

Dr. Premalata Pati

Researcher

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Professional Summary

Experienced on marine biology, cancer biology and bioinformatics specifically on secondary metabolites isolation from different marine sources and did its chemical characterization along with their bioactivity studies). Currently, I am working on industrial projects on “computation studies of anticancer marine products for Lung cancer drug designing”.

Educational Details

1. Industrial Project - Sept 2020 - Current | Rapture Biotech International Pvt. Ltd. | Noida, Uttar Pradesh | Computer Aided Drug Design of Marine Therapeutics
2. Ph. D. - Apr 2011 - Dec 2016 | Berhampur University | Berhampur, Odisha | Marine Biology (Marine Natural Products)
3. Master of Philosophy - Jan 2010 - Dec 2010 | Berhampur University | Berhampur, Odisha | Marine Biology (Planktonic Diatoms)
4. Master of Science - Aug 2007 - Aug 2009 | Berhampur University | Berhampur, Odisha | Marine Biology
5. Bachelor of Science - Jun 2004 - May 2007 | Utkal University | Bhubaneswar, Odisha | Zoology (Hons.), Chemistry (Pass)

Academic Awards

1. **National Post-Doctoral Fellowship** by SERB, Dept. of Science and Technology, Govt. of India (2018).
2. **Newton-Bhabha Ph.D Placement** by British Council, UK and Dept. of Science and

Technology, Govt. of India at University of Aberdeen, Scotland, UK (2016).

3. **INSPIRE Fellowship** for Ph.D by Dept. of Science and Technology, Govt. of India at Berhampur University, Odisha, India (2011).

4. **1st class first** rank in Marine Biology, Dept. of Marine Sciences, Berhampur University, (2009).

Work Experience

1. National Post-Doctoral Fellow | Centre for Drug Discovery and Development, Sathyabama Institute of Science & Technology | Chennai, Tamil Nadu | Apr 2018 - Feb 2019
2. Visiting Research Fellow | Marine Biodiscovery Centre, Dept. Of Chemistry, University of Aberdeen | Aberdeen, Scotland, UK | Mar 2016 - Sep 2016
3. Senior Research Fellow | Dept of Marine Sciences, Berhampur University | Berhampur, Odisha | Aug 2013 - May 2016
4. Junior Research Fellow | Dept of Marine Sciences, Berhampur University | Berhampur, Odisha | Jun 2011 - Jul 2013

Skills

- Computer Aided Drug Designing
- Cancer Biology
- Marine Natural Products Isolation
- Bioinformatics
- HP-LC, LC-MS, NMR
- Metabolite Profiling, Data mining
- Anticancer, antioxidant, antidiabetic, antituberculosic, antimicrobial assays
- Data interpretation, validation, presentation, manuscript and report preparation
- Excellent Command in communication in English Language
- Learning different sophisticated instrumentation techniques, software related to marine drug discovery by online as well as hands-on Browsing updated research highlights on novel drug discovery on web
- Marine Biological survey and Experimentation along with coastal zone monitoring and Biodiversity Conservation

Projects and Expertise

1. **Postdoc Project (Sathyabama Institute of Science and Technology, Chennai, India)**
Isolation of potential antituberculosis metabolites from actinobacteria isolated from Bhitarkanika mangrove ecosystem, Odisha.

2. Ph.D. Placement Project (Marine Biodiscovery Centre, University of Aberdeen, Scotland, UK)

Isolation and characterization of secondary metabolites from deep sea fungus.

3. Ph. D. Thesis (Berhampur University, Odisha, India)

Isolation and Chemical Characterization of Bioactive Compounds from Marine Molluscs of East Coast of India

4. M. Phil. Thesis (Berhampur University, Odisha, India)

Studies on the planktonic diatoms in coastal waters of Gopalpur, East Coast of India.9. Sahu, B. K., Pati, P and Panigrahy, R. C., 2013. Plastic litters: a major environment

Certifications

Diploma in Computer Application

Affiliations

Life Member of Marine Biological Association of India

Languages

English

Hindi

Odia

Training and Workshops

1. Online Workshop on **Targeted Gene Editing using CRISPR Technology**, 2020.
2. International Workshop Towards **Achieving *in situ* Functional Histopathology** sponsored by IEEE Engineering in Medicine and Biology Society and DST, Govt. of India organized by School of Medical Science and Technology, Indian Institute of Technology Kharagpur, West Bengal, India from 21-22 March, 2015.
3. Training Program on **Biodiversity of Marine Flora** sponsored by Ministry of Human Resource Development, Govt. of India, organized by CAS in Marine Biology, Annamalai University, Tamil Nadu from 19th -20th March, 2014.
4. Training Program on **Microbial Techniques** sponsored by Ministry of Human Resource Development, Govt. of India, organized by CAS in Marine Biology, Annamalai University, Tamil Nadu from 16th -17th March, 2014.
5. National Level Short-Term Hands on Training in **Recent Advances in Marine Ecotoxicological Testing (RAMETOX2013)** from 11th-15th September, 2013 organized by Department of Marine and

Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Tamil Nadu.

6. CAS in Marine Biology, Annamalai University From 3rd-17th July, 2013 For learning the techniques of **Extract Preparation, Separation of Compound based on polarity, TLC, HPLC & HPTLC, SDS-PAGE & antimicrobial and antioxidant activities** of Marine Invertebrates.

7. BTISNET-DBT sponsored Workshop-cum-Training program on **Application of Bioinformatics tools in Biological Science Teaching and Research** during 22nd-24th March, 2013, Berhampur University, India.

Seminar, Conference and Webinars

1. Webinar on Neurology on December 06th, 2020 organised by The Biomics.
2. Symposium on “Recent Trends in Shrimp Farming (RTSF-2014)” organized by CAS in Marine Biology, Annamalai University on 25th March, 2014.
3. National Seminar on Marine Biodiversity and Coastal Pollution (MBCP-13) during 25- 26 March, 2013 at Department of Marine Sciences, Berhampur University, Odisha, India.
4. National Seminar on Recent Advances in Research on Marine Environment at G.V.P College, 11th-12th, March, 2012, Visakhapatnam, Andhra Pradesh.
5. National Seminar on Integrated Coastal Zone Management (ICZM-12) during 24-25 February, 2012 at Department of Marine Sciences, Berhampur University, Odisha, India.
6. National Seminar on Marine Biodiversity: Present Status and Prospects during 16th - 18th September, 2010 at Bharthidashan University, Tiruchirapalli, Tamil Nadu.
7. International Symposium on Environmental Pollution, Ecology and Human Health (ISEPEHH-2009) during 25th-27th July, 2009 at Dept. of Zoology, S.V. University, Tirupati, Andhra Pradesh, India.

Publications

Journal Articles

1. Sahu, B. K., **Pati, P** and Panigrahy, R. C., 2018. Impact of climate change on marine plankton with special reference to Indian Seas. *Indian Journal of Geo Marine Sciences*. 47 (02): 259-268.
2. Srichandan, S., Panigrahy, R.C., Baliarsingh, S.K., Rao, S., **Pati, P.**, Sahu, B.K. and Sahu, K.C., 2016. Distribution of trace metals in surface seawater and zooplankton of the Bay of Bengal, off Rushikulya estuary, East Coast of India. *Marine Pollution Bulletin*. 111 (1-2): 468-475.
3. Mohapatra, L., Bhattamisra, S.K., Panigrahy, R.C., Parida, S.K. and **Pati, P**, 2016. Antidiabetic effect of *Sargassum wightii* and *Ulva fasciata* in high fat diet and multi low dose streptozotocin induced type 2 diabetic mice, *UK Journal of Pharmaceutical and Biosciences*, 4 (2): 13-23.
4. **Pati, P.**, Sahu, B. K and Panigrahy, R. C., 2015. Marine Molluscs as a Potential Drug Cabinet: An Overview. *Indian Journal of Geo-Marine Sciences*, 44 (7): 961-970.
5. **Pati, P.**, Sahu, B. K and Panigrahy, R. C., 2015. Pea crab *Arcotheres alcocki* (Rathbun, 1909) as endoparasite of the backwater clam *Meretrix casta* (Chemnitz, 1782), *Indian Journal of Geo-Marine Sciences*, 44 (7): 1067-1070.
6. Sahu, B. K., **Pati, P** and Panigrahy, R. C., 2014. Environmental conditions of Chilika Lake during pre and post hydrological intervention: an overview, *Journal of coastal Conservation*, 18 (3): 285-297.
7. **Pati, P** and Panigrahy, R. C., 2013. On some Mollusca collections from different beaches of South Odisha coast of India. *Records of Zoological Survey of India*, 113(Part-4): 229-254.
8. Mohapatra, L., **Pati, P.**, Panigrahy, R.C and Bhattamisra, S.K., 2013. Therapeutic health booster: seaweeds against several maladies. *Indian Journal of Geo-Marine Sciences*, 42(5): 538-546.

Book Chapters & Proceedings

1. Radhakrishnan, M., **Pati, P.**, Shanmugasundaram, T., Gopikrishnan, V., Jerrine J and Syed G. D., **2019**, Distribution and Bio-prospecting potential of actinobacteria from Indian mangrove ecosystems in ***Microbial Diversity in Ecosystem Sustainability and Biotechnological Applications***, Editor: Prof. T. Satyanarayana, Springer Nature Singapore pvt Ltd, Pp 319-353.
2. Radhakrishnan, M., Gopikrishnan, V., **Pati, P.**, Jerrine J., Shanmugasundaram, T., and Syed G. D., **2018**, **Lab manual on Fermentation Techniques**, Lambert Academic Publishing, 52 pages.
3. **Pati, P.**, Mohapatra, L and Panigrahy, R. C., **2012**. Conopeptides: Potential Therapeutics of the Millennium. In *Proceedings of National Seminar on “Recent Advances in Research on Marine Environment”* 75-84.
4. Mohapatra, L., **Pati, P** and Panigrahy, R. C., **2012**. Marine Macro algae, A Potential Source of Anti-cancer Drugs: An overview. In *Proceedings of National Seminar on “Recent Advances in Research on Marine Environment”* 11-21.
5. Panigrahy, R. C, **Pati, P.**, Panda, R and Mohapatra, L., **2012**. Environmental status and conservation measures of some sensitive coastal ecosystems of Odisha, east coast of India: an overview. In *Proceedings of National Seminar on “Recent Advances in Research on Marine Environment”* 22-40.
6. Panigrahy, R. C. and **Pati, P.**, **2012**. Coastal Erosion and Marine Biodiversity. In ***Coastal erosion Issues***, Centre for Environmental Studies, Govt. of Odisha: 57-64 pp.
7. Samant, B. S., **Pati, P.**, Paikaray, S and Panigrahy, R. C., **2011**. Sea Turtle conservation in Orissa: An Overview, In ***Marine Biodiversity: Present Status and Prospects***, Edited by P. Santhanam and P. Perumal, Narendra Publishing House, Pages 139-153.

Personal Details

Date of Birth: 13-04-1988

Birth Place: Bhubaneswar

Marital Status: Unmarried

Father: Mr. Bibhuti Bhusan Pati

Mother: Puspalata Pati

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