

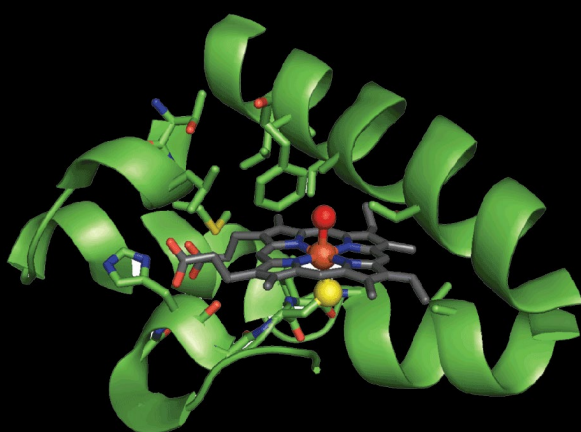
The University of Minnesota  
and  
Department of Biochemistry,  
Molecular Biology, and Biophysics

are proud to present the  
**23rd Annual Bollum Symposium:**

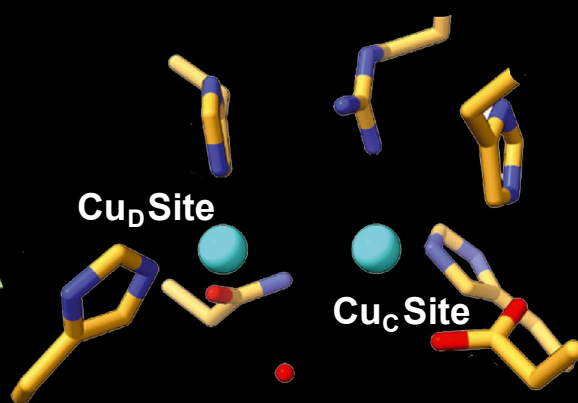
## Metals in Biology

Wednesday, May 4, 2022  
2-101 Nils Hasselmo Hall  
1:00 - 5:15 pm

Heme  
Cyt. P-450



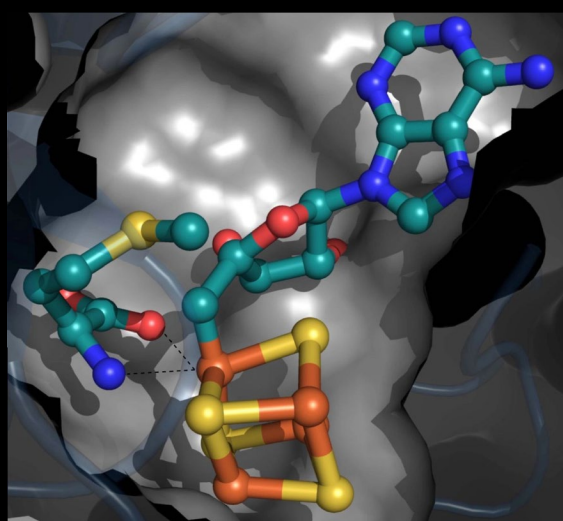
Cu<sub>D</sub> Site



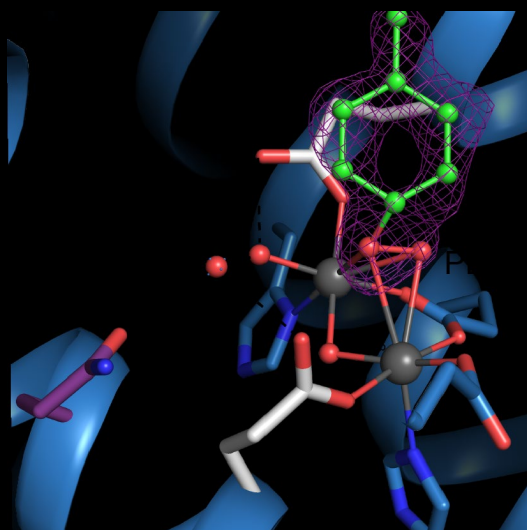
Cu<sub>C</sub> Site

Copper  
Oxygenase

Iron-Sulfur  
Radical-SAM



Di-Iron  
Hydroxylase



**Prof. Stephen G. Sligar**, University of Illinois  
*Cytochrome P450: 50 Years Trying to Understand the Mechanism*

**Prof. Joan B. Broderick**, Montana State University  
*Radical SAM: How Nature Generates and Controls Radicals for Catalysis*

**Prof. Amy C. Rosenzweig**, Northwestern University  
*Copper-Dependent Biological Methane Oxidation*

**Prof. Brian G. Fox**, University of Wisconsin  
*In-Crystal Reaction Cycle of a Toluene-Bound Diiron Hydroxylase*