

FACULTY PROFILE

Name: Dr. Debulman Syiemiong

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Mobile No:

Joined on: 28th April, 2007

Educational Qualification: M.Sc., NET, Ph.D.

Awards/ Fellowships/Scholarship:

Teaching Experience: 16 years

Research Experience: 10 years

Special recognition / Award / Scholarship:

Research Interests: Microbial Ecology, Plant Pathology, Mycology, Medicinal Plants

Professional Training:

1. UGC-sponsored 12th Orientation Programme (Information Technology) from the 14th February to 13th March, 2011 at UGC-HRDC, North Eastern Hill University
2. Hands-On Training Workshop on DNA Cloning, Sequencing and Sequence Analysis from 10th to 25th September, 2012 under the DBT Project on "Empowerment of North East Human Resources for Biotechnology Activities" at the Department of Botany, North Eastern Hill University, Shillong.
3. UGC-sponsored Special Summer School from 12th August to 1st September, 2013 at UGC-HRDC, North Eastern Hill University.
4. UGC-sponsored Refresher Course in Nano Science & Nano Technology from 22nd March to 11th April, 2017 at UGC-HRDC, Gauhati University
5. UGC-HRDC-RUSA Sponsored FIP Online Short Term Course on "Motivation and Leadership for Teachers" from 22nd to 27th June, 2020 in online mode. Organized by UGC-HRDC & RUSA, Osmania University, Hyderabad
6. Online Faculty Development Programme on "E-Learning Platform" from 20th to 27th July, 2020. Organized by E & ICT Academy, IIT-Guwahati in association with Gauhati University Institute of Distance and Open Learning (GUIDOL) and support from Mantra Associates
7. Online Training on "Understanding Environmental Laws for Better Environmental Management" from 1st to 10th September, 2021. Organized by Industrial Pollution Team, Centre for Science and Environment, New Delhi

Member of Academic Bodies:

1. Life Member of Association of Microbiologists of India (AMI); Life Membership No. 4437-2016
2. Member of Board of Studies, Department of Botany, North Eastern Hill University; 16th November 2020 till 2023

Research Guidance:

1. Guided a DBT-sponsored inter-departmental student research project under DBT-STAR College Scheme 2017-2018

Research Projects:

1. Project Title – “Searching of actinobacteria for antimicrobial properties from a cave ecosystem”. Sanctioned amount: 8 lakhs. Duration: 20.03.2018 to 19.09.2019. Funded by DBT, Government of India.

Publications:

1. **Syiemiong, D.**, and Rabha, J. (2024). Unveiling nature's treasures: actinobacteria from Meghalaya's mining sites as sources of bioactive compounds. *Archives of Microbiology*, 206: 64. <https://doi.org/10.1007/s00203-023-03791-7>
2. **Syiemiong, D.**, Jha, D.K., Adhikari, S., Myllemngap, D., Kharbuki, R., Lyngdoh, D., Warlarpah, J.P., Paul, N., Lamare, K.M., Wahlang, C., and Lyngkhoi, R. (2023). Rhizospheres of *Rubus ellipticus* and *Ageratina riparia* from Meghalaya exhibit Actinomycetota that promote plant growth. *Journal of Applied Biology and Biotechnology*, 11(2): 114-122. <https://doi.org/10.7324/JABB.2023.110210>
3. **Syiemiong, D.**, and Jha, D.K. (2021). Diversity of cultivable actinobacteria in Nongkhyllam Wildlife Sanctuary, Meghalaya, and their antimicrobial and plant growth promoting potentials. *Journal of Mycopathological Research*, 58(4): 229-242.
4. **Syiemiong, D.**, and Jha, D.K. (2019). Antibacterial potential of actinobacteria from a limestone mining site in Meghalaya, India. *Journal of Pure and Applied Microbiology*, 13(2): 789-802. <https://doi.org/10.22207/JPAM.13.2.14>
5. **Syiemiong, D.**, and Jha, D.K. (2019). Search for plant growth promoting actinobacteria from a limestone mining spoil soil in Meghalaya. *Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences*, 5(2): 1024-1036. <https://doi.org/10.26479/2019.0502.77>

Abstracts & Presentation in National/ International Seminar/ Symposium

1. **Syiemiong, D.**, Jha, D.K., Adhikari, S., Myllemngap, D., Kharbuki, R., Lyngdoh, D., Warlarpih, J.P., Paul, N., Lamare, K.M., Wahlang, C. and Lyngkhoi, R. (2022). Plant growth promotion of tomato by Actinobacteria isolated from rhizospheres of *Ageratina riparia* (Regel.) King & Robinson and *Rubus ellipticus* Smith growing in the state of Meghalaya. Paper presented in the Two-Day International E-Conference on the "Frontiers in Microbiology", held on the 17th & 18th January, 2022 in online mode. Organized by Vasantdada Patil Arts, Commerce & Science College, Patoda, Maharashtra, India in association with Microbiologists Society, India.
2. **Syiemiong, D.** (2020). Morphological characterization of filamentous Actinobacteria using Foldscope. Paper presented in the "International E-Conference on Foldscope and its applications" (INECFAIA-2020), held on the 20th -21st June, 2020 in online mode.
3. **Syiemiong, D.** (2020). Diversity of Actinobacteria in different environments of Meghalaya and their Potential as Antibiotics producers. Paper presented in the UGC-STRIDE sponsored National Webinar on "Biodiversity Conservation – Prospects and Challenges", held on the 19th June, 2020 in online mode. Organized by the Department of Botany, K.L.E. Society's S. Nijalingappa College, Rajajinagar, Bengaluru., Karnataka, India.
4. **Syiemiong, D.** and Jha, D.K. (2020). Cultivable Diversity of Actinobacteria from Nongkhyllam Wildlife Sanctuary, Meghalaya, India with preliminary assessment of antimicrobial and plant growth promoting potential. Paper presented in the International Symposium on "Nature, Microbes and Society", held on the 6th – 8th February, 2020 at Science City, Kolkata, India. Organized by Indian Mycological Society in collaboration with the Department of Botany, University of Calcutta.
5. **Syiemiong, D.**, Goswami, S., Lamare, K.M., Wahlang, C., and Lyngkhoi, R. (2019). Antimicrobial Activity of Cave Actinobacteria from Krem Dam, Meghalaya, India. Paper presented in the 60th Annual Conference of Association of Microbiologists of India (AMI-2019) & International Symposium on Microbial Technologies in Sustainable Development of Energy, Environment, Agriculture and Health", held on the 15th – 18th November, 2019 at the Central University of Haryana, Mahendergarh, Haryana, India.
6. **Syiemiong, D.** (2019). Use of foldscope in the study of actinobacteria. Paper presented in DBT Sponsored One-Day National Seminar cum Workshop on "Biological and Medical Applications of Foldscope and Mycorrhizal Commercial Productions", held on the 31st January, 2019 at the PG and Research Department of Microbiology, M.R. Government Arts College, Tiruchirappalli, Tamil Nadu, India.
7. **Syiemiong, D.**, and Jha, D.K. (2018). Actinobacteria from a sillimanite ore mining site: Antimicrobials or Plant Growth Promotion? Paper presented in 59th Annual Conference of Association of Microbiologists of India (AMI-2018) & International Symposium on "Host-Pathogen Interactions", held on the 9th – 12th December, 2018 at the School of Life Sciences, University of Hyderabad, Hyderabad, India.
8. **Syiemiong, D.**, and Jha, D.K. (2017). Screening for plant growth promoting actinomycetes from a limestone mining site at Mawsmat, East Khasi Hills, Meghalaya. Paper presented in National Symposium on Current Trends in Research in Biotic Systems, held on the 29th – 30th June, 2017 at the Department of Botany, North-Eastern Hill University, Shillong, India.

9. **Syiemiong, D.**, and Jha, D.K. (2016). Isolation, characterization and screening of Actinobacteria from coal mine spoils at Dewlieh (near Maweit, West Khasi Hills, Meghalaya) for antimicrobial and plant growth promoting properties. Paper presented in 57th Annual Conference of Association of Microbiologists of India (AMI-2016) & International Symposium on “Microbes and Biosphere: What’s New What’s Next”, held on the 24th – 27th November, 2016 at Gauhati University, Guwahati, Assam, India.

Projects

Sl. No.	Title	Funding Agency	Period	Grant (Rs in lakhs)	API Score	Enclosure
1	Searching of actinobacteria for antimicrobial properties from a cave ecosystem	DBT, Govt. of India	20.03.2018 to 19.09.2019	8 lakhs	15	16 Sanction Order, Under Category 'B' Sl. No. 76 17 6 months extension of the project

Additional Responsibilities since 2018 (in St. Edmund’s College):

1. Member of IQAC
2. Member of IIC
3. Member of Research & Publication Committee
4. Convener of Science Club