Michael D. Lee, PhD
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Full software and publication list: microbialomics.org/research

Relevant experience summary

My formal educational background is in biology and microbial ecology, and my professional experience has been spent applying bioinformatics to questions about microbial ecology and evolution in various microbial systems ranging from deep-sea basalts up to the International Space Station (Google Scholar).

My teaching expertise is most strongly in helping biologists learn to use bioinformatics, which has been honed through:

1) organizing, running, and/or teaching at over a dozen workshops over the past 9 years I've been immersed in bioinformatics
2) participating in instructor-training programs
3) developing and maintaining Happy Belly Bioinformatics – a website designed specifically to help biologists learn to use bioinformatics which averages ~250 unique users per day

Appointments/Positions

2019–Current: KBR NASA GeneLab Bioinformatician; NASA Ames Research Center
2019–Current: Research Scientist; Blue Marble Space Institute of Science; NASA Ames Research Center
2018–2020: NASA Space Biology Postdoctoral Fellow; Exobiology, NASA Ames Research Center
2018–2020: JCVI Research Fellow; J. Craig Venter Institute, La Jolla, CA
2015–2018: USC SeaGrant Fellow; Biological Oceanography, University of Southern California
2013–2015: USC Dornsife Fellow; Biological Oceanography, University of Southern California
9/2012–12/2012: NASA USRP Intern; NASA Ames Research Center
6/2011–8/2011: NASA USRP Intern; NASA Kennedy Space Center

Education

2018 – Ph.D. Biology, University of Southern California, Los Angeles, CA
2013 – B.S. Biology, minor in Chemistry, Kean University, Union, NJ
2010 – A.A. General Science, Ocean County College, Toms River, NJ

Select publications

Lee, M.D. (2019). Happy Belly Bioinformatics: an open-source resource dedicated to helping biologists utilize bioinformatics. *The Journal of Open-Source Education*. https://doi.org/10.21105/jose.00053

Lee, M.D. (2019). GToTree: a user-friendly workflow for phylogenomics. *Bioinformatics*. https://doi.org/10.1093/bioinformatics/btz188

Zajkowski, T., **Lee, M.D.**, Sharma, S., Vallota-Eastman, A., Kuska, M., Malczewska, M., and Rothschild, L.J. (2023). Conserved functions of prion candidates suggest a primeval role of protein self-templating. *Proteins: Structure, Function, Bioinformatics*. https://doi.org/10.1002/prot.26558

Lee, M.D., O'Rourke, A., Lorenzi, H., Bebout, B.M., Dupont, C.L., and Everroad, R.C. (2021). Reference-guided metagenomics reveals genome-level evidence of potential microbial transmission from the ISS environment to an astronaut's microbiome. iScience. https://doi.org/10.1016/j.isci.2021.102114