

# Marc G Chevrette

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## 🎓 Education

### University of Wisconsin-Madison

Doctor of Philosophy (PhD) – Genetics

Madison, WI

04/2019

Master of Science (MSc) – Genetics

10/2017

- **Advisor:** Cameron R Currie, PhD

- **Research Focus:** Evolution of Microbial Metabolic Diversity, Chemically-mediated Microbiome Interactions, & Antibiotic Discovery

- **Thesis:** Evolution of Antibiotic Biosynthesis in Actinobacteria: A Framework for Drug Discovery

### Institut Pasteur

Annecy, France

Certificate – International Course on Antibiotics and Resistance

11/2017

### Harvard University Extension

Cambridge, MA

Master of Liberal Arts (ALM) – Biotechnology (Bioengineering & Nanotechnology)

03/2015

- **Advisor:** Tomás Maira-Litrán, PharmD, PhD

- **Research Focus:** Genome-wide Experimental & Computational Characterization of *In Vivo* Fitness Factors in Bacterial Infections

- **Thesis:** Transposon-Directed Insertion Site Sequencing for Determination of Fitness Factors in Pulmonary Infection by *A. baumannii*.

### Rensselaer Polytechnic Institute

Troy, NY

Bachelor of Science (BSc) – Molecular Biology & Bioinformatics

12/2010

## 🏢 Experience

### Wisconsin Institute for Discovery & University of Wisconsin-Madison

Madison, WI

Postdoctoral Associate - Department of Plant Pathology - Advisor: Jo Handelsman, PhD

06/2019–present

### WiSolve Consulting

Madison, WI

Co-Founder & Senior Consultant

03/2016–present

Director of Technology

01/2018–09/2019

### University of Wisconsin-Madison

Madison, WI

Postdoctoral Associate - Department of Bacteriology - Advisor: Cameron R Currie, PhD

04/2019–05/2019

PhD Candidate - Department of Genetics - Advisor: Cameron R Currie, PhD

08/2015–04/2019

### Harvard & Georgetown Universities

Cambridge, MA

Lead Computational Biologist - Departments of Biology and Planetary Science - Advisor: Sarah S Johnson, PhD

10/2013–10/2015

### Warp Drive Bio

Cambridge, MA

Head of Experimental Genomics

04/2013–08/2015

### Brigham & Women's Hospital

Boston, MA

Research Assistant, Microbiology & Computational Biology - Advisor: Tomás Maira-Litrán, PharmD, PhD

03/2013–08/2015

### Broad Institute of MIT & Harvard

Cambridge, MA

Research Associate II, Molecular Biology Process Development

01/2011–03/2013

### Rensselaer Polytechnic Institute

Troy, NY

Research Associate, Molecular Genetics - Advisor: Eric Rutledge, PhD

05/2010–12/2010

### BCR Biotech

Jamestown, RI

Research Assistant, Microbiology

09/2009–12/2009

## 📄 Publications, Talks, & Abstracts

### Peer-reviewed Publications

\*contributed equally

**MG Chevrette**, K Gutiérrez-García, N Selem-Mojica, C Aguilar-Martínez, A Yañez-Olvera, HE Ramos-Aboites, PA Hoskisson,

2019 F Barona-Gómez. "Evolutionary dynamics of natural product biosynthesis in bacteria." *Natural Product Reports*.

[10.1039/c9np00048h](#)

2019 EJ Caldera\*, **MG Chevrette\***, BR McDonald, CR Currie. "Local adaptation of bacterial symbionts within a geographic mosaic of antibiotic coevolution." *Applied & Environmental Microbiology*. [10.1128/AEM.01580-19](#)

- 2019 **MG Chevette**, C Carlos-Shanley, KB Louie, BP Bowen, TR Northen, CR Currie. "Taxonomic and metabolic incongruence in the ancient genus *Streptomyces*." *Frontiers in Microbiology*. [10.3389/fmicb.2019.02170](https://doi.org/10.3389/fmicb.2019.02170)
- 2019 K Throckmorton\*, V Vinnik\*, R Chowdhury, TB Cook, **MG Chevette**, CD Maranas, BF Pflieger, MG Thomas. "Directed evolution of an adenylation domain specificity code." *ACS Chemical Biology*. [10.1021/acscchembio.9b00532](https://doi.org/10.1021/acscchembio.9b00532)
- 2019 J Yan, **MG Chevette**, D Braun, MK Harper, CR Currie, TS Bugni. "Madurastatin D1 and D2, oxazoline containing siderophores isolated from an *Actinomadura* sp." *Organic Letters*. [10.1021/acs.orglett.9b02159](https://doi.org/10.1021/acs.orglett.9b02159)
- 2019 **MG Chevette**\*, JR Bratburd\*, CR Currie, RM Stubbendieck. "Experimental microbiomes: models not to scale." *mSystems*. [10.1128/mSystems.00175-19](https://doi.org/10.1128/mSystems.00175-19)
- 2019 **MG Chevette**, CM Carlson, HE Ortega, C Thomas, GE Ananiev, KJ Barns, AJ Book, J Cagnazzo, C Carlos, W Flanigan, KJ Grubbs, HA Horn, FM Hoffmann, JL Klassen, JJ Knack, GR Lewin, BR McDonald, L Muller, WGP Melo, AA Pinto-Tomás, A Schmitz, E Wendt-Pienkowski, S Wildman, M Zhao, F Zhang, TS Bugni, DR Andes, MT Pupo, CR Currie. "The antimicrobial potential of *Streptomyces* from insect microbiomes." *Nature Communications*. [10.1038/s41467-019-08438-0](https://doi.org/10.1038/s41467-019-08438-0)  
[Highlighted by NPR]
- 2019 RM Stubbendieck, DS May, **MG Chevette**, MI Temkin, E Wendt-Pienkowski, J Cagnazzo, CM Carlson, JE Gern, CR Currie. "Competition among nasal bacteria suggests a role for siderophore-mediated interactions in shaping the human nasal microbiota." *Applied & Environmental Microbiology*. [10.1128/AEM.02406-18](https://doi.org/10.1128/AEM.02406-18)
- 2019 N Liu, \* H Li, \* **MG Chevette**, L Zhang, L Cao, H Zhou, X Zhou, Z Zhou, PB Pope, CR Currie, Y Huang, Q Wang. "Functional metagenomics reveals polysaccharide-degrading gene clusters and cellobiose utilization pathways in gut microbiota of a wood-feeding termite." *ISME Journal*. [10.1038/s41396-018-0255-1](https://doi.org/10.1038/s41396-018-0255-1)
- 2019 **MG Chevette**, CR Currie. "Emerging evolutionary paradigms in antibiotic discovery." *Journal of Industrial Microbiology & Biotechnology*. [10.1007/s10295-018-2085-6](https://doi.org/10.1007/s10295-018-2085-6)
- 2017 N Adnani, **MG Chevette**, SN Adibhatla, F Zhang, Q Yu, D Braun, J Nelson, SW Simpkins, BR McDonald, CL Myers, J Piotrowski, C Thompson, CR Currie, L Li, SR Rajski, TS Bugni. "Co-culture of marine invertebrate-associated bacteria and interdisciplinary technologies enable biosynthesis and discovery of a new antibiotic, keyicin." *ACS Chemical Biology*. [10.1021/acscchembio.7b00688](https://doi.org/10.1021/acscchembio.7b00688)  
[Highlighted by Nature]
- 2017 AF Sanchez-Larrayoz, NM Elshamy, **MG Chevette**, Y Fu, P Giunta, RG Spallanzani, K Ravi, GB Pier, S Lory, T Maira-Litrán. "Complexity of complement-resistance factors expressed by *Acinetobacter baumannii* needed for survival in human serum." *Journal of Immunology*. [10.4049/jimmunol.1700877](https://doi.org/10.4049/jimmunol.1700877)
- 2017 **MG Chevette**, F Aicheler, O Kohlbacher, CR Currie, MH Medema. "SANDPUMA: Ensemble predictions of nonribosomal peptide chemistry reveals biosynthetic diversity across Actinobacteria." *Bioinformatics*. [10.1093/bioinformatics/btx400](https://doi.org/10.1093/bioinformatics/btx400)
- 2017 IJ Miller, **MG Chevette**, JC Kwan. (2017). "Interpreting microbial biosynthesis in the genomic age: Biological and practical considerations." *Marine Drugs*. [10.3390/md15060165](https://doi.org/10.3390/md15060165)  
[Cover Image for Issue 6, Volume 15 in June 2017]
- 2017 K Blin, T Wolf, **MG Chevette**, X Lu, CJ Schwalen, SA Kautsar, HG Suarez Duran, ELC de los Santos, HUK Kim, M Nave, JS Dickschat, DA Mitchell, E Shelest, R Breitling, E Takano, SY Lee, T Weber, MH Medema. "antiSMASH 4.0 - Improvements in chemistry prediction and gene cluster boundary identification." *Nucleic Acids Research*. [10.1093/nar/gkx319](https://doi.org/10.1093/nar/gkx319)
- 2016 GR Lewin, C Carlos, **MG Chevette**, HA Horn, BR McDonald, RJ Stankey, BG Fox, CR Currie. "Ecology and evolution of Actinobacteria and their bioenergy applications." *Annual Review of Microbiology*. [10.1146/annurev-micro-102215-095748](https://doi.org/10.1146/annurev-micro-102215-095748)
- 2015 SS Johnson, **MG Chevette**, BL Ehlmann, KC Benison. "Insights from the metagenome of an acid salt lake: The role of biology in an extreme depositional environment." *PLOS ONE*. [10.1371/journal.pone.0122869](https://doi.org/10.1371/journal.pone.0122869)

## Book Chapters

- 2019 **MG Chevette**, PA Hoskisson, F Barona-Gómez. "Enzyme evolution in secondary metabolism." *Comprehensive Natural Products III: Chemistry and Biology*. [10.1016/B978-0-12-409547-2.14712-2](https://doi.org/10.1016/B978-0-12-409547-2.14712-2)

## Preprints, Submitted, and Under Review

- A EJN Helfrich\*, R Ueoka\*, **MG Chevette**\*, F Hemmerling, X Lu, S Leopold-Messner, AY Burch, SE Lindow, J Handelsman, J Piel, MH Medema. "Evolution of combinatorial diversity in *trans*-acyltransferase polyketide synthase assembly lines across bacteria." *Submitted*.
- B F Zhang, TP Wyche, Y Zhu, DR Braun, J Yan, Y Ge, IA Guzei, **MG Chevette**, CR Currie, MG Thomas, SR Rajski, TS Bugni. "MS-derived isotopic fine structure reveals forazoline A as a thioketone-containing marine-derived natural product." *Submitted*.
- C BR McDonald, **MG Chevette**, JL Klassen, HA Horn, EJ Caldera, E Wendt-Pienkowski, MJ Cafaro, AC Ruzzini, EB Van Arnam, GM Weinstock, NM Gerardo, M Poulsen, G Suen, J Clardy, CR Currie. "Biogeography and microscale diversity shape the biosynthetic potential of fungus-growing ant-associated *Pseudonocardia*." *Submitted*. [Preprint available](#)

- D **MG Chevette**, J Handelsman. "From metagenomes to molecules: Innovations in functional metagenomics unlock hidden chemistry in the human microbiome." *Submitted*.

## Invited Talks

- 2019 "The Earth's bounty: antibiotic discovery from soil." Gairdner Symposium, McMaster University. Hamilton, ON. Nov 15, 2019.
- 2019 "Drugs from bugs of bugs: a novel source for antimicrobials." American Society for Microbiology Microbe. San Francisco, CA. Jun 21, 2019.
- 2019 "Mining microbiomes for antimicrobials." Synthetic Biology for Natural Products Conference. Puerto Vallarta, Mexico. Jun 02, 2019.
- 2018 "Host-associated microbes as a source of new antimicrobials." Natural Product Discovery & Development in the Genomic Era, Society for Industrial Microbiology & Biotechnology. Clearwater Beach, FL. Jan 22, 2018.
- 2017 "Natural natural products: Leveraging chemical ecology in the search for new drugs." Evolution Seminar Series, JF Crow Institute for the Study of Evolution. Madison, WI. Oct 26, 2017.
- 2017 "Computational insights into the diverse nonribosomal peptide chemistry of Actinobacteria." Synthetic Biology for Natural Products Conference. Cancun, Mexico. Mar 6, 2017.  
[Highlighted in *ACS Synthetic Biology*]
- 2016 "Darwinian drug discovery: Chemical ecology at fine and coarse evolutionary scales." International Chemical Biology Society Annual Conference. Madison, WI. Oct 24, 2016.  
[Highlighted in *ACS Chemical Biology*]

## Patents

- 2017 DC Gray, E Li, BR Bowman, GL Verdine, K Robison, **MG Chevette**, D Udvary, PS Wang, A Li, JP Morgenstern. Compositions and methods for the production of compounds. Patent Application PCT/US2017/058800, filed Oct 27, 2017.  
Publication Number [WO/2018/081590](#)

## Publications, Editorial Review Only

- 2018 **MG Chevette**. "Natural products reawakened: New trends in discovery and development." *SIMB News Magazine, Society for Industrial Microbiology and Biotechnology*.
- 2018 DR Braun, **MG Chevette**, D Acharya, CR Currie, SR Rajski, TS Bugni. "Draft genome of *Micromonospora* sp. WMMA1996, a marine sponge-associated bacterium." *Genome Announcements*. [10.1128/genomeA.00077-18](#)
- 2018 DR Braun, **MG Chevette**, D Acharya, CR Currie, SR Rajski, K Ritchie, TS Bugni. "Complete genome of *Dietzia* sp. WMMA184, a marine coral-associated bacterium." *Genome Announcements*. [10.1128/genomeA.01582-17](#)
- 2017 N Adnani, DR Braun, BR McDonald, **MG Chevette**, CR Currie, TS Bugni. "Draft genome of *Micromonospora* sp. WMMA-235, a marine ascidian-associated bacterium." *Genome Announcements*. [10.1128/genomeA.01369-16](#)
- 2016 N Adnani, DR Braun, BR McDonald, **MG Chevette**, CR Currie, TS Bugni. "Complete genome sequence of *Rhodococcus* sp. strain WMMA185, a marine sponge-associated bacterium." *Genome Announcements*. [10.1128/genomeA.01406-16](#)

## Internal Seminars

- 2018 "Drugs & bugs of bugs: Insect microbiomes as a source of new antibiotics." Genetics Colloquium, UW-Madison. Aug 8, 2018.
- 2017 "Host-microbe interactions as a source of new antimicrobials." Highlights at the Chemistry-Biology Interface Colloquium, UW-Madison. Dec 12, 2017.
- 2017 "Genome-based natural product discovery, modular biosynthesis, & applications." Highlights at the Chemistry-Biology Interface Colloquium, UW-Madison. Feb 2, 2017.
- 2016 "Genome assembly: Tools & analysis." Computational Biology, Ecology, & Evolution (ComBEE), UW-Madison. Apr 27, 2016.

## Abstracts

- 2019 **MG Chevette**, D Acharya, A Hurley, M Beebe, M Garavito, S Miller, J Handelsman. "Tiny Earth Chemistry Hub: From soil to antibiotics." Presented at: Tiny Earth Symposium; Madison, WI; Jul 10, 2019.
- 2019 **K Throckmorton**, V Vinnik, TB Cook, R Chowdhury, **MG Chevette**, CD Maranas, BF Pfleger, MG Thomas. "Directed evolution of an adenylation domain specificity code." Presented at: Synthetic Biology for Natural Products Conference; Puerto Vallarta, Mexico; Jun 2, 2019.
- 2019 **CL Hansen**, **MG Chevette**, M Selvaraj, A Vasquez Echeverri, D Maldonado Perez, C Eno, J Hernandez-Ortiz, F Pelegri. "Helical supramolecular assembly of a germline specific membraneless organelle." Presented at: Phase Separation in Biology & Disease; New York, NY; Feb 20, 2019.
- 2018 **MG Chevette**, CM Carlson, H Ortega, F Zhang, KJ Grubbs, MT Pupo, TS Bugni, DR Andes, CR Currie. "Insect-associated *Streptomyces* are a rich source of new antimicrobials." Presented at: Beneficial Microbes; Madison, WI; Jul 9, 2018.

- 2018 HA Horn, E Gemperline, K Delaney, **MG Chevette**, L Li, CR Currie. "Host specificity influences chemical response in *in vivo* symbiotic interactions." Presented at: Beneficial Microbes; Madison, WI; Jul 9, 2018.
- 2018 BR McDonald, **MG Chevette**, J Klassen, HA Horn, EJ Caldera, E Wendt-Pienkowski, MJ Cafaro, AC Ruzzini, EB Van Arnam, GM Weinstock, NM Gerardo, MG Poulsen, G Suen, J Clardy, CR Currie. "Biogeography and microscale diversity shapes the biosynthetic potential of fungus-growing ant associated *Pseudonocardia*." Presented at: Beneficial Microbes; Madison, WI; Jul 9, 2018.
- 2018 **MG Chevette**, CM Carlson, H Ortega, F Zhang, KJ Grubbs, MT Pupo, TS Bugni, DR Andes, CR Currie. "Insect-associated *Streptomyces* are a rich source of new antimicrobials with activity against resistant human pathogens." Presented at: Perlman Antibiotic Discovery and Development Symposium; Madison, WI; Apr 27, 2018.
- 2018 DD Acharya, IJ Miller, Y Cui, DR Braun, **MG Chevette**, M Berres, L Li, J Kwan, CR Currie, TS Bugni. "Chemical cross-talk in bacterial co-cultures affects differential gene expression and antibiotic production." Presented at: Perlman Antibiotic Discovery and Development Symposium; Madison, WI; Apr 27, 2018.
- 2017 R Zarnowski, **MG Chevette**, E Dominguez, DR Andes. "Modeling high-throughput proteomics into predictive metabolomics - A novel tool for studies of medical device-associated *Candida spp.* biofilm infections." Presented at: Metabolomics Circle 2017 - Bioanalytical & Omics Science, Wrocław, Poland; Nov 18, 2017.
- 2017 D Acharya, N Adnani, D Braun, IJ Miller, Q Yu, **MG Chevette**, M Berres, CR Currie, L Li, JC Kwan, TS Bugni. "Chemical cross-talk in bacterial co-cultures affects differential gene expression and antibiotic production." Presented at: American Society for Pharmacognosy Annual Meeting, Portland, OR; Jul 30, 2017.
- 2017 AF Sanchez-Larrayoz, NM Elhosseiny, **MG Chevette**, Y Fu, P Giunta, G Spallanzani, GB Pier, S Lory, T Maira-Litrán. "The membrane lipid asymmetry transport system plays a key role in protecting *Acinetobacter baumannii* against killing by human complement via the alternative pathway." Presented at: American Society for Microbiology Microbe, New Orleans, LA; Jun 2, 2017.
- 2017 **MG Chevette**, CM Carlson, C Thomas, TS Bugni, DR Andes, CR Currie. "Evolutionary trends in secondary metabolism reveal insect-associated *Streptomyces* as an underexploited antibiotic resource." Presented at: Perlman Antibiotic Discovery and Development Symposium; Madison, WI; Mar 31, 2017.
- 2017 EJ Caldera, **MG Chevette**, CR Currie. "The geographic mosaic of antibiotic coevolution in a bacterial symbiont of the fungus-farming ant *Apterostigma dentigerum*." Presented at: Perlman Antibiotic Discovery and Development Symposium; Madison, WI; Mar 31, 2017.
- 2017 J Bratburd, C Keller, E Vivas, **MG Chevette**, F Rey, L Li, CR Currie. "The human gut microbiota metabolomic response to infection." Presented at: Perlman Antibiotic Discovery and Development Symposium; Madison, WI; Mar 31, 2017.
- 2016 **MG Chevette**, CR Currie, MH Medema. "prediCAT: An accurate predictive method for substrate specificity of nonribosomal peptide synthetase adenylation domains." Presented at: Kenneth B. Raper Symposium on Microbial Research; Madison, WI; Sep 2, 2016.
- 2016 J Bratburd, BR McDonald, **MG Chevette**, JL Klassen, HA Horn, CR Currie. "Comparative genomics of fungus-growing ant-associated *Pseudonocardia*." Presented at: Kenneth B. Raper Symposium on Microbial Research; Madison, WI; Sep 2, 2016.
- 2016 HA Horn, E Gemperline, **MG Chevette**, BR McDonald, J Bratburd, E Mevers, J Clardy, L Li, CR Currie. "Mass spectrometry imaging reveals differential chemical response to pathogens in an ancient ant-microbe symbiosis." Presented at: ISME International Symposium on Microbial Ecology; Montreal, QC, Canada; Aug 21-26, 2016.
- 2016 **MG Chevette**, CR Currie, MH Medema. "Computational predictions of substrate specificity in nonribosomal peptide synthetases through comparative adenylation domain trees." Presented at: American Society for Microbiology Microbe; Boston, MA; Jun 16-20, 2016.
- 2016 SS Johnson, ML Soni, DJ Collins, KC Benison, MR Mormile, **MG Chevette**, BL Ehlmann. "Biosignatures in mars analog acid salt lakes." Presented at: USRA Biosignature, Preservation and Detection in Mars Analog Environments; Lake Tahoe, Nevada; May 16-19, 2016.
- 2016 **MG Chevette**, C Carlson, C Thomas, TS Bugni, CR Currie. "Multifaceted antibiotic profiling across Actinomycete chemical ecology." Presented at: Perlman Antibiotic Discovery and Development Symposium; Madison, WI; Apr 29, 2016.
- 2016 N Adnani, S Adibhatla, E Vazquez-Rivera, GA Ellis, D Braun, **MG Chevette**, BR McDonald, C Thompson, JS Piotrowski, Q Yu, L Li, CR Currie, TS Bugni. "Driving production of novel natural products through marine microbial interspecies interactions." Presented at: Gordon Marine Natural Products; Ventura, CA; Mar 6-11, 2016.
- 2015 **MG Chevette**, DW Udway, CR Currie, SS Johnson. "Functional classification and secondary metabolism of an extreme metagenome." Presented at: Kenneth B. Raper Symposium on Microbial Research; Madison, WI; Sep 1, 2015.
- 2015 **MG Chevette**, BL Ehlmann, KC Benison, SS Johnson. "Microbial diversity and biosynthetic potential of an extreme sediment metagenome." Presented at: Gordon Applied and Environmental Microbiology; South Hadley, MA; Jul 12-17, 2015.
- 2015 **MG Chevette**, M Vinacur, T Maira-Litrán. "Transposon-directed insertion site sequencing reveals *in vivo* fitness factors in *Acinetobacter baumannii* lung infections." Presented at: Boston Bacterial Meeting; Cambridge, MA; Jun 18-19, 2015.

- 2014 DW Udvary, K Robison, **MG Chevette**, GL Verdine. "Lessons from long read assembly of 100+ Actinomycete genomes." Presented at: Gordon Marine Natural Products; Ventura, CA; Mar 2-7, 2014.
- 2014 K Robison, DW Udvary, **MG Chevette**, GL Verdine. "Long read assembly of >100 Actinomycete genomes." Presented at: Advances in Genome Biology & Technology; Marco Island, FL; Feb 12-15, 2014.
- 2013 S Young, S Steelman, R Daza, **MG Chevette**, R Lintner, S Gnerre, A Berlin, B Walker, C Nusbaum, R Nicol. "Generation of high-quality draft assemblies with a single sequencing library." Presented at: Sequencing, Finishing, Analysis in the Future; Santa Fe, NM; May 29-31, 2013.
- 2012 S Steelman, R Daza, **MG Chevette**, P Kompella, P Trang, T Surabian, R Lintner, CZ Zhang, J Jung, M Meyerson, C Nusbaum, R Nicol. "Automated low input mate-pair library construction for Illumina sequencing." Presented at: Advances in Genome Biology & Technology; Marco Island, FL; Feb 15-18, 2012.
- 2011 S Steelman, R Daza, **MG Chevette**, P Kompella, P Trang, T Surabian, R Lintner, R Nicol. "Microbial mate-pair library construction for de novo detection of structural rearrangements." Presented at: Broad Institute Symposium; Boston, MA; Nov 7-8, 2011.

## Honors & Awards

<b>Wisconsin Scientific Teaching Design Institute Fellow</b> UW-Madison	2019–present
<b>Schlingen Award for Outstanding Scholarship in Doctoral Studies in Genetics</b> UW-Madison	2019
<b>Ira L Baldwin Distinguished Predoc. Fellowship for Excellence in Research</b> Bacteriology, UW-Madison	2018–2019
<b>Chemistry-Biology Interface Predoctoral Fellowship</b> National Institutes of Health, NIGMS	2016–2018
<b>Passed with Distinction</b> Preliminary Examination A - Genetics, UW-Madison	07/2017
<b>Issue Cover</b> Marine Drugs: Connecting Marine Microbial Natural Products to Biosynthetic Pathways	06/2017
<b>Bacteriology Departmental Travel Grant</b> University of Wisconsin-Madison	2016
<b>Vilas Travel Grant</b> University of Wisconsin-Madison	2016
<b>Dean's Academic Achievement Award</b> Harvard University Extension	03/2015
<b>Finalist, Core Value Award: "Courageous: Uncompromising Science"</b> Warp Drive Bio	2014
<b>Finalist, Core Value Award: "Unbounded: Reimagining the Possible"</b> Warp Drive Bio	2014
<b>Featured Scientific Researcher – "Who is Broad?"</b> Broad Institute of MIT & Harvard	01/2012
<b>Rensselaer Alumni Scholarship</b> Rensselaer Polytechnic Institute	2004–2008
<b>Sal H. Alfiero Scholarship</b> Rensselaer Polytechnic Institute	2004–2008
<b>Rhode Island State Scholarship</b> Rensselaer Polytechnic Institute	2004–2008

## Service & Outreach

<b>Ad hoc Reviewer</b> Molecular Biology & Evolution, Critical Reviews in Microbiology, World Journal of Microbiology & Biotechnology, Microbial Genetics, Frontiers in Microbiology, FEMS Microbiology Letters, Microbial Cell Factories	
<b>On-air Guest</b> Natural Procast, Joint Genome Institute	02/2020
<b>Mentor</b> Tiny Earth Summer Program, Tiny Earth Partner Instructor Training	2019–present
<b>On-air Guest</b> Perpetual Notion Machine, WORT FM, <a href="#">Link</a>	02/2019
<b>Evolution Coordinating Committee</b> JF Crow Institute for the Study of Evolution, UW-Madison	01/2017–present
<b>Mentor</b> Google Summer of Code – antiSMASH, Open Bioinformatics Foundation	03/2016–09/2017
<b>Co-chair</b> Computational Biology, Ecology, & Evolution (ComBEE), UW-Madison	01/2016–08/2018
<b>Co-organizer</b> Discovery Niche, Wisconsin Institutes for Discovery	10/2015–11/2015
<b>Volunteer</b> Wisconsin Science Festival	10/2015
<b>Open Genomics Adviser</b> Revive & Restore, Long Now Foundation	04/2014–10/2015
<b>Environmental, Health, and Safety Representative</b> Broad Institute of MIT & Harvard	01/2011–03/2013

## Teaching Experience

<b>Wisconsin Scientific Teaching Design Institute Fellow</b> Course Development	2019–present
<b>Tiny Earth: Genomics &amp; Chemistry of Soil Bacteria, UW-Madison</b> Lead Lecturer, Course Development	Su 2019
<b>Microbiology 450: Diversity, Ecology, &amp; Evolution of Microorganisms, UW-Madison</b> Lecturer	Fa 2018
<b>Programming in R, ComBEE, UW-Madison</b> Lead Lecturer, Course Development	Sp 2016
<b>Genetics 468: General Genetics II, UW-Madison</b> Lecturer, TA	Sp 2016
<b>Microbiology 450: Diversity, Ecology, &amp; Evolution of Microorganisms, UW-Madison</b> Lecturer, TA	Fa 2016

## Professional Societies & Groups ---

International Chemical Biology Society	2016–present
Natural Products Discovery and Bioengineering Network	2016–present
American Society for Microbiology	2015–present
Computational Biology, Ecology, & Evolution (ComBEE) – UW-Madison	2015–present
JF Crow Institute for the Study of Evolution	2015–present
Society for Industrial Microbiology and Biotechnology	2014–present
Laboratory Robotics Interest Group – New England Chapter	2011–2015