

Name: Dr. Swati Mohapatra

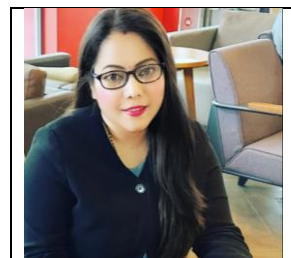
Designation: Assistant Professor

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School: School of Science



Research Interest:

- Development of novel Biomarker for influenza virus
- Bio-prospecting of microbial lipid ester in biomedical and agricultural application
- Conversion of waste to green energy
- Developing novel antimicrobial therapeutics by exploring multi enzyme targets

Academic Background:

Degree	Subject	University	Year
B.Sc.	Zoology	Utkal University	2010
M.Sc.	Applied Microbiology	Kalinga Institute of Industrial Technology (KIIT University)	2012
Ph.D.	Microbiology	Orissa University of Agriculture and Technology (OUAT)	2016

Professional Experience:

From	Period	Position	Organisation
01/06/2016	22/09/2018	Post Doctoral Fellow	Indian Institute of Technology, Roorkee (IITR)
24/09/2018	20/12/2020	Assistant Professor-I	Amity University
8/01/2021	01/10/2022	Research Professor	WKU Medical University, South Korea

Teaching Engagements:

Title	Course Code	Class Name	School Name
Bacteriology	MB/MBT 601	M.Sc.	Amity institute of Microbiology
Clinical Microbiology	MB/MBT 703	M.Sc.	Amity institute of Microbiology
Environmental Microbiology	MB/MBT 603	M.Sc.	Amity institute of Microbiology
Basic clinical Microbiology	MB/MBT 206	B.Sc. (H)	Amity institute of

			Microbiology
Fundamentals of Environmental Microbiology	MB/MBT 201	B.Sc. (H)	Amity institute of Microbiology
Fundamental of Bacteriology	MB/MBT 102	B.Sc. (H)	Amity institute of Microbiology
Microbial physiology and Metabolism	MB/MBT 104	B.Sc. (H)	Amity institute of Microbiology
Advances in Microbiology	MB/MBT 301	B.Sc. (H)	Amity institute of Microbiology

Publications:

- 2021**
- Update vision on COVID-19: Structure, immune pathogenesis, treatment and safety assessment, R.Agrahari, S.Mohanty, K.Vishwakarma, S.K.Nayak, D.Samantaray, **Swati Mohapatra**; Sensors International; Volume 2, 2021, 100073, <https://doi.org/10.1016/j.sintl.2020.100073>.
 - R Kumar, R Kumari, C Prasad, A Deep, N Singh, S Namtak, V Tiwari, R Merugu, **Swati Mohapatra**, R Singh. Influence of water quality on the diversity of macroinvertebrates in the Mandakini river in India <https://doi.org/10.2166/ws.2021.020>. (IF- 1.275)
 - R Kumar, R Kumari, C Prasad, V Tiwari, N Singh, Swati Mohapatra, R Merugu, S.Namtak, A. Deep, Phytoplankton diversity in relation to physicochemical attributes and water quality of Mandakini River, Garhwal Himalaya. Environmental Monitoring and Assessment (2020) 192:799. <https://doi.org/10.1007/s10661-020-08768-3>. (IF-2.513)
 - D.Bandekar, **Swati Mohapatra**, M. Hazra, S. Hazra, S. Biswas, N-terminal truncation of VC0395_0300 protein from *Vibrio cholerae* does not lead to loss of diguanylate cy. clase activity. Biophysical Chemistry. <https://doi.org/10.1016/j.bpc.2020.106493>. (IF-2.352)
- 2020**
- R. M. Tripathi, P. Hameed, R. P. Rao, N. Shrivastava, J. Mittal, **Swati Mohapatra** Biosynthesis of Highly Stable Fluorescent Selenium Nanoparticles and the Evaluation of Their Photocatalytic Degradation of Dye. BioNanoScience, <https://link.springer.com/article/10.1007%2Fs12668-020-00718-0>. (IF- 2.31)
 - I. Kohli, N. C. Joshi, **Swati Mohapatra** and A. Varma, “Extremophile – An Adaptive Strategy for Extreme Conditions and Applications”, Current Genomics (2020) 21: 96. <https://www.eurekaselect.com/180626/article>. (IF- 2.7)
 - K. Vishwakarma, N. Kumar, C. Shandilya, **Swati Mohapatra**, S. Bhayana and A. Varma, Revisiting Plant–Microbe Interactions and Microbial Consortia Application for Enhancing Sustainable Agriculture: A Review; Front. Microbiol., <https://doi.org/10.3389/fmicb.2020.560406>; (IF-5.64)
 - **Swati Mohapatra**, S. Pattnaik, S. Maity, S. Mohapatra, S. Sharma, J. Akhtar, S. Pati, D.P.Samantaray, A.Varma, Comparative analysis of PHAs production by *Bacillus megaterium* Ouat 016 under submerged and solid-state fermentation. Saudi journal of Biological Science. (I F-4.219) <https://www.sciencedirect.com/science/article/pii/S1319562X20300437>
 - S.Maity, S.Das, **Swati Mohapatra**, A.D.Tripathi, J.Akhtar, S.Pati, S.Pattnaik, D.P.Samantaray. Growth associated polyhydroxybutyrate production by the novel *Zobellella tiwanensis* strain DD5 from banana peels under submerged fermentation. International Journal of Biological Macromolecules.

- 2019** <https://doi.org/10.1016/j.ijbiomac.2020.03.004> (IF- 6.953)
- S. Pati, S. Maity, A. Dash, S. Jema, **Swati Mohapatra**, S. Das & D. P. Samantaray. Biocompatible PHB Production from Bacillus Species Under Submerged and Solid-State Fermentation and Extraction Through Different Downstream Processing. Current Genomics. 10.1007/s00284-020-01922-7 (IF-2.63)
 - S. Pattnaik, D. Dash, **Swati Mohapatra**, M. Pattnaik, A. K. Marandi, S. Das, D. P. Samantaray; Improvement of rice plant productivity by native Cr(VI) reducing and plant growth-promoting soil bacteria Enterobacter cloacae. Chemosphere (2020) 124895. [Doi.org/10.1016/j.chemosphere.2019.124895](https://doi.org/10.1016/j.chemosphere.2019.124895). (IF-7.86)
- 2018**
- M. S. sarkar, H. segu, J. V. Bhaskar, R. Jakher, **Swati Mohapatra**, K. Shalini, S. Shivaji, P. A. Reddy. Ecological preferences of large carnivores like 1 tiger in remote, high-altitude protected areas: Insights from Buxa Tiger Reserve, India. Oryx; doi:10.1017/S0030605317000060 . (Impact Factor= 2.693)
 - D. Mohanty, S. Misra, **Swati Mohapatra**, P. S. Sahu, Prebiotics and synbiotics: Recent concepts in nutrition, Food Bioscience. 26 (2018) 152–160. (IF=4.24)
- 2016**
- Sachin Kumar Bharatiy, **Swati Mohapatra**, Mousumi Hazra, Manish Paul, Deviprasad Samantaray, Ramesh Chandra Dubey, Shourjya Sanyal, Saurav Datta, Saugata Hazra,: In silico designing of an industrially sustainable carbonic anhydrase using Molecular Dynamics Simulation. ACS Omega. 1, 1081–1103. (IF-3.512)
 - **Swati Mohapatra**, Surya Narayan Rath, Sukanta Kumar Pradhan, Devi Prasad Samantaray, Chandi Charan Rath.: Secondary Structural Models (16S rRNA) of Polyhydroxyalkanoates Producing Bacillus Species Isolated from Different Rhizospheric Soil: Int. J. Bioautomation Phylogenetics and Chemical Analysis. Vol. 20(3): 329-338. (IF-0.35)
 - **Swati Mohapatra**, D. P. Samantaray, S. M. Samantaray, B. B. Mishra, S. Das, S. Majumdar, S. K. Pradhan, S. N. Rath, C. C. Rath, J. Akthar, G. Achary,: Structural and thermal characterization of PHAs produced by Lysinibacillus sp. through submerged fermentation process. International journal of Biological Macromolecules. <http://dx.doi.org./10.1016/j.ijbiomac.2016.09.077>. (IF-6.953)
 - A. Pradhan, **Swati Mohapatra***, D.P. Samantaray, B. B. Mishra,: A Note on Agricultural Importance of PHAs Producing Bacillus sp. on Plant Growth Promoting Activities. Journal of Advance Microbiology. Vol.2(3):159 – 163 (SCI).
- 2015**
- Mohanty DP., **Swati Mohapatra**, Misra S., Sahu PS.: Milk derived bioactive peptides and their impact on human health- A REVIEW. Saudi Journal of Biological Science, DOI: 10./1016/j.sjbs.2015.06.005. (IF=4.219)
 - **Swati Mohapatra**, Mohanta PR., Sarkar B., Daware A., Kumar C., Samantaray DP.: Evaluation of PHA productivity by using Bacillus subtilis isolated from municipal sewage. Proceedings of the National Academy of Sciences, India Section B: Biological Sciences, DOI: 10.1007/s40011-015-0626-6. (IF=0.96)
 - **Swati Mohapatra**, Samantaray DP., Samantaray, SM.: Polyhydroxyalkanoates production from rhizospheric soil bacteria of sweet potato. Indian Journal of Science and Technology. Vol. 8(S7): pp. 57-62 (SCI).
 - **Swati Mohapatra**, Samantaray DP., Samantaray SM.: Impact of process recovery on PHAs production by Bacillus thuriengensis RKD-12, Pollution Research. Vol. 34(2):395-400. (SCI- 0.5)
 - Mohanty DP, Choudhury P, Choudhury R, Pattanaik R, **Swati Mohapatra**, Saini M.: Milk derived antimicrobial bioactive peptides- a Review. International Journal of Food Properties, DOI: 10.1080/10942912.2015.1048356 .(IF=2.727)

- 2014**
- **Swati Mohapatra**, Samantaray DP., Samantaray, SM: Phylogenetic heterogeneity of the rhizospheric soil bacterial isolates producing PHAs revealed by comparative analysis of 16s-rRNA, IJCMAS, Vol.3 (5): [pp. 680-690](#). (IF=0.654)
 - Mohanty DP, Tripathy P, **Swati Mohapatra**, Samantaray DP: Bioactive potential assessment of antibacterial peptide produced by Lactobacillus isolated from milk and milk products, IJCMAS, Vol.3 (6): [pp. 72-80](#). (IF=0.654)
 - Dash S, **Swati Mohapatra**, Samantaray DP., Sethi AK.: Production of polyhydroxyalkanoates by sugar cane rhizospheric soil bacterial isolates, JPAM, Vol. 8 (6): [pp. 4889-4895](#). (IF=0.282)
 - Mohapatra S., **Swati Mohapatra.**, Maity S., Samantaray, DP: Evaluation of disinfectants on growth of bacteria associated with pinning stage of paddy straw mushroom cultivation, [JAM, Vol. 1\(4\): 227-232](#). (SCI)
 - Mohanty S., Samantaray DP., **Swati Mohapatra**, Rath S.N., Mohanty D.P., Rath C.C., Studies on biodegradation of medium chain length PHAs by soil bacterial isolates, Journal of Advanced Microbiology, [Vol.1\(6\):350-357](#). (SCI)

Book Chapter:

- 2022**
- S Pattnaik, **Swati Mohapatra**, S Pati, D Dash, D Devadarshini, K Tanaya, B B Mishra, D Samantaray. Microbial bioremediation of Cr(VI)-contaminated soil for sustainable agriculture. Microbial Biodegradation and Bioremediation (Second Edition), 2022, Pages 395-407, **Elsevier**.
- 2021**
- S Pati, ***Swati Mohapatra**, K Vishwakarma, D Bandekar, A Mishra, D Samantaray. Impact of Climate on Soil Microbes and Plant Health. Climate Change and the Microbiome, pp 359-368, DOI: 10.1007/978-3-030-76863-8_19 **Springer, Germany**, 2021.
 - R Agrahari, G Sarraf, N C Joshi, ***Swati Mohapatra**, A Varma. Insight of Biopolymers and Applications of Polyhydroxyalkanoates. Microbial Polymers pp 177-191, 2021, DOI: 10.1007/978-981-16-0045-6_8; **Springer Nature**.
 - S. Pati, ***Swati Mohapatra**, S. Maity, A. Dash, D. P. Samantaray. Polyhydroxyalkanoates for Sustainable Smart Packaging of Fruits, Environmental and Agricultural Microbiology: Applications for Sustainability, <https://doi.org/10.1002/9781119525899.ch8>, Online ISBN: 9781119525899. 2021. **Wiley**.
 - ***Swati Mohapatra**, D Mohanty, S Mohapatra, S Sharma, S Dikshit, I Kohli, Dp Samantaray, R Kumar, M Kathpalia, Biomedical Application of Polymeric Biomaterial: Polyhydroxybutyrate, Bioresource Utilization and Management: Applications in Therapeutics, Biofuels, Agriculture, and Environmental Science, 2021, **CRC Press**.
 - R Kumar, U K Neerudu, R Gothalwal, **Swati Mohapatra**, P K Deshpande, M M Vani, R Merugu, Bioprocess Parameters for Thermophilic and Mesophilic Biogas Production: Recent Trends and Challenges, Bioenergy Research: Basic and Advanced Concepts pp 225-256. Online ISBN-978-981-33-4611-6, https://doi.org/10.1007/978-981-33-4611-6_8, **Springer, Singapore**.
 - S Nibedita, P Swati, M Pattnaik, **Swati Mohapatra**. Methane Emission and Strategies for Mitigation in Livestock. Environmental and Agricultural Microbiology: Applications for Sustainability,

- <https://doi.org/10.1002/9781119525899.ch12>, Online ISBN: 9781119525899. 2021, **Wiley**.
- R Kumar, R Gothalwal, **Swati Mohapatra**, P K Deshpande, R Merugu; Sustainable Production of Hydrogen by Algae: Current Status and Future Perspectives. Bioenergy Research: Basic and Advanced Concepts pp 183-223. Online ISBN-978-981-33-4611-6, https://doi.org/10.1007/978-981-33-4611-6_7, **Springer, Singapore**.
 - **Swati Mohapatra**, K. Vishwakarma, N. C. Joshi, S. Maity, R. Kumar, M. Ramchander, S. Pattnaik, D. P. Samantaray A Review on PHAs: The Future Biopolymer, Environmental and Agricultural Microbiology: Applications for Sustainability, <https://doi.org/10.1002/9781119525899.ch5>, Online ISBN: 9781119525899. 2021, **Wiley**.
 - **Swati Mohapatra**, S. Maity, S. Pati, A. Dash, D. P. Samantaray; Polyhydroxyalkanoates: The Green Polymer; [Frontiers in Soil and Environmental Microbiology](#). eBook ISBN9780429485794. 2020
 - **Swati Mohapatra**, N Pandey, S Dey, D Dasgupta, P Mondal, D Ghosh, Saugata Hazra. Production of Biodegradable Polymers (PHAs) by Soil Microbes Utilizing Waste Materials as Carbon Source. [Frontiers in Soil and Environmental Microbiology](#), 23
 - N. Bansal, M. B. Khot, A. Jana, A. K Nautiyal, T. Sharma, D. Dasgupta, **Swati Mohapatra**, S. K. Yadav, S. Hazra, and D. Ghosh. Oleaginous Yeasts: Lignocellulosic Biomass Derived Single Cell Oil as Biofuel Feedstock. Chapter 14, Online ISBN: 978111946038. [Principles and Applications of Fermentation Technology](#)
 - Pradhan A., Pahari A., **Swati Mohapatra**, Mishra B.B. (2017); Phosphate-Solubilizing Microorganisms in Sustainable Agriculture: Genetic Mechanism and Application. In: Adhya T., Mishra B., Annapurna K., Verma D., Kumar U. (eds). Advances in Soil Microbiology: [Recent Trends and Future Prospects](#); Microorganisms for Sustainability, vol 4. Springer, Singapore. https://doi.org/10.1007/978-981-10-7380-9_5; Online ISBN 978-981-10-7380-9; 31 January 2018; Springer, Singapore.
 - Samantaray DP., **Swati Mohapatra**, Sethy AK., Mishra BB.: Plant growth-promoting rhizobacteria and their potential approach to bioremediation of toxic metal. [Recent Trends in Bio-fertilizer](#), PP: 235-245, I. K. Publication, India..
 - Samantaray DP., **Swati Mohapatra**, Mishra BB.: Microbial Bioremediation of Industrial Effluent. [Microbial Biodegradation & Bioremediation](#), PP: 325-339, Elsevier, India. <https://doi.org/10.1016/B978-0-12-800021-2.00014-5>. ISBN: 978-0-12-800021-2.

Book:

2021: Environmental and Agricultural Microbiology, Applications for Sustainability, ISBN:9781119526230, 111952623X, **Publisher:Wiley, Editors:** Bibhuti Bhusan Mishra, Deviprasad Samantaray, Suraja Kumar Nayak, **Swati Mohapatra**

Awards/ Recognitions:

- 2020 **National research foundation; South Korea**
Grant for Research Professor
- 2016 **Award of Ministry of Human Resource Development, Govt. of India National**
fellowship for a postdoctoral fellow.
- 2014 **Young Scientist Award**
International Conference on Life Science and Bioengineering- ICLSBE-2014
- 2012 **Hidden talent Award- M.Sc. Applied Microbiology, KIIT University**

Patent:

Submitted: A novel eco-friendly tool to suppress the algal bloom in water bodies
[202011007927 (CRN3871)]