

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

Genomics Lead - Tiny Earth Chemistry Hub

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

*Co-first author, contributed equally

22 MA Schorn*, S Verhoeven*, et al. [104 authors including **MG Chevrette**]. "Standardized links between genomic and metabolomic data facilitate integrative mining." *In press. Nature Chemical Biology*.

- F Zhang, M Zhao, DR Braun, A Audhya, SS Ericksen, JS Piotrowski, J Nelson, J Peng, GE Ananiev, S Chanana, K Barns, J Fossen, **MG Chevette**, IA Guzei, C Zhao, L Guo, W Tang, CR Currie, SR Rajske, DR Andes, TS Bugni. "A marine microbiome antifungal targets urgent-threat drug-resistant fungi." 2020. *Science*. [10.1126/science.abd6919](https://doi.org/10.1126/science.abd6919) [Highlighted by Science]
- Q Wu, K Throckmorton, M Maity, **MG Chevette**, DR Braun, SR Rajske, CR Currie, MG Thomas, TS Bugni. "Bacillibactins E and F from a marine sponge-associated *Bacillus* sp." 2020. *Journal of Natural Products*. [10.1021/acs.jnatprod.0c01170](https://doi.org/10.1021/acs.jnatprod.0c01170)
- 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." *Accepted with minor revisions, Nature Communications*.
- F Zhang, TP Wyche, Y Zhu, DR Braun, J Yan, Y Ge, IA Guzei, **MG Chevette**, CR Currie, MG Thomas, SR Rajske, TS Bugni. "MS-derived isotopic fine structure reveals forazoline A as a thioketone-containing marine-derived natural product." 2020. *Organic Letters*. [10.1021/acs.orglett.9b04535](https://doi.org/10.1021/acs.orglett.9b04535)
- MG Chevette**, K Gutiérrez-García, N Selem-Mojica, C Aguilar-Martínez, A Yañez-Olvera, HE Ramos-Aboites, PA Hoskisson, F Barona-Gómez. "Evolutionary dynamics of natural product biosynthesis in bacteria." 2020. *Natural Product Reports*. [10.1039/c9np00048h](https://doi.org/10.1039/c9np00048h)
- EJ Caldera*, **MG Chevette***, BR McDonald, CR Currie. "Local adaptation of bacterial symbionts within a geographic mosaic of antibiotic coevolution." 2019. *Applied & Environmental Microbiology*. [10.1128/AEM.01580-19](https://doi.org/10.1128/AEM.01580-19) [Cover Image for Issue]
- MG Chevette**, C Carlos-Shanley, KB Louie, BP Bowen, TR Northen, CR Currie. "Taxonomic and metabolic incongruence in the ancient genus *Streptomyces*." 2019. *Frontiers in Microbiology*. [10.3389/fmicb.2019.02170](https://doi.org/10.3389/fmicb.2019.02170)
- K Throckmorton*, V Vinnik*, R Chowdhury, TB Cook, **MG Chevette**, CD Maranas, BF Pfeleger, MG Thomas. "Directed evolution of an adenylation domain specificity code." 2019. *ACS Chemical Biology*. [10.1021/acschembio.9b00532](https://doi.org/10.1021/acschembio.9b00532)
- J Yan, **MG Chevette**, D Braun, MK Harper, CR Currie, TS Bugni. "Madurastatin D1 and D2, oxazoline containing siderophores isolated from an *Actinomadura* sp." 2019. *Organic Letters*. [10.1021/acs.orglett.9b02159](https://doi.org/10.1021/acs.orglett.9b02159)
- MG Chevette***, JR Bratburd*, CR Currie, RM Stubbendieck. "Experimental microbiomes: models not to scale." 2019. *mSystems*. [10.1128/mSystems.00175-19](https://doi.org/10.1128/mSystems.00175-19)
- MG Chevette**, CM Carlson, HE Ortega, C Thomas, GE Ananiev, KJ Barns, AJ Book, J Cagnazzo, C Carlos, W Flanagan, 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." 2019. *Nature Communications*. [10.1038/s41467-019-08438-0](https://doi.org/10.1038/s41467-019-08438-0) [Highlighted by NPR]
- 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." 2019. *Applied & Environmental Microbiology*. [10.1128/AEM.02406-18](https://doi.org/10.1128/AEM.02406-18)
- N Liu,* H Li,* **MG Chevette**, L Zhang, L Cao, H Zhou, X Zhou, Z Zhou, PB Pope, CR Currie, Y Huang, Q Wang. 2019. "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)
- MG Chevette**, CR Currie. "Emerging evolutionary paradigms in antibiotic discovery." 2019. *Journal of Industrial Microbiology & Biotechnology*. [10.1007/s10295-018-2085-6](https://doi.org/10.1007/s10295-018-2085-6)
- 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 Rajske, TS Bugni. "Co-culture of marine invertebrate-associated bacteria and interdisciplinary technologies enable biosynthesis and discovery of a new antibiotic, keyicin." 2017. *ACS Chemical Biology*. [10.1021/acschembio.7b00688](https://doi.org/10.1021/acschembio.7b00688) [Highlighted by Nature]
- 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." 2017. *Journal of Immunology*. [10.4049/jimmunol.1700877](https://doi.org/10.4049/jimmunol.1700877)
- MG Chevette**, F Aicheler, O Kohlbacher, CR Currie, MH Medema. "SANDPUMA: Ensemble predictions of nonribosomal peptide chemistry reveals biosynthetic diversity across Actinobacteria." 2017. *Bioinformatics*. [10.1093/bioinformatics/btx400](https://doi.org/10.1093/bioinformatics/btx400)
- IJ Miller, **MG Chevette**, JC Kwan. (2017). "Interpreting microbial biosynthesis in the genomic age: Biological and practical considerations." 2017. *Marine Drugs*. [10.3390/md15060165](https://doi.org/10.3390/md15060165) [Cover Image for Issue]
- 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." 2017. *Nucleic Acids Research*. [10.1093/nar/gkx319](https://doi.org/10.1093/nar/gkx319)

- 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." 2016. *Annual Review of Microbiology*. [10.1146/annurev-micro-102215-095748](https://doi.org/10.1146/annurev-micro-102215-095748)
- 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." 2015. *PLOS ONE*. [10.1371/journal.pone.0122869](https://doi.org/10.1371/journal.pone.0122869)

Book Chapters

- MG Chevette**, PA Hoskisson, F Barona-Gómez. "Enzyme evolution in secondary metabolism." 2019. *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)

Publications, Editorial Review Only

- MG Chevette**, J Handelsman. "From metagenomes to molecules: Innovations in functional metagenomics unlock hidden chemistry in the human microbiome." 2020. *Biochemistry*. [10.1021/acs.biochem.0c00033](https://doi.org/10.1021/acs.biochem.0c00033)
- MG Chevette**. "Natural products reawakened: New trends in discovery and development." 2018. *SIMB News Magazine, Society for Industrial Microbiology and Biotechnology*.
- DR Braun, **MG Chevette**, D Acharya, CR Currie, SR Rajski, TS Bugni. "Draft genome of *Micromonospora* sp. WMMA1996, a marine sponge-associated bacterium." 2018. *Genome Announcements*. [10.1128/genomeA.00077-18](https://doi.org/10.1128/genomeA.00077-18)
- 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." 2018. *Genome Announcements*. [10.1128/genomeA.01582-17](https://doi.org/10.1128/genomeA.01582-17)
- N Adnani, DR Braun, BR McDonald, **MG Chevette**, CR Currie, TS Bugni. "Draft genome of *Micromonospora* sp. WMMB-235, a marine ascidian-associated bacterium." 2017. *Genome Announcements*. [10.1128/genomeA.01369-16](https://doi.org/10.1128/genomeA.01369-16)
- 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." 2016. *Genome Announcements*. [10.1128/genomeA.01406-16](https://doi.org/10.1128/genomeA.01406-16)

Patents

- DC Gray, E Li, BR Bowman, GL Verdine, K Robison, **MG Chevette**, D Udway, PS Wang, A Li, JP Morgenstern. Compositions and methods for the production of compounds. Priority 2016-10-28, filed 2017-10-27, published 2019-08-29. [US20190264184A1](https://patents.google.com/patent/US20190264184A1)

Preprints, Submitted, and Under Review

- GR Lewin, NM Davis, BR McDonald, AJ Book, **MG Chevette**, S Suh, A Boll, CR Currie. "Long-term cellulose enrichment selects for highly cellulolytic consortia and competition for public goods." *Submitted*. [Preprint available](#)
- A Hurley, **MG Chevette**, DD Acharya, GL Lozano, M Garavito, J Heinritz, L Balderrama, M Beebe, ML DenHartog, K Corinaldi, R Engels, A Gutierrez, O Jona, JHI Putnam, B Rhodes, T Tsang, S Hernandez, C Bascom-Slack, JE Blum, PA Price, D Davis, J Klein, J Pultorak, NL Sullivan, NJ Mouncey, PC Dorrestein, S Miller, NA Broderick, J Handelsman. "Tiny Earth a big idea for STEM education and antibiotic discovery." *Submitted*. [Preprint available](#)
- J Yan, Q Wu, EJN Helfrich, **MG Chevette**, DR Braun, H Heyman, GE Ananiev, SR Rajski, CR Currie, J Clardy, TS Bugni. "Bacillimidazoles A–F, imidazolium-containing antibacterial compounds isolated from a marine *Bacillus*." *Submitted*.
- 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*." *In revision*. [Preprint available](#)
- HE Ortega*, VB Lourenzon*, **MG Chevette***, LG Ferreira, M Zhao, RFR Alvarenga, WGP Melo, T Venâncio, DR Andes, CR Currie, AD Andricopulo, TS Bugni, MT Pupo. "Ant-associated *Streptomyces* sp. produces polyketides active against fungal and protozoan pathogens." *Submitted*.

Invited Talks

- TBD. International Symposium on the Biology of Actinomycetes. Toronto, ON. Originally scheduled for Jun 23, 2020. Postponed due to COVID-19.
- "Evolution of antibiotic biosynthesis as a framework for drug discovery." Biotechnology Institute Seminar Series. University of Minnesota. St. Paul, MN (remote). Dec 17, 2020.
- "Evolution of antibiotic biosynthesis as a framework for drug discovery." Whitney Laboratory for Marine Bioscience Seminar Series. University of Florida. Gainesville, FL (remote). Sep 25, 2020.
- "The Earth's bounty: antibiotic discovery from soil." Gairdner Symposium, McMaster University. Hamilton, ON. Nov 15, 2019.
- "Drugs from bugs of bugs: a novel source for antimicrobials." American Society for Microbiology Microbe. San Francisco, CA. Jun 21, 2019.
- "Mining microbiomes for antimicrobials." Synthetic Biology for Natural Products Conference. Puerto Vallarta, Mexico. Jun 02, 2019.

- 6 “Drugs from bugs of bugs: microbiomes as a source of new antibiotics.” Wisconsin Institute for Discovery. Madison, WI. Jan 24, 2019.
- 5 “Drugs & bugs of bugs: insect microbiomes as a source of new antibiotics.” McMaster University. Hamilton, ON. Jun 21, 2018.
- 4 “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.
- 3 “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.
- 2 “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]
- 1 “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]

Internal Seminars

- 6 “Using antiSMASH as both an antibiotic discovery & teaching tool.” Tiny Earth Symposium 2020, UW-Madison. Jun 12, 2020.
- 5 “Tiny Earth Chemistry Hub: the next stop for your samples.” Tiny Earth Symposium 2019, UW-Madison. Jul 10, 2019.
- 4 “Drugs & bugs of bugs: Insect microbiomes as a source of new antibiotics.” Genetics Colloquium, UW-Madison. Aug 8, 2018.
- 3 “Host-microbe interactions as a source of new antimicrobials.” Highlights at the Chemistry-Biology Interface Colloquium, UW-Madison. Dec 12, 2017.
- 2 “Genome-based natural product discovery, modular biosynthesis, & applications.” Highlights at the Chemistry-Biology Interface Colloquium, UW-Madison. Feb 2, 2017.
- 1 “Genome assembly: Tools & analysis.” Computational Biology, Ecology, & Evolution (ComBEE), UW-Madison. Apr 27, 2016.

Abstracts

- 31 **MG Chevrette**, A Hurley, J Handelsman. “Tiny Earth Genomics: Mining bacterial genomes for antibiotic chemistry.” Presented at: Wisconsin Institute for Discovery Illuminating Connections; Madison, WI; Feb 12, 2020.
- A Hurley, DD Acharya, **MG Chevrette**, W Chezem, G Lozano, M Garavito, J Heinritz, L Balderrama, M Beebe, M DenHartog, K Corinaldi, R Engels, A Gutierrez, O Jona, J Putnam, B Rhodes, T Tsang, S Hernandez, C Bascom-Slack, D Davis, S Miller, N Broderick, J Handelsman. “Tiny Earth Chemistry Hub: Command center for studentsourcing antibiotic discovery.” Presented at: Wisconsin Institute for Discovery Illuminating Connections; Madison, WI; Feb 12, 2020.
- 29 **MG Chevrette**, 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.
- K Throckmorton, V Vinnik, TB Cook, R Chowdhury, **MG Chevrette**, CD Maranas, BF Pflieger, MG Thomas. “Directed evolution of an adenylation domain specificity code.” Presented at: Synthetic Biology for Natural Products Conference; Puerto Vallarta, Mexico; Jun 2, 2019.
- 27 **CL Hansen**, **MG Chevrette**, 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.
- 26 **MG Chevrette**, 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.
- 25 **HA Horn**, E Gemperline, K Delaney, **MG Chevrette**, L Li, CR Currie. “Host specificity influences chemical response in *in vivo* symbiotic interactions.” Presented at: Beneficial Microbes; Madison, WI; Jul 9, 2018.
- 24 **BR McDonald**, **MG Chevrette**, 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.
- 23 **MG Chevrette**, 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.
- 22 **DD Acharya**, IJ Miller, Y Cui, DR Braun, **MG Chevrette**, 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.
- 21 **R Zarnowski**, **MG Chevrette**, 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.

D Acharya, N Adnani, D Braun, IJ Miller, Q Yu, **MG Chevrette**, 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.

AF Sanchez-Larrayoz, NM Elhosseiny, **MG Chevrette**, 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.

MG Chevrette, 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.

EJ Caldera, **MG Chevrette**, 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.

J Bratburd, C Keller, E Vivas, **MG Chevrette**, 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.

MG Chevrette, 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.

J Bratburd, BR McDonald, **MG Chevrette**, 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.

HA Horn, E Gemperline, **MG Chevrette**, 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.

MG Chevrette, 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.

SS Johnson, ML Soni, DJ Collins, KC Benison, MR Mormile, **MG Chevrette**, 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.

MG Chevrette, 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.

N Adnani, S Adibhatla, E Vazquez-Rivera, GA Ellis, D Braun, **MG Chevrette**, 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.

MG Chevrette, 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.

MG Chevrette, 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.

MG Chevrette, 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.

DW Udway, K Robison, **MG Chevrette**, GL Verdine. "Lessons from long read assembly of 100+ Actinomycete genomes." Presented at: Gordon Marine Natural Products; Ventura, CA; Mar 2-7, 2014.

K Robison, DW Udway, **MG Chevrette**, GL Verdine. "Long read assembly of >100 Actinomycete genomes." Presented at: Advances in Genome Biology & Technology; Marco Island, FL; Feb 12-15, 2014.

S Young, S Steelman, R Daza, **MG Chevrette**, 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.

S Steelman, R Daza, **MG Chevrette**, 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.

S Steelman, R Daza, **MG Chevrette**, 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.

Grants & Awards

Grants

Novel secondary metabolite-producing bacteria for plant disease control

Proposal ID 506816, JGI Community Sequencing Project, *PacBio sequencing for 540 strains*

Roles: Co-PI

JGI

2020

Genetic and metabolic metaterminants of microbial interactions in the rhizosphere

[2020-67012-31772](#), USDA NIFA Fellowship, \$164,786

Roles: Project director

USDA, NIFA

2020

Genetic and metabolic metaterminants of microbial interactions in the rhizosphere

NSF Postdoctoral Research Fellowship in Biology, \$138,000

Awarded, but declined. Proposed roles: Project director

NSF

2020

Identification of novel MDR antimicrobials from insect-*Streptomyces* symbioses

[1U19AI142720-01](#), NIH U19, \$1,057,133

Roles: Contributed to project inception, preliminary data, and writing.

NIH, NIAID

2019

Awards

NIFA Postdoctoral Fellowship USDA

2020–present

Postdoctoral Research Fellowship in Biology NSF, Awarded, but declined

2020

Wisconsin Scientific Teaching Design Institute Fellowship UW-Madison

2019–present

Schlingens Award for Outstanding Scholarship in Doctoral Studies in Genetics UW-Madison

2019

Ira L Baldwin Distinguished Predoc. Fellowship for Excellence in Research Bacteriology, UW-Madison

2018–2019

Chemistry-Biology Interface Predoctoral Fellowship National Institutes of Health, NIGMS

2016–2018

Bacteriology Departmental Travel Grant University of Wisconsin-Madison

2016

Vilas Travel Grant University of Wisconsin-Madison

2016

Dean's Academic Achievement Award Harvard University Extension

03/2015

Finalist, Core Value Award: "Courageous: Uncompromising Science" Warp Drive Bio

2014

Finalist, Core Value Award: "Unbounded: Reimagining the Possible" Warp Drive Bio

2014

Featured Scientific Researcher – "Who is Broad?" Broad Institute of MIT & Harvard

01/2012

Rensselaer Alumni Scholarship Rensselaer Polytechnic Institute

2004–2008

Sal H. Alfiero Scholarship Rensselaer Polytechnic Institute

2004–2008

Rhode Island State Scholarship Rensselaer Polytechnic Institute

2004–2008

Teaching Experience

Chem 1003: General, Organic, and Biological Chemistry, Point Loma University Guest Lecturer

Fa 2020

Tiny Earth: Chemistry, UW-Madison Course Development, Curriculum Committee

2020–present

Tiny Earth: Data Analytics for Biologists, UW-Madison Course Development

Sp 2020

Certified Tiny Earth Partner Instructor

2020–present

Wisconsin Scientific Teaching Design Institute Fellow Course Development

2019–present

Tiny Earth: Genomics & Chemistry of Soil Bacteria, UW-Madison Lead Lecturer, Course Development

Su 2019

Micro 450: Diversity, Ecology, & Evolution of Microorganisms, UW-Madison Guest Lecturer

Fa 2018

Programming in R, ComBEE, UW-Madison Lead Lecturer, Course Development

Sp 2016

Genetics 468: General Genetics II, UW-Madison Lecturer, TA

Sp 2016

Micro 450: Diversity, Ecology, & Evolution of Microorganisms, UW-Madison Guest Lecturer, TA

Fa 2016

Service & Outreach

Ad hoc Reviewer Antonie van Leeuwenhoek, Bioinformatics, Biology, Critical Reviews in Microbiology,

FEMS Microbiology Letters, Frontiers in Microbiology, G3 (Genes, Genomes, & Genetics), mBio,

Microbial Cell Factories, Microbial Ecology, Microbial Genomics, Molecular Biology & Evolution,

mSystems, World Journal of Microbiology & Biotechnology; [Publons](#)

On-air Guest PBS Wisconsin, [Link](#)

06/2020

On-air Guest Natural Procast, Joint Genome Institute, [Link](#)

02/2020

Mentor Tiny Earth Summer Program, Tiny Earth Partner Instructor Training

2019–present

On-air Guest Perpetual Notion Machine, WORT FM, [Link](#)

02/2019

Evolution Coordinating Committee	JF Crow Institute for the Study of Evolution, UW-Madison	01/2017–present
Mentor	Google Summer of Code – antiSMASH, Open Bioinformatics Foundation	03/2016–09/2017
Co-chair	Computational Biology, Ecology, & Evolution (ComBEE), UW-Madison	01/2016–08/2018
Co-organizer	Discovery Niche, Wisconsin Institutes for Discovery	10/2015–11/2015
Volunteer	Wisconsin Science Festival	10/2015
Open Genomics Adviser	Revive & Restore, Long Now Foundation	04/2014–10/2015
Environmental, Health, and Safety Representative	Broad Institute of MIT & Harvard	01/2011–03/2013

Professional Societies & Groups ---

American Society of Pharmacognosy	2020–present
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