



Dr. D. Y. Patil Biotechnology & Bioinformatics Institute Mumbai-Bangalore

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Prof. Neelu Nawani



Designation: Professor and Incharge, Microbial Diversity

Research Centre

Educational Qualifications:

- 1. Ph.D. (Microbiology) 2003, University of Pune, Pune, India Thesis title: Diversity of chitinases of bacterial origin
- 2. M.Sc. (Microbiology) 1996, University of Mumbai, Mumbai, India
- 3. B.Sc. (Microbiology) 1994, University of Bombay, Bombay, India
- 4. Patent Certification Course (2013) Institute of Patent Attorneys, India
- 5. Certificate Course on Right to Information Act (2010) Centre for Good Governance (CGG), Hyderabad, and Department of Personnel and Training, Ministry of Personnel, Government of India
- 6. Diploma in Office Automation (DOA) in Computers (1999) Centre for Development of Advanced Computing, GIST, Pune. India.

Postdoctoral Experience:

- 1. Scientist and PI (2006-2008): Young Scientist, DST, University of Pune, Pune, India (Primary role: Research and Teaching)
- 2. Research Associate (2003- 2006): University of Pune, Pune, India (Primary role: Teaching and Research)



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Employment Experience:

- 1. **Professor** (2015-present): Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Dr. D. Y. Patil Vidyapeeth, Tathawade, Pune.
- 2. **Associate Professor** (2011 –2015): Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Dr. D. Y. Patil Vidyapeeth, Tathawade, Pune.
- 3. **Assistant Professor** (2008 –2011): Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Dr. D. Y. Patil Vidyapeeth, Tathawade, Pune.
- 4. Lecturer (2002-2003): University of Pune, Pune, India (Primary role: Teaching and Research)
- 5. **Lecturer and Course Coordinator,** AM College, Pune (1996- 2002)
- 6. **Recognised guide for Ph.D.** in Microbiology (University of Pune, Pune) and Biotechnology (Dr. D. Y. Patil Vidyapeeth, Pune).

Field of Specialization: Environmental and Health and Medical Biotechnology

Awards, Honors and Fellowships:

- 1. **Consistent Performance Award** by Dr. D. Y. Patil Vidyapeeth, Pune for the year 2020.
- 2. **Linnaeus-Palme exchange Professor** to University of Skövde, Sweden for the year 2019 funded by Swedish Council of Higher Education, 1 Sep 2019-25 Sep 2019
- 3. Honored for Outstanding Contribution BRSI, 2018, **Biotech Research Society India on 22nd Nov 2018 at Indian Institute of Chemical Technology, Hyderabad** during XV convention of BRSI and
- 4. CSIR-Platinum Jubilee International Conference on Biotechnological Research and Innovation for Sustainable Development.
- 5. Gandhian Young Technology Innovation Award 2018, SRISTI, BIRAC-GYTI, Department of Biotechnology and National Innovation Fund, India as a mentor for the innovation "A multipurpose low-cost biological air purifier" under socially relevant innovation (one of 23 awards selected out of 3000 entries) at hands of President of India Shri Ram Nath Kovind.
- 6. **Linnaeus-Palme exchange Professor** to University of Skövde, Sweden 2016, **Swedish Council of Higher Education and Swedish International Development Cooperation Agency, Sweden.**
- 7. Award for "Carving gender balanced leadership" 2016, **Sandvik Company**, Pune, India on International Women's Day
- 8. Best Researcher Award for the year 2014, Dr. D. Y. Patil Vidyapeeth, Pune, India.
- 9. Best Researcher Award for the year 2012, Dr. D. Y. Patil Vidyapeeth, Pune, India.
- 10. Professor Awtar Krishan Prize in Flow Cytometry, **National Centre for Biological Sciences** (NCBS), Bangalore, India. 2011
- 11. Young Scientist Fellowship (SERC), **Department of Science and Technology**, New Delhi. India. 2006-2008
- 12. Peace Ambassador to United Kingdom, Lila Poonawalla Foundation, India and Asha Foundation, UK (Award received at the hands of Hon'ble Dr. A. P. J. Abdul Kalam) 2008-present.
- 13. Senior Scholarship (Science), Lady Tata Memorial Trust, Mumbai, India, 1999-2001
- 14. Junior Research Fellowship, Lady Tata Memorial Trust, Mumbai, India, 1997-1999
- 15. Lila Poonawalla Fellowship, Lila Poonawalla Foundation, India, 1997
- 16. Doctoral Fellowship, University of Pune, Pune, India, 1996



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Memberships:

- Full Member of Microbiology Society, London, United Kingdom
- Fellow of International Congress of Chemistry and Environment, India
- Life Member- Indian Women Scientists Association, India
- Life Member- Biotech Research Society of India and Secretary, BRSI-DYPBBI unit, India
- Member of National Advisory Committee of Biotech Research Society India
- Executive member of Asian PGPR Society, India Chapter
- Association of Microbiologists of India

Short term and Long term trainings at national/international level:

- 1. Training at Quality Control Dept., Serum Institute of India Ltd., **Pune**, India (2000).
- Faculty Development Workshop at Anna University and Spinco-Biotech, "Bioprocess Engineering", Chennai, India (2002).
- 3. Trained for DNA sequencing at Bhabha Atomic Research Centre, **Mumbai**, India (2002).
- 4. National Institute of Virology, "Ethics and Guidelines in Animal Experimentation", **Pune**, India (2002).
- 5. Faculty Development Program at Sardar Patel University, "Tools and Techniques in Biological Research", **Gujarat**, India (2003).
- 6. Workshop by Biotech Consortium of India Ltd., "Management in IPR", **Pune** (2009)
- 7. SGIPGMS, "Group Workshop", **Lucknow**, India by DST, Govt. of India (2009).
- 8. National Centre for Biological Sciences, "Flow Cytometry Workshop" at C-CAMP, **Bangalore** (2011).
- 9. 6th Indian STEPs and Business Incubator's Association Meeting, 2012, **Pune** (2012).
- 10. Special Training on Immunohistochemistry and Immunofluorescence at University Medical Centre, Mannheim, University of Heidelberg, **Germany** (2013).
- 11. Workshop on "Good clinical practices" by MGM Medical College, Mumbai (2013).
- 12. Workshop on "Good clinical practices" by Tata Memorial Hospital, Mumbai (2016).

Contribution in International Books as a reviewer and content author/editor:

- 1. Global Edition of *Microbiology: An Introduction*, 12th Edition by **Gerard Tortora**, **Berdell Funke**, Christine Case.
- 2. Campbell Essential Biology with Physiology, 5th Edition by Eric Simon, Jean Dickey, Jane Reece, Kelly Hogan.
- 3. Biology: Life on Earth with Physiology, 11th Edition by Teresa Audesirk, Gerald Audesirk, Bruce Byers.

Research Grants:

Extramural Funding

- 1. Technology Development and Transfer Division, Department of Science and Technology, Government of India, April 2020-March 2023, Segregation and management of laboratory wastes for resource recovery and value addition. Project value: Rs. 50 lakhs
- Department of Biotechnology, Government of India, April 2018-March 2020. Opportunities to explore microbial diversity for industrially important microbial products. Grant value: Rs. 8.01 crores



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- 3. **BIRAC, Department of Biotechnology, Government of India,** July 2018-Jun 2020. A multipurpose low cost biological air purifier. Grant Value **Rs. 15 lakhs** as mentor.
- 4. **FORMAS, Swedish Research Council**, Sweden, Jan 2015-Dec 2017. The emergence and persistence of novel resistance to 3rd generation cephalosporins and carbapenem in bacteria in the environment. Grant value **SEK 4.9 million** (Sweden PI: Dr. Jana Jass, Örebro University)
- 5. **Swedish International Development Cooperation Agency**, Sweden, July 2012- Dec 2013. Identifying novel biomarkers of COPD and design of innovative preventive and therapeutic strategies targeted for the benefit of Indian population. Grant value **SEK 2.1 million** (Sweden PI: Dr. Cecilia Eriksson and Dr. Abul Mandal, University of Skövde)
- 6. **Swedish International Development Cooperation Agency**, Sweden, Dec 2010- Dec 2013, Bioremediation of toxic metals and other pollutants for protecting human health and ecosystem. Grant value **SEK 4.5 million** (Sweden PI: Dr. Abul Mandal, University of Skövde)
- 7. **Department of Science and Technology**, Government of India, March 2013-Feb 2016. Comparative study of actinomycetes biodiversity in India and Tunisia: investigation of biotechnological enzymes and biological activities. Grant value **Rs. 27.39 lakhs**
- 8. **Department of Science and Technology**, Government of India, June 2012-May 2015. Studies on protection of DNA from oxidative damage, by chito-oligosaccharides, biologically extracted from seafood waste. Grant value **Rs. 26 lakhs**
- 9. **Department of Science and Technology**, Government of India, Sep 2011-Aug 2014. A Bioelectrochemical system for sequestration of carbondioxide. Grant value **Rs. 38 lakhs**
- 10. **Department of Science and Technology**, Government of India, 2006-2009, Biocommodity engineering of seafood waste for the production of Single-cell protein and recovery of chitooligosaccharides, high value therapeutics with antioxidant properties. Grant value **Rs. 13.32** lakes
- 11. **Department of Biotechnology**, Government of India, 2006-2009, Development of processes for production and downstream processing of food enzymes and their applications. Grant value **Rs. 25.86 lakhs**

Intramural Funding

- 12. **Dr. D. Y. Patil Vidyapeeth, Pune**, March 2013- March 2016, Propagation and flowering of orchids using artificial soil abatement. Grant value **Rs. 3.5 lakhs**
- 13. **Dr. D. Y. Patil Vidyapeeth, Pune**, Sep 2015- Sep 2016, Identifying novel biomarkers of chronic obstructive pulmonary disease (COPD) for its early detection and prognosis Grant value **Rs. 3.0** lakhs
- 14. **Dr. D. Y. Patil Vidyapeeth, Pune,** Jan 2016- Dec 2017, Screening of lactic acid bacteria for characteristic human and plant probiotic properties. Grant value **Rs. 13.40 lakhs**
- 15. **Dr. D. Y. Patil Vidyapeeth, Pune** July 2019-Jun 2021, Influence of chemical contaminants in natural water bodies on the emergence of antibiotic resistance in *Escherichia coli*. Grant value **Rs. 20** lakhs
- 16. **Dr. D. Y. Patil Vidyapeeth, Pune** April 2018-Mar 2019, Management of biological waste generated on campus at Tathawade, Grant value **Rs. 3.14 lakhs**

Patents:

- 1. A method for removal of metals from aqueous solutions. Indian patent 17/MUM/2015 dated 03/01/2015 Indian patent office journal publication date 29 Jan 2016 page 4908.
- 2. A method for removal of metals from aqueous solutions using bio-adsorbents. PCT/IB2016/050358 dated 25 Jan 2016, WIPO publication number WO 2016/125041 A1 dated 11 Aug 2016.



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- 3. A method for removal of metals from aqueous solutions using bio-adsorbents. **US Patent** No. US10179321B2 dated Jan 15, 2019 (**Granted**).
- 4. A biological air purifier and a method thereof. Indian patent 201621009457 dated 18/03/2016 Indian patent office journal publication date 15 April 2016 page 14254.
- 5. A biological air purifier and a method thereof. PCT/IB2016/052528 dated 04/05/2016, WIPO publication number WO/2017/158403 dated 21 Sep 2017.
- 6. A probiotic formulation and a method thereof. Indian patent 1778/MUM/2015 dated 09 April 2015 Indian patent office journal publication date 05 Aug 2016 page 55977.

Technologies Commercialized:

- 1. Biosmotrap: A multipurpose biological air purifier
- 2. Avapro: A probiotic formulation for poultry

Invited Speaker/resource person at national/international level (Few selected only):

- 1. Invited speaker at Biotech Research Society India on 22nd Nov 2018 at **Indian Institute of Chemical Technology**, **Hyderabad** during XV convention of BRSI and CSIR-Platinum Jubilee International Conference on Biotechnological Research and Innovation for Sustainable Development for the talk "Health and environmental savagery by multi-drug resistant coliforms from river waters in Pune: Genotypic insights".
- 2. Invited as **Chief Guest for Lila Poonawalla Foundation's Annual Scholarship Ceremony** on 9th July 2017 at Cummins, Baner, **Pune**.
- 3. Invited to deliver a session lecture at International Conference on "Current Trends in Bioenergy and its Applications (ICCTBA 2017)" on 3rd and 4th February 2017 at Progressive Education Society's Modern college of arts, science & commerce, Shivajinagar, **Pune**, India.
- 4. Invited to deliver a plenary lecture and chair a session at national conference on "Recent trends and Opportunities in Life Sciences 2017" held at Waghire College, Saswad during 24-25th Jan 2017, **Pune**, India.
- 5. Nominated on the National Advisory Committee and invited to Chair a technical session on "Biocatalysis and Biotransformations" at International Conference on Current Trends in Biotechnology at **VIT University, Vellore**, India, during 8th Dec 2016 to 10th Dec 2016, **Vellore**, India.
- 6. Invited at University of Skövde, **Sweden** for duration of one month (20 Sep 2016 to 19 Oct 2016) as **Exchange Teacher** under the Linnaeus-Palme grant from Swedish Council of Higher Education, **Sweden**.
- 7. Invited speaker and Chairperson at International Conference on "Innovative trends in chemical, physical and biological sciences 2016" during Feb 9 to 10, 2016 at AM College, University of Pune, **Pune**, India
- 8. Invited speaker at International conference "New Horizons in Biotechnology 2015" during Nov 22 to 25, 2015 at **Trivandrum**, India
- 9. Invited speaker at workshop on "The emergence and persistence of novel resistance to 3rd generation cephalosporins and carbapenem in bacteria in the environment" during Nov 3 to 6, 2015 at Orebro University, **Sweden**.
- 10. Technical presentation: Waghmode MS, PS Gaikwad, AB Gunjal, NN Nawani, BP Kapadnis and NN Patil. Oil cakes, the solid waste for the production of value-added antimicrobial compounds. International conference on solid wastes 2015: knowledge transfer for sustainable resource management, 19-23 May 2015, HongKong SAR, China.



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- 11. Plenary Speaker at 25th Forum International des Sciences Biologiques et de Biotechnologie. 25 to 27 March 2014, Hammamet, **Tunisia**.
- 12. Technical presentation: Neelu Nawani, Akshay Binayake, Rupali Aursang, Sadiya Nagi, Supriya Kore, Amol Raut, Sofiane Ghorbel, Noomen Hmidet and Madhukar Khetmalas, Studies on actinomycetes form selected arid regions of India. 25ème Forum International des Sciences Biologiques et de Biotechnologie. 25 to 27 March 2014, Hammamet, **Tunisia**.
- 13. Technical presentation: Divya Prakash, Rupali Aursang, Tushar Sahasrabuddhe, Madhukar Khetmalas, Abul Mandal, Cecilia Eriksson and Neelu Nawani (2014) Algae: Sequesters of flue gas from cook-stoves. 25ème Forum International des Sciences Biologiques et de Biotechnologie. 25 to 27 March 2014, Hammamet, **Tunisia**.
- 14. Technical presentation: Rupali Aursang, Desale P, Nawani N. N., Aminur Rahman, Noor Nahar, Kapadnis B. P, Khetmalas M. B. and Mandal A. Morphological changes in actinomycetes on exposure to toxic heavy metals. IJAS, 31 March to 3 April 2014, Paris, **France**.
- 15. Coordinator and Speaker for Workshop on "Metal Menace", Dec 20, 2013, Pune, India
- 16. Coordinator and Speaker for Workshop on "COPD: persuasions on diagnosis and prevention", Nov 29, 2013, **Pune**, India
- 17. Coordinator and Speaker for Workshop on "Diversity of actinomycetes in India and Tunisia: a geographic perspective", Nov 28, 2013, **Pune**, India
- 18. Resource person at workshop on "Anthropogenic pollution" at University of Skovde, May 29-30, 2013, **Sweden.**
- 19. Technical presentation: Noor Nahar, Neelu N. Nawani, Jana Jass, Prithviraj Desale, Balu P. Kapadnis, Khaled Hossain, Ananda K. Saha, Sibdas Ghosh, Abul Mandal (2013) Discovery of a novel soil borne bacterium with a potential for arsenic bioremediation from contaminated water. 12th International UFZ-Deltares Conference on Groundwater-Soil-Systems and Water Resource Management. April 16-19, 2013, Barcelona, **Spain**. (Received 2nd prize).
- 20. University of Skovde, Sweden on "Status of heavy metal pollution in rivers of Pune and possible remedial measures based on correlation between abundance of heavy metal tolerant bacteria and their habitat" May 2012, **Sweden**.
- 21. University of Patiala, Punjab on "Chitinase and Chitinase-like proteins: ubiquity and potential in therapeutics" ICIB 2012, Nov 2012, **Punjab**.
- 22. Desale Prithviraj, Prakash Divya, Keyur Patel, Rupali Aursang, Nawani Neelu, Kapadnis Balasaheb, Khetmalas Madhukar and Mandal Abul, Biosorption of Heavy Metals by Actinomycetes for Treatment of Industrial Effluents. UMT 11th International Annual Symposium on Sustainability Science and Management, Terengganu, 9 to 11 July 2012, **Malaysia**.
- 23. University of Skovde, Sweden on "Chitin, Chitinases and chitooligosaccharides: Diversity and applications" May 2011, **Sweden**
- 24. University of **Pune**, Academic Staff College Refresher course in Life Sciences on "Role of statistics based designs in optimization of fermentation parameters" Jan 2011, **Pune**, India.
- 25. Chairperson at National Congress on "Bioinoculants for sustainable agriculture (BSA-2010)" Feb 2010 at PSGVP Mandal's Arts, Science and Commerce College, **Shahada**, India.
- 26. Technical presentation: Malhotra A., Nawani N. N., Singh A., Pawar S.V., Prakash D., Terdalkar S. and G. D. Tandon. Studies on prospective bioinoculum for the sustenance of mangroves for prevention of Tsunami. International Congress of Chemistry and Environment. 21-23rd Jan 2010 **Thailand**. (Best paper award).
- 27. Chariperson, National Conference on Climate Change and Challenges in Biodiversity, Fergusson College, **Pune**, India.
- 28. Resource speaker, Kolhapur Institute of Technology, Kolhapur, India on "Karyotyping and FISH". **Kolhapur,** India.



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29. Resource Person at National Workshop on "Biology and Biotechnology of Actinomycetes" at B.A.M.U subcentre. **Osmanabad**. India.

Research Publications:

- Afrin Mansuri, Kiran Bharat Lokhande, Swapnil Gaikwad, Kakumani Venkateswara Swamy, Manisha Junnarkar, Supriya Kore, Sarika Pawar, Neelu Nawani (2020) Antioxidant, anti-quorum sensing, biofilm inhibitory activities and chemical composition of Patchouli essential oil: in vitro and in silico approach. Journal of Biomolecular Structure & Dynamics. Accepted. doi.org/10.1080/07391102.2020.1810124
- 2. Bhoomika K., Neeta G. Wagle, Sagrika Chugh, T. Sahasrabudhe, A. Mandal, C. Eriksson & N. N. Nawani* (2020) Algal biomass pellets as a possible remedy to reduce indoor air pollution from cookstoves in rural Pune. Journal of Dental Research and Review, 7(5): 15-25. (D S Raju Oration award)
- 3. Priti Prabhakar Yewale, Kiran Bharat Lokhande, Aishwarya Sridhar, Monika Vaishnav, Faisal Ahmad Khan, Abul Mandal, Kakumani Venkateswara Swamy, Jana Jass, **Neelu Nawani*** (2020) Molecular profiling of multidrug resistant river water isolates: Insights into resistance mechanism and potential inhibitors. Environmental Science and Pollution Research, 27(22):27279-27292. (doi: 10.1007/s11356-019-05738-2. Epub 2019 Jun 24.
- 4. Sunita Bamanikar, Pooja Pathak, Archana Buch, **Neelu Nawani**, Komal Sawaimul (2019) DNA flow cytometry and immunohistochemical evaluation of effusion specimens. Journal of Diagnostic Pathology and Oncology, 4(1):22-26. DOI: 10.18231/2581-3706.2019.0004
- 5. Sadaf Khan, Simran Singh, Swapnil Gaikwad, **Neelu Nawani**, Manisha Junnarkar, Sarika Vishnu Pawar (2019) Optimization of process parameters for the synthesis of silver nanoparticles from *Piper betle* leaf aqueous extract, and evaluation of their antiphytofungal activity. Environmental Science and Pollution Research. Accepted.
- 6. Manisha Junnarkar, Sarika Pawar, Swapnil Gaikwad, Abul Mandal, Jana Jass, **Neelu Nawani*** (2019) Probiotic potential of Lactic acid bacteria from fresh vegetables: application in food preservation. Indian Journal of Experimental Biology. Accepted.
- 7. Waghmode M. S., Aparna B. Gunjal, Javed A. Mulla, Neha N. Patil, **Neelu Nawani** (2019) Studies on the titanium dioxide nanoparticles: biosynthesis, applications and remediation. SN Applied Sciences. 1:310 (Springer Nature).
- 8. Saloni Shah, Swapnil Gaikwad, Shuchi Nagar, Shatavari Kulshrestha, Viniti Vaidya, **Neelu Nawani** and Sarika Pawar (2019) Biofilm inhibition and anti quorum sensing activity of phytosynthesized silver nanoparticles against nosocomial pathogen *Pseudomonas aeruginosa*. Biofouling. 35(1) 34-49.
- 9. A Binayke, S Ghorbel, N Hmidet, A Raut, A Gunjal, A Uzgare, N Patil, M Waghmode, N Nawani* (2018) Analysis of diversity of actinomycetes from arid and saline soils at Rajasthan, India. *Environmental Sustainability*. 1(1) 61-70.
- Manisha V. Junnarkar, Prasad M. Thakare, Priti P. Yewale, Aminur Rahman, Jana Jass, Abul Mandal, Neelu N. Nawani* (2018) Evaluation of probiotic potential of Lactic acid bacteria isolated from different sources in western India. Food Biotechnology. 32(2): 112-129.
- 11. Waghmode M. S., A. B. Gunjal, N. N. Nawani and N. N. Patil (2018) Management of floral waste by conversion to value-added products and their other applications: A review. *Waste and Biomass Valorization*. 9(1) 33-43. 2016 online version
- 12. Eeshan Pundalik, Sakshi Gore, Salagare Amol, **Nawani Neelu** and Tandon G D (2017) Agricultural crop residue: A potent source for future Fuel. *International Journal of Advanced Research in Science and Engineering*, 6(12): 1183-1192.



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- 13. Nahar N, Rahman A, **Nawani N**, Ghosh S, Mandal A (2017) Phytoremediation of arsenic from the contaminated soil using transgenic tobacco plants expressing ACR2 gene of *Arabidopsis thaliana*. *Journal of Plant Physiology*. 218:121-126.
- 14. Nahar N, Rahman A, Ghosh S, **Nawani N**, Mandal A (2017) Functional studies of AtACR2 gene putatively involved in accumulation, reduction and/or sequestration of arsenic species in plants. *Biologia*. 72(5): 520-526.
- 15. Priti P. Yewale, Aishwarya Shridhar, Prajakta A. Hatekar, A. Mandal, **N. N. Nawani** and J. Jass (2017) Molecular typing of antibiotic resistant bacteria isolated and identified as ESBL producers from polluted water reservoirs. *Canadian Journal of Biotechnology* 1(1): 117.
- 16. Prajakta A. Hatekar, Sushrut Kulkarni, Priti P. Yewale, A. Mandal, **N.N. Nawani** and J. Jass (2017) Genotypic characterization of multi-drug resistant coliform bacteria: Insights into their mechanisms of antibiotic resistance using Whole Genome Sequencing. *Canadian Journal of Biotechnology* 1(1): 119.
- 17. Waghmode MS, Gunjal AB, **Nawani NN**, Shinde SR, Patil NN (2017) Microbial bioremediation by *Bacillus* B1 species. *Royal*, 6(1) 162-168.
- 18. Aminur R, Björn O, Jana J, **Neelu NN**, Sibdas G and Abul M (2017) Genome sequencing revealed Chromium and Other Heavy Metal Resistance Genes in *E. cloacae* B2-Dha. *Journal of Microbial & Biochemical Technology*. 9(5): 191-199.
- 19. Chavan NP, Pandey R, **Nawani N**, Tandon GD and Khetmalas MB (2017) Genetic Variability within *Xanthomonas axonopodis* pv. punicae, Causative Agent of Oily Spot Disease of Pomegranate. *Journal of Plant Pathology & Microbiology*. 8(2): 1-6.
- 20. **Neelu Nawani**, Aminur Rahman, Noor Nahar, Anandakumar Saha, Balasaheb Kapadnis and Abul Mandal (2016) Status of metal pollution in rivers flowing through urban settlements at Pune and its effect on resident microflora. *Biologia*. 71 (5): 494-507.
- 21. Neeta A. Salgaonkar, Prasad M. Thakare, Manisha V. Junnarkar, Balasaheb P. Kapadnis, Abul Mandal, Cecilia Eriksson and **Neelu N. Nawani** (2016) Use of *N, N'*-diacetylchitobiose in decreasing toxic effects of indoor air pollution by preventing oxidative DNA damage. *Biologia*. 71 (5): 508-515.
- 22. N. N. Patil, M. Waghmode, P. Gaikwad, A. B. Gunjal, **Neelu Nawani** and Balasaheb Kapadnis (2016) Drop collapse assay on Lotus leaf (*Nelumbo nucifera*): a simple and cost effective method for rapid detection of biosurfactants. *Journal of Experimental Biology and Agricultural Sciences*, 4(5): 505-511.
- 23. N. P. Chavan, R. Pandey, **N. Nawani**, R. K. Nanda, G. D. Tandon and M B Khetmalas (2015) Biocontrol potential of actinomycetes against *Xanthomonas axonopodis* pv. punicae, a causative agent for oily spot disease of pomegranate, *Biocontrol Science and Technology*. 26 (3): 351-372.
- 24. Aminur Rahman, Noor Nahar, **Neelu N. Nawani**, Jana Jass, Sibdas Ghosh, Björn Olsson and Abul Mandal (2015) Data in support of the comparative genome analysis of *Lysinibacillus* B1-CDA, a bacterium that accumulates arsenics, *Data in Brief*, 5: 579-585.
- 25. Aminur Rahman, Noor Nahar, **Neelu N Nawani**, Jana Jass, Sibdas Ghosh, Björn Olsson, Abul Mandal (2015) Comparative genome analysis of *Lysinibacillus* B1-CDA, a bacterium that accumulates arsenics. *Genomics*, 106: 384-392.
- 26. Neeta Salgaonkar, Divya Prakash, **N. N. Nawani** and B. P. Kapadnis (2015) Comparative studies on ability of *N*-acetylated chitooligosaccharides to scavenge reactive oxygen species and protect DNA from oxidative damage. *Indian Journal of Biotechnology*, 14: 186-192
- 27. Rahman A. Nahar N, **Nawani NN**, Jass J, Hossain K, Saud ZA, Saha AK, Ghosh S, Olsson B, Mandal A (2015) Bioremediation of hexavalent chromium (VI) by a soil borne bacterium, *Enterobacter cloacae* B2-DHA. *Journal of Environmental Science and Health, Part A*, 50: 1136-1147.



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- 28. Tirumalesh Keesari, K. L. Ramakumar, M. Bala Krishna Prasad, S. Chidambaram, Petha Perumal, D. Prakash & **N. Nawani** (2015) Microbial evaluation of groundwater and its implications on redox condition of a multi-layer sedimentary aquifer system. *Environmental Processes*. 2 (2): 331-346.
- 29. Sofiane Ghorbel, Noomen Hmidet and **Neelu Nawani** (2015) Editorial on Recent Development in Production and Biotechnological Application of Microbial Enzymes, *Biomed Research International*, Volume 2015, Article ID 280518.
- 30. Prakash Divya, **Nawani NN**, Kapadnis BP (2014) Chitinases: Ubiquity and Potential in Medicine. *Journal of Chitin and Chitosan Science*. 2: 1-15(15)
- 31. Jaywant T. Jadhav, A. B. Gunjal, B. P. Kapadnis, N. N. Nawani, M. S. Waghmode, P. S. Gaikwad and N. N. Patil (2014) Iodinin (1,6-phenazinediol 5,10-dioxide) from *Microbispora sp.V2* inhibits angiogenesis *in vivo*. *Drug Invention Today*, 6(1): 64-71.
- 32. Prithviraj Desale, Deboleena Kashyap, **Neelu Nawani**, Noor Nahar, Aminur Rahman, Balasaheb Kapadnis, Abul Mandal (2014) Biosorption of Nickel by *Lysinibacillus* sp. BA2 native to bauxite mine. *Ecotoxicology and Environmental Safety*. 107: 260-268.
- 33. Rahman A, Nahar N, **Nawani NN**, Jass J, Desale P, Kapadnis BP, Hossain K, Saha AK, Ghosh S, Olsson B, Mandal A (2014) Isolation of a *Lysinibacillus* strain B1-CDA showing potentials for arsenic bioremediation. *Journal of Environmental Science and Health, Part A.* 49: 1349 -1360.
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- 84. Gadekar, V. G., **Nawani, N. N.** and Kapadnis, B. P. (2008) Recycling of whey for development of plant growth promoting bioinocula. Indo-Italian Conference on Green and Clean Environment, Pune, India. 20-21st March 2008.

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85. Genome studies of a soil bacterium, a potential candidate for removing arsenic from contaminated water. Published in Atlas of Science on October 22, 2015.



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Books/Journal volumes edited

- 86. **Neelu Nawani**, M. B. Khetmalas, P.N. Razdan, Ashok Pandey (2015) Book on "Advances in Biotechnology", Chapters 1 to 13, pages 241, ISBN: 9789384588090 Nov 2014 (print version 2015) IK International Publishing House Pvt. Ltd., India.
- 87. Sofiane Ghorbel, Noomen Hmidet and **Neelu Nawani** (2015) Recent Development in Production and Biotechnological Application of Microbial Enzymes, Biomed Research International, Volume 2015.
- 88. **Neelu Nawani,** Ashok Pandey, Samir Khanal and Parmeswaran Binod (2014) Special issue on Advances in Biotechnology and Bioinformatics. Indian Journal of Experimental Biotechnology, 52 (11).
- 89. **Neelu Nawani**, Ashok Pandey, Emm M Papamichael and K Madhavan Nampoothiri (2014) Special issue on Advances in Biotechnology & Bioinformatics. Indian Journal of Biotechnology, 13 (3).
- 90. **Neelu Nawani**, P. Binod, A. A. Koutinas, Feroz Khan and Ashok Pandey (2014) Special issue on Advances in Biotechnology and Bioinformatics. Bioresource Technology, Volume 165.
- 91. Madhukar Khetmalas, Ashok Pandey, P. Gunasekaran, **Neelu Nawani**, Shuchi Nagar (2013) Abstract book on "International conference on Advances in Biotechnology and Bioinfrmatics and X convention of BRSI" pages 300, ISBN: 9788192661919 Nov 2013, DPU Publications, Pune
- 92. **Neelu Nawani,** Bertrand Aigle, Abul Mandal, Manish Bodas, Sofiane Ghorbel and Divya Prakash (2013) Actinomycetes: Role in Biotechnology and Medicine. BioMed Research International, Volume 2013.

Gene sequence submissions at NCBI, USA: 266

- 1. 16S rDNA sequences: 87
- 2. Gene sequences of clones (shot-gun library and PCR based cloning): 08
- 3. Whole genome sequence (shot-gun) of Lysinibacillus B1-CDA: 171

Events organized/coordinated:

- 1. **Organizing Secretary**, National Symposium on "Recent Advances in Modern Biology and Biotechnology" during 14-16 March 2019 organized by Dr. D. Y. Patil Biotechnology and Bioinformatics Institute.
- 2. **Coordinator** for "Entrepreneurship Empowerment Program" on 28 Sep 2018 organized by Dr. D. Y. Patil Biotechnology and Bioinformatics Institute and NEDC.
- 3. **Organizing Secretary**, "Industry-Academia Conclave" during 23-24 Feb 2018 organized by Dr. D. Y. Patil Biotechnology and Bioinformatics Institute.
- 4. **Organizing Secretary**, National Symposium on "Recent Advances in Modern Biology and Biotechnology" during 16-17 March 2017 organized by Dr. D. Y. Patil Biotechnology and Bioinformatics Institute.
- 5. Coordinator for "Lifecycle of Patents: Idea to Industry"; April 7, 2016; DPU, Pune
- 6. Coordinator for International Workshop cum review meet "Metal Menace"; Dec 20, 2013; Pune
- 7. **Coordinator** for International Workshop cum review meet "COPD: persuasions on diagnosis and prevention"; Nov 29, 2013; Pune
- 8. **Coordinator** for International Workshop cum review meet "Diversity of actinomycetes in India and Tunisia: a geographic perspective"; Nov 28, 2013; Pune



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- 9. **Organizing Secretary** for International conference on Advances in Biotechnology and Bioinformatics ICABB 2013 and X Convention of Biotech Research Society, India; 25-27Nov 2013; Pune
- 10. **Coordinator** for International Workshop cum review meet "Impact of anthropogenic pollution on human health and ecosystem"; Dec 5, 2012; Pune
- 11. Treasurer for 13th Indo-US Flow Cytometry Symposium; Oct 4-5, 2012; Pune
- 12. **Coordinator** for International Workshop cum review meet "Pune Water pollution: Status and remedies"; Dec 09, 2011; Pune
- 13. Organizing Secretary for 12th Indo-US Flow Cytometry Workshop; Oct 19-20, 2011; Pune
- 14. **Organizing Secretary** for National Seminar on Frontiers in Biotechnology and Bioinformatics; 12 Feb 2011; Pune
- 15. **Coordinator** for Exuberance 2010- student gathering at Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Pune.
- 16. **Coordinator** for Bionnovate 2008 student gathering at Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Pune.
- 17. **Core Team Member** for Samagam I and II (2009 and 2010) a fund raising program for Lila Poonawalla Foundation.
- 18. **Project team member** in "Abhigyan" for educating economically deprived school children.

Technical Abstracts/Oral/Poster presentations in India:

- Priti P. Yewale , Faisal Khan , Aishwarya Sridhar , Prajakta A. Hatekar , A. Mandal , N. N. Nawani*, J. Jass (2018) Urban river catchments: The hub of antibiotic resistant and extended B-lactamase producing bacteria. International conference on Biotechnological Innovation for Sustainable Development (BioSD) 22nd -25th November 2018, IICT, Hyderabad.
- Rajat K.Paudel, Amol Salagare, Neelu Nawani and G.D.Tandon*(2018) Production of Second Generation Bioethanol from Mixed Lignocellulosic Feedstock. International conference on Biotechnological Innovation for Sustainable Development (BioSD) 22nd -25th November 2018, IICT, Hyderabad.
- 3. Manisha Junnarka and N. N. Nawani* (2018) Probiotic potential of Lactic acid bacteria from fresh vegetables: application in food preservation. International conference on Biotechnological Innovation for Sustainable Development (BioSD) 22nd -25th November 2018, IICT, Hyderabad.
- Sadaf Khan, Simran Singh, Neelu Nawani, Swapnil Gaikwad, Viniti Vaidya and Sarika Pawar*(2018) Optimization, characterization and antifungal activity of biologically synthesized silver nanoparticles. International conference on Biotechnological Innovation for Sustainable Development (BioSD) 22nd -25th November 2018, IICT, Hyderabad.
- Priti P. Yewale, Aishwarya Shridhar, Prajakta A. Hatekar, A. Mandal, N. N. Nawani and J. Jass (2017) Molecular typing of antibiotic resistant bacteria isolated and identified as ESBL producers from polluted water reservoirs. Canadian Journal of Biotechnology. Volume 1, Special Issue, Page 117.
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- 8. Nishtha Pathak, A. Sridhar, S. Kulkarni, A. Pawar, S. Awate, A. Vavle, P. Yewale, F. Khan, A. Mandal, N. N. Nawani, J. Jass (2016) Whole genome sequencing and identification of antibiotic resistance genes in coliforms isolated from natural water bodies. NextGen Genomics, Biology, Bioinformatics and Technologies (NGBT) Conference, 3rd to 5th October 2016, Maradu, Kochi, Kerala.
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- 13. Neeta Wagle, S. Chugh, T. Sahasrabudhe, A. Mandal, C. Eriksson, and N. N. Nawani (2016) Towards Algal Biomass Pellets-an alternate biomass for cook-stoves: its role in improving indoor air quality of rural Pune. International Conference on Current Trends in Biotechnology (ICCB), 8-10 December 2016, VIT, Vellore.
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- 15. Manisha Junnarkar, Prasad Thakare, Jana Jass, N. N. Nawani (2016) Isolation and screening of Lactic acid bacteria for bioactive potential International Conference on "Innovative trends in chemical, physical and biological sciences 2016" AM college, University of Pune, 9-10 Feb 2016, Pune.
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Community Service/Media presence:

- 1. Selected as "Peace Ambassador" for cross cultural connectivity between India and UK and received the award at the hands of Hon'ble Dr. A. P. J. Abdul Kalam as joint initiative of Lila Poonawalla Foundation, Pune and Asha Foundation, UK.
- 2. Member- Board of Trustees (2006-09), Lila Poonawalla Foundation, Pune, India.
- 3. Member Program Coordinator for Samagam I and II (2009 and 2010) a fund raising program for Lila Poonawalla Foundation.
- 4. Project team member in "Abhigyan" for educating economically deprived school children.
- 5. Felicitated by DASS Electricals, Pune, India on International Women's Day in 2008.
- 6. Interviewed by Radio Mirchi, Pune for Role of women in science and its implications to society.