Linta Reji

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EDUCATION

2020-present	**Postdoctoral Research Associate**, Princeton University, NJ Department of Geosciences Advisor: Dr. Xinning Zhang
2014-2020	**Ph.D. in Environmental Earth System Science**, Stanford University, CA Department of Earth System Science Advisor: Dr. Christopher A. Francis
2014	**Bachelor of Science (Honors)**, Stanford University, CA Earth Systems - Biosphere

COURSES AND WORKSHOPS

2017	Microbial Genomics and Metagenomics Workshop Joint Genome Institute, Walnut Creek, CA
2015	Hopkins Microbiology Course Hopkins Marine Station, Monterey, CA
2011	Sustainability of Tropical Heritage International Mobility Program Summer Course University Kebangsaan Malaysia, Bangi, Malaysia

PEER-REVIEWED PUBLICATIONS

2022	**Reji L.**, Zhang, X. Genome-Resolved Metagenomics Informs the Functional Ecology of Uncultured Acidobacteria in Redox Oscillated Sphagnum Peat. *mSystems*. DOI: https://doi.org/10.1128/msystems.00055-22.
2022	Darnajoux, R., **Reji L.**, Zhang X. R., Luxem K. E., Zhang X. Ammonium sensitivity of biological nitrogen fixation in anaerobic diazotrophs and coastal salt marsh sediments. *Journal of Geophysical Research: Biogeosciences* 127, e2021JG006596.
2022	**Reji L.,** Cardarelli E.L., Boyce K., Bargar J., Francis C.A. Diverse ecophysiological adaptations of subsurface Thaumarchaeota in floodplain sediments revealed through genome-resolved metagenomics. *ISME J*, 16, 1140-1152. DOI: 10.1038/s41396-021-01167-7.

2020 **Reji, L.,** Francis, C.A. Metagenome-assembled genomes reveal unique metabolic adaptations of a basal marine Thaumarchaeota lineage. *ISME J* 14: 2105–2115. DOI: 10.1038/s41396-020-0675-6.
Short-listed for the ISME J 2020 Best Paper Award: https://www.nature.com/collections/acidjaejdg.

2020 Tolar, B. B., **L. Reji**, J. M. Smith, M. Blum, J. T. Pennington, F. P. Chavez, and C. A. Francis. Time series assessment of Thaumarchaeota ecotypes in Monterey Bay reveals the importance of water column position in predicting distribution-environment relationships. *Limnology and Oceanography*. 65 (9).
DOI: 10.1002/lno.11436.

2020 **Reji, L.**, B. B. Tolar, F. P. Chavez and C. A. Francis. Depth-differentiation and seasonality of planktonic microbial assemblages in the Monterey Bay upwelling system. *Frontiers in Microbiology*. 11: 1075. DOI: 10.3389/fmicb.2020.01075.
Featured in the Aquatic Microbiology Editor's Pick 2021 collection: https://www.frontiersin.org/research-topics/22105/aquatic-microbiology-editors-pick-2021.

2019 **Reji, L.,** B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Depth distributions of nitrite reductase (*nirK*) gene variants reveal spatial dynamics of thaumarchaeal ecotype populations in coastal Monterey Bay. *Environmental Microbiology*. DOI: 10.1111/1462-2920.14753.

2019 **Reji, L.,** B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Differential co-occurrence relationships shaping ecotype diversification within Thaumarchaeota populations in the coastal ocean water column. *ISME J*.
DOI: 10.1038/s41396-018-0311-x.

HONORS, FELLOWSHIPS AND AWARDS

2022 Water Grand Challenge Award ($150,000)
Awarded to Linta Reji (Co-PI) and Xinning Zhang (Co-PI)
High Meadows Environmental Institute, Princeton University

2018 Research grant award ($4000)
Dr. Earl H. Myers & Ethel M. Myers Oceanographic & Marine Biology Trust

2018 Award for the best research talk, Annual Research Review
School of Earth, Energy and Environmental Sciences, Stanford University

2016 Award for the best research poster, Annual Research Review
School of Earth, Energy and Environmental Sciences, Stanford University

2015 McGee Leverson Research Grant ($4000)
School of Earth, Energy and Environmental Sciences
Stanford University

2014 Dean's Award for Undergraduate Academic Excellence
Stanford University

2013	Summer Undergraduate Research (SESUR) Fellowship Stanford University
2005 - 2008	Promotion of Excellence Among Gifted Children A competitive scholarship from the Kerala State Government, India

TEACHING AND MENTORING

2021	Junior Project mentor, Isabel Rodrigues '23, Princeton University
2021	Assistantship in Instruction, GEO 417: Environmental Microbiology Princeton University
2020-2021	Postdoctoral mentor, ReMatch undergraduate research-mentoring program Princeton University
2018	Teaching Assistant, Hopkins Microbiology Course Hopkins Marine Station, Stanford University
2017	Research mentor Summer Undergraduate Research in Geoscience and Engineering SURGE Stanford University
2017	Teaching assistant, ESS 107: Control of Nature, Stanford University

PROFESSIONAL SERVICE

2022-2023	Convener, Workshop on spatially structured microbial communities. Princeton Center for Theoretical Sciences. Co-conveners: Dr. Xinning Zhang, Dr. Sujit Datta, Dr. Alejandro Martinez-Calvo, Dr. Ned Wingreen
2021-2022	Organizer, Environmental Geology & Geochemistry Seminar Department of Geosciences, Princeton University Co-organizer: Dr. Sarah Shackleton
2021	NSF grant proposal reviewer
2020-current	Reviewer for *Science*, *Nature Communications*, *Frontiers in Microbiology*, *Water Research, mSystems, Environmental Microbiology*
2017	Program assistant Summer Undergraduate Research in Geoscience and Engineering SURGE Stanford University
2016-2018	Convener, Winogradsky Geomicrobiology reading group, Department of Earth System Science, Stanford University

FIELD WORK

2021	The Pine Barrens, NJ The Watershed Institute, Hopewell, NJ Barnegat Bay, NJ
2015-2017	R/V Rachel Carson; monthly cruises to Monterey Bay, CA
2013-2014	R/V Polaris, USGS research cruises in San Francisco Bay, CA

SELECTED CONFERENCE PRESENTATIONS

2022	**Reji, L.**, Zhang, X. Genome-resolved metagenomics informs functional ecology of uncultured Acidobacteria in redox oscillated sphagnum peat. ASM-Microbe, Washington, D.C.
2020	**Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Genome-resolved metagenomics reveals lineage-specific metabolic strategies within marine nitrifier subpopulations. Ocean Sciences Meeting, San Diego, CA.
2019	**Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Microbial profiling of the Monterey Bay upwelling system using genome-resolved metagenomics (Poster). JGI User Meeting, San Francisco, CA.
2018	**Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Co-occurrence Patterns Shaping Thaumarchaeal Ecotype Diversification in the Coastal Ocean Water Column (Oral Presentation). Ocean Sciences Meeting, Portland, OR.
2018	Tolar, B. B., **L. Reji**, J. M. Smith, F. P. Chavez, and C. A. Francis. Depth and Season as Primary Drivers of Thaumarchaeota Ecotype Dynamics and Activity in Monterey Bay (Oral Presentation). Ocean Sciences Meeting, Portland, OR.
2018	**Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Exploring thaumarchaeal ecotype diversification in the coastal ocean using metagenomic, metatranscriptomic, and modeling approaches (Poster). Joint Genome Institute Annual User Meeting, San Francisco, CA.
2017	Tolar, B. B.*, **L. Reji***, J. M. Smith, F. P. Chavez, C. A. Francis. Combining Molecular, Genomic, and Isotopic Techniques to Examine the Diversity and Activity of Marine Thaumarchaeota in Monterey Bay (Poster). Joint Genome Institute Annual User Meeting, Walnut Creek, CA. **contributed equally*
2017	Tolar, B. B., **L. Reji**, J. M. Smith, F. P. Chavez, and C. A. Francis. Spatiotemporal Community Dynamics of Nitrogen-Cycling Archaea and Bacteria in Monterey Bay, CA (Oral Presentation). Association for the Sciences of Limnology and Oceanography 2017 Aquatic Sciences Meeting, Honolulu, HI.
2016	**Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Thaumarchaeal *amoA* and *nirK* Gene Abundance Patterns Reveal Spatiotemporal Dynamics of Ammonia-oxidizing Archaeal Populations in Monterey Bay, CA (Poster). American Geophysical Union 2016 Fall Meeting, San Francisco, CA.

2016 **Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Thaumarchaeal *nirK* Abundance Patterns Reveal Spatio-temporal Dynamics of Coastal-Ocean Ammonia-oxidizing Archaeal Populations (Poster). Annual Research Review, School of Earth Sciences, Stanford University.

2016 **Reji, L.**, J. Damashek, J. A. Lee, C. A. Francis. Nitrite Reductase (*nirK*) as an Alternative Molecular Marker for Ammonia-oxidizing Archaea: Quantification and Characterization of Thaumarchaeal *nirK* Nitrite Reductase Genes in Estuarine Sediments from San Francisco Bay (Poster). Ocean Sciences Meeting, New Orleans.

2014 **Reji, L.**, J. Damashek, J. A. Lee, C. A. Francis. Diversity and Abundance of Ammonia-Oxidizing Archaeal Nitrite Reductase (*nirK*) Genes in Estuarine Sediments of San Francisco Bay (Poster). Symposium of Undergraduate Research and Public Service (SURPS -2013) and the School of Earth Sciences Annual Review at Stanford University (2014); Poster and oral presentations at the School of Earth Sciences Undergraduate Research (SESUR) symposium at Stanford University.

EDUCATIONAL OUTREACH AND VOLUNTEERING

2021 Website Co-editor: *Diversity, Equity, Access, and Inclusion*. The Department of Geosciences and The Program in Atmospheric and Oceanic Sciences, Princeton University

2018 Application review committee member
Summer Undergraduate Research in Geoscience and Engineering SURGE Program, Stanford University

2017 Volunteer science judge
Sea Lion Bowl, Northern CA Regional Ocean Sciences Bowl

2016 Instructor, Stanford Splash
Co-taught four class sessions on geomicrobiology to middle and high school students

2016 Volunteer at the Bay Area Science Festival in San Francisco
Co-managed the Stanford Earth table at the Festival, explaining geology and geomicrobiology to kids and families

2015 GeoKids volunteer
Stanford School of Earth Energy and Environmental Sciences