



Dr. Mahananda Chutia, M.Sc., Ph.D.

Scientist – C & DBT Overseas Associate
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Educational Qualification: M.Sc. with specialization in Microbiology from Gauhati University (2003).

Ph.D. in Biotechnology (Microbial Biotechnology) from Gauhati University (2012)

Post Doctorate Fellow (Virology) in University of Leicester, UK (2015-16).

Area of research interest:

- Silkworm pathology and host-pathogen interaction
- Bio-prospecting of Microorganisms, molecular microbiology and interdisciplinary research.

Professional Experiences:

- Scientist - C in Central Muga Eri Research & Training Institute (CMER&TI), Central Silk Board, Govt. of India, Jorhat, Assam w.e.f. 26th February 2014 to till date.
- Scientist - B in Central Muga Eri Research & Training Institute (CMER&TI), Central Silk Board, Govt. of India, Jorhat, Assam w.e.f. 19th January 2009 to 25th February 2014.
- CSIR-Senior Research Fellow in the Dept. of Biotechnology, Gauhati University, Ghy (2008-2009).
- Research Fellow in North East Institute of Science & Technology (NEIST), Jorhat, Assam (2005-2008)
- Guest Faculty in the Dept. of Botany, Nowgong College, Assam, India (2005-2007).

Awards/honour/Fellowship (if any):

1. Honorary Visiting Fellow, University of Leicester, UK
2. DBT Overseas Associateship in the year 2014.
3. Most Cited Articles Award in the journal "LWT-Food Science & Technology" published by Elsevier, UK for the period of 2008-2013.
4. Best Poster Presentation in International Consultative Meeting on Seri-biotechnology (ICMS)-2012 held at IBSD, Imphal during 6-7th December 2012.
5. DBT- Rapid Grant for Young Investigator (RGYI) award in 2012.
6. UGC recognized NET/SLET qualified in Life Sciences.
7. CSIR Senior Research Fellowship (SRF) in Life Sciences in 2007-08.
8. 1st Class 1st position with distinction in B.Sc. from Dibrugarh University, Assam.
9. National Merit Scholarship for postgraduate studies.

Major/ongoing Projects:

1. Characterization, transmission and cyto-pathology of infectious flacherie and cytoplasmic polyhedrosis virus in muga silkworm, *Antheraea assamensis* Helfer [Principal Investigator; Funding agency DBT, New Delhi; Duration 3 years].
1. Establishment of Institutional Biotech Hub (Co-PI; Funding agency DBT, New Delhi; Duration 3 years).
2. Next generation sequencing studies and bioinformatics analysis of microbiome of flacherie infected *Antheraea assamensis* Helfer for developing effective disease control measures (Co-PI; Funding agency - Central Silk Board, Bangalore; Duration 3 years).
3. Characterization and efficacy of bacterial antagonists against *Alternaria ricini* infecting Castor in North-eastern India (Co-PI; Funding agency- Central Silk Board, Bangalore; Duration 3 years).

Important / recent Publications (peer reviewed):

[*Corresponding Author]

1. J.Y. Nale, M. Chutia, P. Carr, P.T. Hickenbotham, M.R. Clokie (2016) 'Get in early'; biofilm and wax moth (*Galleria mellonella*) models reveal new insights into the therapeutic potential of *Clostridium difficile* bacteriophages. *Frontiers in Microbiology* (<http://dx.doi.org/10.3389/fmicb.2016.01383>), (ISSN 1664-302X; Impact Factor 4.165).
2. B Barbaruah, M Chutia*, P Boruah (2012) Soil hyphomycetes population dynamics in disturbed and undisturbed tropical soils of North-eastern India. *African Journal of Microbiology Research*, 6(25): 5344-5352 (South Africa, ISSN 1996-0808; Impact Factor 0.539).
3. M Chutia*, GU Ahmed (2012) Diversity, antimicrobial activities and associated microbiota of soil Penicillia from virgin forest floor. *Journal of Microbiology, Biotechnology and Food Sciences*, 1(5): 1279-1294 [Slovakia, ISSN 1338-5178].
4. M Chutia*, GU Ahmed (2012) Optimization of biomass and pigment production by *Penicillium* species isolated from virgin forest floor. *Biotechnology: An Indian Journal*, 6(3):61-69. [Trade Science Inc; ISSN: 0974 – 7435].
5. MC Sarmah, M Chutia*, K Neog, R Das, G Rajkhowa, SN Gogoi (2011) Evaluation of promising castor genotype in term of agronomical and yield attributing traits, biochemical properties and rearing performance of eri silkworm, *Samia ricini* (Donovan). *Industrial Crops and Products*, 34: 1439– 1446 [Elsevier; ISSN 0926-6690; IF 3.449].
6. P Deka Bhuyan, M Chutia*, MG Pathak, P Boruah (2010) Effect of essential oils from *Lippia geminata* H.B. Ksyn and *Cymbopogon jwarancusa* (Jones) Schult on *in vitro* growth and sporulation of two rice pathogen causing brown spot and sheath blight disease. *Journal of the American Oil Chemists' Society*, 87:1333–1340 [Springer; ISSN 0003-021X; IF 1.773].
7. R Das, M Chutia*, K Das, DK Jha (2010) Factors affecting sporulation of *Pestalotiopsis disseminata* causing grey blight disease of *Persea bombycina* Kost., the primary food plant of muga silkworm. *Crop Protection*, 29:963-968 [Elsevier; ISSN 0261-2194; IF 1.652].
8. M Chutia, P Deka Bhuyan, MG Pathak, TC Sharma and P Boruah (2009) Antifungal activity and chemical composition of *Citrus reticulata* Blanco essential oil against phytopathogens from North East India. *LWT-Food Science and Technology* (Elsevier), 42: 777–780 [Elsevier; ISSN 0023-6438; IF 2.711] (Most cited article).
9. JJ Mahanta, M Chutia, M Bordoloi, RK Adhikary, TC Sarma (2007) *Cymbopogon citratus* L. essential oil as a potential antifungal agent against key weed moulds of *Pleurotus* spp. spawns. *Flavour and Fragrance Journal*, 22: 525-530 [Wiley InterScience; ISSN 0882-5734; IF 1.693].
10. M Chutia, JJ Mahanta, N Bhattacharyya, M Bhuyan, P Boruah, TC Sarma (2007) Microbial Herbicides for Weed Management: Prospects, Progress and Constraints. *Plant Pathology Journal*, 6 (3): 210-218 [ANSI; ISSN 1812-5387; IF 0.92].

Book:

1. M Chutia, N Bhattacharyya (2008) Kathfulla Ki Kiya aru Kenekoi (A book on mushroom in Assamese), Sahitya Ratna Prakshan, Panbazar, Guwahati.
2. M Chutia, K Das (2011) Emerging areas of Seri-biotechnology. CMERTI, Central Silk Board.

Patent:

1. A novel herbal antifungal formulation against dermal infection [Ref No.: 0289NF2006 (India)].

(Dr. M. Chutia)