

Susmita Paul, Ph.D.

Personal Details

Date of Birth: 14th July 1990

Languages Known: English, Bengali and Hindi.

Nationality: Indian

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Current Position:

Assistant Professor (Department of Microbiology, Royal School of Biosciences) in The Assam Royal Global University, Guwahati, Assam, India (October 2020 till date).

Experience:

- Assistant Professor (Department of Biosciences) in Christian Eminent College, Indore, Madhya Pradesh, India (March 2019 till September 2020).
 - Project fellow (collaboration with Oil India Limited, Dibrugarh, Assam) in department of biotechnology, North-Eastern Hill University, Shillong, Meghalaya, India (February 2014 till February 2017).
 - Trainee (BCIL) in Azyme Biosciences Pvt. Ltd., Bengaluru, Karnataka, India (November 2013 till April 2014).
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Education:

- **Ph.D. (Microbiology) 2014 - 2019**
Department of Biotechnology and Bioinformatics
North-Eastern Hill University, Meghalaya, India
 - **Master of Science (Biotechnology) 2010 – 2012**
Department of Biotechnology
Bangalore University, Karnataka, India
 - **Bachelor of Science (Biotechnology) 2007 – 2010**
North-Eastern Hill University, Meghalaya, India
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Research Summary:

A result-oriented biological researcher with more than ten years of experience in microbiology, biotechnology, biochemistry, and molecular biology. Persistent, adaptive, and hardworking investigator having experience working in diverse areas of research like screening of microorganisms for biofuel production potential; endophytic

fungi, antimicrobial property and their behavior in different environmental conditions, profiling of microorganisms for lipid production in terms of biochemical as well as molecular level; volatile organic compounds detection as well as screening of genes of endophytes responsible for oleagenicity. Worked as a determined and valued member of the project team. Having a collaborative attitude, a talent for quickly learning new technologies, creative and problem-solving abilities. Believe in contributing to the organizations' growth by achieving goals in a stipulated time.

Technical Skills and Expertise:

- Lecture series on 'Traditional healing system: showcasing potential journey and role of Biotechnology on mainstreaming the system' organized by BioNEST, NIPER, Guwahati Incubation Center through Online mode on 26th November 2021, 30th November & 9th December, 2021.
 - International webinar on “Yeast contributions to Alzheimer’s Disease” (Sept. 2021) organized by school of Biotechnology, IFTM University, Moradabad, India.
 - International webinar on “How to write a successful MSCA-Postdoc Fellowship proposal (Sept.2021) organized by Euraxess worldwide.
 - National Webinar on “Reference Management Tools” (August 2021) organized by Central Library, Assam Don Bosco University, Assam, India.
 - Webinar series on NEP 2020 (June to July 2021) organized by IQAC cell CEC Indore with IQAC cell KG Mittal College of Arts and commerce, Malad, Mumbai.
 - National Seminar on Revised NAAC Accreditation Framework: A Road Map towards Quality Enrichment (2020).
 - Attended one-week workshop on PCR and different purification Techniques.
 - Attended Bioscientech, national seminar on frontiers of biotech in pharma industry.
 - Attended conference in recent trends in genomics & proteomics.
 - Experience in handling various techniques such as – Electrophoresis, HPLC, GC, PCR, SEM and Spectrophotometry.
 - Swift India Plus course in Computers from NIT, Shillong.
 - Introduction to Object Oriented programming languages in C++ and Java from St. Anthony’s Shillong.
 - Visharad in Hindi and Bharatanatyam from Shillong.
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Awards and Trainings:

- **Refresher Course** on Curriculum and Pedagogy be organized by Teaching Learning Centre (TLC), Tezpur University, India, from 07-20 June (2023).
- FDP (1 week) on Implementation of NEP 2020 in Higher Education Institutions. Teaching Learning Centre, Tezpur University, India during 26 April - 02 May (2023).
- Shortlisted for final defend in a project of **DBT-ALSBT** (2022).
- Seed grant from RGU for **Student research Project** (Ay 22-23).
- FDP (5 days) on “Insights of Molecular Mechanism and Therapeutic Strategies”, Department of Biotechnology and Genetics (an IQAC initiative), MS Ramaiah college of Arts, Science and Commerce, Bengaluru, India (2022).
- FDP (1 week) on “Implementation of NEP 2020 in Higher Education”, RKDF university, Bhopal, MP (2022).

- FDP (1 week) on Emerging Trends and Challenges in Management. Department of Management, CEC, Indore, MP (2021).
 - Awarded certificate by **MIT** on National level quiz on “Teaching & Research Aptitude of NET/SET” (2020).
 - Seven Days workshop on “Research Methodology (2020), organized by NASPG, college, Meerut, UP with IGNOU, Regional Centre, Noida.
 - Workshop on “Role of metal ions in solution of chemical, environmental, and biological problems, Sanmantrana-2020.
 - Awarded a certificate on successful completion of Women Entrepreneurship Development Programme, MPCON Ltd, MP, India (2019).
 - Workshop on Communication skills: Training and Development (2019).
 - Workshop on FTIR, CEC, Indore (2019).
 - Awarded attendance grant from **DBT-CTEP** to attend **International Conference** in Birmingham, **UK** (2018).
 - Selected for **DST SERB** School on Chemical Ecology in All India level held at NCBS, in Bangalore (2017). Workshop on Chemical Ecology (DST-SERB School), NCBS, Bengaluru, India.
 - **ESCMID** attendance awardee in **International Conference** on Contemporary Antimicrobial Research. Assam University, Silchar, Assam, India (2016).
 - Cleared **BITP, BCIL** at All India level (2012).
 - Class topper in M.Sc. level (2012).
 - Workshop on **IPR** (Intellectual Property Rights), **RGNIIPM**, Nagpur, India (2017).
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Publications:

- **Paul S**, Bhagobaty RK, Nihalani MC and Joshi SR (2017). Prospective oleaginous endophytic fungi isolated from biodiesel plants: An assessment of diversity and lipid content. *Kavaka* 49: 15-21.
- **Paul S**, Bhagobaty RK, Nihalani MC and Joshi SR (2018). Diversity and lipid content analysis of oleaginous endophytic fungi associated with biodiesel plants. *Sydowia* 70: 27-35.
- **Paul S**, Bhagobaty RK, Nihalani MC and Joshi SR (2019). Are endophytic fungi a feasible option as biofuel nanofactories? *International Journal of Scientific Research and Review*. 07(05): 1112-1118.
- **Paul S** (2020). Endophytes and their benefits. *Juni Khyat*. 10(06): 113-119.
- **Dwivedi K and Paul S** (2020). Antioxidant Study of Edible Mushrooms. *Juni Khyat*. 10(06):203-208.
- **Paul S**, Bhagobaty RK, Nihalani MC and Joshi SR (2020). Characterization of oleaginous endophytic fungi of biodiesel plants as potential biofuel minifactories. *Biomass and bioenergy*. 142(2020): 1-10.
- **Paul S and Joshi SR** (2022). Industrial Perspectives of fungi. *In: Industrial Microbiology and Biotechnology*. (pp. 81-105). *Springer*, Singapore.
- **Paul S**, Bhagobaty, RK, Nihalani, MC and Joshi, SR (2023). Screening of biohydrogen producing endophytic fungi from biodiesel plants. *CLEAN - Soil, Air, Water*, 2300150. <https://doi.org/10.1002/clen.202300150>

- Borthakur M, **Paul S**, Kumari S, and Ingti B (2023). Bioactive and Phosphatase Potential of Two Wild Mushrooms of Subtropical Forest consumed by Ethnic Tribes of Meghalaya, India. *Biological Forum – An International Journal*.
 - Moirangthem A, Baruah T J, Maurya AP, Patar AK, **Paul S** and Ingti B*(2023). Identification of Potential inhibitors from *Andrographis paniculata* bioactive compounds against extended-spectrum beta-lactamases through in-silico and in-vitro approaches. *Research Journal of Biotechnology*.
 - **Paul S and Joshi SR** (2023). A perspective on bacterial metagenomics in wastewater research. *In: Bacterial Metagenomics in Industrial Wastewater Treatment. DE Gruyter* (Germany) (accepted).
 - **Paul S**, Ingti B and Joshi SR (2023). Utility of endophytes for the enhancement of biofuel production. *In: Emerging Sustainable Technologies for Biofuel Production. Springer Nature*. (Under review).
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Conferences and Presentations:

- **Paul S** and Das C (2023). **Screening of endophytic microorganisms from *Plectranthus ambainicus* for its antimicrobial activity**. Paper presented at 4th International Conference on Contemporary Antimicrobial Research (ICCAR, 2023). Assam University, Silchar, Assam, India (*Poster presentation*).
- **Paul S**, Bhagobaty RK, Nihalani MC and Joshi SR (2022). **Characterization of oleaginous endophytic fungi of biodiesel plants as potential biofuel minifactories**. Paper presentation at International Conference on “Challenges and Prospects of Biotechnology Environment and Agricultural Researches (CPBEAR-22) Christian Eminent College, Indore, Madhya Pradesh, India, Research Foundation of India and RFI CARE (*Online Oral presentation*).
- **Paul S** (2020). **Endophytes and their benefits**. Paper presentation at International Conference on “Reconnoitering Science: Searches, Researches, Inventions, Innovations, Discoveries and other Recent Trends for the Advancement of the Society”. Christian Eminent College, Indore, Madhya Pradesh, India (*Online Oral presentation*).
- **Paul S** (2020). **Sustainable development and management of natural resources**. Paper presentation at National Seminar on Sustainable Development of Natural Resources: Challenges and Solutions. VMV Commerce, JMT Arts & JJP Science College, Nagpur, India (*Oral presentation*).
- **Paul S**, Bhagobaty RK, Nihalani MC and Joshi SR (2019). **Culture condition optimization of some endophytic fungi for high lipid production**. Paper presented at International Conference on Recent Advances in Life Sciences for Betterment of Environment and Human Health. Govt. Holkar (Model, Autonomous) Science College, Indore, India (*Oral presentation*).

- **Paul S, Bhagobaty RK, Nihalani MC and Joshi SR (2018). Bioprospection of an oleaginous endophytic fungus *Phomopsis* sp. prevalent in biodiesel plants.** Paper presented at The Microbiology Society annual conference, 2018. Birmingham, UK (*Oral presentation*).
 - **Paul S, Bhagobaty RK, Nihalani MC and Joshi SR (2017). Endophytic fungi –from Chemical Ecology to Biofuels.** Paper presented at workshop on Chemical Ecology (DST-SERB School), 2017. NCBS, Bengaluru, India (*Poster presentation*).
 - **Paul S, Bhagobaty RK, Nihalani MC and Joshi SR (2016). Antimicrobial activity and Lipid profile studies of endophytic fungi associated with *Brassica juncea*.** Paper presented at International Conference on Contemporary Antimicrobial Research (ICCAR, 2016). Assam University, Silchar, Assam, India (*Oral presentation*).
 - **Paul S, Bhagobaty RK, Nihalani MC and Joshi SR (2015). Endophytic fungi associated with *Brassica juncea*, a commonly used vegetable plant cultivated in Meghalaya.** Paper presented at 56th Annual Conference of Association of Microbiologists of India & International Symposium on Emerging Discoveries in Microbiology (2015). JNU, New Delhi, India (*Poster presentation*).
 - **Paul S, Bhagobaty RK, Nihalani MC and Joshi SR (2014). Identification of cryptic endophytic fungi using microscopic images’.** Paper presented at National Symposium on “Unraveling Plant- Microbe Interactions for supporting plant health”. Guwahati, India (*Oral presentation*).
 - **Paul S and Goswami S (2013) “Molecular characterization of phenol degrading microbes”** Paper presented in a national symposium held at AMC, Bangalore.
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References:

1. Prof. Santa Ram Joshi

Professor, Department of Biotechnology and Bioinformatics
North Eastern-Hill University, Shillong, India
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2. Mr. Mahesh M

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3. Dr. P Sudharani

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I hereby declare that the particulars furnished above are true to the best of my knowledge.

Place: Guwahati, India

Sincerely,

Susmita Paul

Date:

Susmita Paul
