

# Biomedical Research Seminar Series

## *Speaker Announcement*

**Friday, February 22, 2019 @ 3:30 pm**

**Domenici Hall, Room 109**

Refreshments served at 3:00 pm



***Thomas Makris, PhD***

*Associate Professor,  
Department of Chemistry  
and Biochemistry*

*University of South Carolina*

### ***Emerging Roles for Metalloenzymes in Natural Product Biosynthesis***

Research in my laboratory draws inspiration from the ability of metal-containing enzymes to catalyze diverse and highly selective transformations for the synthesis of molecules with considerable industrial value. This seminar will describe our efforts in understanding the mechanistic basis for two structurally divergent enzymes that convert fatty acids into terminal alkenes via a cryptic decarboxylation reaction. A common theme found in these biocatalysts is the rewiring of iron-containing cofactors that are most often associated with oxygen insertion chemistry to catalyze carbon-carbon cleavage instead. The talk will provide several examples of this functional reprogramming, illustrating how both heme and non-heme iron enzymes can be selectively tuned for new chemical outcomes.

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The BMRS series is supported by the Office of the Provost, the College of Arts and Sciences, the Departments of Chemistry & Biochemistry, and the NM-INBRE program.

For more information or to meet with the speaker please contact Ryan Ashley at [ryashley@nmsu.edu](mailto:ryashley@nmsu.edu)