

# Joint ChemBio/Physical Chemistry Seminar

Tuesday,  
September 29, 2015

11:00 am

Room 1315  
Chemistry Building

## ***A Computational Study of the Thermodynamic and Kinetic Origins of Alzheimer's and Related Diseases***



**Professor Carol K. Hall**

*Department of Chemical & Biomolecular Engineering  
North Carolina State University*

Host: Professor Arun Yethiraj

The pathological hallmark of more than twenty neurodegenerative diseases, like Alzheimer's, Parkinson's and the prion diseases, is the presence within the brain of plaques containing ordered protein aggregates called fibrils. It is not yet known why these structures form in some individuals and not in others, or whether the plaques are toxic or Nature's way of sequestering toxic species. Dr. Hall will describe current thinking on the scientific underpinnings for this phenomenon, and her computational efforts to contribute to our knowledge of how and why proteins assemble into fibrils.

Refreshments will be available prior to the seminar at 10:45 a.m. outside room 1315

Graduate Students may meet with the speaker at 1:00 p.m. in Room 8305F