

Publications

First author publications: 16; Total publications: 36; Google Scholar Citations: 1885; Google Scholar H-index: 16

Peer-reviewed Publications – Original Research

First author: 7; Total: 21

*Co-first author, contributed equally

- 1 **MG Chevrette**, B Himes, C Carlos-Shanley. "Nutrient availability shifts the biosynthetic potential of soil-derived microbial communities." 2021. *Current Microbiology*. In press. [Preprint available](#)
- 2 R Zarnowski, A Noll, **MG Chevrette**, H Sanchez, R Jones, H Anhalt, J Fossen, A Jaromin, CR Currie, JE Nett, A Mitchell, DR Andes. "Coordination of fungal biofilm development by extracellular vesicle cargo." 2021. *Nature Communications*. [10.1038/s41467-021-26525-z](#)
- 3 EJN Helfrich*, R Ueoka*, **MG Chevrette***, 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." 2021. *Nature Communications*. [10.1038/s41467-021-21163-x](#)
- 4 A Hurley, **MG Chevrette**, 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." 2021. *mBio*. [10.1128/mBio.03432-20](#)
- 5 MA Schorn*, S Verhoeven*, et al. [104 authors including **MG Chevrette**]. "Standardized links between genomic and metabolomic data facilitate integrative mining." 2021. *Nature Chemical Biology*. [10.1038/s41589-020-00724-z](#)
- 6 HE Ortega*, VB Lourenzon*, **MG Chevrette***, LG Ferreira, M Zhao, RFR Alvarenga, WGP Melo, T Venâncio, DR Andes, CR Currie, AD Andricopulo, TS Bugni, MT Pupo. "Antileishmanial macrolides from ant-associated *Streptomyces* sp. ISID311." 2021. *Bioorganic & Medicinal Chemistry*. [10.1016/j.bmc.2021.116016](#)
- 7 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 Chevrette**, 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](#)
[Highlighted by Science]
- 8 Q Wu, K Throckmorton, M Maity, **MG Chevrette**, 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](#)
- 9 F Zhang, TP Wyche, Y Zhu, DR Braun, J Yan, Y Ge, IA Guzei, **MG Chevrette**, 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](#)
- 10 EJ Caldera*, **MG Chevrette***, 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](#) [Cover Image for Issue]
- 11 **MG Chevrette**, 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](#)
- 12 K Throckmorton*, V Vinnik*, R Chowdhury, TB Cook, **MG Chevrette**, CD Maranas, BF Pflieger, MG Thomas. "Directed evolution of an adenylation domain specificity code." 2019. *ACS Chemical Biology*. [10.1021/acscchembio.9b00532](#)
- 13 J Yan, **MG Chevrette**, 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](#)
- 14 **MG Chevrette**, 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." 2019. *Nature Communications*. [10.1038/s41467-019-08438-0](#)
[Highlighted by NPR]
- 15 RM Stubbendieck, DS May, **MG Chevrette**, 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](#)
- 16 N Liu*, H Li*, **MG Chevrette**, 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](#)

- 17 N Adnani, **MG Chevrette**, 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." 2017. *ACS Chemical Biology*. [10.1021/acscchembio.7b00688](https://doi.org/10.1021/acscchembio.7b00688) [Highlighted by Nature]
- 18 AF Sanchez-Larrayoz, NM Elshamy, **MG Chevrette**, 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)
- 19 **MG Chevrette**, 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)
- 20 K Blin, T Wolf, **MG Chevrette**, 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)
- 21 SS Johnson, **MG Chevrette**, 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)

Peer-reviewed Publications – Review & Perspective Articles

First author: 5; Total: 7

- 1 **MG Chevrette**, J Handelsman. "Needles in haystacks: Reevaluating old paradigms for the discovery of bacterial secondary metabolites." 2021. *Natural Product Reports*. [10.1039/d1np00044f](https://doi.org/10.1039/d1np00044f)
- 2 **MG Chevrette***, A Gavrilidou*, S Mantri*, N Selem-Mojica, N Ziemert, F Barona-Gómez. "The confluence of Big Data and evolutionary genome mining for the discovery of natural products." 2021. *Natural Product Reports*. [10.1039/D1NP00013F](https://doi.org/10.1039/D1NP00013F)
- 3 **MG Chevrette**, 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)
- 4 **MG Chevrette***, 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)
- 5 **MG Chevrette**, 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)
- 6 IJ Miller, **MG Chevrette**, 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]
- 7 GR Lewin, C Carlos, **MG Chevrette**, 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)

Peer-reviewed Publications – Book Chapters

First author: 2; Total: 2

- 1 **MG Chevrette**, N Selem-Mojica, C Aguilar, K Labby, ED Bustos-Díaz, J Handelsman, F Barona-Gómez. "Evolutionary genome mining for the discovery and engineering of natural product biosynthesis." 2019. *Methods in Molecular Biology - Engineering Natural Product Biosynthesis: Methods and Protocols*. In press.
- 2 **MG Chevrette**, 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

First author: 2; Total: 6

- 1 **MG Chevrette**, 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)
- 2 **MG Chevrette**. "Natural products reawakened: New trends in discovery and development." 2018. *SIMB News Magazine, Society for Industrial Microbiology and Biotechnology*.
- 3 DR Braun, **MG Chevrette**, 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)
- 4 DR Braun, **MG Chevrette**, 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)
- 5 N Adnani, DR Braun, BR McDonald, **MG Chevrette**, CR Currie, TS Bugni. "Draft genome of *Micromonospora* sp. WMMA-235, a marine ascidian-associated bacterium." 2017. *Genome Announcements*. [10.1128/genomeA.01369-16](https://doi.org/10.1128/genomeA.01369-16)

- 6 N Adnani, DR Braun, BR McDonald, **MG Chevrete**, 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

Total: 1

- 1 DC Gray, E Li, BR Bowman, GL Verdine, K Robison, **MG Chevrete**, 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, & Under Review

Total: 6

- 1 BR McDonald, **MG Chevrete**, 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](#)
- 2 J Yan, Q Wu, EJN Helfrich, **MG Chevrete**, DR Braun, H Heyman, GE Ananiev, SR Rajske, CR Currie, J Clardy, TS Bugni. "Bacillimidazoles A–F, imidazolium-containing antibacterial compounds isolated from a marine *Bacillus*." *In revision*.
- 3 BD Lee, A Gitter, CS Greene, S Raschka, F Maguire, AJ Titus, MD Kessler, AJ Lee, **MG Chevrete**, PA Stewart, T Britto-Borges, EM Cofer, KH Yu, JJ Carmona, EJ Fertig, AA Kalinin, B Signal, BJ Lengerich, TJ Triche Jr, SM Boca. "Ten quick tips for deep learning in biology." *Under review*. [Preprint available](#)
- 4 GR Lewin, NM Davis, BR McDonald, AJ Book, **MG Chevrete**, S Suh, A Boll, CR Currie. "Long-term cellulose enrichment selects for highly cellulolytic consortia and competition for public goods." *Submitted*. [Preprint available](#)
- 5 Q Wu, JX Yan, **MG Chevrete**, S Chanana, BA Bell, M Maity, DR Braun, IA Guzei, MG Thomas, SR Rajske, TS Bugni. "Ecteinamines A and B: new nonribosomal peptides with an unprecedented skeleton from marine bacterium *Micromonospora* sp." *Submitted*.
- 6 K Gotting, DS May, J Sosa-Calvo, L Khadempour, CB Francouer, AB Lopez, MW Thairu, S Sandstrom, CM Carlson, **MG Chevrete**, A Rodriques, MT Pupo, TS Bugni, TR Schultz, JS Johnston, NM Gerardo, CR Currie. "Genomic diversification of the specialized parasite of the fungus-growing ant symbiosis." *Submitted*.