

## Education

- August 2007-present: Doctoral candidate in bioinorganic chemistry  
University of Notre Dame, IN
- 2007-2005: Master in chemistry and physico-chemistry of material  
University of science, Montpellier, France
- 2005-2002: Bachelor in chemistry and physics  
University of science, Montpellier, France

## Research Experience

- January 2007-Present Graduate Research  
University of Notre Dame, Jennifer DuBois, Ph.D.
- 2006-Bachelor research  
Institut Charles Gerhardt, Molecular chemistry and solid organization (CMOS), University of Montpellier, Laurence Raehem, Functionalized Nanoparticles for Multiphotonic Bio-Imaging of Tumoral Cells
- 2007-Master research  
Institut Charles Gerhardt, MACS, Montpellier, France, Corine Gerardin, Ecodesign of Ordered Mesoporous Materials Obtained with Switchable Micellar Assemblies

## Statement of Research Interests

Chlorite has been named to be the top ten water contaminant by the Environmental Protection Agency due to its suspected health risks. There is no significant method to remove chlorite from water or there are very limited. Chlorite dismutase (Cld) was recently discovered as a heme enzyme which has the unique capability of catalyzing the disproportionation of chlorite ( $\text{ClO}_2$ ) into chloride ( $\text{Cl}^-$ ) and oxygen ( $\text{O}_2$ ). A crystal structure has been determined and Cld possess an arginine residue in the distal pocket believed to be one of the most important residue for catalysis. The mechanism of this unique reaction is still unknown

## Teaching experience

- August 2007-December 2007:  
Chemical principles laboratory, Laboratory Teaching Assistant
- January 2008-May 2008  
Structure and reactivity lab, Laboratory Teaching Assistant
- August 2008-December 2008  
Chemical principles laboratory, Laboratory Teaching Assistant

## Publications/Presentations

- B. R. Streit, B. Blanc, G. S. Lukat-Rodgers, K. R. Rodgers, J. L. DuBois, *JACS*, **132**, 5271-5724, **2010**
- Blanc B., Streit B., Dubois Jennifer, , Understanding Chlorite Dismutase, an unique enzyme, CBBI symposium, University of Notre Dame, May 12-13, **2010**
- Blanc B., Streit B., DuBois J., Poster presentation: Understanding the role of arginine 183 in chlorite dismutase, *Frontiers in Metallobiochemistry*, June 1-2, **2010**.
- N. Baccile, J. Reboul, B. Blanc, C. Gerardin, *Angewandte chemie*, **47**, 44 8433-8437, **2008**
- R. E. Frederick, Blanc B., Mayfield J., DuBois J., Unique kinetic mechanism for siderophore-associated monooxygenases. Abstracts of Papers, 236th ACS National Meeting, Philadelphia, PA, United States, August 17-21, **2008**.

## Additional information

- Organizer of the Purdue, Indiana, Notre Dame universities conference (PINDU conference), November 14th 2009, University of Notre Dame
- American chemical society, student member
- Volunteer, Science alive, South Bend, February 6<sup>th</sup> 2010
- Volunteer, National chemistry week, University of Notre Dame, Oct 24<sup>th</sup> 2009