

Baphilinia Jones Myllemngap

Address: Department of Biotechnology
St. Anthony's College, Shillong
Bomfyle Road, Shillong-793001
Meghalaya

Contact Number: +91 9402134345

Email: baphilinia@anthonys.ac.in

Current Position

Assistant Professor at Department of Biotechnology, St. Anthony's College, Shillong

Educational Qualifications

2016	Ph.D.	Biotechnology & Bioinformatics	North-Eastern Hill University
Thesis: <i>In-silico</i> analysis of persister proteins and design of their inhibitors in <i>Mycobacterium tuberculosis</i>			
Supervisor: Dr. Atanu Bhattacharjee			
2012	Pre-Ph.D. Course Work	Biotechnology & Bioinformatics	North-Eastern Hill University
2008	M.Sc.	Bioinformatics	Bharathiar University
2006	B.Sc.	Biotechnology, Botany, Chemistry	Bangalore University

Research Experience

- Post-Doctoral Fellow at Department of Biosciences and Engineering (under Aushadhi – Open Innovation Programme), Indian Institute of Technology Guwahati, 2016 – 2017.
- Six months project on “Consensus clustering using K-means algorithm – a simulation study” under the supervision of Dr. Anbupalam Thalamuthu and Dr. Karuturi Radha Krishna Murthy at the Genome Institute of Singapore, November 2007 – April 2008.

Awards

- ISNM-DBT Fellowship to participate in “Nanobioteck – 2017”, 2nd Annual Conference of Indian Society of Nanomedicine on 6th – 8th December, 2017.
- Rajiv Gandhi National Fellowship for ST candidates in the discipline of Biotechnology and Bioinformatics, 2010-2015.

Ongoing Projects

1. Comparative studies of phytochemical and biological assays of wild and cultivated *Hottuynia cordata* and its efficacy on allosteric sites of protein kinase” for a period of two years. Total Cost: Rs. 1,00,000/- (Rupees One lakh only) vide Sanction Letter No. SAC/ALD/165/ARG/2024-01 dated 13.03.2024. [Funded by: Anthonian Research Grant Award].
2. “Characterization of *Hedychium* germplasm from Meghalaya” for a period of two years. Total Cost: Rs. 50,000/- (Rupees Fifty thousand only) vide Sanction Letter No. SAC/ALD/165/ARG/2024-07 dated 13.03.2024. [Funded by: Anthonian Research Grant Award].

Research Publications

1. Ganguly, R., **Mylliemngap, B. J.**, & Bhattacharjee A. (2023). Discovery of a novel inhibitor against urokinase-type plasminogen activator, a potential enzyme with a role in atherosclerotic plaque instability. *Journal of Biomolecular Structure and Dynamics*, 1 – 11. Advance online publication. <https://doi.org/10.1080/07391102.2022.2051742>
2. Ahmed, J., Lamo, J. M., & **Mylliemngap, B. J.** (2021). Comparative study of active and allosteric interaction in protein kinases. *Spectrum: Science and Technology*, 8 (1), 23-31. <https://doi.org/10.54290/spec/2021.v8.1.00063>
3. Phukan, P., Laskar, M. A., **Mylliemngap, B. J.**, & Lamo, J. M. (2021). Cytogenetical analysis of *Clitoria ternatea*. *Spectrum: Science and Technology*, 8 (1), 71-77. <https://doi.org/10.54290/spec/2021.v8.1.0006>.
4. Ali, M. A., Lee, J., Rahman, M. O., Al-Anazi, F. S. M., Al-Hemaid, F. M. A., Hatamleh, A. A., Lee, C., **Mylliemngap, B. J.**, & Bhattacharjee, A. (2016). Phylogenetic implication of molecular genotyping of *Euryops jaberiana* Abedin & Chaudhary (Asteraceae). *Bangladesh Journal of Plant Taxonomy*, 23(1), 45-51.
5. Gurun,g A. B., **Mylliemngap, B. J.**, Bhattacharjee, A., Ali, M. A., & Al-Hamaid, F. M. A. (2015). Interactome analysis and design of inhibitors against selected protein targets of Ser/Thr protein kinase (STPK) signaling pathways in *Mycobacterium tuberculosis* H37Rv. *Genetics and Molecular Research: GMR*, 14 (3), 10390-10403. <https://doi.org/10.4238/2015.September.1.6>
6. **Mylliemngap, B. J.**, Borthakur, A., Ingale, K., Karanam, S., Velmurugan, D., & Bhattacharjee, A. (2014). GQSAR approach to study the effect of various groups on substituted quinolines showing anti-tuberculosis activity. *International Journal of Pharmaceutical Sciences and Research*, 5(4), 1345-1351. [http://dx.doi.org/10.13040/IJPSR.0975-8232.5\(4\).1345-51](http://dx.doi.org/10.13040/IJPSR.0975-8232.5(4).1345-51)
7. Ghoshal, N., **Mylliemngap, B. J.**, & Bhattacharjee, A. (2014). Probable Interaction of Reduced Glutathione with NF-KB Family Proteins Trim down NF-KB Mediated

Expression of MMP-9: An in Silico Analysis. *Journal of Life Science and Biomedicine*, 4(5), 409-415.

8. Tiwari, S., **Mylliemngap, B. J.**, Velmurugan, D., & Bhattacharjee, A. (2013). Interactome analysis of devS protein involved in persistence of *Mycobacterium tuberculosis* and design of inhibitor against its interacting persister protein: An approach to inhibit protein–protein interaction. *Indian Journal of Bioinformatics and Biotechnology*, 2(3), 57-64.
9. **Mylliemngap, B. J.**, Borthakur, A., Velmurugan, D., & Bhattacharjee, A. (2012). Insilico analysis and molecular docking of resuscitation promoting factor B (RpfB) protein of *Mycobacterium tuberculosis*. *Bioinformation*, 8(14), 646-651. <https://doi.org/10.6026/97320630008646>
10. Bhattacharjee, A., **Mylliemngap, B. J.**, & Velmurugan, D. (2012). 3D-QSAR studies on fluoroquinolones derivatives as inhibitors for tuberculosis. *Bioinformation*, 8(8), 381-387. <https://doi.org/10.6026/97320630008381>

Abstracts

1. **Mylliemngap, B.J.**, & Bhattacharjee, A. (2020). In Silico Studies On Membrane-Bound Nitrate Sensor Related With Persistency Of Tuberculosis. Proceedings at the International Virtual Conference on “Innovation and recent trends in genomic research ‘20”, organised by the Department of Biotechnology, Bannari Amman Institute of Technology.
2. **Mylliemngap, B.J.**, Borthakur, A., & Bhattacharjee, A. (2012). Insilico analysis and molecular docking of resuscitation promoting factor B (RpfB) protein of *Mycobacterium tuberculosis*. Proceedings at the 4th National Symposium cum Workshop on “Recent Trends in Structural Bioinformatics and Computer Aided Drug Design”, organised by Department of Bioinformatics, Alagappa University.
3. **Mylliemngap, B.J.**, Thomas, N., & Joseph, J. (2008). Insilico molecular modelling and drug docking analysis for Parkinson’s disease. Proceedings at the Two day National Conference on “Research & Development in Computational Biology and Bioinformatics”, organised by the Department of Bioinformatics, Kongunadu Arts and Science College.

Conferences/Seminars/ Webinar Attended

1. Faculty Enrichment Programme on “Design Thinking and Innovative Practices” organised by IQAC, St. Anthony’s College, Shillong in collaboration with PRIME Hub, Govt. of Meghalaya, held on 3rd August 2022.
2. National Webinar on “National Education Policy 2020 and Its Implication on Higher Education” organised by IQAC and Department of Value Education, St. Anthony’s College, Shillong, held on 7th April 2021.

3. National Level Webinar on “Gender Equity in College Campuses” organised by Women’s Anti-Harassment Cell in Collaboration with IQAC, St. Anthony’s College, Shillong, held on 29th June 2021.
4. National Webinar on “New Education Policy 2020” organised by UGC – HRDC, North – Eastern Hill University, Shillong held on 8th October 2021.
5. National Webinar on “ Exploring The Different Aspects Of Nature Conservation” organised by Department Of Zoology and IQAC, Sarojini Naidu College For Women, Kolkata held on 28th July 2021
6. National Webinar on “National Education Policy 2020 and Its Implication on Higher Education” organized by IQAC and the Department of Value Education, St. Anthony's College, Shillong held on 7th April 2021.
7. National Webinar on “Women in Leadership” organized by National Institute of Food Technology Entrepreneurship and Management (NIFTEM), Haryana held on 8th March 2021.
8. National Webinar on “Intellectual Property Rights and its Applications” organized by the IQAC and the Department of Zoology, St. Anthony’s College, Shillong held on the 11th – 12th December 2020.
9. International Webinar on “COVID – 19: A big challenge for the scientific community in the 21st century” organised by the Department of Biochemistry, Lady Keane College held during 11th September 2020.
10. International Virtual Conference on “Innovation and recent trends in genomic research ‘20” organised by the Department of Biotechnology, Bannari Amman Institute of Technology held during 30th – 31st July 2020.
11. International Web Conference on “Recent Advances in Science” organised by the Department of Physics and IQAC, Don Bosco College held during 30th – 31st July 2020.
12. Live Webinar on “Grassroots Governance and Contributions of Traditional Institutions in the Management of Covid-19 in Meghalaya” organised by Department of Political Science, St. Anthony’s College held during 18th July 2020.
13. Second Edition of International Virtual Conference on “Natural Products and Synthetic Biology” jointly organised by School of Bio Sciences and Technology, VIT Vellore and Society of Chemical and Synthetic Biology held during 4th – 5th July 2020.
14. Orientation Programme on “Student Engagement and Neural Mechanisms Of Learning” organised by St. Anthony’s College, Shillong held during 7th March 2020.
15. Northeastern Regional Conference and Exhibition on “Promotional and Protection of Traditional Health Care Remedy” at Institutional Biotech Hub, Department of Biotechnology, Gauhati University in association with IASST, USTM, NEBA and IITG held during March 24-26, 2017.
16. National Seminar on “Metabolomics-A New Frontier in Natural Products Research” at Department of Biotechnology & Bioinformatics, North-Eastern Hill University held during May 23-24, 2014.
17. Two day National Conference – INVENIO’08 on “Research & Development in Computational Biology and Bioinformatics” at Department of Bioinformatics, Kongunadu Arts and Science College held during February 29 - March 03, 2008.

18. National Seminar on “New Trends in Industrial Bioinformatics” at Department of Bioinformatics, Bharathiar University held on February 25, 2008.
19. One Day International Symposium on “Structural Bioinformatics – Structure and Functions of Macromolecules” at Department of Biochemistry & Bioinformatics, Sri Ramakrishna College of Arts and Science for Women held during January 12, 2008

Orientation Programme/FDP

1. Four – Week Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education” organised by Teaching Learning Centre, Ramanujan College, University of Delhi, Delhi held on 11th February – 13th March 2021.
2. One – Week National Level Online Faculty Development Program on “Outcome Based Education (OBE)” organised by the IQAC, JPM Arts and Science College, Kanchiyar, Idukki in association with ipsr solutions limited, Kottayam held on 16th February – 22th February 2023.
3. Five – Day Faculty Development Program on “Bloom’s Taxonomy and Outcome Based Education (OBE)” organised by the IQAC, St. Anthony’s College, Shillong held on 18th – 22nd July 2023.

Workshop/Training/Summer School

1. Three – day workshop on “Northeast Regional Intellectual Property (IP)” organised by KIIT – Technology Enabling Centre, Bhubaneswar held on 28th – 30th July 2021.
2. Special Summer School on “Basics Sciences and Technology” organised by UGC Human Resource Development Centre, North-Eastern Hill University held during July 8 – 21, 2019.
3. Hands-on Training Workshop on “Gene Cloning, Protein Biochemistry, Structure Biology and Bioinformatics” organised by DBT-NER Biotechnology/Bioinformatics Training Centre at Advanced Centre for Treatment, Research & Education in Cancer, Tata Memorial Centre held during January 21 – February 1, 2019.
4. Workshop on “Technological Empowerment of Women through the SoRF Scheme of DST in collaboration with NASI” at, North-Eastern Hill University held during June 30, 2014.
5. Workshop on “Application of NMR in Chemical and Biological Sciences” at SAIF, North-Eastern Hill University held during March 20-23, 2012.
6. National Seminar and Workshop on “Bioinformatics and 3D Structure determination of Bio-molecules” at Department of Physics, Ethiraj College for Women held during February 27-28, 2012.
7. 4th National Symposium cum Workshop on “Recent Trends in Structural Bioinformatics and Computer Aided Drug Design” at Department of Bioinformatics, Alagappa University held during February 20-23, 2012
8. Workshop on “Scientific Computing and Applications” at Department of Basic Sciences and Social Sciences, North-Eastern Hill University held during September 13-14, 2011.

9. National Workshop on “Recent Advances in In-Silico Drug Design and X-Ray Crystallography” at Department of Biotechnology & Bioinformatics, North-Eastern Hill University held during July 25-30, 2011.
10. National Workshop on “Molecular Simulation and Chemoinformatics approaches towards New Drug Development” at Department of Bioinformatics, Karunya University held during February 24-26, 2011.
11. The First UGC Networking Resource Centre Workshop in “Biological Sciences” at Indian Institute of Sciences, Bangalore held during April 1-21, 2010.
12. National Conference on “Research & Development in Computational Biology and Bioinformatics” at Department of Bioinformatics, Kongunadu Arts and Science College held during February 29– March 1, 2008.
13. International Seminar cum Workshop on “Molecular Modeling and Drug Discovery” at Bharathiar University held during July 27-28, 2007.

Research Interest

Protein-ligand interaction studies, molecular dynamics simulation of protein structures and molecular phylogeny.