Departmental Seminar
Department of Chemistry

**Monday, November 13, 2017**
**Time 15:00**
**Bldg. 51 Room 015**

**Prof. David Lynn**

Departments of Biology, Chemistry, and Physics, Emory University, and Chemical and Biomolecular Engineering, Georgia Institute of Technology, Atlanta, GA 30322

**Systems Chemistry, Dynamic Chemical Networks, Macromolecular Function, and Alternative Chemistries of Life**

Living matter, the most elaborate, elegant, and complex hierarchical material known, is consequently a natural target for the ever-expanding scientific and technological effort to unlock and deconstruct its marvelous forms and functions. Our current understanding suggests that biological materials are derived from a bottom-up process, a spontaneous emergence of molecular networks through the course of chemical evolution. Polymer cooperation, so beautifully manifested in the ribosome, appeared in these dynamic networks. We will discuss the special physicochemical properties of the materials that appear to have made possible the critical threshold for the emergence and evolution of extant cellular life and how it may be possible to build these functions into alternative materials.


Rengifo, RF; Li, NX; Anthony Sementilli, A; Lynn, DG 2017 Amyloid scaffolds as alternative chlorosomes, Organic & Biomolecular Chemistry, DOI: 10.1039/C7OB01170A