

## EDUCATION

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Ph.D. in Chemistry and Biochemistry – May 11, 2002

Northern Illinois University, DeKalb, IL 60115

- Ph.D. Dissertation: *Nuclear Magnetic Resonance Properties of the Metmyoglobin-4-nitroimidazole Complex and the pH Dependence of Ligand Binding to the FixL Heme-binding Domain*, Dr. James Erman as Research Advisor

B.S. in Chemistry – January 1990

University of Illinois at Urbana-Champaign, Urbana, IL 61801

Associate Degree in Science – May 1987

Olney Central College, Olney, IL 62450

## TEACHING EXPERIENCE

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Illinois Mathematics and Science Academy, Aurora, IL

*Chemistry Faculty* – August 2015 to present

National University of Health Sciences, Lombard, IL

*Adjunct Professor* – May 2010 to August 2015

Waubensee Community College, Sugar Grove, IL

*Chemistry Instructor* – August 2007 – May 2010

*Adjunct Chemistry Instructor* – Spring 2007, Spring 2003, and Summer 2003

Benedictine University, Lisle, IL

*Adjunct Chemistry Instructor* – Spring 2007

Highland Community College, Freeport, IL

*Online Adjunct Chemistry Instructor* - Spring 2006, Fall and Spring 2005, Spring 2004, and Spring 2003

Elgin Community College, Elgin, IL

*Adjunct Chemistry Instructor* - Spring 2003

Kishwaukee College, Malta, IL

*Chemistry Instructor* - August 2001 to May 2002

Northern Illinois University, DeKalb, IL

*Teaching Assistant* - Fall 1996 to Spring 2000

## RESEARCH EXPERIENCE

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Argonne National Laboratory, Argonne, IL

*Protein Biochemist and Molecular Biologist* – August 2010 to August 2015

*Protein Biochemist* – November 2003 to August 2007

Amoco Research Center, Naperville, IL

*Research Technician* – October 1990 to August 1996

Sherwin Williams Research Center, Chicago, IL

*Chemist* – January 1990 to October 1990

U.S. Army Construction Engineering Research Lab, Champaign, IL

*Research Assistant* – August 1988 to December 1989

Northern Illinois University, DeKalb, IL

*Research Assistant* - Fall 1996 to Spring 2001

## AWARDS

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- Outstanding Woman Student Award, NIU Presidential Commission on the Status of Women (2001)
- Dissertation Completion Award, NIU Graduate School (2000)
- John D. Graham Scholarship, NIU Chemistry Department (1999)
- Weber Medical Clinic Award, Olney Central College (1987)
- James S. Spencer Scholarship, Olney Central College (1985)
- East Richland High School Class Valedictorian (1985)

## PUBLICATIONS

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- A New Suite of Plasmid Vectors for Fluorescence-Based Imaging of Root Colonizing *Pseudomonads*  
Wilton R, Ahrendt AJ, Shinde S, Sholto-Douglas DJ, Johnson JL, Brennan MB, and Kemner KM.  
*Frontiers in Plant Science*. 2018; 8, 2232.
- pH Dependence of Cyanide and Imidazole Binding to the Heme Domains of *Sinorhizobium meliloti*  
and *Bradyrhizobium japonicum* FixL  
Bidwai AK, Ahrendt AJ, Sullivan JS, Vitello LB, and Erman JE.  
*Journal of Inorganic Biochemistry*. 2015; 153, 88 – 102.
- Differential Protein Expression in the Metal-Reducing Bacterium *Geobacter metallireducens* Grown  
with Ferric Citrate or Nitrate  
Ahrendt AJ, Tollaksen SL, Zhu W, Yates JR 3rd, Nevin KP, Lovley DR,  
and Giometti CS. *Proteomics*. 2006; 6, 632 – 640.
- Large-scale  $\mu$ LC-MS/MS for silver- and Coomassie blue-stained polyacrylamide gels  
Zhu W, Venable J, Giometti CS, Khare T, Tollaksen S, Ahrendt AJ, Yates JR 3rd. *Electrophoresis*. 2005  
Dec; 26(23):4495-507.

## OTHER PROFESSIONAL WORK AND ACCOMPLISHMENTS

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Science Olympiad Coach; Illinois Mathematics and Science Academy – Fall 2016 to present

PROMISE Program Science Teacher; Illinois Mathematics and Science Academy – Fall 2017 to present

ComEd Seed Fund Grant Recipient for “Fluorescence Spectroscopy for Biodiesel Characterization and Ethanol Production” – April 2017

Judged at Skyway Conference STEM Poster Competition – April 2015

Led Activities for Girls at Argonne’s Science Careers in Search of Women – April 2015

### Poster Presentations

- American Society for Microbiology 2006: Comparative Proteome Analysis of *Geobacter sulfurreducens* PCA and *Geobacter metallireducens* GS-15
- American Society for Mass Spectrometry 2006: Time-of-Flight Mass Spectrometry for the Identification of c-type Cytochromes from *Geobacter* Species
- American Society for Microbiology 2005: A Novel Strategy for the Detection, Isolation and Identification of c-type Cytochromes from *Geobacter sulfurreducens*