

Dr. VAISHNAVI G. PADAKI (Ph.D.)

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EDUCATION

- *Ph.D. at the Department of Microbiology*, Oregon State University, Corvallis OR; research focus: Marine Microbiology **GPA: 3.79** (2020 - 2025)
- *Master of Science in Biochemistry* from the Department of Chemistry (Biochemistry), Savitribai Phule Pune University, Pune, **GPA: 3.8** (2017- 2019)
- *Bachelor of Science in Chemistry (additional double graduation year)*, Department of Chemistry, Fergusson College, Savitribai Phule Pune University, Pune, India. **GPA: 4** (2016 – 2017)
- *Bachelor of Science in Microbiology*, Department of Microbiology, Fergusson College, Savitribai Phule Pune University, Pune, India. **GPA: 3.9** (2013 - 2016)

RESEARCH EXPERIENCE

Positions and Scientific Appointments

- **Postdoctoral Research Associate I** – University of Arizona, Tucson, AZ.
Supervisor: Dr. Laura Meredith (August 2025- present)
- **Research Associate I** - Oregon State University, Corvallis, OR.
Supervisor: Dr. Kimberly Halsey (April- August 2025)
- **Graduate research assistant** – Oregon State University, Corvallis, OR.
Supervisor: Dr. Kimberly Halsey (2020 - 2025)
- **Mentor, undergraduate research** - Oregon State University, Corvallis, OR
 - Kaylene M. Abraham, Microbiology (2021-23)
 - Kerry Jacob, Integrative Biology (2022-23)
 - Madison Giese, Microbiology (2023-present)
- **Graduate research assistant** – Savitribai Phule Pune University, Pune, India.
Supervisor: Dr. Kisan Kodam (2017-2019)

CONTRIBUTIONS TO SCIENCE

- **PhD Research:**
Specialization in VOC metabolism in marine microbes
My research investigates microbial production and consumption of volatile organic compounds (VOCs). I am studying the range of VOCs produced by different algae and VOC consumption by the different bacterial species. A broad goal of my project is to understand how algal-bacterial interactions contribute to the biogeochemical cycling in the oceans.
- **University of Pune (SPPU) and National chemical laboratories (NCL):**
Isolation and Partial Purification of Bio-emulsifier from Waste Crude Oils,
 - Independent wet lab work for isolation and media optimization of the potential isolates. Assisted lab technician for GC MS and carried out chromatographic

- techniques, including TLC, HPLC for the obtained bio-emulsifiers.
- Studied applications including the effect of partially purified bio-emulsifier on the plant pathogens *Erwinia* and *Pantoea*.
- Master's Thesis:**
Enhancing the Biofuel Production Efficiency by Semi Biological Process and its Relative Sustainability from waste Crude Oils.
 - Isolation and enhancement of lipase activity in microbes by media optimization.
 - Novel method used for bio-ester production in media enriched by isolated microbes with free fatty acid production.
 - Different petrochemical tests on the bio-diesel produced in comparison to the diesel on the automobile engines (collaboration work with NCL).

SERVICE

- Graduate student advisor, Seminarium club, Oregon State University: (2023-24)**
Help students conduct art-science workshops and arrange seminars for informing Science and art integration.
- Department of Microbiology Head Search Committee, College of Sciences, OSU: (2022-2023)**
- Social Chair of the Microbiology Graduate Student Association (MGSA), OSU:** I plan social events for Graduate students. My goal is to help students to socialize, communicate and build collaborations in the Microbiology department. (2022-2023)
- Graduate Affairs Committee, Department of Microbiology, OSU:** As the graduate student representative, I convey information to the graduate students and relay their suggestions to the committee to ensure that graduate student views are considered in decision-making. (2021-present)
- Core Values Committee Member, Department of Microbiology, OSU:** We are committed to a just, equitable and inclusive place in our work environment. I am a proud member of the committee playing my role to bring these values in the department. (2021-2022)

SCHOLARSHIPS & FELLOWSHIPS

- Best jury award for Composing clouds in the ocean, State of the coast 2023;** Glass art named composing clouds in the ocean depicting phytoplankton data from NAAMES cruises.
- Best poster award, Gordon Research Conference 2023;** Excellent presentation and poster statement
- Margaret and Charles Black Scholarship** (500-dollar award): Oregon State University; excellence in Graduate studies (2023-24)
- Debbie S. Bellinghausen Microbiology Student Support Fund Scholarship** (1500-dollar award): Oregon State University; excellence in Graduate studies (2023-24)
- Art-Sci Fellowship:** Oregon State University; convergence of art and science (2022-2023)
- Provost Fellowship:** Oregon State University, for meritorious students in the first year of their Graduate Program (2020-2021)
- National chemical laboratories:** Pune scholarship for meritorious students receiving highest marks in M. Sc. Year 2 (2018-2019)

- **Gunwant scholarship:** Awarded to students receiving their undergraduate degree with distinction 1st class at Savitribai Phule Pune University (2017-2018)

WORK EXPERIENCE

- **PRAx Intern: Patricia Reser Arts x (PRAx), Oregon state university**
I help art- science fellows to build projects based on their interests in film, humanities, engineering and Science. I manage exhibitions and over all work flow of the program.
- **Classroom Teacher: Mishra Tutorials, Prime Academy and Emphatic Group of classes, Full-time Biology teacher**
Medical entrance examination NEET, AIPMT, CET training experience and guides students to ace these competitive exams. Interactions with students and one to one question-answer sessions regarding biology subject.

WORKSHOPS AND TRAININGS

- Zentangle workshop for Seminarium, Art Club at OSU. I showed how the scientific data can be equipped for the zentangle designs and how art can influence your scientific understanding. (2022)
- Conducted a workshop on zentangle art titled 'Our life on a page'. I showed people how to use their daily life experiences, hobbies, likes and dislikes to create a single page. Instagram page- https://www.instagram.com/entangle_zentangle/ (2018-2019)
- Received training in techniques used in pharmaceutical microbiology under the DBT Star College program. (January 2016)
- Attended a series of lectures on Eukaryotic Genetics given by guest speakers from the University of Pune and IISER, Pune (February 2016)
- Completed certificate course in Forensic Science and Medicine (Grade B) from International Forensic Sciences (August 2015)

DATA SCIENCE SKILLS AND BIOINFORMATICS

- **Programming in R** with CQLS, September 2021- December 2021
- **Unix/Linux- Command line** Data analysis with CQLS, March 2021-June 2021
- **Cytoscape (software) drug mechanism on the genome of *Saccharomyces cerevisiae* – system biology** with RASS BioSolutions Pvt. Ltd., India, under Dr. Satyam Khanna, May 2016

PRESENTATIONS

- **Poster presenter**, Volatile hydrocarbons represent a major hydrocarbon flux from diatom *Phaeodactylum tricornutum* to its phycosphere bacteria at Board of Advisors meeting, College of Science, May 2023
- **Talk**, Composing clouds in the ocean at Board of Advisors, Creative arts, Oregon State University, March 2023
- **Poster presenter**, Composing clouds in the ocean- art-science integration project at Board of trustees meeting, College of Science, January 2023
- **Presenter**, model explaining and depicting the mechanism of Type-I hypersensitivity for the 30th Anniversary celebration of the Department of Biotechnology, Govt. Of India, December

2015

- **Presenter**, model explaining *Ebola* virus and its biological effects on *Homo sapiens* at Fergusson college, December 2013

COMMUNITY OUTREACH

- **Social work:** Worked with the student organized NGO, Doorstep, on a weekly basis, to teach English and Mathematics to underprivileged children at local community learning centers. August 2015- March 2017
- **Classroom tutor:** JHA Educational Services for NEET students of Standard 11-12th organic chemistry
- **Online tutor** at UNacademy.com as Padaki, Vaishnavi for IIT-JEE students of standard 11-12th organic chemistry and biochemistry.
- **Creative representative** during college festivals and competitions

EXTRACURRICULAR ACTIVITIES

- Attended a national conference, Modern Analytical Techniques in Microbiology. January 2014