

**JMU Chemistry and Biochemistry Seminar**  
Friday, January 29, 2016  
3:35pm in ISAT 159



## **Protein design - from nature to nanotechnology**

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Proteins and protein assemblies are workhorses of all processes in living organisms. Highly complex yet efficient processes such as photosynthesis, DNA replication, or cell motility and cell division all rely on precise structure and function of proteins. The Grove lab is interested in translating fundamental knowledge and principles of how proteins operate in the nature to the growing field of nanotechnology for design of materials for regenerative medicine and biosensing. This seminar will focus on three major themes: (1) protein assembly into nanostructured materials for advanced prosthetics; (2) protein-ligand interactions for biosensors detecting bacteria and viruses; and (3) protein-metal interactions for noble-metal nanoparticle fabrication.