



**Chemical Engineering
Grain Processing Corporation
2011-12 Lecture Series**
presents

Dr. Shannon L. Servoss

Department of Chemical Engineering



University of Arkansas

Peptoids Designed for Disease Diagnostics and Treatment

Peptidomimetics, such as peptoids, have recently received interest for a number of biomedical applications, including disease treatment and diagnostics. This interest mainly stems from the ability of these molecules to resist degradation by proteases (increasing bioavailability compared to peptides) and create stable secondary structures (allowing for design of peptoids with specific function). Research in the Servoss Lab focuses on the design and characterization of peptoids for a number of biomedical applications. In this talk, design and characterization of peptoids for both disease diagnosis and disease treatment will be discussed. For disease diagnostics, we have designed and characterized peptoids that are able to form three-dimensional structures when coated on a solid surface for use in ELISA microarray assays. For disease treatment, we have designed peptoids that are able to prevent the formation of beta-sheets for use in the treatment of Alzheimer's disease.

**Friday
January 27,
2012**

10:00 a.m.

**Chem. Sci.
& Engineering
Room 102**

**Refreshments
will be served**