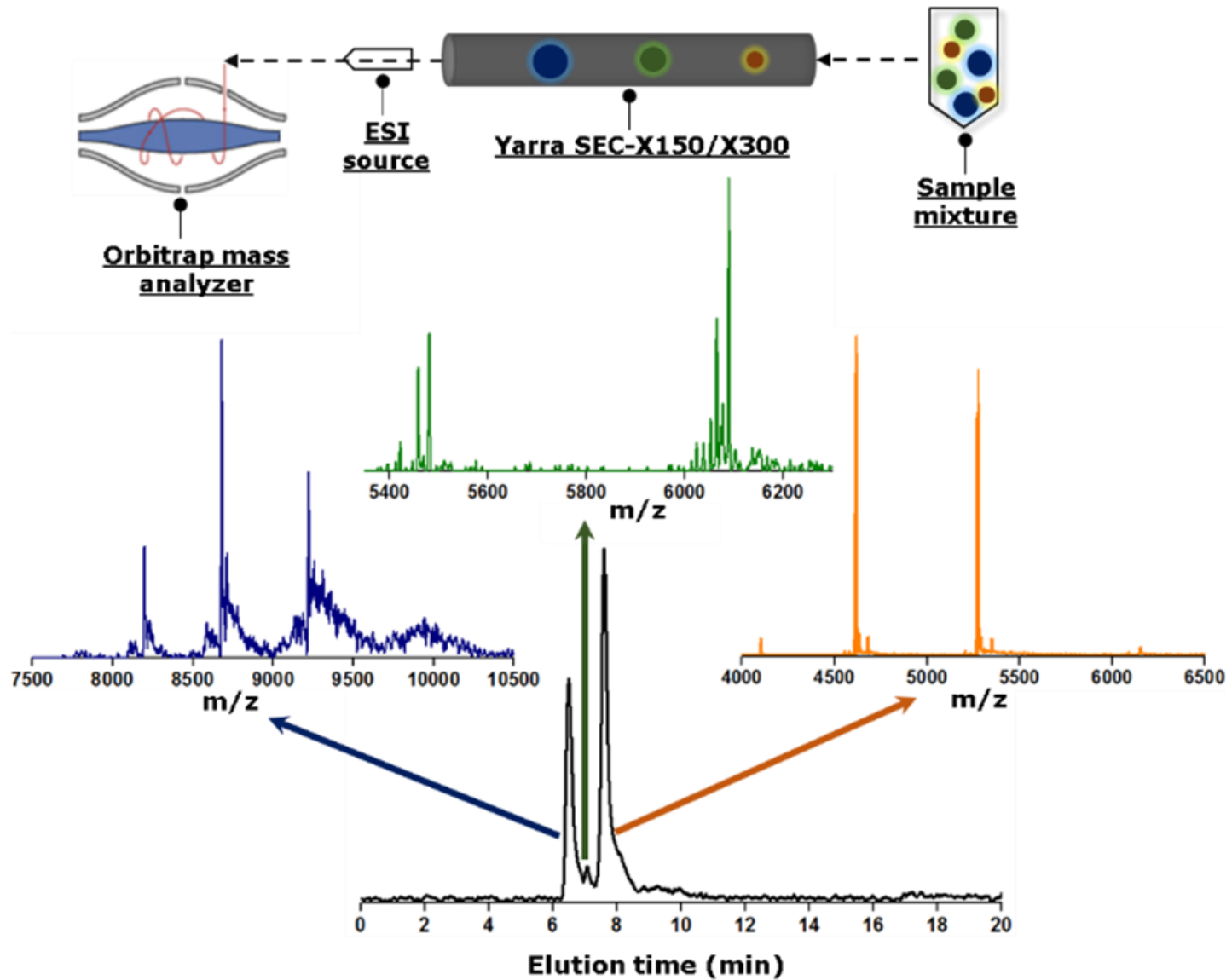


NMR



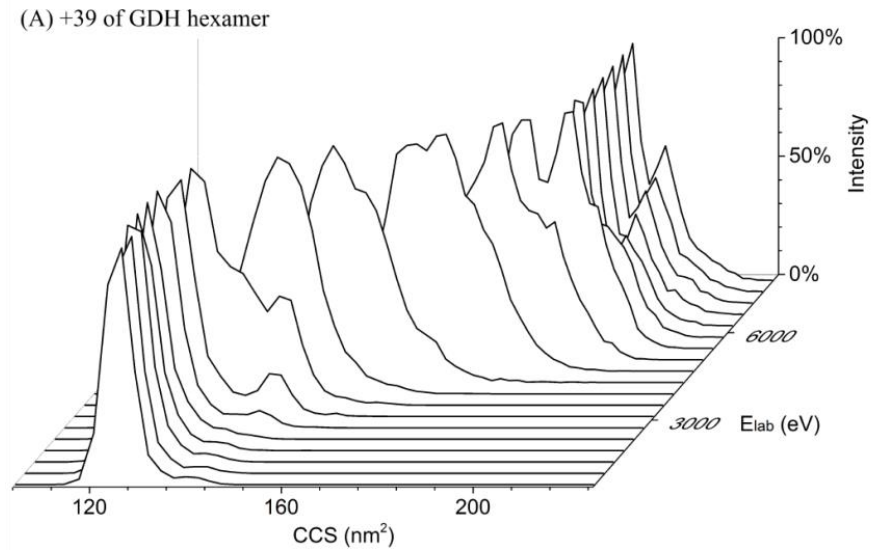
Cryo-EM

Separation and Ionization of native Complexes

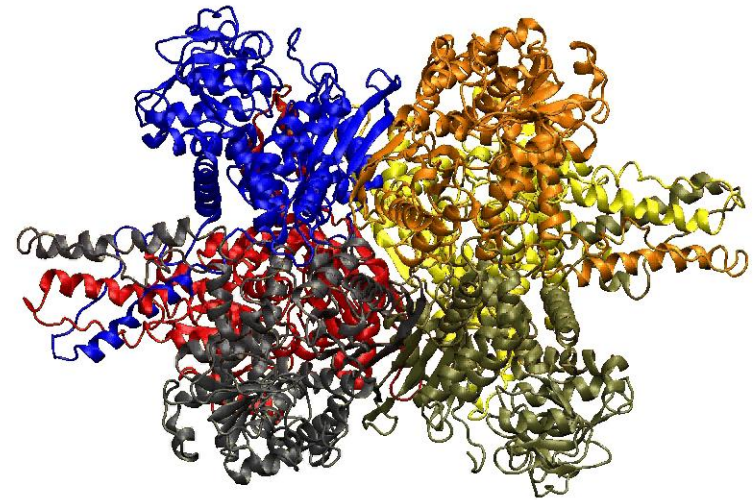
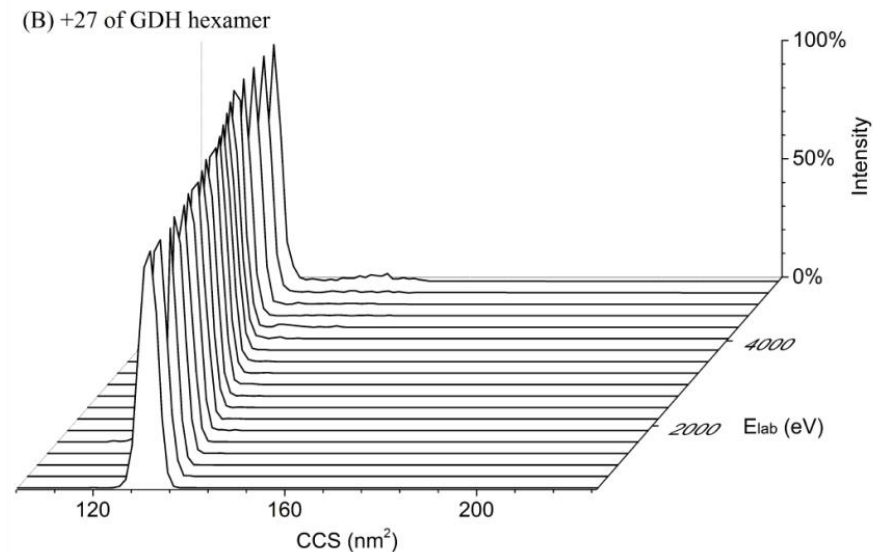


Ion Mobility: unfolding charge dependent

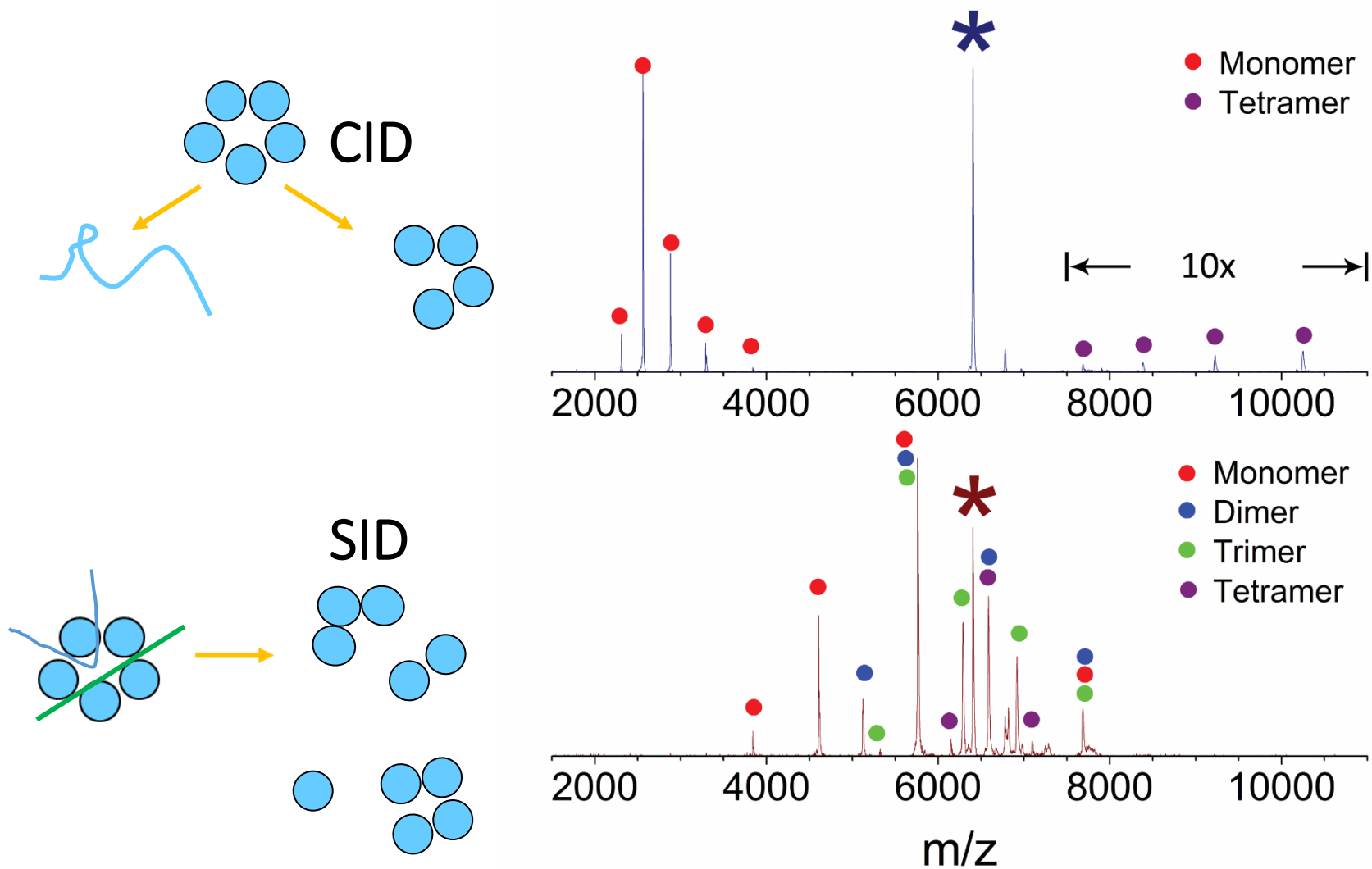
+39



+27



CID/SID-IM of CRP (+18)



Integrated Approach:
 Connectivity +
 CCS
 + covalent
 labelling
 + modeling
 + crosslinking
 = structure

