



Plot. No. 14, S. No. 87(part), Pratiksha CHS,
Hingnemala, Hadapsar, Pune

+91 9137048262

shrutikawadgaonkar@gmail.com

<https://www.linkedin.com/in/shrutika-wadgaonkar/>

<https://www.researchgate.net/profile/Shrutika-Wadgaonkar>

<https://orcid.org/0000-0002-1437-5458>



Dr. Shrutika Wadgaonkar

Ph.D. in Environmental Biotechnology

Education

- **Ph.D. in Environmental Biotechnology | UNESCO IHE, Institute for Water Education, Delft (the Netherlands)**
Erasmus Mundus Joint Doctoral Program
Thesis entitled "Novel bioremediation processes for treatment of seleniferous soils and sediment"
October 2014 – December 2017
Research mobility: Helmholtz Centre for Environmental Research – UFZ, Leipzig, Germany (3 months)
Saarland University, Saarbrücken, Germany (3 months)
University of Napoli Frederico II, Naples, Italy (6 months)
Output: 5 research papers, 1 review, and 1 book chapter in peer-reviewed journals
- **M.Sc. in Biotechnology | Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra (India)**
July 2007 – April 2009
- **B.Sc. Diploma in Applied Biotechnology | RYK Science College, University of Pune, Nashik (India)**
June 2006 – June 2007
Projects undertaken:
 - Evaluation of Amla, Tamarind, and Tulsi juice on scalp isolates of Malassezia species.
 - Isolation of endosulfan degrading organisms from the soil.
 - Microbiological activity of paan (betel leaf chew) and Antifungal action of Tridax
- **B.Sc. in Biotechnology | Royal College, University of Mumbai, Mumbai (India)**
July 2003 – May 2006

Experience

- **Assistant Professor | Modern College of Arts, Science and Commerce, Ganeshkhind, Pune(India)**
Sep 2022 – Present
 - Teaching Genetics and Environmental Biotechnology courses to B.Sc. and M.Sc. students.

- **Personal Sabbatical | Pregnancy and Child care**
Jan 2018 - present
 - Published manuscripts from Ph.D. research (including a review and a book chapter).
 - Active reviewer for peer-reviewed journals (HAZMAT, Environmental Pollution, Scientific Reports – Nature, etc.) and international conferences (ICSEEGT-2022, India).
 - Currently pursuing online courses: Python and Programming in Bioinformatics.
- **Research Fellow | Department of Life Sciences, University of Mumbai, Mumbai (India)**
July 2011 – July 2014
 - **Project:** Bioremediation of dyestuff effluent compounds in a sequence bioreactor and metagenomic study of the rhizosphere.
 - **Key activities:** (1) Degradation of dyes using microbes isolated from dye contaminated sites. (2) Dye degrading micro-organisms isolated, 16S rDNA sequence submitted in NCBI nucleotide database. (3) Standardization of phytoremediation as one of the approaches for dye degradation.
- **Research Assistant | Centre for DNA Fingerprinting and Diagnostics, Hyderabad (India)**
October 2009 – October 2010
 - **Project:** *In vivo* screening and identification of RNA polymerase mutants defective for Rho-dependent transcription termination in prokaryotes.
 - **Key activities:** (1) Standardization of protocol for linear DNA transformation using electroporation. (2) Screening and Isolation of RNA polymerase mutants defective for Rho-dependent transcription termination in *E. coli*. (3) Screening and Isolation of RNA polymerase mutants defective for Rho-dependent transcription termination in prokaryotes.

Publications

1. **Wadgaonkar SL**, Lens PNL (2021) In situ and ex situ bioremediation of seleniferous soils and sediments. Lens P, Pakshirajan K (Eds.) Environmental Technologies to Treat Selenium Pollution: Principles and Engineering. [IWA Publishing](#), London (UK). DOI: 10.2166/9781789061055_0217
2. **Wadgaonkar SL**, Nancharaiah YV, Jacob C, Esposito G, Lens PNL (2019) Selenate reduction by *Delftia lacustris* under aerobic conditions. [Microbial Biotechnol.](#) 57(5): 362-371. DOI 10.1007/s12275-019-8427-x
3. **Wadgaonkar SL**, Nancharaiah YV, Esposito G, Lens PNL (2018) Environmental impact and bioremediation of seleniferous soils and sediments. [Crit. Rev. Biotechnol.](#) 38(6): 941-956. DOI: 10.1080/07388551.2017.1420623.
4. **Wadgaonkar SL**, Mal J, Nancharaiah YV, Maheshwari N, Esposito G, Lens PNL (2018) Formation of Se(0), Te(0) and Se(0)-Te(0) nanostructures during simultaneous bioreduction of selenite and tellurite in a UASB reactor. [Appl. Microbiol. Biotechnol.](#) 102(6): 2899-2911. DOI: 10.1007/s00253-018-8781-3
5. **Wadgaonkar SL**, Ferraro A, Nancharaiah YV, Dhillon KS, Fabbicino M, Esposito G, Lens PNL (2018) *In situ* and *ex situ* bioremediation for removal and recovery of selenium from seleniferous soils of Northwestern India. [J. Soils Sediments](#) 19(2):762-773. DOI 10.1007/s11368-018-2055-7.
6. **Wadgaonkar SL**, Ferraro A, Race M, Nancharaiah YV, Dhillon KS, Fabbicino M, Esposito G, Lens PNL (2018) Optimisation of soil washing to reduce selenium level of seleniferous soil from Punjab, Northwestern India. [J. Environ. Qual.](#) 47(6): 1530-1537. DOI:10.2134/jeq2018.05.0187
7. Ohlbaum M, **Wadgaonkar SL***, van Bruggen H, Nancharaiah YV, Esposito G, Lens PNL (2018) Phytoremediation of seleniferous soil leachate using the aquatic plants *Lemna minor* and *Egeria densa*. [Ecol. Eng.](#) 120: 321-328. DOI: 10.1016/j.ecoleng.2018.06.013 (*Corresponding author)
8. Fulekar MH, **Wadgaonkar SL**, Singh A (2013) Decolourization of dye compounds by selected bacterial strains isolated from dyestuff industrial area. [Int. J. Adv. Res. Technol.](#) 2(7):182-192.

9. Pathak P, **Wadgaonkar SL**, Fulekar MH (2012) Ecological Remediation of Persistent Dye Compounds in Soil Water Environment. [Proceedings - Strategies for Mitigation of Environmental Degradation and Climate Change](#), Hisar, Haryana, India, pp 94-100.
-

Technical Skills

- **Analytical techniques** – Fluorescence Spectroscopy, graphite furnace, and Flame AAS, Isotope Ratio Mass Spectrometer, Ion chromatography, Gas chromatography, HPLC, UV-Vis spectroscopy, DLS and zeta potential, and SEM-EDX.
 - **Microbial and molecular biology techniques** – Aerobic and anaerobic culture, isolation and maintenance, FISH, Cloning, primer design, PCR, genomic and plasmid DNA isolation from bacteria, transformation, transduction, electroporation, electrophoresis, bioinformatics for data processing; cloning and BLAST identification.
 - **Reactors** – Upflow Anaerobic Sludge Blanket (UASB) reactor, Biotrickling filter (BTF).
-

Communication/Organization/Other Skills

- **Excellent in communicating** with different professional levels and different types of nationalities.
 - **Effective leadership skills**, organized work, responsible and multi-tasking management abilities – time management; mentoring master students in coursework and research.
 - **Basic knowledge** in policy in environmental safety and health concerns; basic instrumentation and control for analytical instrument.
 - **Competent with computer programs** – Microsoft Office™ tools; basic knowledge in modeling and design method (Origin Lab, MatLab, Visual MINTEQ).
-

Awards and Scholarship

- Short term scientific mission (**COST Action ES1302**, funded by EU Framework Programme Horizon 2020), July 2016 – September 2016.
 - **Erasmus Mundus Joint Doctoral** Fellowship, October 2014- September 2017.
 - **Graduate Aptitude Test** in Engineering (National Level Exam conducted by Indian Institute of Technology for M.Tech/Ph.D.) -2011 Qualified (Gate Score:418, All India Rank: 913).
 - **National Eligibility Test** conducted jointly by University Grants Commission-Council for Scientific and Industrial Research (Lectureship) December-2008 qualified (National Level Qualification to teach Undergraduates and Masters Level Students).
-

Workshops and Conferences:

1. **Poster presentation** on “Selenate reduction by bacterial strains isolated from anaerobic granular sludge” at 4th International Conference on Research Frontiers in Chalcogen Science and Technology (G16) at Delft, Netherlands, May 28-29, 2015.
2. **Advanced Ph.D. course** on “Modelling in environmental technology, entrepreneurship and innovation and successful proposal writing”, University of Cassino, Italy, July 2-7, 2017.
3. **Summer School** on “Biological treatment of solid waste”, Gaeta, Italy, June 26-30, 2017.
4. **Summer School** on “Contaminated sediments – characterization and remediation”, Delft, The Netherlands, May 23-27, 2016.

5. **Winter School** on "Advanced Biological Waste-to-Energy Technologies - Introductory Course", Delft, the Netherlands, January 18-22, 2016.
6. **Summer School** on "Contaminated soil – Characterization and Remediation", Paris, France, June 29 – July 3, 2015.
7. **Advanced Ph.D. course** on "Contaminated soil and remediation", Paris-Est University, France, 22-26, 2015.
8. A1 SENSE Ph.D. Course on "Environmental Research in Context", Apeldoorn, the Netherlands, March 18-20, 2015.
9. **Advanced Ph.D. course** on "Anaerobic wastewater technology", UNESCO-IHE, Delft, The Netherlands, March 2-6, 2015.
10. **Poster Presentation** in the National Conference on "Environment and Sustainable Development" held at School of Environment and Sustainable Development, Central University of Gujarat, Gandhinagar, India, January 12-15, 2014.
11. **Paper Presentation** in National Conference on "Forest for the Future of Man" at N.E.S. Ratnam College, Mumbai, India, December 2-3, 2012.

References

1. Prof. Piet N L. Lens

National University of Ireland Galway,
University Road,
Galway, Ireland
H91 TK33
Email: piet.lens@nuigalway.ie; p.lens@un-ihe.org

2. Prof. Massimiliano FABBRICINO

Università degli Studi di Napoli Federico II
Dipartimento di Ingegneria Civile Edile ed Ambientale
Laboratorio di Analisi e Ricerche Ambientali
Via Claudio 21 - Palazzina 8 - III piano
80123 NAPOLI – ITALIA
Email: fabbrici@unina.it; massimiliano.fabbricino@gmail.com

3. Dr. Yarlagadda V. NANCHARAI AH

Scientific Officer G
Biofouling & Biofilm Processes Section,
WSCD, Chemistry Group,
Bhabha Atomic Research Centre
Department of Atomic Energy, Government of India
Kalpakkam - 603102, Tamil Nadu, INDIA
email: yvn@igcar.gov.in, venkatany@gmail.com
