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Vanderbilt University Medical Center
Department of Biochemistry
Center for Structural Biology
465 21st Avenue South
5144E Medical Research Building III
Nashville, TN 37232

Education

Postdoctoral Fellow, *Vanderbilt University Medical Center, Nashville, TN* **April 14 - Current**

Postdoc advisor: Prof. Walter Chazin

My research is focused on determining the mechanism of DNA priming by DNA primase. DNA primase initiates DNA synthesis, a critical step for DNA replication, by generated an RNA primer on the template DNA strand that serves as the recognition site for more processive polymerases. Although primases play an essential role in DNA replication, the mechanism of priming has long remained poorly understood. I use a combination of X-ray crystallography and small angle x-ray scattering to characterize the architectural changes in human DNA primase during primer initiation. In addition, through collaboration with Jacqueline Barton at the California Institute of Technology, we are seeking to understand the function of an iron-sulfur cluster in DNA primase and the role DNA charge transfer may play in the primase mechanism.

Postdoctoral Fellow, *Vanderbilt University Medical Center, Nashville, TN* **July 11 – March 14**

Postdoc advisor: Prof. Richard N. Armstrong

My research in the Armstrong lab focused on characterization of FosB, the enzyme from Gram-positive pathogens that confers resistance to the antibiotic, fosfomycin. In addition to obtaining multiple high-resolution crystal structures of FosB, I conducted kinetic studies that showed that manganese and bacllithiol are the preferred metal and thiol substrate for the enzyme, and I conducted *in vivo* diffusion assays for both native and FosB knockout bacterial strains of methicillin-resistant *S. aureus* (MRSA) that demonstrate the necessity of FosB for survival of the pathogen in the presence of fosfomycin. This research was highlighted at the 58th Biophysical Society annual meeting and featured on the American Association for the Advancement of Science (AAAS) breaking news website and in the Vanderbilt University Medical Center newspaper, the VUMC *Reporter*.

Ph.D. in Physical Chemistry/Biophysics, *North Carolina State University, Raleigh, NC* **Aug 05-Aug 11**

Dissertation: "Distal Histidine Flexibility as the Key to Reactivity in Dehaloperoxidase-Hemoglobin"

Ph.D. advisor: Prof. Stefan Franzen

My dissertation research involved the naturally occurring bioremediation enzyme, dehaloperoxidase-hemoglobin (DHP). I utilized a combination of resonance Raman spectroscopy, electron paramagnetic resonance, electronic absorption spectroscopy, small angle X-ray scattering, X-ray crystallography, and enzyme kinetics to prove that DHP is a monomeric hemoglobin with a unique two-site competitive binding mechanism and pH dependent protein radical pathways that both depend on the conformation of a single histidine residue.

B.S. in Geology and **Chemistry**, *Eastern Kentucky University, Richmond, KY* **May-04**

Areas of Concentration: Physical Chemistry and Geochemistry

Included graduate level *Advanced Physical Chemistry*

Honors Thesis: "A Study of the Jeptha Knob Cryptoexplosion Structure"

Thesis advisors: Profs. Malcolm Frisbie and Gary Kuhnhenn

I conducted an investigation of the Jeptha Knob cryptoexplosion structure, an unconfirmed meteorite impact site in Shelby County, Kentucky. As an Eastern Kentucky University Honors student, I was given access to core samples from the structure to search for evidence of an ancient meteorite impact. Although I never found any direct evidence, I was able to analyze the cores and propose a theoretical model of how an ancient impact in soft marine sediment could lead to the present upraised, knob like structure. The research was organized into a thesis and presentation to satisfy requirements of the EKU Honors Program. This work won first place at the Kentucky Academy of Science in 2003 and first place at a Sigma Xi research competition in 2004.

Awards, Scholarships, and Fellowships

- **5th Workshop on Neutron Scattering in Structural Biology** – Oak Ridge National Lab. Competitive selection of only 15 participants. **Summer 2014**
- **William N. Pearson Fellowship in Biochemistry** – Vanderbilt University **Dec 12 – July 13**
- **NIH Postdoctoral Training Grant** - Vanderbilt University Center for Molecular Toxicology **July 11 – July 13**
- **National School on Neutron and X-ray Scattering** – Oak Ridge and Argonne National Labs **Summer 2011**
- **Biophysical Society Travel Award** **Feb-09**
- **NCSU Chemistry Dept Recruitment Award** – NCSU Chemistry Dept funded recruiting seminar at EKU. 1 of 5 graduate students selected. **Oct-08**
- **EKU Honors Program –** More rigorous undergraduate core classes. Participants graduate with honors. **2000 – 2004**
- **EKU Presidential Honors Scholarship** – Scholarship covering tuition and all books. Maintained until graduation. **2001 – 2004**
- **NASA Internship** – Planetary Geology and Geophysics Undergraduate Research Program (PGGURP) at NASA Ames research center. Advisor: Prof. Ronald Greeley from Arizona State University **Summer 2002**
- **NSF ISMAM Fellowship** – Inquiry-based Science and Mathematics in Appalachian Middle Schools. $10,000 Fellowship for undergraduates from the National Science Foundation. **2003 – 2004**
- **Outstanding Senior Geologist** – Awarded on GPA, class schedule, research, and overall departmental involvement. **2004**
- **1st Place –** Sigma Xi Undergraduate Research Competition. **2004**
- **1st Place –** Kentucky Academy of Science Undergraduate Research Competition. **2003**

Publications **Indicates Mentored Undergraduate Student **Indicates Work Conducted by M.K.T. in International Lab*

In Preparation.

The crystal structure accompanying this manuscript (PDB 5DQO: **Thompson, M.K.**; Salay, L.E.; Chazin, W.J.) has been submitted.

O'Brien, E.; Holt, M.E.; **Thompson, M.K.**; Salay, L.E.; Ehlinger, A.C.; Chazin, W.J.; Barton, J.K. "Redox state of the p58C Fe-S cluster controls DNA binding affinity of human DNA primase."

1. Johnson, C.N.; **Thompson, M.K.**; Voehler, M.; Chazin, W.J. "Enhanced Understanding of Ca^{2+} Modulation of the Human Cardiac Sodium Channel: Tight Binding of Calmodulin to the Inactivation Gate." *Nat. Struct. Mol. Bio.* **2015**. Submitted.

2. **Thompson, M.K.**; Keithly, M.E.; Sulikowski, G.A.; Armstrong, R.N. "Diversity in the Fosfomycin Resistance Proteins." *Persp. in Sci.* **2015**. 4, 17-23.

3. **Thompson, M.K.**; Keithly, M.E.; Goodman, M.C.; Hammer, N.D.; Cook, P.D.; Jagessar, K.L.; Harp, J.; Skaar, E.P.; Armstrong, R.N. "Structure and function of the genomically-encoded fosfomycin resistance enzyme, FosB, from *Staphylococcus aureus*." *Biochem.* **2014**. 53(4), 755–765.
   Highlighted at the 58th Biophysical Society annual meeting
   Featured on American Association for the Advancement of Science (AAAS) breaking news
   Featured in the Vanderbilt University Medical Center newspaper, the VUMC Reporter

4. **Thompson, M.K.**; Keithly, M.E.; Harp, J.; Cook, P.D.; Jagessar, K.L.; Sulikowski, G.A.; Armstrong, R.N. "Structural and chemical aspects of resistance to the antibiotic, fosfomycin, conferred by FosB from *Bacillus cereus*." *Biochem.* **2013**. 52(41), 7350–7362.

5. ***Plummer, A.**; **Thompson, M.K.**; Franzen, S. "Role of polarity of the distal pocket in the control of inhibitor binding in dehaloperoxidase-hemoglobin." *Biochem.* **2013**. 52(13), 2218-2227.

6. Schkolnik G., Utesch T., Zhao J., Jiang S., **Thompson M.K.**, Mroginski M.A., Hildebrandt P., Franzen S. "Catalytic efficiency of dehaloperoxidase A is controlled by electrostatics–application of the vibrational Stark effect to understand enzyme kinetics." *Biochem. Biophys. Res. Commun.* **2013**. 430(3), 1011-1015.
Recommended by F1000.

7. Zhao, J.; de Serrano, V.; Dumarieh, R.; **Thompson, M.K.**; Ghiladi, R.A.; Franzen, S. "The role of the distal histidine in H_2O_2 activation and heme protection in both peroxidase and globin functions." *J. Phys. Chem. B.* **2012**. 116, 12065-12077.

8. Franzen, S.; **Thompson, M.K.**; Ghiladi, R.A. "The Dehaloperoxidase Paradox." *Biochem. Biophys. Acta.* **2012**. 1824, 578-588.

9. D'Antonio, E.L.; D'Antonio, J.; de Serrano, V.; Gracz, H.; **Thompson, M.K.**; Ghiladi, R.A.; Franzen, S.; Bowden, E.F.; "Mutation of methionine-86 in dehaloperoxidase: Effects of the Asp-His-Fe triad in a 3/3 globin." *Biochem.* **2011**. 50(44), 9664-9680.

10. **Thompson, M.K.**; Franzen, S.; Davis, M.F.; Oliver, R.C.; Krueger, J.K. "Dehaloperoxidase-hemoglobin from *Amphitrite ornata* is primarily a monomer in solution." *J. Phys. Chem. B.* **2011**, 115(14), 4266-4272.

11. **Nicoletti, F.P.; **Thompson, M.K.**; Franzen, S.; Smulevich, G. "Degradation of sulfide by dehaloperoxidase-hemoglobin from *Amphitrite ornata*." *J. Biol. Inorg. Chem.* **2011**, 16(4), 611-619.

12. **Szatkowski, L.; **Thompson, M.K.**; Kiminski, R.; Franzen, S.; Dybala-Defratyka, A. "Oxidative dechlorination of halogenated phenols catalyzed by two distinct enzymes: Horseradish peroxidase and dehaloperoxidase." *Arch. Biochem. Biophys.* **2011**, 505, 22-32.

13. ****Thompson, M.K.**; Franzen, S.; Ghiladi, R.A.; Reeder, B.J.; Svistunenko, D.A. "Compound ES of dehaloperoxidase decays via two alternative pathways depending on the conformation of the distal histidine." *J. Am. Chem. Soc.* **2010**, 132(49) 17501-17510.

14. ***Ma, H.**; **Thompson, M.K.**; Gaff, J.; Franzen, F. "Kinetic analysis of a naturally occurring bioremediation enzyme: Dehaloperoxidase-hemoglobin from *Amphitrite ornata*." *J. Phys. Chem. B.* **2010**, 114(43), 13823-13829.

15. **Thompson M.K.**; Davis, M.F.; de Serrano, V.; Nicoletti, F.P.; Howes, B.D.; Smulevich, G.; Franzen, S. "Internal binding of halogenated phenols in dehaloperoxidase-hemoglobin inhibits peroxidase function." *Biophys. J.* **2010**, 99(5), 1586-1595.

16. D'Antonio, J.; D'Antonio, E.L.; **Thompson, M.K.**; Bowden, E.F.; Franzen, S.; Smirnova, T.; Ghiladi, R.A. "Spectroscopic and mechanistic investigations of dehaloperoxidase B from *Amphitrite ornata*." *Biochem.* **2010**, 49, 6600-6616.

17. **Nicoletti, F.P.; **Thompson, M.K.**; Howes, B.D.; Franzen, S.; Smulevich, G. "New insights into the role of distal histidine flexibility in ligand stabilization of dehaloperoxidase-hemoglobin from *Amphitrite ornata*. *Biochem.* **2010**, 49, 1903-1912.

Protein Structures Deposited in PDB

5DQO - Crystal Structure of the Y347F Mutant of Human Primase p58 Iron-Sulfur Cluster Domain (2.5 Å)
Thompson, M.K.; Salay, L.E.; Chazin, W.J.

5DBR - Ca^{2+} CaM with human cardiac Na^{+} channel (NaV1.5) inactivation gate (2.25 Å)
Johnson, C.N.; **Thompson, M.K.**; Chazin, W.J.

4NAY - Crystal Structure of FosB from *Staphylococcus aureus* with Zn and Sulfate at 1.42 Angstrom Resolution - SAD Phasing
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Armstrong, R.N.

4NAZ - Crystal Structure of FosB from *Staphylococcus aureus* with Zn and Sulfate at 1.15 Angstrom Resolution
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Armstrong, R.N.

4NB0 - Crystal Structure of FosB from *Staphylococcus aureus* with BS-Cys9 disulfide at 1.62 Angstrom Resolution
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Armstrong, R.N.

4NB1 - Crystal Structure of FosB from *Staphylococcus aureus* at 1.80 Angstrom Resolution with L-Cysteine-Cys9 Disulfide
Cook, P.; **Thompson, M.K.**; Harp, J.; Keithly, M.E.; Jagessar, K.; Armstrong, R.N.

4NB2 - Crystal Structure of FosB from *Staphylococcus aureus* at 1.89 Angstrom Resolution - Apo structure
Cook, P.; **Thompson, M.K.**; Harp, J.; Keithly, M.E.; Jagessar, K.; Armstrong, R.N.

4JH1 – Crystal Structure of FosB from *Bacillus cereus* with Zinc and Sulfate, SAD Phasing (1.55 Å)
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Cook, P.; Armstrong, R.N.

4JH2 – Crystal Structure of FosB from *Bacillus cereus* with Zinc and Sulfate, Molecular Replacement (1.27 Å)
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Cook, P.; Armstrong, R.N.

4JH3 – Crystal Structure of FosB from *Bacillus cereus* with Zinc and Fosfomycin, SAD Phasing (1.50 Å)
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Cook, P.; Armstrong, R.N.

4JH4 – Crystal Structure of FosB from *Bacillus cereus* with Nickel and Fosfomycin, SAD Phasing (1.89 Å)
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Cook, P.; Armstrong, R.N.

4JH5 – Crystal Structure of FosB from *Bacillus cereus* with Cobalt and Fosfomycin, SAD Phasing (1.77 Å)
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Cook, P.; Armstrong, R.N.

4JH6 – Crystal Structure of FosB from *Bacillus cereus* with Manganese and Fosfomycin (1.32 Å)
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Cook, P.; Armstrong, R.N.

4JH7 – Crystal Structure of FosB from *Bacillus cereus* with Maganese and L-Cysteine-Fosfomycin Product (1.55 Å)
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Cook, P.; Armstrong, R.N.

4JH8 – Crystal Structure of FosB from *Bacillus cereus* with Zinc and L-Cysteine/Fosfomycin Ternary Complex (1.41 Å)
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Cook, P.; Armstrong, R.N.

4JH9 – Crystal Structure of FosB from *Bacillus cereus* with Manganese and Bacillithiol-Fosfomycin Product (1.77 Å)
Thompson, M.K.; Harp, J.; Keithly, M.E.; Jagessar, K.; Cook, P.; Armstrong, R.N.

4HSW - Structure of the L100F mutant of dehaloperoxidase-hemoglobin A from *Amphitrite ornata* (1.22 Å)
Thompson, M.K.; Plummer, A; Franzen, S.

4HSX - Structure of the L100F mutant of dehaloperoxidase-hemoglobin A from *Amphitrite ornata* with 4-bromophenol (1.12 Å)
Thompson, M.K.; Plummer, A; Franzen, S.

3LB1 – Crystal Structure of dehaloperoxidase-hemoglobin A from *Amphitrite ornata* with 4-iodophenol (1.76 Å)
de Serrano, V.S; Franzen, S; **Thompson M.K.**; Davis, M.F.; Nicoletti, F.P.; Howes, B.D.; Smulevich, G.

3LB2 – Crystal Structure of dehaloperoxidase-hemoglobin A from *Amphitrite ornata* with 4-bromophenol (1.06 Å)
de Serrano, V.S; Franzen, S; **Thompson M.K.**; Davis, M.F.; Nicoletti, F.P.; Howes, B.D.; Smulevich, G.

3LB3 – Crystal Structure of dehaloperoxidase-hemoglobin A from *Amphitrite ornata* with 4-chlorophenol (1.85 Å)
de Serrano, V.S; Franzen, S; **Thompson M.K.**; Davis, M.F.; Nicoletti, F.P.; Howes, B.D.; Smulevich, G.

3LB4 – Crystal Structure of dehaloperoxidase-hemoglobin A from *Amphitrite ornata* with 4-fluorophenol (1.56 Å)
de Serrano, V.S; Franzen, S; **Thompson M.K.**; Davis, M.F.; Nicoletti, F.P.; Howes, B.D.; Smulevich, G.

3IXF – Crystal Structure of dehaloperoxidase-hemoglobin B from *Amphitrite ornata* at 1.58 A
de Serrano, V.S; D'Antonio, J.; **Thompson M.K.**; Franzen, S; Ghiladi, R.

Funding

Submitted

K22	Thompson (PI)	10/12/15

Title: Structure, Chemistry, and Fosfomycin Resistance of the VOC Superfamily
NIH NIAID Career Development Transition Award
Role: PI

Completed

T32 ES007028	Liebler (PI)	07/17/2011-0716/2013

Training Program in Environmental Toxicology
Role: Postdoc

Skills and Research Experience

- X-ray Crystallography - Crystal growth, data collection and refinement.
  - SER-CAT and LS-CAT user at APS, Argonne National Lab. SIBYLS user at ALS, Berkeley National Lab.
- Small Angle X-ray Scattering – Data collection and interpretation.

- X-ray Fluorescence Spectroscopy – Data collection and interpretation.
- Resonance Raman Spectroscopy - Nd:YAG, Ti:sapphire, Krypton-ion, and Argon-ion laser systems.
- EPR Spectroscopy - Low temperature EPR. Rapid freeze-quench protein radical techniques.
- ^{31}-P NMR Spectroscopy- Data collection and interpretation.
- Enzyme Kinetics - Michaelis-Menten and inhibition type kinetic analysis.
- DNA Techniques - Standard DNA recombination and purification techniques; site-directed mutagenesis.
- Protein Purification - Standard bacterial growth and protein purification techniques.

Presentations

- University of Kentucky. College of Pharmacy Department Seminar. Scheduled **Nov 2015**
- Vanderbilt University. Molecular Biophysics Training Program. Invited seminar **July 2014**
- 58th Biophysical Society National Meeting *San Francisco CA*. Poster **Feb 2014**
- Enzyme Function Initiative Annual Meeting *San Francisco CA*. Poster **Dec 2013**
- Vanderbilt University. Molecular Biophysics Training Program. Invited seminar **April 2013**
- Eastern Kentucky University. Department of Chemistry. Invited seminar **March 2013**
- North Carolina State University. Department of Chemistry. Invited seminar **March 2013**
- 23rd Enzyme Mechanisms Conference *Coronado* CA. Poster **Jan 2013**
- Vanderbilt Institute of Chemical Biology Research Symposium. Poster **Aug 2012**
- 55th Biophysical Society National Meeting *Baltimore MD*. Platform **March 2011**
- 55th Biophysical Society National Meeting *Baltimore MD*. Poster **March 2011**
- NC ACS Local Section Meeting *Durham* NC. Poster **Sep 2010**
- 54th Biophysical Society National Meeting *San Francisco CA*. Poster **Feb 2010**
- University of Essex, UK. Department of Biological Sciences. Invited seminar **June 2009**
- 53th Biophysical Society National Meeting *Boston MA*. Poster **Feb 2009**
- Eastern Kentucky University. Department of Chemistry. Seminar **Oct 2008**
- North Carolina State University. Inorganic Series Seminar **April 2008**

Teaching Experience: U.S. and International

Zhejiang University, Hangzhou, China (NCSU Study Abroad) **Summer 2010**

Teaching Assistant/Lecturer

Chem 331 Introductory Physical Chemistry with Applications in Biology
Chem 431 Physical Chemistry I: Thermodynamics & Kinetics
Chem 433 Physical Chemistry II: Quantum Mechanics & Spectroscopy
Chem 437 Physical Chemistry for Engineers

North Carolina State University, Raleigh, NC

Teaching Assistant – Physical chemistry recitation

Chem 331 Introductory Physical Chemistry with Applications in Biology **Spring 2010**
Chem 331 Introductory Physical Chemistry with Applications in Biology **Fall 2009**
Chem 431 Physical Chemistry I: Thermodynamics & Kinetics **Fall 2007**
Chem 433 Physical Chemistry II: Quantum Mechanics & Spectroscopy **Summer 2007**
Chem 431 Physical Chemistry I: Thermodynamics & Kinetics **Spring 2007**
Chem 431 Physical Chemistry I: Thermodynamics & Kinetics **Fall 2006**
Chem 433 Physical Chemistry II: Quantum Mechanics & Spectroscopy **Fall 2006**
Chem 437 Physical Chemistry for Engineers **Fall 2006**
Chem 202 Quantitative Chemistry Lab **Spring 2006**
Chem 202 Quantitative Chemistry Lab **Fall 2005**

Eastern Kentucky University, Richmond, KY
Undergraduate Lab Instructor – General Chemistry Labs. **2004-2005**

Madison Middle School, Richmond, KY
NSF ISMAM Fellow – Inquiry Based Science and Mathematics in Appalachian Middle Schools. **2003-2004**
Developed inquiry based learning techniques for 7th grade science and mathematics.

International Research Experience

University of Essex, Colchester, United Kingdom **June/July 2009**
- Investigated protein radicals by EPR spectroscopy with Dr. Dimitri Svistunenko.

Technical University of Łódź, Łódź, Poland **May/June 2009**
- Studied kinetic isotope effects and binding energies by mass spectrometry and computational techniques with Prof. Agnieszka Dybala-Defratyka.

Università degli Studi di Firenze – Polo Scientifico, Sesto Fiorentino, Italy **Summer 2008**
- Performed resonance Raman spectroscopy under the direction of Prof. Giulietta Smulevich.

Graduate Students Mentored

Mary Keithly – Richard N. Armstrong Lab **Current**
In the absence of Richard, I currently serve as a co-mentor to Mary while she finishes her PhD.

Kristen Droege – Richard N. Armstrong Lab **Current**
In the absence of Richard, I currently serve as a co-mentor to Kristen while she finishes her PhD.

Lauren Salay – Vanderbilt University Interdisciplinary Graduate Program **Spring 2015**
Joined Chazin lab in 2015 and was awarded Molecular Biophysics T32 training grant. **/Current**
I currently mentor Lauren in the Chazin lab.

Clayton Wandishin – Vanderbilt University Quantitative Chemical Biology Program **Fall 2014**

Michael Goodman – Vanderbilt University Chemistry Department **Summer 2012**
Joined Armstrong lab in 2013
Publication based on rotation work

Kevin Jagessar – Vanderbilt University Interdisciplinary Graduate Program **Fall 2011**
Joined Armstrong lab in 2012 and was awarded Molecular Biophysics T32 training grant.
Two publications based on rotation work

Undergraduate Students Mentored

Ashlee Plummer – North Carolina State University **2010-2011**
Currently enrolled in Biophysics PhD program at The Johns Hopkins University; Baltimore, MD
Accomplishments: Poster presentation at 55th National Biophysical Society Meeting & Biophysical Society travel award recipient; Publication

Jonathon Parnell – North Carolina State University **2009-2010**
Currently enrolled in Biophysics PhD program at UC San Diego; San Diego, CA
Accomplishments: Poster presentation at 54th National Biophysical Society Meeting

Huan Ma – North Carolina State University **2008-2009**
Currently enrolled in Biophysics PhD program at Uppsala University; Uppsala, Sweden.
Accomplishments: Publication

Professional Memberships

- Biophysical Society
- American Chemical Society
- American Association for the Advancement of Science

Affiliations

- Vanderbilt Molecular Biophysics Training Program
- Vanderbilt Center for Structural Biology
- Vanderbilt Institute of Chemical Biology – Chemical Biology Association of Students (CBAS)

  - Member of CBAS since Fall 2011 - Currently serve as a member on the executive board

  - With the support of Walter Chazin and members of the CBAS board, I am organizing a joint "chemical biology – structural biology – molecular biophysics" student/postdoc association that will begin in the fall of 2015.

References Providing Letters

Prof. Stefan Franzen (PhD Advisor)
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Prof. Walter J. Chazin (Postdoc Ad.)
Departments of Chemistry & Biochemistry
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International References

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