

Education

- 2002-2007 University of California, Berkeley
Ph.D., Chemistry
Thesis Advisors: Professors Jonathan Ellman and Robert Bergman
- 1998-2002 University of Illinois at Urbana/Champaign
B.S., Chemistry, *Cum Laude* and with Highest Distinction in the Curriculum
Research Advisor: Professor Eric Oldfield

Positions and Employment

- 2018-present Indiana University, Bloomington, Department of Chemistry (Associate Professor)
- 2011-2017 University of Chicago, Department of Chemistry (Assistant Professor)
- 2007-2010 California Institute of Technology, Department of Chemistry and Chemical Engineering
(NIH NRSA Postdoctoral Fellow with Prof. Frances Arnold)
- 2002-2007 University of California, Berkeley, Department of Chemistry (Graduate student)
- 2001, 2002 Abbott Laboratories, Metabolic Disease Research (Research Intern, two summers)
- 1999-2002 University of Illinois at Urbana/Champaign, Department of Chemistry (Undergraduate
Research Assistant)

Selected Honors and Awards

- 2016 Dreyfus Teacher-Scholar Award
- 2015 Ed Stiefel Young Investigator Award (given by the Metals in Biology GRC)
- 2014 NSF CAREER Award
- 2013 Thieme Chemistry Journal Award
- 2013 CBC Catalyst Award
- 2011 David and Lucile Packard Foundation Fellowship in Science and Engineering
- 2011 Searle Scholar Award
- 2010 NIH Pathways to Independence Award
- 2007 NIH Ruth L. Kirschstein National Research Service Award
- 2002 Worth Huff Rodebush Award for Undergraduate Research
- 2002 John C. Bailar Award for Superlative Senior Research Thesis
- 1999-2001 Scholarships and Research Grants from Kimberly-Clark, Colgate-Palmolive, Valspar Corporation, National Starch and Chemical Company, and PPG

Publications (*corresponding author; undergraduate co-authors are underlined)

Independent Career

- 1) Gair, J. J.; Roy, M.; Chan, N.; Qui, Y.; Wang, D.-S.; Lewis, J. C.* Transmetallation of Hydrocarbyl Ligands from Complexes Relevant to C-H Activation to Platinum(II): Scope and Mechanism. In Preparation
- 2) Ellis-Guardiola, K.; Rui, H.; Beckner, R. L.; Park, H.-J.; Srivastava, P.; Roux, B.; Sukumar, N.; Lewis, J. C.* Crystal Structure and Conformational Dynamics of *Pyrococcus furiosus* Prolyl Oligopeptidase: Implications for Peptidase and Artificial Metalloenzyme Activity. In Preparation.
- 3) Gair, J. J.; Qiu, Y.; Chan, N.; Filatov, A. S.; Lewis, J. C.* A Heterobimetallic Isolobal Transition State

- Analogue for Proton Transfer During C-H Activation by a Rh-Pincer Complex. Submitted.
- 4) Andorfer, M. C.; Lewis, J. C.* Understanding and Improving the Activity of Flavin Dependent Halogenases via Random and Targeted Mutagenesis. *Ann. Rev. Biochem.* In Press.
 - 5) Yang, H.; Swartz, A. M.; Srivastava, P.; Ellis-Guardiola, K.; Park, H. J.; Upp, D.; Belsare, K.; Lee, G.; Gu, Y.; Zhang, C.; Moellering, R. E.; Lewis, J. C.* Evolving Artificial Metalloenzyme Selectivity via Random Mutagenesis. *Nat. Chem.* **2018**, *10*, 318-324.
 - 6) Ellis-Guardiola, K.; Lewis, J. C.* Preparation of Artificial Metalloenzymes. In *Artificial Metalloenzymes and MetalloDNAszymes in Catalysis. From Design to Applications*; Diégues, M.; Bäckvall, J.-E.; Pàmies, O., Eds.; Wiley-VCH, **2018**.
 - 7) Payne, J. T.; Butkovich, P.; Gu, Y.; Kunze, K. N.; Park, H.-J.; Yang, D.-S.; Lewis, J. C.* Enantioselective Desymmetrization of Methylenedianilines via Enzyme-Catalyzed Remote Halogenation. *J. Am. Chem. Soc.* **2018**, *140*, 546-549.
 - 8) Kohler, V.; Schwizer, F.; Okamoto, Y.; Lebrun, V.; Reuter, R.; Pellizzoni, M. M.; Heinisch, T.; Gu, Yifan; Lewis, J. C.*; Ward, T. R.* Artificial Metalloenzymes: Reaction Scope and Optimization Strategies. *Chemical Reviews*, **2018**, *118*, 142-231.
 - 9) Andorfer, M. C.; Belsare, K. D.; Girlich, A. M.; Lewis, J. C.* Aromatic Halogenation Using Bifunctional Flavin Reductase-Halogenase Fusion Enzymes. *ChemBioChem*, **2017**, *18*, 2099-2103.
 - 10) Gair, J. J.; Qiu, Y.; Chan, N.; Filatov, A. S.; Lewis, J. C.* Rhodium complexes of 2,6-bis-(di-alkylphosphinomethyl)pyridines: Improved C-H Activation, Expanded Reaction Scope, and Catalytic Direct Arylation. *Organometallics*. **2017**, *36*, 4699-4706.
 - 11) Gair, J. J.; Haines, B. E.; Filatov, A. S.; Musaev, D. G.*; Lewis, J. C.* Mono-*N*-Protected Amino Acid Ligands Stabilize Dimeric Palladium(II) Complexes of Importance to C-H Functionalization. *Chemical Science*, **2017**, *8*, 5746-5756.
 - 12) Andorfer, M. C.; Grob, J. E.; Hajdin, C. E.; Chael, J. R.; Siuti, P.; Lilly, J.; Tan, K. L.*; Lewis, J. C.* Understanding Flavin-Dependent Halogenase Reactivity via Substrate Activity Profiling. *ACS Catalysis*. **2017**, 1897-1904.
 - 13) Belsare, K.; Andorfer, M. C.; Cardenas, F.; Chael, J. R.; Park, H. J.; Lewis, J. C.* A Simple Combinatorial Codon Mutagenesis Method for Targeted Protein Engineering. *ACS Synth. Biol.* **2017**, *6*, 416-420.
 - 14) Upp, D. M.; Lewis, J. C.* Selective C-H Bond Functionalization Using Repurposed or Artificial Metalloenzymes. *Curr. Opin. Chem. Biol.* **2017**, *37*, 48-55.
 - 15) Payne, J. T.; Andorfer, M. C.; Lewis, J. C.* Engineering Flavin-Dependent Halogenases. *Meth. Enz.* **2016**, *575*, 93-126.
 - 16) Andorfer, M. C.; Park, H. J.; Vergara-Coll, J.; Lewis, J. C.* Directed Evolution of RebH for Catalyst-Controlled Halogenation of Indole C-H Bonds. *Chem. Sci.* **2016**, *7*, 3720-3729.
 - 17) Durak, L. J.; Payne, J. T.; Lewis, J. C.* Late-Stage Diversification of Biologically Active Molecules via Chemoenzymatic C-H Functionalization. *ACS Catal.* **2016**, *6*, 1451-1454.
 - 18) Srivastava, P.; Yang, H.; Ellis-Guardiola, K.; Lewis, J. C.* Engineering a Dirhodium Artificial Metalloenzyme for Selective Olefin Cyclopropanation. *Nat. Commun.* **2015**, *6*, 7789.
 - 19) Gu, Y.; Ellis-Guardiola, K.; Srivastava, P.; Lewis, J. C.* Preparation, Characterization, and Reactivity of a Photocatalytic Artificial Enzyme. *ChemBioChem*. **2015**, *16*, 1880-1883.
 - 20) Payne, J. T.; Poor, C. B.; Lewis, J. C.* Directed Evolution of RebH for Site Selective Halogenation of Large, Biologically Active Molecules. *Angew. Chem. Int. Ed.* **2015**, *54*, 4226-4230.
 - 21) Lewis, J. C.* Metallopeptide Catalysts and Artificial Metalloenzymes Containing Unnatural Amino Acids. *Curr. Opin. Chem. Biol.* **2015**, *25*, 27-35.

- 22) Poor, C. B.; Andorfer, M. C.; Lewis, J. C.* Improving the Stability of the FAD-Dependent Halogenase RebH Using Directed Evolution. *ChemBioChem*. **2014**, *15*, 1286-1289.
- 23) Zhang, C.; Srivastava, P.; Ellis-Guardiola, K.; Lewis, J. C.* Manganese Terpyridine Artificial Metalloenzymes for Benzylic Oxygenation and Olefin Epoxidation. *Tetrahedron*. **2014**, *70*, 4245-4249. (invited contribution)
- 24) Payne, J. T.; Lewis, J. C.* Upgrading Nature's Tools: Expression Enhancement and Preparative Utility of the Halogenase RebH. *Synlett*. **2014**, *25*, 1345-1349.
- 25) Durak, L. J. and Lewis, J. C.* Ir-Promoted, Pd-catalyzed Direct Arylation of Unactivated Arenes. *Organometallics*. **2014**, *33*, 620-623.
- 26) Yang, H.; Srivastava, P.; Zhang, C.; Lewis, J. C.* A General Method for Artificial Metalloenzyme Formation via Strain-Promoted Azide-Alkyne Cycloaddition. *ChemBioChem*. **2014**, *15*, 223-227.
- 27) Lewis, J. C.* Artificial Metalloenzymes and Metallopeptide Catalysts for Organic Synthesis. *ACS Catal*. **2013**, *3*, 2954-2975.
- 28) Durak, L. J. and Lewis, J. C.* Transmetallation of Alkyl and Hydride Ligands From Cp*(PMe₃)IrR¹R² to (cod)Pt/PdR³X. *Organometallics* **2013**, *32*, 3153-3156.
- 29) Payne, J. T.; Andorfer, M. C.; Lewis, J. C.* Regioselective Arene Halogenation Using the FAD-Dependent Halogenase RebH. *Angew. Chem. Int. Ed.* **2013**, *125*, 5379-5382.
- 30) Zhong, Z.; Yang, H.; Zhang, C.; Lewis, J. C.* Synthesis and Catalytic Activity of Amino Acids and Metallopeptides with Catalytically Active Metallocyclic Side Chains. *Organometallics*, **2012**, *31*, 7328-7331.

Mentored Work

- 31) Synthetic Biology Approaches for Organic Synthesis, P. S. Coelho, J. C. Lewis, F. H. Arnold.* in *Comprehensive Organic Synthesis II*. G. Molander and P. Knochel (Eds.) Elsevier. **2014**, 390-420.
- 32) McIntosh, J. A.; Coelho, P. S.; Farwell, C. C.; Wang, Z. J.; Lewis, J. C.; Brown, T. R.; Arnold, F. H.* Enantioselective Intramolecular C-H Amination Catalysed by Engineered Cytochrome P450 Enzymes *in vitro* and *in vivo*. *Angew. Chem. Int. Ed.* **2013**, *52*, 9309-9312.
- 33) Lewis, J. C.; Coelho, P. S.; Arnold, F. H.* Enzymatic Functionalization of Carbon-Hydrogen Bonds. *Chem. Soc. Rev.* **2011**, *40*, 2003-2021.
- 34) Lewis, J. C.; Mantovani, S. M.; Fu, Y.; Snow, C. D.; Komor, R. S.; Wong, C. H.; Arnold, F. H.* Combinatorial Alanine Substitution Enables Rapid Optimization of Cytochrome P450BM3 for Selective Hydroxylation of Large Substrates. *ChemBioChem*. **2010**, *11*, 2502-2505.
- 35) Lewis, J. C.; Bastian, S.; Bennett, C. S.; Fu, Y.; Mitsuda, Y.; Chen, M. M.; Greenberg, W. A.; Wong, C.-H.*; Arnold, F. H. Chemoenzymatic Elaboration of Monosaccharides Using Engineered Cytochrome P450 BM-3 Demethylases. *Proc. Natl. Acad. Sci. U.S.A.* **2009**, *106*, 16550-16555.
- 36) Lewis, J. C.; Arnold, F. H.* Catalysts on Demand: Selective Oxidations by Laboratory-Evolved Cytochrome P450 BM-3. *Chimia* **2009**, *63*, 309-312.
- 37) Lewis, J. C.; Berman, A. M. Bergman, R. G.*; Ellman, J. A.* Rh(I)-Catalyzed Arylation of Heterocycles via C-H Bond Activation: Expanded Scope Through Mechanistic Insight. *J. Am. Chem. Soc.* **2008**, *130*, 2493-2500.
- 38) Berman, A. M.; Lewis, J. C.; Bergman, R. G.; Ellman, J. A. Rh(I)-Catalyzed Direct Arylation of Pyridines and Quinolines. *J. Am. Chem. Soc.* **2008**, *130*, 14926-14927.
- 39) Lewis, J. C.; Bergman, R. G.*; Ellman, J. A.* Direct Functionalization of Nitrogen Heterocycles via Rh-Catalyzed C-H Bond Activation. *Acc. Chem. Res.* **2008**, *41*, 1013-1025.
- 40) Tanuwidjaja, J.; Peltier, H. M.; Lewis, J. C.; Schenkel, L. B.; Ellman, J. A.* One-Pot Microwave-Promoted Synthesis of Nitriles from Aldehydes via *tert*-Butanesulfinyl Imines. *Synthesis* **2007**, 3385-3389.
- 41) Lewis, J. C.; Bergman, R. G.*; Ellman, J. A.* Rh(I)-Catalyzed Alkylation of Quinolines and Pyridines

- via C-H Activation. *J. Am. Chem. Soc.* **2007**, *129*, 5332.
- 42) Lewis, J. C.; Wu, J. Y.; Bergman, R. G.*; Ellman, J. A.* Microwave-Promoted Rhodium-Catalyzed Arylation of Heterocycles via C-H Bond Activation. *Angew. Chem. Int. Ed.* **2006**, *118*, 1619-1621.
 - 43) Zhang, Y.; Lewis, J. C.; Bergman, R. G.; Ellman, J. A.; Oldfield, E.* NMR Shifts, Orbitals, and M...H-X Bonding in d⁸ Square Planar Metal Complexes. *Organometallics* **2006**, *25*, 3515-3519.
 - 44) Wiedemann, S. H.; Lewis, J. C.; Bergman, R. G.*; Ellman, J. A.* Experimental and Computational Studies on the Mechanism of N-Heterocycle C-H Activation by Rh(I). *J. Am. Chem. Soc.* **2006**, *128*, 2452-2462.
 - 45) Lewis, J. C.; Wu, J. Y.; Ellman, J. A.*; Bergman, R. G.* Preagostic R-H Interactions and C-H Bond Functionalization: A Combined Experimental and Theoretical Investigation of Rh(I) Phosphinite Complexes. *Organometallics* **2005**, *24*, 5737-5746.
 - 46) Lewis, J. C.; Wiedemann, S. H.; Bergman, R. G.*; Ellman, J. A.* Arylation of Heterocycles via Rhodium-catalyzed C-H Bond Functionalization. *Org. Lett.* **2004**, *6*, 35-38.
 - 47) Souers, A. J.*; Wodka, D.; Gao, J.; Lewis, J. C.; Vasudevan, A.; Gentles, R.; Brodjian, S.; Dayton, B.; Ogiela, C. A.; Fry, D.; Hernandez, L. E.; Marsh, K. C.; Collins, C. A.; Kym, P. R. Synthesis and evaluation of 2-amino-8-alkoxy quinolines as MCHR1 antagonists. Part 1. *Bioorg. Med. Chem. Lett.* **2004**, *14*, 4873-4877.
 - 48) Souers, A. J.*; Wodka, D.; Gao, J.; Lewis, J. C.; Vasudevan, A.; Brodjian, S.; Dayton, B.; Ogiela, C. A.; Fry, D.; Hernandez, L. E.; Marsh, K. C.; Collins, C. A.; Kym, P. R. Synthesis and evaluation of 2-amino-8-alkoxy quinolines as MCHR1 antagonists. Part 3. *Bioorg. Med. Chem. Lett.* **2004**, *14*, 4883-4886.
 - 49) Ghosh, S.; Chan, J. M. W.; Lea, C. R.; Meints, G. A.; Lewis, J. C.; Tovian, Z. S.; Flessner, R. M.; Loftus, T. C.; Bruchhaus, I.; Kendrick, H.; Croft, S. L.; Kemp, R. G.; Kobayashi, S.; Nozaki, T.; Oldfield, E.* Effects of Bisphosphonates on the Growth of *Entamoeba histolytica* and *Plasmodium Species* in Vitro and in Vivo. *J. Med. Chem.* **2004**, *47*, 175-187.
 - 50) Martin, M. B.; Sanders, J. M.; Kendrick, H.; de Luca-Fradley, K.; Yardley, V.; Lewis, J. C.; Grimley, J. S.; van Brussel, E. M.; Olsen, J. R.; Meints, G. A.; Burzyska, A.; Kararski, P.; Croft, S. L.; Oldfield, E.* A 3D-QSAR/CoMFA Study of the Activity of Bisphosphonates Against *Trypanosoma brucei rhodesiense*: Farnesyl Pyrophosphate Synthase as a Drug Target and Analysis of Drug Toxicity. *J. Med. Chem.* **2002**, *45*, 2904-2914.
 - 51) Martin, M. B.; Grimley, J. S.; Lewis, J. C.; Heath, H. T. III; Bailey, B. N.; Kendrick, H.; Yardley, V.; Caldera, A.; Lira, R.; Urbina, J. A.; Moreno, S. N. J.; Docampo, R.; Croft, S.; Oldfield, E.* Bisphosphonates Inhibit the Growth of *Trypanosoma brucei*, *Trypanosoma cruzi*, *Leishmania donovani*, *Toxoplasma gondii*, and *Plasmodium falciparum*: A Potential Route to Chemotherapy. *J. Med. Chem.* **2001**, *44*, 909-916.

Patents

- 1) Lewis, J. C.; Poor, C.; Andorfer, M.; Payne, J. "Directed Evolution of a Regioselective Halogenase for Increased Thermostability." US Patent 20,170,002,334, **2017**.
- 2) Coelho, P.S.; Brustad, E. M.; Arnold, F. H.; Wang, Z.; Lewis, J. C. In vivo and in vitro olefin cyclopropanation catalyzed by heme enzymes. US Patent 9,493,799, **2016**.
- 3) Arnold, F. H.; Wong, C.-H.; Mitsuda, Y.; Chen, M. M.; Bennett, C. S.; Greenberg, W. A.; Lewis, J. C.; Bastian, S. Methods and Compositions for Preparation of Selectively Protected Carbohydrates. Patent No. US 8,802,401, **2014**.
- 4) Collins, C. A.; Gao, J.; Kym, P. R.; Lewis, J. C.; Souers, A. J.; Vasudevan, A.; Wodka, D. 2-Aminoquinolones as Melanin Concentrating Hormone Receptor Antagonists. Patent No. WO 2003105850, **2003**.

Research Support

Current

- 1) Novartis Institutes for Biomedical Research, Unrestricted Gift, 12/2017.
- 2) Camille and Henry Dreyfus Foundation, Dreyfus Teacher Scholar Award, "Engineering Proteins for Selective Catalysis".
- 3) National Institutes of Health, "Directed Evolution of Halogenases for Small Molecule Functionalization" (1R01GM115665-01, PI), 8/15/2015-6/30/2019.
- 4) National Science Foundation CAREER Award, "CAREER: Catalyzing Polymerization in the Laboratory and Discussion in the Classroom with Artificial Metalloenzymes" (CHE-1351991, PI), 02/15/14-01/31/19.
- 5) National Science Foundation, Center in Stereoselective Catalytic C-H Functionalization (Member since 2011), "Enzymatic C-H Bond Functionalization" (CHE-1205646, S880505, subcontract PI).
- 6) Army Research Office, "Engineering Artificial Metalloenzymes for Selective Catalysis in Complex Media" (GRANT12286657, FOA: W911NF-12-R-0012, PI), (03/2018-02/2021)
- 7) Army Research Office, "MURI: Stimuli-Responsive Control of Protein-Based Molecular Structure" (Co-PI; Milan Mrksich, Northwestern University, PI), ONR Announcement #N00014-17-S-F006, (award announcement made 4/3/2018).

Completed

- 8) Army Research Office, "Reprogramming Proteins and Enzymes for Transition Metal Catalysis" (62247-LS, PI), 9/1/14-8/31/17.
- 9) David and Lucile Packard Foundation Fellowship, "Using Artificial Metalloenzymes to Augment the Biosynthetic Capability of Living Systems" (2011-37154, PI), 10/15/11-10/14/16.
- 10) Chicago Biomedical Consortium Catalyst Award, "Engineering Prokaryotic Translation for Artificial Metalloenzyme Production" (C-041, Co-PI), 09/01/13-08/31/16 (NCE).
- 11) Army Research Office, "An Integrated System for Automating Artificial Metalloenzyme Evolution" (66796-LS-RIP, PI), 8/15/15 (Defense University Research Instrumentation Program).
- 12) Searle Scholars Program, "Artificial Metalloenzymes (ArMs) for Adaptive Transition Metal Catalysis" (11-SSP-202, PI), 07/01/11-06/30/14.
- 13) National Science Foundation, Center in Stereoselective Catalytic C-H Functionalization, "Enzymatic C-H Bond Functionalization" (CHE-1205646, subcontract PI), 06/01/11-12/31/11 and 9/15/12-8/31/15.
- 14) National Institutes of Health, Pathways to Independence Award, "Transition Metal Catalysis and Metabolic Engineering using Artificial Metalloenzymes" (5R00GM087551, PI), 02/01/10-12/31/13.

External Graduate Student Support

- 15) NSF GRFP awarded: Mary C. Andorfer (2012), Joe J. Gair (2014), Brian M. Koronkiewicz (2015)
- 16) NIH NRSA (F32): Dr. Brian F. Fisher (2017)
- 17) NIH CBI (T32): James T. Payne (2011), Ken Ellis-Guardiola (2012), David Upp (2016)
- 18) ACS Division of Organic Chemistry Graduate Fellowship: James T. Payne (2013)

Additional Support

- 19) Merck Sharp and Dohme Corp., Research Agreement (collaborative effort to optimize enzymatic halogenation for gram-scale reactions), 3/7/2016.
- 20) Novartis Biomedical Research Institute, Gift (for exploring the application of C-H functionalization to pharmaceutically relevant substrates), 1/27/2016.

- 21) University of Chicago Research Computing Center, “Research II allocation” (proposals 4056, 5574, 6877, and 9623; total of 2,650,000 SU), 9/2014-present.
- 22) Advanced Photon Source, “Structural Characterization of Artificial Metalloenzymes” (GUP-30542, 41090), 2013-present.
- 23) Department of Energy Joint Genome Institute Community Science Program, “Biorefining using phylogenetically diverse sets of enzymes and artificial metalloenzymes” (proposal 2852, synthesis of genes totaling 400k base pairs)

Teaching

University of Chicago

Chemistry 22200, Organic Chemistry III (Undergraduate), Spring 2011, 2012
 Chemistry 23200, Honors Organic Chemistry III (Undergraduate), Spring 2014, 2015, 2017
 Chemistry 30400, Organometallic Chemistry (Graduate), Winter 2015, Fall 2015, 2017
 Chemistry 32100, Physical Organic Chemistry I (Graduate), Fall 2011, 2012, 2013
 Chemistry 33500, Chemistry of Enzyme Catalysis (Graduate), Winter 2017

University and Departmental Service (excluding candidacy/thesis committees)

University of Chicago

2016-2017 Inorganic and Organic Seminar Series (chair)
 2015-2017 Physical Sciences Division Graduate Recruitment Committee
 -represented Chemistry in division discussions on recruiting strategies
 -reported on best practices in recruiting from the perspective of Chemistry
 2014-2017 Chemistry-Biology Interface Training Grant Steering Committee
 -evaluated recommendations for new CBI trainers
 -organized 2015 CBI mini-symposium
 2013-2017 Physical Sciences Division (PSD) Diversity Committee
 -represented Chemistry in diversity recruiting efforts (e.g. Discover UChicago)
 -reviewed applications for UC PREP and Leadership Alliance Programs
 -established grant supplement strategy to fund Leadership Alliance student research
 2012-2015 Department of Chemistry Graduate Student Recruiting Committee (chair)
 -directed departmental recruiting activities
 -advocated for year round recruiting efforts (URM conference attendance, recruiting material update and distribution, etc.)
 -initiated use of PSD graduate application fee waiver system in Chemistry
 -led effort to update departmental recruiting materials
 2012-2017 Organometallics Supergroup meeting Faculty coordinator
 2012-2014 Department of Chemistry Facilities Committee (member)
 2011-2012 Department of Chemistry Graduate Student Recruiting Committee (member)
 2011-2012 Seminar Committee (member)

Broader Service and Editorial Efforts

- 1) Guest Co-Editor (with Greg Hughes, Merck): *Chemical Reviews* special issue on Biocatalysis in Industry. Hughes, G.; Lewis, J. C. Introduction: Biocatalysis in Industry. *Chem. Rev.* **2018**, *118*, 1-3.
- 2) Board Member: ACS Catalysis Early Career Advisory Board (2017-2018)
- 3) Director: NSF-funded outreach efforts between the Lewis lab and Hernandez Middle School for the Advancement of Science (14 events since 2014; <https://www.indiana.edu/~lewisgrp/outreach/>)
- 4) Member: ACS (2000-present)

Mentees

Graduate Students

Name	Years	Degree	Last Known Position
Landon Durak	2010-2015	Ph.D.	Scientist, Takeda Oncology
James Payne	2010-2015	Ph.D.	Postdoc, Stanford
Hao Yang	2010-2016	Ph.D.	Senior Scientist, Merck Process
Chen Zhang	2010-2015	Ph.D.	Associate Scientist, Provivi, Inc.
Ken Ellis-Guardiola	2011-2017	Ph.D.	Postdoc, UCLA
Mary Andorfer	2011-2017	Ph.D.	Postdoc, MIT
Yifan Gu	2011-	Ph.D.	Research Investigator, Incyte Corporation
Joe Gair	2012-	n/a	Intern, Vertex; Postdoc, Harvard (starting 2019)
Andrew Jeffries	2013-2014	M.S.	Graduate Student, Texas A&M University
Edward Prybolsky	2013-2014	M.S.	Biopharma Sales Specialist, Sartorius
Brian Koronkiewicz	2014-2015	M.S.	Graduate Student, Yale University
Abraham Ng	2014-2015	M.S.	
Alan Swartz	2014-2017	M.S.	
David Upp	2015-	n/a	IU (current)
Paul Butkovich	2015-2017	M.S.	Northwestern Univ. Secondary Ed. Program
Natalie Chan	2015-	n/a	IU (current)
Harrison Snodgrass	2016-	n/a	IU (current)
Atreyi Bhattacharya	2016-	n/a	IU (current)
Christian Gomez	2016-	n/a	IU (current)

Postdoctoral Researchers

Name	Years	Previous Position	Last Known Position
Zhihui Zhang	2010-2012	postdoc, Univ. Pennsylvania	Scientist, Sigma Aldrich
Poonam Srivastava	2011-2014	postdoc, Univ. Minnesota	Research Scientist, Modern Meadow
Cathy Poor	2012-2013	Ph. D., UC	Senior Scientist, Cargill
Lee Solomon	2013-2014	Ph. D., Univ. Pennsylvania	postdoc, Argonne National Labs
Duo-Sheng Wang	2013-2014	postdoc, Univ. Münster	postdoc, Boston College
Hyun June Park	2014-2016	Ph. D., Seoul National Univ.	Senior Researcher, CJ CheilJedang (South Korea)
Ketaki Belsare	2015-2017	Ph.D., RWTH Aachen	postdoc, DeGrado Group, UCSF
Brian Fisher	2016-	Ph.D., Univ. Wisconsin, Madison	IU (current)
Krysten Jones	2017-	Ph.D., Univ. California, Irvine	UC (current, with Dickinson)
Rui Huang	2018-	Ph.D., Virginia Tech.	IU (current)
Dibyendu Mondal	2018-	Ph.D., Univ. Iowa	IU (current)

Dipankar Sahoo	2018-	Ph.D., IIT Kanpur; postdoc KAIST	IU (current)
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Undergraduate and High School (HS) Researchers

Name	Years	Last Known Position
Liwei Chen	2011-2013	graduate school, chemistry, Harvard University
Joe Bartolacci	2011-2014	medical school, Temple University
Andy Nian	2011-2012	medical school, Northwestern University
Jeff Montgomery	2011-2014	graduate school, chemistry, University of Chicago
Sarah Iqbal	2011-2012	medical school, USF Morsani College of Medicine
Kavia Khosla (UC Lab HS)	summer 2011	undergraduate, Brown University
Andrew Ng	2012-2015	graduate school, chemistry, University of Chicago
Kyle Kunze	2013-2015	medical school, Rush Medical College
Michael Roy	2013-2016	graduate school, chemistry, UW Madison
Jacqueto Zephyr (UC PREP program)	2014-2015	graduate student, chemistry, University of Massachusetts Medical School
Dajashinair Howard (Leadership Alliance)	summer 2014	
Julia Chael (Munster HS)	summer 2014 and 2016	undergraduate, University of Chicago
Marissa Parker	2015-2016	graduate student, University of Washington
Jaylie Vergara-Coll	2015-2017	undergraduate, University of Chicago
Ryan Becker	2015-2017	postbac research assistant, NIH
Yehao Qiu	2015-2018	graduate student, UC Berkeley
Frida Cardenas	2016-2017	undergraduate, University of Chicago
Anna Girlich	2016-2017	undergraduate, University of Chicago
Cesar Saucedo (Leadership Alliance)	summer 2017	graduate student, UW Madison

Invited Talks

Scheduled

ACS National Meeting (Green Chemistry Innovations as a Useful Tool in the Pharmaceutical Industry), Boston, MA, 8/19, 2018

ACS National Meeting (2018 ACS Catalysis Lectureship for the Advancement of Catalytic Science: Symposium in honor of Nicholas Turner), Boston, MA, 8/19, 2018

International Symposium on C-H Activation, Yokohama, Kanagawa, Japan, 8/30-9/2, 2018

2018

University of Arizona, 1/25

Purdue University, 1/18

Indiana University, 1/4

2017

University of Iowa, 12/4

Purdue University, 10/31

Temple University, 9/18

Indiana University, 9/8

Colorado St. University, 8/28
21st Annual Green Chemistry and Engineering Conference, 6/13
NC State University, 4/21
Northwestern University (guest lecture for Advances in Biotechnology course), 4/19
Harvard University, 3/9
Bioinorganic Chemistry GRS discussion leader (Metals in Biology GRC), 1/26-29

2016

University of Minnesota, 11/17
Scripps Research Institute, 11/4
Scripps Institute of Oceanography, 11/3
Tufts University, 10/18
University of Wisconsin, 10/11
University of Rochester, 10/7
University of Michigan, 9/20
Aachen-Osaka Catalysis Symposium (Aachen, Germany), 8/5
Organic Reactions and Processes GRC, 7/17-7/21
Biocatalysis GRC, 7/10-7/15
Abbvie, 6/17
Princeton University, 5/3
University of Pennsylvania, 5/2
Stanford University, 4/13
Gilead Sciences, 4/12
Loyola University Chicago, 3/24
UC Berkeley, 2/9
UCSF, 2/8
Emory University, 1/27
UC Irvine, 1/14
Caltech, 1/13

2015

Pacificchem (Biocatalysis and Cooperative Catalysis sessions), Honolulu, HI, 12/18 and 12/19
Yale University, 10/29
University of Illinois, Urbana/Champaign, 10/26
ACS National Meeting (The Role of the Outer Coordination Sphere on the Activity of Enzymes and Molecular Catalysts Symposium), Boston, MA, 8/16
Chicago Organic Symposium, 7/11
Canadian Chemistry Conference (C-H Functionalization Symposium), 6/15
Hope College, 4/17
Calvin College, 4/16
ACS National Meeting (ACS Chemical Biology Lectureship Symposium), Denver, CO, 3/24
Metals in Biology GRC, Stiefel Lecture, 1/28

2014

Novartis Institutes for Biomedical Research, Cambridge, MA, 10/17
Iowa St. University, 10/10
University of Iowa, 10/9
Merck Research Laboratories, Rahway, NJ, 8/21
Telluride Science Research Conference (The Future of Asymmetric Catalysis), 6/24
247th ACS National Meeting (Advances in C-H Functionalization Symposium), 3/7
Knox College, 1/30

2011-2013

University of Maryland, Baltimore County, 2/27, 2013

Macalester College, 11/14, 2012

DOE CNM Users Meeting, Argonne National Laboratory, 5/9, 2012

NIH-NIGMS Mentoring Workshop, 5/15, 2011