TANIA KURBESSOIAN

Taniakurbessoian@gmail.com | 818.497.1580 | https://www.linkedin.com/pub/Tania-kurbessoian/71/648/87a/ | https://github.com/tania-k

A motivated Ph.D. candidate in Microbiology, seeking for a career in Microbiology, Mycology and Bioinformatics

EDUCATION

University of California, Riverside — **Riverside**
PhD. In Microbiology — 2017-
- GPA:3.89

California State University — **Northridge**
Master of Science in Microbiology — 2014 – 2016
- GPA:3.77

California State University — **Northridge**
Bachelor of Science in Microbiology — 2010 – 2013
- GPA:3.51

RELEVANT SKILLS

- **Bioinformatics:** Genome Assembly and Annotation, Variation and Haplotype Analysis, Genome Browser development, Metagenomics binning and annotation, R Amplicon Analysis using phyloseq, Utilized Python and Bash
- **Microbiology:** Aseptic technique, Fluorescent, Bright field and contrast microscopy , Staining bacteria, Culturing bacteria from the environment, Enumeration and identification, Media, buffer and chemical preparation, Utilizing food microbiology, Using selective media, Plaque assay, Enzyme assay, MALDI-TOF MS as an identification tool down to the strain level
- **Mycology:** Aseptic technique, Bright field and contrast microscopy, staining fungi, media preparation, Culturing fungi from the environment.
- **Biochemistry and Cell & Molecular Biology:** DNA extraction, Assay Preparation, Protein Extraction, Plasmid DNA preparation, Restriction enzyme digests, PCR, Agarose gel electrophoresis, using centrifugation, Amplicon Library Preparation
- **Chemistry:** Preparing solutions, Titrations, Extractions, Filtration, Solubility tests

PUBLICATIONS

- Warren, Steven D., et al. "Reproduction and dispersal of biological soil crust organisms." *Frontiers In Ecology Evolution. 7: 344*. 7 (2019): 344.
- Kurbessoian, Tania. *Comparative analysis of 16s ribosomal RNA typing and physiological traits within Sporosarcina ureae*. Diss. California State University, Northridge, 2016.
- *https://www.nps.gov/articles/exploring-the-microbial-diversity-in-biological-soil-crusts-at-joshua-tree-national-park.htm*

WORK EXPERIENCE

University of California, Riverside — **Riverside, CA**
Graduate Researcher — July 2017-
- Working with P.I. Dr. Jason E. Stajich on observing evolutionary trends in Fungi, while also focusing on melanized fungi isolated from a variety of environments including Biological Soil Crusts, rock patinas, the soil from tar pits, etc.
- Applied learned microbiology techniques to successfully isolate mycological organisms from arid regions and biological crusts.
- Developed Bioinformatics skills to assemble and annotate genomes from a variety of different Phyla of Fungi.
- Collaborating with multiple teams on numerous different projects involving melanized fungi.

Teaching Associate
- Winter 2019 MCBL 127 - Microbial Evolution 25% TA-ship
- Spring 2020 BIOL 119 - Introduction to Genomics and Bioinformatics 50% TA-ship
  - Facilitated teachings through preparing asynchronous lectures, graded homework, quizzes and exams and provided the final grade to the professors.

California State University, Northridge — **Northridge, CA**
Graduate Research Assistant — Jan. 2014 – Dec.2016
- Working with P.I. Dr. Larry Baresi using numerous molecular biology techniques to extract, isolate and digest DNA from and PCR techniques to extract 16S sequences from 57 strains of *Sporosarcina ureae*.
- Processed alignments and created phylogenetic trees which depict the non-clonal relationship between 57 strains.
- Appropriated the BIOLOG tool in order to observe physiological results expressing the relationship between the 57 strains.
- Utilized MALDI-TOF MS to create protein profiles for all 57 strains of *Sporosarcina* and created dendograms based on MSP's and 97% similarities of protein profiles to group them into OTUs, generated PCA plots.

Teaching Associate — Jan 2015 – Dec 2015
- Principles of Microbiology two semesters
  - Facilitated teachings through preparing lectures, graded exams, and provided final grades to the students.
  - Promoted a dynamic learning environment, while simultaneously enhancing communication skills through student interaction.

Graduate Teaching Assistant — Jan 2014 – Dec 2016
- Assisted undergraduate students in laboratory classes including Principles of Microbiology, Medical Microbiology, Microbial Physiology, Biology of the Fungi and Food Microbiology.

- Fostered CSU's success through preparing media and cultures that were utilized in the microbiology teaching classrooms.
- Taught students how to maneuver and accomplish proper aseptic technique.

California State University **Northridge, CA**
Undergraduate Research Student Jan – Dec 2013

- Prepared different types of media specific to certain types of *Escherichia coli* as well as to an archaea *Methanobrevibacter smithii strain G*.
- Isolated and transferred *Methanobrevibacter smithii strain G* through anaerobic techniques.
- Worked within an anaerobic hood infecting *Methanobrevibacter smithii strain G* with Phage G.

INTERNSHIP EXPERIENCE

Jet Propulsion Laboratory, JPL - NASA **Pasadena, CA**
Summer Intern Program (SIP) Intern July – Sept. 2016

- Collaborated with P.I. Wayne Schubert and Planetary Protection Officers to apply biological aspects to astrobiological situations.
- Created, followed up and finished Embedded Bioburden experiments on extreme heat and desiccation resistant strains of Bacillus sp. (ATCC 29669), utilized a cryogen grinder and mastered serial dilutions and plating techniques.
- Calculated varying D-values for ATCC 29669 in varying temperature and time lengths.
- Created and maintained MALDI-TOF MS protein profiles of the Bacillus sp. (ATCC 29669).
- Prepared embedded spore masses using a variety of epoxies.

PROFESSIONAL ORGANIZATIONS

Association for Women in Science- Riverside Chapter(AWIS) **Riverside, CA**
President, Publicity Chair June 2018-

Mycological Society of America, Student Section (MSASS) **USA**
Vice-Chair, Outreach Chair August 2019-

Association for Women in Science- Riverside Chapter(AWIS) **Riverside, CA**
President, Publicity Chair June 2018-

Graduate Student Association- Microbiology Chapter (Micro-GSA) **Riverside, CA**
President, Vice President, Outreach June 2017-2020

Microbiology Students Association at California State University (MSA) **Northridge, CA**
Secretary, Treasurer and President Jan 2013-Aug 2016

Women in Science at California State University (WiS) **Northridge, CA**
Member Jan 2015-Dec 2016

Graduate Leadership Association at California State University (GLA) **Northridge, CA**
Social Media Coordinator Jan 2015-Dec 2016

Los Angeles Mycological Society (LAMS)
Member Nov 2014 - Present

American Society for Microbiology (ASM)
Member Aug 2013 – Present

Southern California Chapter of the American Society for Microbiology (SCASM)
Member Dec 2014 – Present

Mycological Society of America (MSA)
Student Member Jan 2016 -- Present

AWARDS & ADDITIONAL INFORMATION

- Research and Graduate Department- Research Scholarship 2014
- Presented Research at American Society of Microbiology General Meeting 2015
- Presented Research at CSUN Research Symposium at California State University, Northridge 2014, 2015, 2016
- Presented Research at Southern California American Society of Microbiology General Meeting 2016
- Presented Research at JPL-NASA September 2016
- Eugene Robles Fellowship winner September 2017
- Oral Presentation at Black Yeast Workshop part of ISHAM in Amsterdam, Netherlands 2018
- Emory Simmons Fellowship winner April 2019
- Presented Research at MSA- Mycological Society of America

❖ **Language skills:** Proficient in reading, writing and communicating in English, Armenian, Russian