


NAME	Dr. Shoma Paul Nandi		
DESIGNATION	Professor; Ph.D. Coordinator of Amity Institute of Biotechnology		
EMAIL ID	spaul@amity.edu ; shoma.amity@gmail.com		
CONTACT NUMBER	9810324673; 01204392426		
RESEARCH INTERESTS	Antibiotic Resistance (AMR); Microbiome and diseases; Bioprospecting; Plant-microbe interaction; Endophytes; Phytomedicine; Microsphere –flow cytometric based techniques for detection of various diseases.		
EDUCATIONAL QUALIFICATIONS:			
Name of College / University		Degree	Year
Dibrugarh University		B.Sc.	1990
Gauhati University		M.Sc.	1993
Gauhati University		Ph.D.	1997
Title of Ph.D. thesis: Studies on beta-lactamase induced resistance and its reversion by beta-lactamase inhibitor			
EXPERIENCE (in chronological order)			
Designation	Type of post held (teaching/ research)	Name of the Institute	Year (From – To)
Post – doctorate	Research	Kansas State University, USA	1999-2004
Post - doctorate	Research	Indian Institute of Science, Bangalore	1997-1999
Lecturer	Teaching and research	Amity Institute of Biotechnology, AUUP, Noida	Feb 2005- June 2007
Senior Lecturer	Teaching and research	Amity Institute of Biotechnology, AUUP, Noida	July 2007-Dec 2007
Assistant Professor	Teaching and research	Amity Institute of Biotechnology, AUUP, Noida	Jan 2008- Nov 2009
Professor	Teaching and research	Amity Institute of Biotechnology, AUUP, Noida	Since Dec 2009

Professor and Centre Head for Cellular and Molecular Biotechnology	Teaching, Research and Administration	Amity Institute of Biotechnology, AUUP, Noida	Since 2015
No. of Ph.D. Students Supervised		Awarded: 7 <ol style="list-style-type: none"> 1. Dr. Shubhi Mehrotra joined as Associate Manager in Eli Lilly and Company 2. Dr. Sneha Arora joined as Scientist B in AIIMS 3. Dr. Rajni Chauhan joined as Scientist in Medanta, The Medicity 4. Dr. Neha Bhaduria joined as Assistant Professor, Dept of Biotechnology, Meerut Institute of Engineering and Technology. 5. Dr. Angkita Sharma joined as Project Scientist-1 at Department of Biotechnology 6. Dr. Pooja Singh joined as Grant Executive at Regional Centre for Biotechnology 7. Dr. Ankita Saxena joined as Assistant Professor - Biotechnology School of Engineering and Technology, Noida International University 	
		Ongoing: (no. only) 4	
<u>Projects</u> Completed : (total no.) 4 Ongoing : (total no.) 1		<ol style="list-style-type: none"> 1. Identification and partial purification of medicinal plant extracts effective against <i>Helicobacter pylori</i>. Funded by CSIR Aug 2006- 2009. 2. Identification of medicinal plants effective against <i>Vibrio cholera</i> strains that are prevailing in north-east India and characterization of bioactive components. Funded by DBT Mar, 2011-2013. 3. Identification of bioactive compounds from medicinal plants effective against multi-drug resistant <i>Escherichia coli</i>. Funded by DBT Mar, 2012- 2014. 4. Studies on role of endophytes in variation of acaricidal properties of two acaricide producing plant species NBA 22/F1 and NBA18/D1 from North Eastern states. Funded by DBT Jan, 2017-2020. 5. Minimizing urinary tract infection by using endophyte-based formulations in sanitary napkins or in inner lining of undergarments while retaining healthy vaginal microbiota Funded by CSIR JULY 2024-2027. 	

Give details here:

Publications:

1. **Shoma Paul**, G. Bhowmik, P. Baruah, M. K. Roy and A. C. Ghosh (1995). Studies on *Rhizobium* sp associated with few wild leguminous plants of North East India: Advances in Forestry Research in India, Vol **XIII**, pg 139.
2. **Shoma Paul**, G. Bhowmik, P. Baruah and M. K. Roy (1995). A novel report on non- legume nodule system in *Biophytum sensitivum*: J. Assam Science Society **37**, pp.185-187
3. **Shoma Paul**, R. L. Bezbaruah, M. K. Roy and A. C. Ghosh (1997). Multiple antibiotic resistance (MAR) index and its reversion in *Pseudomonas aeruginosa*. Letters in Applied Microbiology, **27**:169-171
4. **Shoma Paul**, R. L. Bezbaruah, R. S. Prakasam, M. K. Roy and A. C. Ghosh (1997). Enhancement of growth and antibiotic titer in *Cephalosporium acremonium* induced by Sesame oil. *Folia Microbiologia*. **42**, pp.211-213.
5. **Shoma Paul**, M. J. Wilkerson, W. Shuman, and K. R Harkin (2005) Development and evaluation of a flow cytometry microsphere assay to detect anti-histone antibody in dog:. Veterinary Immunology and Immunopathology, **107**, 315-325
6. Shubhi Mehrotra, Ashwani K. Srivastava, **Shoma Paul Nandi** (2010). Comparative antimicrobial activities of Neem, Amla, Aloe, Assam Tea and Clove extracts against *Vibrio cholerae*, *Staphylococcus aureus* and *Pseudomonas aeruginosa*: Journal of Medicinal Plants Research. **4** (22). pp. 2393-2398. <https://doi.org/10.5897/JMPR.9000375>
7. Shubhi Mehrotra, Rohitash Jamwal, Radhey Shyam, Dharmendra Kumar Meena, Kshipra Mishra, Rajashree Patra, Ronita De, Asish Mukhopadhyay, Ashwani Kumar Srivastava, **Shoma Paul Nandi** (2011). Anti-*Helicobacter pylori* and antioxidant properties of *Emblica officinalis* pulp extract; a potential source for therapeutic use against gastric ulcer. Journal of Medicinal Plants Research. **5** (12). pp. 2577-2583. <https://doi.org/10.5897/JMPR.9000096>.

8. Vidhi Mehrotra, Shubhi Mehrotra, Vandna Kirar, Radhey Shyam, Kshipra Misra, Ashwani Kumar Srivastava, **Shoma Paul Nandi** (2011): Antioxidant and antimicrobial activities of aqueous extract of *Withania somnifera* against methicillin-resistant *Staphylococcus aureus*. Journal of Microbiology and Biotechnology Research. **1**(1). pp.40-45.
9. Shubhi Mehrotra, Vandana Kirar, Kshipra Misra, **Shoma Paul Nandi** (2013). Quantitative estimation of gallic acid in *Rosa sinensis*, *Embllica officinalis* and *Syzygium aromaticum* by HPTLC. International Research Journal of Pharmacy. **4** (7). pp. 87-89.
10. Ajai K. Gupta, Vandana Kashyap, Bipin Kumar Gupta, **Shoma Paul Nandi**, Kanchan Saxena, Neeraj Khare (2013): Synthesis of ZnO Nanorods by Electrochemical Deposition Method and Its Antibacterial Activity: Journal of Nanoengineering and Nanomanufacturing **3**(4), pp.348-352.
11. Angana Payne Mandal, Mohd Hamza Hanfi, Lahari Saikia, Subhajyoti Deka, **Shoma Paul Nandi** (2014) Effect of extraction temperature on antimicrobial and antioxidant properties of Assam tea: International Journal of Phytomedicine **6** (2). pp. 225-231.
12. Mamta, Mehrotra, S., Amitabh, V. Kirar, P. Vats, **Shoma Paul Nandi**, Negi P.S., Misra K. (2015): Phytochemical and antimicrobial activities of Himalayan *Cordyceps sinensis*. Indian Journal of Experimental Biology. **53**, pp. 36-43.
13. Kirar, V., Mehrotra, S., Negi P.S., **Shoma Paul Nandi**, Misra K. (2015): HPTLC fingerprinting, antioxidant potential and antimicrobial efficacy of Indian Himalayan lingzhi: *Ganoderma lucidum*. International Journal of Biological & Pharmaceutical Research. **6** (10): 4259-4268
14. Soni, S., Vaidya, D., Mehrotra, S., Sharma, S., **Shoma Paul Nandi** (2016): A comparative study on antibacterial and antioxidant activity of honey at different processing stages. National Academy Science Letters. **39** (6) 435-439
15. Angana Payne, Asish Mukhopadhyay, Subhajyoti Deka, Lahari Saikia, **Shoma Paul Nandi** (2015). Anti-*Vibrio* and antioxidant properties of two weeds: *Euphorbia serpens* and *Amaranthus viridis*. Research Journal of Medicinal Plant. **9** (4), pp. 170-178.
16. Sneha Arora and **Shoma Paul Nandi** (2017). Reversion of antibiotic resistance with beta-lactamase inhibitor from medicinal plants. Asian journal of Pharmaceutical and Clinical Research. **10** (10), pp. 204-208.
17. Sneha Arora, M. Pal, M. Bordoloi and **Shoma Paul Nandi** (2018). Effect of hexane extract of *Syzygium aromaticum* on haematological profile of rats. Journal of Environmental Biology.

39, pp.347-352.

18. Rajni Chauhan, Dharmendra Jain, Pranav Dorwal, Gaurav Roy, Vimarsh Raina and **Shoma Paul Nandi** (2019): The incidence of immunofluorescence patterns and specific autoantibodies observed in autoimmune patients in a tertiary care centre: European Annals Allergy Clinical Immunology. **51** (4), pp.165-173.
19. Rajni Chauhan, Vimarsh Raina and **Shoma Paul Nandi** (2019): Prevalence of Autoimmune Diseases and Its Challenges in Diagnosis: Critical Reviews in Immunology. **39** (3), pp.189-201.
20. Deepak Upadhaya, Bhanu Kumar , Sachin Kumar, Anil Kumar Sharma, Ashutosh Fular, Nisha Bisht ,Sharad Srivastava, Rashmi Rekha Boruah, Gaurav Nagar, Mukesh Shakya, Tankeswar Nath, **Shoma Paul Nandi**, Karivaradharaja S, Srikant Ghosh (2020): Characterization of acaricide resistance in *Rhipicephalus microplus* population infesting cattle of North eastern region of India and identification of potent anti-tick plants for tick management: Veterinary Parasitology 277, 110 <https://doi.org/10.1016/j.vetpar.2019.109011>
21. Pooja Singh, Angkita Sharma, Manobjyoti Bordoloi and **Shoma Paul Nandi** (2020): Molecular Identification of Endophytic Fungi Isolated from Medicinal Plant: Biointerface Research in Applied Chemistry. **10** (5), pp.6436-6443.
22. Angkita Sharma, Pooja Singh, Bidyut Kumar Sarmah and **Shoma Paul Nandi** (2020): Isolation of Cellulose-Degrading Endophyte from Capsicum chinense and Determination of its Cellulolytic Potential: Biointerface Research in Applied Chemistry. **10** (6), pp.6964-6973.
23. Ankita Saxena, Asish Kumar Mukhopadhyay and **Shoma Paul Nandi** (2020): *Helicobacter pylori*: perturbation and restoration of gut microbiome: Journal of Biosciences **45** (110) ; 1-15. ,DOI:10.1007/s12038-020-00078-7
24. Angkita Sharma, Pooja Singh, Bidyut Kr Sarmah and **Shoma Paul Nandi** (2020): Quorum sensing network designs: Its role in microbial social networking: Research in Microbiology. **171**(5-6), pp.159-164.
25. Ankita Saxena, Asish K. Mukhopadhyay, **Shoma Paul Nandi** (2020): [Antibacterial activity of selected plants extract against pathogenic bacteria and detection of phytochemicals](#): Journal of Environmental Biology **41**(6): 1486-1492 10.22438/JEB/41/6/MRN-1550 (IF=0.781)
26. Rajni Chauhan, Nikita Gupta, Aseem Kumar Tiwari, Vimarsh Raina, **Shoma Paul Nandi** (2020): Development of a flow cytometric novel multiplex bead-based multiplex assay for measuring autoantibodies on flow cytometric platform. Immunological Investigations. Immunological Investigations (Taylor and Francis) 1-14. <https://doi.org/10.1080/08820139.2020.1854782>

27. Angkita Sharma, Pooja Singh, Sushmita Rajkhowa, Tankeshwar Nath, Bidyut Kumar Sarmah, Srikanta Ghosh, Karivaradarajan Swarnalakshmi*, **Shoma Paul Nandi*** (2021) Anti-vibrio potential of bacterial and fungal endophytes isolated from *Datura metel*. Indian Journal of Biotechnology **20**, pp.
28. Anubha Singh, Simran Tandon, **Shoma Paul Nandi**, Tanzeer Kaur, Chanderdeep Tandon (2021) Downregulation of inflammatory mediators by ethanolic extract of *Bergenia ligulata* (Wall.) in oxalate injured renal epithelial cells: Journal of Ethnopharmacology, **275**, 114104, <https://doi.org/10.1016/j.jep.2021.114104>
29. Leepakshi Dhingra, Pooja Singh, Angkita Sharma, Preeti Arivaradarajan and **Shoma Paul Nandi** (2021): The emerging world of antibiotics and the terror of antibiotic resistant microorganisms: A review. International Journal of Environment and Health Sciences; **2** (4); 21-29. 29.
30. Rajni Chauhan, Aseem Kumar Tiwari, Chhavi Rajvanshi, Simmi Mehra, Abhishek Saini, Geet Aggarwal, Shyam Bihari Bansal, Vijay Kher and **Shoma Paul Nandi** (2021): Prevalence of clinically significant anti-HLA antibodies in renal transplant patients: Single-centre report from India. Indian Journal of Nephrology; **31** (3):240-244.
31. Angkita Sharma, Pooja Singh, Preeti Arivaradarajan, Bidyut Kr Sarmah, **Shoma Paul Nandi** (2021) Keratinolytic potential of bacterial endophytes from *Capsicum chinense* collected from Northeast India : South Asian Experimental Biology; **11** (4): 418-428 [DOI: 10.38150/sajeb.11(4).p418-428.
32. Ankita Saxena, Preeti Arivaradarajan, Asish K. Mukhopadhyay, **Shoma Paul Nandi** (2021): Bactericidal effect of Neem (*Azadirachta indica*) leaf extract on *Helicobacter pylori*: Journal of Environmental Biology **42** (6); 1591-1597.) DOI : <http://doi.org/10.22438/jeb/42/6/MRN-2070>
33. Pooja Singh, Angkita Sharma, **Shoma Paul Nandi**, Ashis Kumar Nandi (2021). Endophytes from *Argemone mexicana* and *Datura metel* activate induced-systemic resistance in multiple hosts and show specificity in protection. Journal of Plant Biochemistry and Biotechnology. [https://doi.org/10.1007/s13562-021-00734-5\(0123456\)](https://doi.org/10.1007/s13562-021-00734-5(0123456)).
34. Rajni Chauhan, Dharmendra Jain, Aseem Kumar Tiwari, Pranav Dorwal, Vimarsh Raina, **Shoma Paul Nandi** (2022) Laboratory Diagnosis of ANCA-Associated Vasculitis (AAV) Using a Combination of Immunofluorescence Test (IIFT) and Line Immunoassay (LIA): Single-Centre Report From India *Reumatología Clínica* (English Edition) **18** (1), 15-19
35. Pooja Singh, Angkita Sharma, Manobjyoti Bordoloi, and **Shoma Paul Nandi** (2023). Antimicrobial. Antioxidant, Gc-Ms Analysis and Molecular Docking Analysis of Bioactive Compounds of

	<p>Endophyte <i>Aspergillus flavus</i> from <i>Argemone Mexicana</i>. Journal of Microbiology, Biotechnology and Food Sciences. e9970-e9970.</p> <p>36. Pooja Singh., Angkita Sharma, Preeti Arivaradarajan., Manobjyoti Bordoloi, Bidyut Kumar Sarmah, Shoma Paul Nandi, (2023). Behavioral Dualism of Endophytes in plant-microbe interaction and their diverse applications-a review. Journal of Microbiology, Biotechnology and Food Sciences, e9401-e9401.</p> <p>37. G. Dharshana Malya, Jhumpa Bhattacharjee, Sahana Mukherjee, Shubhajyoti Deka, Lahari Saikia, Shoma Paul Nandi, (2024). Phytochemical analysis, stability, and antimicrobial activity of eighteen medicinal plants studied against five multi-drug resistant human pathogens. Eur J Clin Exp Med; 22 (4): 811–819</p> <p>38. Pooja Singh, Angkita Sharma, Sahana Mukherjee, M. Bordoloi, Shoma Paul Nandi (2024). Evaluation of commercial importance of endophytes isolated from <i>Argemone mexicana</i> and <i>Papaver rhoeas</i>. Environmental Science and Pollution Research, 1-16.</p> <p><u>Copy right:</u></p> <p>1. Copy right No. L-95152/2020 IDENTIFICATION OF POTENT INHIBITORS OF COVID-19 MAIN PROTEASE ENZYME BY MOLECULAR DOCKING STUDY: SHOMA PAUL; POOJA SINGH; ANGKITA SHARMA, AMITY UNIVERSITY SECTOR 125, NOIDA, UP-201313; INDIAN</p>
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<p>PATENTS (Total no.) 11</p>	<p><u>Patent Granted:</u></p> <ol style="list-style-type: none"> Shoma Paul Nandi, Angana Payne, Dr. Asish Kumar Mukhopadhyay, Dr. Ashwani Kumar Srivastava A novel composition and method of preparation of the composition to inhibit the growth of pathogenic bacterium, <i>Vibrio cholerae</i> (Patent File No. 2667/DEL/2011) (Granted) Shoma Paul Nandi, Shubhi Mehrotra, Asish Kumar Mukhopadhyay and Kshipra Misra, “Quercetin isolated from Datura metel has anti-helicobacter pyloric activity” (Patent File No.2741 /Del/2012) (Granted) Shoma Paul Nandi, Shubhi Mehrotra, Dr. Asish Kumar Mukhopadhyay, Dr. Ashwani Kumar Srivastava: A Bioactive Datura extract to inhibit the growth of <i>Helicobacter pylori</i> (Patent File No. 2469 /Del/2011) (Granted) <p><u>Patent Filed</u></p> <ol style="list-style-type: none"> Shoma Paul Nandi, Shubhi Mehrotra, Ashwani Kumar Srivastava, Rajashree Das : Antimicrobial activity of ethanolic extract of <i>Solanum xanthocarpum</i> to inhibit the growth of <i>Vibrio cholerae</i> (Patent File No. 1632/Del/2009) Shoma Paul Nandi, Shubhi Mehrotra, Ashwani Kumar Srivastava : Antimicrobial activity of ethanolic extract of <i>Cleome viscosa</i> to inhibit the growth of <i>Vibrio cholerae</i> (Patent File No. 1635/Del/2009) Shoma Paul Nandi, Angana Payne, Dr. Asish Kumar Mukhopadhyay, Dr. Ashwani Kumar Srivastava: A bioactive extract of <i>Euphorbia thymifolia</i> plant to inhibit the growth of <i>Vibrio cholera</i> (Patent File No. 2636/DEL/2011) Shoma Paul Nandi, Ankita Saxena, Asish Kumar Mukopadhyay: A polyherbal formulation against <i>Helicobacter pylori</i> (Patent File No. 202211001428 Provisional) Shoma Paul Nandi and Pooja Singh. A Novel Endophyte-Pollutants Compositions and Synthesizing Method Thereof (TEMP/E-1/25562/2023-DEL) : Patent application no: 202311025108 filed provisionally on March 27, 2023 . Shoma Paul Nandi and Pooja Singh. Biodegradation of Keratin and Collagen- Rich Waste and Method Thereof (TEMP/E-1/87257/2022-DEL) Patent Application no: 202211076027 filed provisionally on December 26, 2022. Shoma Paul Nandi, Ankita Saxena, Pooja Singh, Sahana Mukherjee. A Polyherbal Formulation effective against <i>Helicobacter pylori</i>: Patent Application no: 202231001428 filed on January 11, 2022. Shoma Paul Nandi and Pooja Singh. A Novel Composition Based on Activity of Bacterial Endophytes Isolated from Medicinal Plants and Synthesizing Method Thereof. Patent Application no: 202311029859
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AWARDS & HONOURS/ DISTINCTIONS	<ul style="list-style-type: none"> ❖ Merit scholarship during B.Sc. and M.Sc. from State Bank of India ❖ First class first position from Dibrugarh University in B.Sc. ❖ First class first position and gold medalist from Gauhati University in M.Sc. ❖ GATE Qualified (1993) ❖ CSIR JRF and SRF fellowship during Ph.D ❖ National Biotechnology Fellowship for Post-doctoral research in Indian Institute of Science, Bangalore
MEMBERSHIP with Professional/ Academic bodies	<p>Member Secretary of Institutional Biosafety Committee</p> <p>Live member of “Save The Environment” (A SOCIETY FOR RESEARCH, AWARENESS & SOCIAL DEVELOPMENT) (Reg. No. S/66/489 of 1990-91)</p>