

CURRICULUM VITAE

JONATHAN Y. LIN

PHD CANDIDATE

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EDUCATION

University of California, Davis, CA

Doctor of Philosophy, Microbiology

2016-Present

Advisor: Dr. Jorge L.M. Rodrigues

Calvin University, Grand Rapids, MI

Bachelor of Science, Majors in Biology and Philosophy

2011-2015

Advisor: Dr. John T. Wertz

RESEARCH TRAINING

2016-Present	Graduate Research Assistant, Department of Land, Air, and Water Resources, UC Davis
Summer 2017	Trainee, Microbial Diversity Course, Marine Biological Laboratory, Woods Hole, MA
2015-2016	Research Technician, Department of Biology, Calvin University
2014-2015	Research Assistant, Department of Biology, Calvin University
Summer 2012	Research Intern, Department of Ophthalmology, Wayne State University

AWARDS AND HONORS

2020-2022	USDA NIFA AFRI Predoctoral Fellowship
2018	NSF Graduate Research Fellowship Program – Honorable Mention
2017	Powerhouse Science Center Science Communication Fellowship
2017	Marine Biological Laboratory Abigail Salyers Endowed Scholarship
2015	Calvin University O.K. Bouwsma Award for the Best Paper in Philosophy

2014-2015	Calvin University Dr. Paul and Mrs. Doris Dirkse Health Care Scholarship
2014-2015	Calvin University Dean's Academic Scholarship
2011-2014	Calvin University Faculty Honors Academic Scholarship

COMPETITIVE RESEARCH SUPPORT

2020	USDA NIFA AFRI Predoctoral Fellowship, "Elucidating soil microbiome contributions to carbon sequestration to improve soil health in agroecosystems" (\$180,000)
2019	DOE Joint Genome Institute Community Science Program, "Is the soil aggregate a biogeofunctional island? Unifying two theories to explain multiple biological processes" (Co-PI)
2019	UC Davis Henry A. Jastro Research Award, "Characterizing microbial traits contributing to carbon assimilation in agroecosystems" (\$3,000)
2019	UC Davis Microbiology Graduate Group Fellowship (\$800)
2018	UC Davis Henry A. Jastro Research Award, "Elucidating soil microbial contributions to carbon use efficiency in agroecosystems" (\$3,000)
2017	UC Davis Henry A. Jastro Research Award, "Identifying microbial species-area relationships in soil aggregates" (\$3,000)
2014	Calvin University Harvey Rozema Student Research Fellowship (\$3,700)
2012	Wayne State University Summer Undergraduate Research Fellowship (\$2,500)

PUBLICATIONS

9. **Lin JY**, Wong SJ, Rodrigues JLM. Lab-rearing decreases diversity and alters community structure of ureolytic microorganisms in the gut of the wood-feeding termite, *Reticulitermes hesperus*. **In Preparation.**
8. Wang D, **Lin JY**, Sayre JM, Schmidt R, Fonte SJ, Rodrigues JLM, Scow KM. Compost can mitigate against disturbance generated by conventional agriculture on soil structure, C dynamics and microbial communities — a six-year field study. **In Preparation.**

7. **Lin JY**, Rodrigues JLM. 2020. *Geminisphaera*. In Bergey's Manual of Systematics of Archaea and Bacteria (eds WB Whitman, F Rainey, P Kämpfer, M Trujillo, J Chun, P DeVos, B Hedlund, S Dedysh). DOI: **10.1002/9781118960608.gbm01542**.
6. Kotak M, **Lin JY**, Isanapong J, Rodrigues JLM. 2020. Draft genomes of strains TAV3 and TAV4 (*Verrucomicrobia: Opitutaceae*), isolated from a wood-feeding termite, and *in silico* analysis of their polysaccharide-degrading enzymes. Microbial Resource Announcements. **9** (2): e01192-19.
5. Bresciani L, Lemos LN, Wale N, **Lin JY**, Strauss AT, Duffy MA, Rodrigues JLM. 2018. Draft genome sequence of “*Candidatus Spirobacillus cienkowskii*,” a pathogen of freshwater *Daphnia* species, reconstructed from hemolymph metagenomic reads. Microbial Resource Announcements. **7** (22): e01175-18.
4. **Lin JY**, Hobson WJ, Wertz JT. 2017. *Saccharedens versatilis* gen. nov., sp. nov., a sugar-degrading member of the ‘*Burkholderiales*’ isolated from *Cephalotes rohweri* ant guts. International Journal of Systematic and Evolutionary Microbiology. **67** (2): 447-453.
3. **Lin JY**, Russell JA, Sanders JG, Wertz JT. 2016. *Cephaloticoccus* gen. nov., a new genus of ‘*Verrucomicrobia*’ containing two novel species isolated from *Cephalotes* ant guts. International Journal of Systematic and Evolutionary Microbiology. **66** (8): 3034-3040.
2. **Lin JY**, Hobson WJ, Wertz JT. 2016. *Ventosimonas gracilis* gen. nov., sp. nov., a member of the *Gammaproteobacteria* isolated from *Cephalotes varians* ant guts representing a new family, *Ventosimonadaceae* fam. nov., within the order ‘*Pseudomonadales*’. International Journal of Systematic and Evolutionary Microbiology. **66** (8): 2869-2875.
1. Santos JM, Tewari S, **Lin JY**, Kowluru RA. 2013. Interrelationship between activation of matrix metalloproteinases and mitochondrial dysfunction in the development of diabetic retinopathy. Biochemical and Biophysical Research Communications. **438** (4): 760-764.

PRESENTATIONS

Lin JY, Wang D, Sayre JM, Fonte SJ, Rodrigues JLM, Scow KM. Compost amendment and cover cropping increase soil C storage and alter microbial communities in soil microenvironments. Soil Science Society of America International Soils Meeting. San Diego, CA. January 7, 2019. (Oral & Poster Presentation).

Lin JY, Gong P, Ye R, Horwath WR, Rodrigues JLM. Nitrification by rhizosphere microbial communities in California rice varieties to support nitrogen use efficiency. California Cooperative Rice Research Foundation Field Day. Biggs, CA. Aug. 29, 2018. (Poster Presentation).

Lin JY, Won SJ, Rodrigues JLM. Waste not, want not: Contribution of ureolytic bacteria to nitrogen recycling in the termite gut. Joint Genome Institute 13th Genomics of Energy & Environment Meeting. San Francisco, CA. Mar. 15, 2018. (Poster Presentation).

Lin JY. Physiological characterization of a novel genus of *Verrucomicrobia* isolated from the guts of *Cephalotes* ants. Honors dissertation in the Calvin College Biology Department Seminar. Grand Rapids, MI. Oct. 31, 2014. (Oral Presentation).

Lin JY, Wertz JT. Physiological characterization of bacteria belonging to a novel genus of *Verrucomicrobia* from the guts of *Cephalotes* ants. Autumn Immunology Conference 43rd Annual Meeting. Chicago, IL. Nov. 22, 2014. (Poster Presentation)

Lin JY, Santos JM, Kowluru RA. Temporal relationship between activation of matrix metalloproteinase 9 and mitochondria damage in the development of diabetic retinopathy. West Michigan Undergraduate Science Research Conference. Van Andel Research Institute, Grand Rapids, MI. Nov. 17, 2012. (Poster Presentation).

OUTREACH, SERVICE, AND SYNERGISTIC ACTIVITIES

2019-2020	President, Microbiology Graduate Student Association, UC Davis
2018-2020	Social Media Manager, Microbiology Graduate Student Association, UC Davis
2017-2019	Chair of Recruitment, Microbiology Graduate Student Association, UC Davis
2017-2018	Volunteer Docent, Explorit Science Center, Davis, CA
Fall 2017	Science Communication Fellow, Powerhouse Science Center, Sacramento, CA
October 2017	Guest Contributor, Small Things Considered Blog, American Society for Microbiology
Spring 2017	Mentor to High School Students, Biotechnology Academy, Sheldon and Vallejo High School, Elk Grove and Vallejo, CA
Ad-Hoc Reviewer	<i>Frontiers in Microbiology, mSphere, mSystems, International Journal of Systematic and Evolutionary Microbiology</i>

ACADEMIC MENTORING

*published as co-author; †earned award; ‡current position

King C. Law | B.S. 2020 | UC Davis

Sung J. Won | B.S. 2018 | UC Davis | †UC Davis Provost's Undergraduate Research Fellowship | ‡Environmental Engineering Associate, LA Sanitation (LASAN)

Matthew J. Schepers | B.S. 2017 | Calvin University | ‡Ph.D. student, University of Texas Austin

Ellen K. Rootring | B.S. 2016 | Calvin University | *D.O. student, Ohio University Heritage College of Osteopathic Medicine

William J. Hobson* | B.S. 2016 | Calvin University

Brianna M. Busscher | B.S. 2018 | Calvin University | †Barry M. Goldwater Scholarship Honorable Mention | *Ph.D. student, Case Western Reserve University

Stephan A. Buitter | B.S. 2017 | Calvin University | †M.D. student, University of Illinois College of Medicine

TEACHING

Spring 2020	Graduate Teaching Assistant, Host-Parasite Interactions, Microbiology and Molecular Genetics, UC Davis
Winter 2020	Graduate Teaching Assistant, General Microbiology Lab, Microbiology and Molecular Genetics, UC Davis
2017-2019	Graduate Teaching Assistant, Bioenergetics and Metabolism, Molecular and Cellular Biology, UC Davis
2013-2015	Undergraduate Teaching Assistant, General Microbiology, Medical Microbiology, Calvin University
2013-2015	Academic Tutor, Calvin University

MEMBERSHIP IN SCIENTIFIC SOCIETIES

2020-Present	International Society for Microbial Ecology
2019-Present	American Society for Microbiology
2018-Present	Soil Science Society of America