Personal Profile cum Curriculum Vitae of Dr. Chitta Ranjan Deb, Sr. Professor



Department of Botany

Nagaland University, Lumami, Nagaland, India

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https://orcid.org/0000-0002-1361-1025

WoS ID: H-9374-2017

ResearchGate: https://www.researchgate.net/profile/Chitta-Deb

Google Scholar ID: FWmxb3AAAAAJ

University Profile link: https://lumami.nagalanduniversity.ac.in/botany_faculty

Vidwan-ID: 209763; Samarth ID: PT00054

Dr. Chitta Ranjan Deb has joined Nagaland University, Nagaland, India in August 1997 as Lecturer and presently working as **Sr. Professor** in the Department of Botany. Prof. Deb also served different administrative positions including Head, Department of Botany, Dean, Students Welfare, Director, IQAC, IPR Cell In-charge & Dean, School of Sciences, Coordinator of UGC-SAP-DRS(III) and DST-FIST programme. Dr. Deb graduated from Tripura University, Agartala and Postgraduate (in 1994) and Doctoral degree (in 2000) from North-Eastern Hill University, Shillong. Prof. Deb is actively associated with several National/International academic organizations as a member. His current research interests include conservation biotechnology, clonal propagation, somatic embryogenesis, conservation and cryopreservation of rare/threatened/medicinal/ economically important forests plants (orchids, medicinal plants etc.) of North-East India. He is in receipt research grants from different National Agencies like Department of Biotechnology, Ministry of Science and Technology, Government of India, New Delhi, G. B. Pant Institute of Himalayan Environment and Development, Almora, Uttaranchal, CSIR, New Delhi. He has completed 18 (eighteen) major research projects/programmes and five Post Doctorate Projects funded by different funding agencies. *Currently four research projects/programmes/consultancies are in progress*. He is the Coordinator of DBT sponsored Advanced-Level Institutional Biotech Hub. His group has developed protocol for one step hardening of tissue culture, raised plants which could be directly transferred to the potting mix. Recently protocol was developed for use of some low-cost raw materials as substratum against agar which has the potential to replace the use of agar in the culture media (which is one of the costliest ingredients in tissue culture medium). Prof. Deb has published/written nearly **200**

research papers/book chapters in different research Referred and Internationally indexed journals and three popular articles and several abstracts. Prof. Deb has published 8 Patents of which 5 are **granted**. His works are being highly appreciated world over and cited by different internationally renowned Scientists in their works and indexed by different international indexing agencies. In 2007 he is being awarded **FNRS** by 'International Society of Conservation of Natural Resources (ISCON), **International Scientist Awards 2021** (**Outstanding Scientist Award**) on 'Engineering, Science and Medicine' by VDGOOD Professional Association, India in 2021, **'Dynamic Professor Award**' in 2023 by Avishkar Foundation, Solapur, India, '**Karl Ereky Legendary International Education & Research Excellence Award, 2024 in Plant Science**' by the IMRF Institute of Higher Education & Research, India, Vijayawada, A.P., India, **Lifetime Devotion Award by the Microbiologist's Society, India in 2024 and Nobel Professor award 2026 in Botany by Scientific Laurels.** Prof. Deb also the **Expert Panel Member of** '**National Certification System for Tissue Culture Raised Plants (NCS-TCP**), by Govt. of India, Ministry of Science & Technology, Department of Biotechnology, New Delhi. He has published three books, and another four books are under publication. **Under his Supervision 27 Scholars awarded Ph. D. degree, One Scholar submitted Ph. D. thesis, and 9 Scholars are working for their Ph. D. degree.**

Brief Bio-data of Dr. Chitta Ranjan Deb

Name **: Prof. Chitta Ranjan Deb**

Present Designation : Professor

Fathers` name **:** Late Sudhir Chandra Deb

Address for communication

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Permanent address

Ushabazar, Agartala Airport 799 009, Tripura (West), Tripura, India

Date of birth **: 20. 01. 1968**

Sex **:** Male

Nationality **:** Indian

Marital status : Married with two daughters

Educational qualification: M. Sc., Ph. D., FNRS

Details of Academic Records

Exam. Passed	Board/Univ.	Year
Madhyamik	T.B.S.E.	1985
H.S. (+2)	T.B.S.E.	1987
B.Sc	T.U.	1989
B.Sc (Hon's in Botany)	N.E.H.U.	1992
M.Sc (Botany)	N.E.H.U.	1994

N.E.T.	C.S.I.R./U.G.C. (JRF cum Lectureship)	1995
Ph. D.	N. E. H. U.	2000

Specialization (M. Sc.) **: Plant Biotechnology**

Fellowship/Medal/Award/Honor awarded

[I] FNRS awarded by ISCON, BHU, Varanasi (2007)

[II] International Scientist Awards 2021 (**Outstanding Scientist Award**) on 'Engineering, Science and Medicine' by VDGOOD Professional Association, India

[III] Membership of **Asian Council of Science Editors**, 2021.

[IV]. Avishkar Achievers Award (Dynamic Professor Award) - 2023' in 2023 by 'Avishkar Foundation, Solapur (ISO 9001:2015 Certified), India.

[V] **Expert Panel Member of 'CSIR-Fundamental & Innovative Research in Science & Technology' (CSIR-FIRST) Scheme' since 2021.**

[VI] **Expert Panel Member of** '**National Certification System for Tissue Culture Raised Plants (NCS-TCP**), by Govt. of India, Ministry of Science & Technology, Department of Biotechnology, New Delhi (RAD-25/3/2020-PPB-DBT dated July 18, 2023).

[VII] '**Karl Ereky Legendary International Education & Research Excellence Award, 2024 in Plant Science**' by the IMRF Institute of Higher Education & Research, India, Vijayawada, A.P., India.

[VIII]. '**MBSI Lifetime Devotion-2023-24' award** by the **Microbiologist's Society, India**

[IX] **Nobel Professor award 2026 in Botany by Scientific Laurels (https://www.scientificlaurels.com/biography/eg4mvh)**

Significant Academic/Research Achievements:

1. Project Proposal Reviewer' by Department of Biotechnology, Ministry of Science and Technology, Govt. of India

2.'Continuous Reviewer for CSIR-FIRST Scheme' (CSIR-Fundamental & Innovative Research in Science & Technology in 2021.

3. Project Proposal Evaluator of NMHS, MoEF&CC, Govt. of India, April, 2021.

4. Appointed DST-Science and Engineering Research Board Reviewer of N-PDF w.e.f. 2022.

5. Panel member of UGC Expert for evaluation of 'Project/Fellowship Proposal' (UGC Inflibnet w.e.f. 2021.

6. Expert Panel Member of '**National Certification System for Tissue Culture Raised Plants (NCS-TCP**), by Govt. of India, Ministry of Science & Technology, Department of Biotechnology, New Delhi

2. Appointed as 'Journal Referee for evaluating research paper' by:

I. Indian Journal Biotechnology

II. Journal of Horticulture and Forestry
III. Journal of Plant Biochemistry and Biotechnology
IV. International Journal of Plant Biology
V. Asian Journal of Plant Sciences
VI. Research Journal of Botany
VII. Biotechnology
VIII. African Journal of Biotechnology
IX. Applied Biological Research
X. Plant Biotechnology Reports
XI. International Journal of Medicine and Medical Science
XII. Journal of Ecology and the Natural Environment
XIII. International Journal of Bioautomation
XIV. Indian Journal of Experimental Biology
XV. African Journal of Microbiology
XVI. African Journal of Agricultural Research
XVII. Australian Journal of Crop Science
XVIII. American Journal of Plant Sciences
XIX. Open Journal of Forestry
XX. Journal of Experimental Biology and Agricultural Sciences
XXI. Asian Journal of Biology
XXII. Plant Cell Biotechnology and Molecular Biology
XXIII. Indian Journal of Traditional Knowledge
XXIV. Annual Research & Review in Biology
XXV. Journal of Food Science & Technology
XXVI. Current Nutraceuticals
XXVII. Plos One
XXVIII. Scientific Reports
XXIX. Rheedea
XXX. South African Journal of Botany
XXXI. The Nucleus
XXXII. African Journal of Pharmacy and Pharmacology
XXXIII. Journal of Food Chemistry and Nanotechnology
XXXIV. Nordiac Journal of Botany
XXXV. Plant Science Today
XXXVI. Plant Cell Tissue & Organ Culture
XXXVII. Journal of Horticultural Science
XXXVIII. The Environment and Natural Resources Journal
XXXIX. Journal of Food Chemistry and Nanotechnology.
XXXX. MDPI Agriculture
XXXXI. Journal of Sustainable Forestry

XXXXII. Industrial Crops & Products
XXXXIII. Trends in Food Science & Technology

3. Served as the Member of the Editorial Board of Journals

Sl. No.	Name of the Journal
1.	**American Journal of Plant Physiology**
2.	**Biotechnology**
3.	**Journal of Biological Sciences**
4.	**Asian Journal of Biotechnology**
5.	**Asian Journal of Biological Sciences**
6.	**Science International**
7.	**SciFed Journal of Mycology**
8.	**Phytomorphology (International Society of Plant Morphologists)**
9.	**Journal of the Indian Botanical Society (Sectional Editor, Biotechnology)**

Title of Ph. D. Thesis

"Induction of somatic embryogenesis in *Pinus kesiya* Royle ex. Gord"

Work experiences

[I] Research experience in Plant Biotechnology w.e.f. November 1994

[II] Lecturer, Botany Department, Nagaland University w.e.f. August 27, 1997 to December 06, 2004.

[III] Drawing and Disbursing Officer, Nagaland University, Hqrs: Lumami w.e.f. March 27, 2001 to November 07, 2002.

[IV] Sr. Lecturer/Assistant Professor (S-II), Botany Department of Botany, NU w.e.f. December 07, 2004 to till December 06, 2009.

[V] Assistant Professor (S-III), Botany Department of Botany, NU w.e.f. December 07, 2009 to till October 07, 2012.

[VI] Associate Professor, Botany Department of Botany, NU w.e.f. October 08, 2012 to September 08, 2013.

[VI] Professor, Department of Botany, Nagaland University w.e.f. September 09, 2013 to September 08, 2023.

[VII] Senior Professor (HAG), Department of Botany, Nagaland University w.e.f. September 09, 2023 to till date.

[VIII] Head, Department of Botany, Nagaland University w.e.f. November 07, 2012 to November 06, 2015; w.e.f. 27.07. 2020 to 26.07.2023.

[IX] Director, Centre for Biodiversity Studies, w.e.f. November 07, 2012 to November 06, 2015.

[X] Coordinator, UGC-SAP (DRS-III)

[XI] Coordinator, Advance Level Biotech Hub, NU, Lumami

[XII] Coordinator, BIF Centre, NU, Lumami w.e.f. September 2012 till May 2017.

[XIII) Dean, Students Welfare w.e.f. April 22, 2016 to April 24, 2019

[XIV] Coordinator, DST-FIST, Department of Botany, Nagaland University

[XV] Advisor cum Chairman, 'Equal Opportunity Cell, Nagaland University w.e.f. August 08, 2019 for three years

[XVI] Chairman, Nagaland University Biodiversity Committee w.e.f. May 19, 2023.

[XVII] Chairman, SWAYAM Advisory Committee, Nagaland University w.e.f. August, 2024.

[XVIII] Director, IQAC, Nagaland University w.e.f. October 23, 2024, to July 14, 2025.

[XIX] IPR Cell In-charge, Nagaland University w.e.f. November 06, 2024, to July 14, 2025.

[XX] Dean, School of Sciences, Nagaland University w.e.f. April 29, 2025, to July 14, 2025.

Teaching Specialization/Teaching Experiences

I. **Over 28** years P. G. teaching and Research experience in Nagaland University w.e.f. August 28, 1997.

II. P. G. Teaching Experience of '**Plant Biotechnology and Genetic Engineering**, **Plant Biochemistry and Molecular Biology, Plant Physiology.**

Current Research Interests

I. Mass multiplication and *in vitro* conservation of threatened and endangered and economically orchids of North-East India

II. *In vitro* propagation and conservation of threatened and economically important of Nagaland. .

III. Documentation of underutilized crops of Nagaland and nutritional assessment.

IV. Fermented foods of Nagaland.

V. Documentation and molecular profiling of orchids of Nagaland.

VI. Documentation of wild mushrooms, bar-coding and nutritional assessment.

VII. Documentation and genetic assessment of *Musa* germplasm of Nagaland and genetic improvement of commercially potential species.

VIII. Documentation of Minor Forest Crops, Nutritional Assessment and Product Development for Skill and Entrepreneur Development, Economic Upliftment of Rural Tribal of Nagaland.

Membership of Academic Institute/Organizations

[I] Life member of 'Society for Plant Biochemistry and Biotechnology'

[II] Life member of 'International Society for Conservation of Natural Resources (ISCON)

[III] Life member of 'The Orchid Society of India'

[IV] Life member of 'The International Society of Plant Morphologists'

[V] Life member of 'The Indian Science Congress Association', Kolkata, India

[VI] Member of 'International Association of Plant Tissue Culture and Biotechnology'

[VII] Life member of 'Society for Biosafety, India.

[VIII] Life Member of 'Association of Food Science & Technology', Mysore, India

[IX] Member of 'Asian Council of Science Editors' (www.theacse.com).

[X] Member of 'Plant Tissue Culture Association (India)'.

[XI] National Academy of Biological Sciences, India.

[XII] Microbiologists Society, India

Country Visited in connection with Academics and Research

1. **Nepal (2000)**
2. **Thailand (Chiang Mai University, Chiang Mai) – 2017**
3. **Germany (Berlin) -2018**
4. **United Arab Emirates - 2024**

Conference/Workshop Attended

[I] IGBP sponsored workshop on "Agriculture, Biodiversity and Climate Change". NEHU, Shillong. March 9-10, 1998.

[II] National symposium on "Integrated Pest Management in North-East India". Assam University, Silchar, March 15-17, 1999.

[III] DBT sponsored training course on "Basic Computer Concepts and Applications". Bio-informatics Center, NEHU, Shillong. June 12-14, 2000

[IV] National symposium on "Relevance of Plant Biochemistry and Biotechnology – Modern Trends". The American College, Madurai. March 1-3, 2001.

[V] National seminar on 'Botanical Researches in Wildlife Sanctuaries and National Parks of Assam". Handique Girl's College, Guwahati, Assam, 27th –28th July, 2002.

[VI] UGC sponsored "Refresher Course" at North-Bengal University. December 02-23, 2002

[VII] National seminar on 'Impact of Increasing Human Population on Natural Resources'. Botany Department of Botany, BHU, UP, 16-18th October'03.

[VIII] DBT sponsored Training course on "Database Creation with Emphasis on Biodiversity" at Bioinformatics Centre, NEHU, Shillong, March 29-31, 2004.

[IX] "74th Annual Session of National Academy of Science, India" and Symposium on "Science & Technology for Desert Development", University of Rajasthan and Birala Institute of Scientific Research, Jaipur, December 2-4, 2004.

[X] National Symposium – Awareness programme on "Application of Radioisotopes and Radiation Technology for Societal Benefit" at RRL, Jorhat, Assam from October 19 – 20, 2005.

[XI] 8th National seminar on "Orchid conservation, improvement & commercialization & Satellite symposium on orchids: Why and how? & Orchid show, Panjab University, Chandigarh, March 18-20, 2006.

[XII] DBT 'Brain Storming Session' on 'Biodiversity Conservation' at NEHU, Shillong, November 15-16, 2006.

[XIII] DBT 'Brain Storming Session on Biodiversity Conservation' at IHBT, Palampur, August 24-25, 2007.

[XIV] Workshop on "Green Technologies and Services in North-East – High Returns and Global Opportunities" at Dimapur, Nagaland, May 8-9, 2007.

[XV] Workshop on 'Traditional Healing Practices in Nagaland'. Department of Botany, Nagaland University, November 12, 2008.

[XVI] 96th Session of Indian Science Congress at NEHU, Shillong, January 3-7, 2009.

[XVII] National Conference on "Orchids: Systematics and Diversity Analysis for Conservation and Sustainable Utilization", GBPIHED, Almora, March 19-21, 2010.

[XVIII] DBT sponsored workshop 'Prevention extinction and improving conservation status of threatened plants through application of biotechnological tools', NEHU, Shillong, March 17-18, 2011.

[XIX] Orchids of Nagaland: Propagation and their conservation. *In*: National Conference on 'Orchids in India: Diversity, Characterization and Resource Development for Community Livelihood'. National Academy of Sciences, India, Allahabad. December 21-23, 2011.

[XX] 100th Session of Indian Science Congress at Calcutta University, Kolkata, January 3-7, 2013.

[XXI] National conference on 'Contemporary Bioinformatics Researches in India. Bioinformatics Centre, Assam University, Silchar, November 10, 2013.

[XXII] National Symposium on 'Gene Conservation of Medicinal and Horticultural Orchids of the North Eastern Region and Their Sustainable Use through Community participation. Orchid Research & Development Centre, FEEDS, Hengbung, Manipur, April 5-6, 2014.

[XXIII] National Symposium on 'Bioresources and Sustainable Development' & 2nd National Bioresources and Sustainable Development Summit'. NEHU, Shillong, Meghalaya, October 28029, 2015.

[XXIV] MHRD sponsored Regional Conference for Central Universities on 'Leadership for Academic Excellence in Higher Education'. Gauhati University, Assam, April 20-21, 2016.

[XXV] DBT sponsored awareness workshop on 'Guidelines for Access to Biological Resources under the Biological Diversity Act, 2002'. NABARD, Guwahati, June 22, 2016.

[XXVI] DBT sponsored '28th BTISnet Coordinators annual meeting, ACTREC, Mumbai, February 03-04, 2017.

[XXVII] 4th International Conference on 'Food Chemistry and Technology' (FCT-2018), Berlin, Germany, November 5-7, 2018.

[XXVIII] NMHS-PMU sponsored 'National Seminar-cum-Monitoring & Evaluation Workshop', GBPNIHESD, Kosi Katarmal, Almora, Uttarakhand, February 04-07, 2019.

[XXIV] Biotech Park, Lucknow sponsored workshop on 'Skill to Entrepreneurship – the Next Level', St. Edmonds College, Shillong, March 12-15, 2019.

[XXV] 45th Annual Meeting of Plant Tissue Culture Association (India) and & Symposium on 'Recent Advances in Plant Biotechnology'. Pondicherry University, Pondicherry. January 23-25, 2024.

XXVI] 10th Annual meeting of the Asian Council of Science Editors. Khalidia Palace Hotel, Deira Dubai, UAE, August 18, 2024.

[XXVII] 5th Asian Conference on Science, Technology and Medicine. The Asian Council of Scientific Council, Khalidia Palace Hotel, Deira Dubai, UAE, August 17-18, 2024.

[XXVIII] 47th Annual Meeting of Plant Tissue Culture Association (India) and Symposium & Industry Conclave on Plant Tissue Culture for Boosting Biomanufacturing, Nutritional Security, and Climate Resilience. NIPGR, New Delhi, February 17-20, 2026.

Training, National Seminar, Workshop etc. Organized

1. Two days National workshop on 'Bioinformatics and Applications of Information Technology'. June 17-18, 2013.
2. Two days National workshop on 'Bioinformatics Tools and Its Application'. June 19-20, 2013.
3. National workshop on 'Scientific Research Paper Writing, Communication and Plagiarism'. May 29-30, 2014.
4. One day lecture cum hands on session on 'Journal Electronic Submission'. August 28, 2014.
5. Hands on training on 'Spawn Production and Mushroom Cultivation'. October 06-11, 2014.
6. National workshop on 'Database Designing for Biologists'. September 09-11, 2014.
7. One day 'Bioinformatics Sensitization Programme' for Undergraduate students. October 14, 2014.
8. 7th NEBINet Annual Coordinators Meet. November 11-12, 2014.
9. National workshop on 'Applications of Biotechnology Tools and Bioinformatics'. March 30-April 04, 2015.
10. Awareness programme on International Day for Biological Diversity – 2015 under the theme 'Biodiversity for Sustainable Development'. May 22, 2015.
11. National workshop on 'Computational Drug Designing-I'. October 05-06, 2015.
12. National seminar 'Inventory, sustainable utilization and Conservation of Bioresources'. February 26-27, 2016.
13. Hands on training on 'Molecular Profiling and Genome Analysis'. March 14-19, 2016.
14. Hands on Training on 'Orchid Database for Biologists', August 22-25, 2016.
15. Lecture Series on 'Advance Biology' on September 2, 2016.
16. Lecture Series on 'New Biology in 21st Century' on November 17, 2017.
17. National seminar 'Advances in Biological Science Research'. February 28-March 01, 2017.
18. Workshop on 'Bioinformatics for Beginners', March 20-21, 2017.
19. Hand on training on 'Functional Genomics', November 14-21, 2017.
20. Short-Term Skill Development Training Program in Biotechnology for Students of North-East India on 'Orchid Propagation'. November 16 – December 15, 2017.
21. Hands on training on 'Genomics and Gene Expression Analysis'. July 18-23, 2018.
22. Workshop on 'Skill and Entrepreneurial Development of the Tribal Youth' under the theme 'Value-additions to Rich Bio-Resources - with Special Reference to Medicinal and Aromatic Plants'. July 25-28, 2018.

23. National conference 'Stakeholders on conservation, cultivation, resource development and sustainable utilization of medicinal plants of North Eastern India'. March 6-7, 2019. (Joint Organizing Secretary).

24. Summer School for college students on 'Techniques in Molecular Biology and Biotechnology, June 17-29, 2019.

25. Hands on Training on 'Molecular Taxonomy of Microbes and Higher Plants'. June 17-23, 2019.

26. One day sensitization programme in 'Modern Biology' for Class X students. August 24, 2019.

27. Workshop on 'Research Ethics, Paper Writing and IPR'. November 14-15, 2019.

28. National e-Conference on 'Bioresources and Sustainable Livelihood of Rural India' September 28-29, 2020 (as Convener cum Organizing Secretary).

29. Hands-on Training on 'Techniques in Applied Biology' under DST Sponsored 'Synergistic Training program Utilizing the Scientific and Technological Infrastructure' (STUTI) in collaboration with National Institute of Technology, Agartala, Tripura, April 21-27, 2022.

30. International Conference on 'Bioresources and Bioeconomy' (ICBB-2022), September 19-21, 2022, Department of Botany, NU (as Convener cum Organizing Secretary).

31. Training on Banana Propagation and Production of Planting Materials during March 11-12, 2025 under the ICAR-National Institute for Plant Biotechnology IARI Campus, Pusa, New Delhi sponsored programme 'Establishment of seed village for *Elite* species for the benefit of the farmers of Zunheboto District of Nagaland'.

32. Training on 'Kiwi and King Chilli Propagation and Production of Planting Materials' during March 13-14, 2025 under the ICAR-National Institute for Plant Biotechnology IARI Campus, Pusa, New Delhi sponsored programme 'Establishment of seed village for *Elite* species for the benefit of the farmers of Zunheboto District of Nagaland'.

33. National Workshop on "Techniques in Applied Plant Science Research" Date: March 17-22, 2025

34. Faculty Development Programme' & 'Research Development Programme for Young Researchers', Date: March 24-28, 2025

Refresher Course, Training Course Attended

[I] DBT sponsored short-term training "Basic and Applied Techniques in Micropropagation Industry – A practical Course". IHBT, Palampur, HP. March 17-April 4, 1997.

[II] "VISTAS IN PLANT SCIENCES", Department of Botany, North Bengal University, Siliguri, December 02 – 23, 2002.

[III] Refresher course in "BIOLOGICAL SCIENCES', School of Life Sciences, North-Eastern Hill University, Shillong, March 05 – 27, 2007.

[IV] Refresher course in 'LIFE SCIENCES', Academic Staff College, Gauhati University, Guwahati, February 16, 2009 to March 08, 2009.

[V] DBT sponsored 'Hand-On Training Workshop on DNA Cloning, Sequencing and Sequence Analysis'. Department of Botany, NEHU, Shilling, September 10-25, 2012.

[VI] DBT sponsored training on 'Biosafety and Biosecurity for Handling and Identification of Emerging Zoonotic Pathogens', ICAR-National Institute of High Security Animal Diseases, Bhopal, August 03-08, 2016.

Paper Presented in Seminar/Conferences

[XXXIII] Translating tribal ethnomedicine into molecular therapeutics: Screening of 15 antidiabetic genera from Nagaland and dual-enzymatic / cellular validation of four lead species. In: International conference on Communication and dissemination of traditional knowledge. CSIR-NIScPR, New Delhi, November 2-3, 2026.

[XXXII] Beyond the fruit: A holistic nutritional and phytochemical assessment of wild *Musa* species for food security in Nagaland, India. In: 47th Annual Meeting of Plant Tissue Culture Association (India) and Symposium & Industry Conclave on Plant Tissue Culture for Boosting Biomanufacturing, Nutritional Security, and Climate Resilience. NIPGR, New Delhi, February 17-20, 2026.

[XXXI] Establishment of *in vitro* propagation protocol of *Cymbidium bicolor* Lindl., an ethnomedicinal orchid and in-sight of pharmaceutical potential secondary metabolites and antioxidant activity. In: 5th Asian Conference on Science, Technology and Medicine. The Asian Council of Scientific Council, Khalidia Palace Hotel, Deira Dubai, UAE, August 17-18, 2024.

[XXX] Inventory, *In vitro* propagation, conservation and sustainable utilization of plant bioresources of Nagaland. In: 45th Annual Meeting of Plant Tissue Culture Association (India) and & Symposium on 'Recent Advances in Plant Biotechnology'. Pondicherry University, Pondicherry. January 23-25, 2024.

[XXIX] Ethnic fermented food products of Nagaland, India. In**:** 4th International Conference on 'Food Chemistry and Technology' (FCT-2018), Berlin, Germany, November 5-7, 2018.

[XXVIII] Nutritive value and molecular identification of microorganisms from Akhuni/Axone: a soybean based ethnic fermented food of Nagaland, India. *In*: National Seminar on 'Advances in Biological Science Research', Nagaland University, Lumami, February 28-March 01, 2017.

[XXVII] Wild mushroom diversity of Nagaland and nutritive value of certain wild edible species. *In*: National Seminar on 'Advances in Biological Science Research', Nagaland University, Lumami, February 28-March 01, 2017.

[XXVI] *In silico* structure assessment analysis on RUBISCO enzyme of five plant species. *In*: National Seminar on 'Advances in Biological Science Research', Nagaland University, Lumami, February 28-March 01, 2017.

[XXV] Genomics of *Pseudomonas aeruginosa* N002 strain and its genetic adaptation in oil polluted environment. *In*: National Seminar on 'Advances in Biological Science Research', Nagaland University, Lumami, February 28-March 01, 2017.

[XXIV] Nutritional assessment of some selected underutilized wild edible plants of Kohima district, Nagaland and their market acceptability. *In*: National Seminar on 'Advances in Biological Science Research', Nagaland University, Lumami, February 28-March 01, 2017.

[XXIII] Seed biology of *Berberis manipurana* Ahrendt: Influence of light and temperature on seed germination. *In*: National Seminar on 'Advances in Biological Science Research', Nagaland University, Lumami, February 28-March 01, 2017.

[XXII] *Esmeralda clarkei* Rchb. f. and *Sunipia scariosa* Lindl. (Orchidaceae): New reports for the orchid flora of Nagaland (Poster). *In*: National Symposium on 'Gene Conservation of Medicinal and Horticultural Orchids of the North Eastern Region and Their Sustainable Use through Community participation. Orchid Research & Development Centre, FEEDS, Hengbung, Manipur, April 5-6, 2014.

[XXI] Orchid Resources of Nagaland: Propagation, Conservation and Sustainable Utilization. *In*: National Symposium on 'Gene Conservation of Medicinal and Horticultural Orchids of the North Eastern Region and Their Sustainable Use through Community participation. Orchid Research & Development Centre, FEEDS, Hengbung, Manipur, April 5-6, 2014.

[XX] Molecular interaction analysis of dietary flavonols as a potent inhibitor of Heat shock protein 90 enzyme in fighting against cancer. *In*: National conference on 'Contemporary Bioinformatics Researches in India. Bioinformatics Centre, Assam University, Silchar, November 10, 2013.

[XIX] Studies on anthropogenic activities and distribution prediction of *Paris polyphylla* Sm. through Ecological Niche Modeling (ENM). *In*: National conference on 'Plant Biology: Plants, People and Planet'. Bangalore University, Bangalore, September 24-27, 2013.

[XVIII] Documentation of traditional fermented foods and beverages of Nagaland. *In*: National conference on 'Plant Biology: Plants, People and Planet'. Bangalore University, Bangalore, September 24-27, 2013.

[XVII] Studies on reproductive behavior of *Dioscorea villosa* L.: a threatened medicinal plant. *In*: National conference on 'Plant Biology: Plants, People and Planet'. Bangalore University, Bangalore, September 24-27, 2013.

[XVI] Studies on the floral and pollination biology of *Panax pseudoginseng* W.: a threatened medicinal plant of North East India. *In*: National conference on 'Plant Biology: Plants, People and Planet'. Bangalore University, Bangalore, September 24-27, 2013.

[XV] A study towards the development of low cost tissue culture protocol by using low cost substrate. *In:* 100th Session of Indian Science Congress, Calcutta University, Kolkata, January 3-7, 2013.

[XIV] Studies on seed biology of *Aconitum nagarum* Stapf: A critically threatened plant species. *In*: National conference on 'Recent Trends on Plant Diversity and Conservation Strategies'. Nagaland University, Lumami, India. September 29-30.

[XIII] Orchids of Nagaland: Propagation and their conservation. *In*: National Conference on ' Orchids in India: Diversity, Characterization and Resource Development for Community Livelihood'. National Academy of Sciences, India, Allahabad. December 21-23, 2011. (Invited Lecture)

[XII] Studies on Seed biology, Production of Clonal Planting Materials for Recovery of Population of Some RET Plants of Nagaland. *In*: DBT sponsored workshop 'Prevention extinction and improving conservation status of threatened plants through application of biotechnological tools', NEHU, Shillong, March 17-18, 2011.

[XI] Immature embryo culture and plant regeneration of *Cymbidium iridioides* D. Don: The role of different factors. *In*: National Conference on "Orchids: Systematics and Diversity Analysis for Conservation and Sustainable Utilization", GBPIHED, Almora, March 19-21, 2010 (Oral presentation).

[X] *In vitro* culture of immature embryos and mass multiplication of *Malaxix acuminata*. *In*: National Conference on "Orchids: Systematics and Diversity Analysis for Conservation and Sustainable Utilization", GBPIHED, Almora, March 19-21, 2010 (Oral presentation).

[IX] Orchids and sustainable economic development of Nagaland. *In*: National Conference on "Orchids: Systematics and Diversity Analysis for Conservation and Sustainable Utilization", GBPIHED, Almora, March 19-21, 2010 (**Invited Lecturer**).

[VIII] A new and efficient technique of *in vitro* hardening of tissue culture raised orchids (Poster). *In:* 96th Session of Indian Science Congress, NEHU, Shillong, January 3-7, 2009. (Section: Plant Science, Poster No.: 102).

[VII] Use of different substratum as alternative to agar for asymbiotic seed germination and plantlet regeneration of *Cymbidium iridiodes* D. Don: A study *in vitro* (Poster). *In:* 96th Session of Indian Science Congress, NEHU, Shillong, January 3-7, 2009. (Section: New Biology, Poster No. 38).

[VI] Direct somatic embryogenesis and plantlet regeneration from cotyledonary leaves of *Saurauia armata* Kurz. (Poster). *In:* 96th Session of Indian Science Congress, NEHU, Shillong, January 3-7, 2009. (Section: New Biology, Poster No.: 50).

[V] *In vitro* mass multiplication of a rare and threatened monopodial orchid, *Arachnis labrosa* (Lindl. Ex Paxt.) Reichb using alternative explant sources (Oral presentation), *In*: National seminar on "Orchid conservation, improvement & commercialization & Satellite symposium on orchids: Why and how? & Orchid show, Panjab University, Chandigarh, March 18-20, 2006.

[IV] Regeneration of Plants through Immature Seed Culture of *Arachnis labrosa* (Lindl. ex Paxt.) Reichb: A Rare and Threatened Orchid of North-East India (Oral presentation), *In*: 74th annual session of NASI, University of Rajasthan and Birala Institute of Scientific Research, Jaipur, December 2-4, 2004.

[III] Non-symbiotic seed germination and micropropagation of *Cleisostoma racimeferum* (Lind.) Garay – A threatened orchid of North-East India (Platform presentation), *In:* National seminar on "Impact of Increasing Human Population on Natural Resources". Organized by ISCON and BHU, Varanasi, U. P., October 16-18, 2003.

[II] Cryopreservation of somatic embryos and alginate encapsulated somatic embryos of *Melia azedarach* by vitrification. (Platform presentation), *In*: National seminar on "Botanical Researches in Wildlife Sanctuaries and National Parks of Assam, Handique Girls College, Assam, 27th-28th July,2002.

[I] *In vitro* conservation of *Artocarpus heterophyllus* Lam. by slow growth of cultures (Poster). *In*: National symposium on 'Relevance of Plant Biochemistry and Biotechnology – Modern Trends'. The American College, Madurai, Tamilnadu. March 1-3, 2001.

Invited Lecturer & Chairmanship at National or International Conference/Seminar/Workshop/Lecture Series etc:

Sl. No.	Title of Lecturer in Academic Session	Title of the Conf./Seminar/Workshop	Organized By	Whether International /National
27			SoAU, Bhubaneswar, India, December 01-03, 2026	International
26	Non-gelling alternatives for agar in plant tissue culture	Guru Nanak College, Velachery, Chennai, India	GNC, Velachery, Chennai, India January 22, 2025	National
25	Wild *Musa* rhizosphere: The hub of microbes for sustainable agriculture	National Conference "Microbial Biotechnology: Pioneering Green Solutions for Global Challenges"	Dolat-Usha Institute of Applied Sciences and Dhiru-Sarla Institute of Management & Commerce College, Valsad, Gujarat, January 11-12, 2025	National
24	Potential use of non-gelling substrata as agar alternative for in vitro production of low-cost planting materials (**Plenary Lecture**)	Assam Botany Congress-03 & International the International Conference on 'Biodiversity and Climate Change: Challenges and Opportunities for Nature-Based Solutions	Dibrugarh University, Assam, India, November 11-13, 2024	International
23	Chairman of Technical Session IV	Assam Botany Congress-03 & International the International Conference on 'Biodiversity and Climate Change: Challenges and Opportunities for Nature-Based Solutions	Dibrugarh University, Assam, India, November 11-13, 2024	International
22	Research project writing	Faculty Development Programme	Fazl Ali College, Mokokchung, Nagaland, India, May 06, 2024	National
21	A journey in search of Antidiabetic phytomedicine in North-East India	National Seminar 'Recent Advances in Herbal Drug Research in Reference to Ayurveda and Pharmacovigilance of ASU&H Drugs	Regional Ayurveda Research Centre, Dimapur, Nagaland (Under CCRAS, Ministry of AYUSH, Govt. of India), March 18, 2023	National
20	Use of low-cost non-gelling agar alternatives in plant tissue culture is an attractive way to produce low-cost planting materials	2nd Series Weekly Academic Lecture (SOAWAl) (SOAWAL_SPS-03)	Centre for Biotechnology, School of Pharmaceutical Sciences, Siksha O Anusandhan University, Bhubaneswar-751003, Odisha, India. December 17, 2022	National
19	Low Cost Tissue Culture Protocol	National Hands-on Training Program on Orchid Cultivation, Micropropagation and	Department of Botany, Rajiv Gandhi	National

		Clonal Fidelity Testing	University, Arunachal Pradesh, October 14-20, 2022	
18	Art of Scientific Research Paper Writing	National Hands-on Training Program on Orchid Cultivation, Micropropagation and Clonal Fidelity Testing	Department of Botany, Rajiv Gandhi University, Arunachal Pradesh, October 14-20, 2022	National
17	Research Methods and Methodology: An Overview	National Hands-on Training Program on Orchid Cultivation, Micropropagation and Clonal Fidelity Testing	Department of Botany, Rajiv Gandhi University, Arunachal Pradesh, October 14-20, 2022	National
16	*In Vitro* Orchid Propagation	National Hands-on Training Program on Orchid Cultivation, Micropropagation and Clonal Fidelity Testing	Department of Botany, Rajiv Gandhi University, Arunachal Pradesh, October 14-20, 2022	National
15	The Splendor of Orchids	National Hands-on Training Program on Orchid Cultivation, Micropropagation and Clonal Fidelity Testing	Department of Botany, Rajiv Gandhi University, Arunachal Pradesh, October 14-20, 2022	National
14	Chairman, Technical Session II.	National Seminar on Plant Taxonomy and Traditional Knowledge in the Himalayas and North-East India (Virtual)	Rajiv Gandhi University, Itanagar & East Himalayan Society for Spermatophyte Taxonomy & BSI, February 21-22, 2022	National
13	Chairman, Technical Session 14	Assam Botanical Congress (ABC-02) and International Conference on Plant Science (Virtual)	Assam Botanical Society and Cachar College, Silchar, India, December 03-05, 2021	International
12	Academic Research Paper Writing	Faculty Development Programme	St. John College, Dimapur, Nagaland, July 16, 2021	National
11	Research Methodology	Faculty Development Programme	St. John College, Dimapur, Nagaland, July 15, 2021	National
10	Biotechnology and Conservation of Plant Genetic Resources	Invited Lecture	Department of Botany, St. Edmond's College, Shillong, March 14, 2019	-
9	Biotechnology and Conservation of Germplasm	Invited Lecture	Department of Botany, Rajiv Gandhi University, Itanagar. April 10, 2018	-
8	Plant Tissue Culture and Conservation of Plant Genetic Resources	Invited Lecture	St. Edmond's College, Shillong, July 15, 2016	-
7	Antioxidant: Good or Bad.	Invited Lecture	Institutional Biotech Hub, M.B.B. College, Agartala, Tripura,	-

			June 30, 2016	
6	Introduction to Biotechnology and Plant Tissue Culture**.**	Inauguration of Biotech Lab under DBT sponsored BLiSS programme. March 30, 2016.	Mayangnokca Govt. H. S. School, Mokokchung, Nagaland, March 30, 2016	State
5	DBT in Promoting Biotechnology-Based Development in NER.	Inauguration of Biotech Lab under DBT sponsored BLiSS programme. March 30, 2016.	Mayangnokca Govt. H. S. School, Mokokchung, Nagaland, March 30, 2016	State
4	'Orchid Resources of Nagaland and Sustainable Development'	National Symposium on 'Bioresources and Sustainable Development' & 2nd National Bioresources and Sustainable Development Summit'.	NEHU, Shillong, October 28029, 2015.	National
3	Orchid Resources of Nagaland: Propagation, Conservation and Sustainable Utilization.	National Symposium on 'Gene Conservation of Medicinal and Horticultural Orchids of the North Eastern Region and Their Sustainable Use through Community participation	ORDC, Senapati, Manipur, April 5-6, 2014	National
2	Orchids of Nagaland: Propagation and their conservation.	National Conference on 'Orchids in India: Diversity, Characterization and Resource Development for Community Livelihood'.	TOSI & NASI, Allahabad December 21-23, 2011	National
1	Orchids and sustainable economic development of Nagaland	National Conference on "Orchids: Systematics and Diversity Analysis for Conservation and Sustainable Utilization, March 19-21, 2010.	GBPIHED, Almora	National

No. of Research Project Completed: Eighteen

Completed Projects /Consultancies

Sl. No.	Title	Year of completion	Funding Agency	Whether PI/Co PI	Period	Grant amount (in Lakh)
1	Micropropagation and *in vitro* conservation of some rare and endangered orchids of Nagaland	2005	DBT, New Delhi	PI	March 2002-March 2005	15.00
2	Mass Multiplication and Short to Medium-Term Conservation of Two Rare and Threatened Orchids of Nagaland – An *In Vitro* Approach	2008	GBPIHED, Almora	PI	April, 2005 to March, 2008	6.50
3	Survey and Identification of Floricultural Important Orchids in Nagaland and Assessment of Its Commercial Potential	2008	CSIR, New Delhi	PI	April 2007-March 2008	1.87
4	Rapid Mass Multiplication of Two Economically Important Plants of North-East India	2013	GBPIHED, Almora	PI	March 01, 2010 - February 28, 2013	8.5
5	Studies on Reproductive Biology of *Dioscorea villosa* and *Panax pseudoginseng*	2013	DBT, New Delhi	PI	June, 2010 to May, 2013	31.00
6	DBT Mission for Quality Planting Material Production and Utilization for the North East	2013	DBT, New Delhi	Co-PI	December 2007 to March 2013	99.00
7	Developing a digital database on bio-resources of N.E. India –	2015	DBT, New Delhi	Co-PI	December, 2011 –	27.00

	Through a network approach among N.E. states				November 2014	
8	Bioinformatics Infrastructure Facilities Centre	2017	DBT, New Delhi	Coordinator	2011-2017	55.00
9	Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools	2018	DBT, New Delhi	PI	2012-2018	87.00
10	Orchid Bioresources of the North-East India – Conservation, Database Development and Information Networking	2019	DBT, New Delhi		2016-2019	46.71
11	*Jal Abhyaranya Abhiyann* (Water Sanctuary Campaign) (Consultancy)	2019	MoEF&CC-GBPNIHESD	Team Leader	September-October, 2019	3.2
12	Advance Level Biotech Hub (Phase –I)	2019	DBT, New Delhi	Coordinator	Nov 2011 to Nov 2019	108.00
13	SAP-DRS(III) (Coordinator)	2020	UGC	Coordinator	April 2015-March 2020	120.00
14	Inventory of Wild *Musa* of Nagaland, Nutritional Assessment and Production of Clonal Planting Materials of Few Commercially Viable Species'	2021	MoEFCC & GBPNIHESD, Almora	PI	3 years 3 months w.e.f. March 01, 2018	70.896
15	Diversity and Molecular Characterization of Microsymbiont–Legume Association in Meghalaya and Nagaland for Developing Consortia of Microsymbionts with Wide Host Range	2021	DBT	Coordinator & PI	3 years 6 months w.e.f. June 06, 2018	103.00
16	DST-FIST (Level I)	2022	DST	Coordinator	5 years w.e.f. September 26, 2017	103.00
17	Inventory of Wild Mushrooms of Nagaland, Nutritional Assessment, Cultivation of Commercially Viable Wild Edible Mushrooms and Products Development for Sustainable Livelihood of Rural Tribal	2023	MoEF&CC-GBPNIHESD	Coordinator	3 years w.e.f. July 15, 2020	100.00
18	Establishment of seed village for *Elite* species for the benefit of the farmers of Zunheboto District of Nagaland	2025	ICAR-NIPB, New Delhi	PI	March 04-31, 2025	7.0

Ongoing/Approved Projects/Consultancies: Four

Sl. No.	Title	Agency	Collaborator (if any)	Period	Amount (in Lakh)	Role
1	Characterization, bioactivity studies and mass multiplication of selected medicinally important orchids of North-eastern region	DBT, New Delhi	Siksha 'O' Anusandhan University, Bhubaneswar	15.05.2025 for 3 years	96.23544	Coordinator & PI
2	Bioprospecting of 'Anishi' for the exploration of commercializing prospects	DBT, New Delhi	Tamil Nadu Agriculture University &	22.05.2025 for 3 years	82.9856	PI

	with enhanced quality and therapeutic potential		Assam Agriculture Univ.			
3	Advance Level Institutional Biotech Hub	DBT, New Delhi	Nil	02.02.2016 for 3 years	60.0	Coordinator & PI
4	Characterizing Populations of *Homalomena aromatica* and *Gaultheria fragrantissima* in North-Eastern India into *Elite* Chemotypes and Developing Gene Markers for Essential Oil Content and Major Constituent	DBT, New Delhi	Mahindra University, Hyderabad, Telangana	23.07.2026 for 3 years	140.97196	Coordinator & PI

No. M. Phil/Ph. D. produced/In progress

Ph. D. Awarded: Twenty Six

1. Name of the Scholar: Dr. Temjensangba Imchen

Title of the Ph. D. Thesis: *In Vitro* ass Multiplication and Conservation of Two Rare and Threatened Orchids in Nagaland.

Year of Award: 2007

2. Name of the Scholar: Dr. Sungkumlong Ozukum

Title of the Ph. D. Thesis: Micropropagation and Short to Medium-Term *In Vitro* Conservation of Two Threatened Orchids of North-East India.

Year of Award: 2010

3. Name of the Scholar: Dr. Aolemla Pongener

Title of the Ph. D. Thesis: Rapid Mass Multiplication of Two Over-exploited Orchids of North-East India.

Date of Award: 21.03.2011

4. Name of the Scholar: Dr. T. Arenmongla

Title of the Ph. D. Thesis: Clonal Mass Multiplication of Two Economically Important Plants of Nagaland – An *In Vitro* Approach.

Date of Award: 30.11.2012

5. Name of the Scholar: Dr. Sakutemsu L. Jamir

Title of the Ph. D. Thesis: Studies on Seed Biology and Clonal Mass Multiplication of Two Medicinally Important Plants Species: *Panax pseudoginseng* and *Paris polyphylla*.

Date of Award: 04.12.2015

6. Name of the Scholar: Dr. Tabhita Langhu

Title of the Ph. D. Thesis: Studies on Certain Reproductive Behavior of *Aconitum nagarum* and *Dioscorea villosa* and Their Multiplication.

Date of Award: 29.04.2015

7. Name of the Scholar: Dr. P. Kadunlung Gangmei (Regd. No. 475/2012 dt. October 14, 2011)

Title of the Ph. D. Thesis*: In Vitro* Propagation of Two Rconomically Important Plants *Actinidia deliciosa* and *Saurauia panduana*.

Date of Award: 28.11.2016

8. Name of the Scholar: Dr. Zubenthung P. Kikon (Regd. 583/2013 dt. June 18, 2013)

Title of the Ph. D. Thesis: Studies on Distribution Prediction through Ecological Niche Modeling and Propagation of Two Threatened Species (*Vanda bicolor* Griff and *Paris polyphylla* Smith.).

Date of Award: 08.05.2017

9. Name of the Scholar: Dr. Lirola Sangtam (Regd. No. 473/2012 dt. October 14, 2011)

Title of the Ph. D. Thesis: Studies on Propagation and Conservation of two Threatened Plants: *Bambusa nagalandiana* and *Berberis manipurana*.

Date of Award: 27.04.2018

10. Name of the Scholar: Dr. Bendangnaro Jamir (Regd. 519/2013 dt. November 23, 2012)

Title of the Ph. D. Thesis: Studies on Some Fermented Food Products of Nagaland.

Date of Award: 10.08.2018

11. Name of the Scholar: Dr. Neilazonuo Khruomo (Regd. No. 582/2014 dt. May 20, 2014)

Title of the Ph. D. Thesis: Documentation and Evaluation of Underutilized Edible Plants of Kohima, Phek and Tuensang Districts of Nagaland, India

Date of Award: 13.12.2018

12. Name of the Scholar: Dr. Hutoka Y. Jakha (Regd. No. 580/2014 dt. 20.05.2014)

Title of the Ph. D. Thesis: Documentation of Orchid Resources of Kiphire, Tuensang and Zunheboto Districts of Nagaland and Micropropagation of Two Threatened Species.

Date of Award: 27.05.2019

13. Name of the Scholar: Dr. Toshinungla Ao (Regd. No. 579/2014 dt. 20.05.2014)

Title of the Ph. D. Thesis: Molecular Characterization and Nutritional Analysis of Certain Important Wild Edible Mushrooms of Nagaland, India

Date of Award: 27.05.2019

14. Name of the Scholar: Dr. Drubajoyti Das (Regd. No. 686/2015 dt. 27.05.2015)

Title of the Ph. D. Thesis: Comparative Genome Analysis of *Pseudomonas aeruginosa* N002 and *Enterobacter* sp. RC4 Using Bioinformatics Approaches and Their Perspectives in Soil Quality Improvement.

Date of Award: 05.10.2020

15. Name of the Scholar: Dr. Joyrison Kamba (Regd. No. 722/2016 dt. 06.08.2015)

Title of the Ph. D. Thesis: Establishment of Barcodes for Some Commercially Important Vandaceous Orchids of Nagaland

Date of Award: 23.09.2021

16. Dr. Keviphruonuo Kuotsu (Regd. No.: 779/2018 dt. 26.07.2016)

Title of the Ph. D. Thesis: Studies on Algal Diversity of Kohima District, Nagaland

Date of Award: 13.06.2022

17. Dr. Asangla N. Jamir (Regd. No. 581/2014 dt. 20.05.2014)

Title of the Ph. D. Thesis: Floristic Studies of Angiospermic Plants in Intangki National Park, Nagaland, India

Date of Award: 02.05.2023

18. Dr. Temjennokcha B. Longchar (Regd. No. 780/2017 dt. 28.07.2016)

Title of the Ph. D. Thesis: *In Vitro* Propagation of Three Horticulturally Important Orchids of Nagaland and Assessment of Genetic Fidelity of Regenerates.

Date of Award: 09.06. 2023

19. Dr. P. Tiatemsu (Regd. No. 791/2017 dt. 29.07.2016)

Title of the Ph. D. Thesis: Assessment of Genetic Diversity of *Musa* L. in Nagaland, India.

Date of award: March 05, 2024

20. Dr. Maman Megu (Regd. No. Ph.D/BOT/00156 dt. 18.08.2018)

Title of the Ph. D. Thesis: Molecular characterization of rhizobial Microsymbionts and determination of their symbiotic activity and host range in some wild legumes of Nagaland.

Date of award: November 01, 2024

21. Dr. Mum Tatung (Regd. No. Ph.D/BOT/00279 dated August 23, 2019)

Title of the Ph. D. Thesis: Studies on growth promoting microorganisms in rhizosphere of wild *Musa* species of Nagaland.

Date of award: November 08, 2024

22. Dr. T. Ibeeka Sharma (Regd. No.: Ph.D./BOT/00376 dated August 15, 2019)

Title of the Ph. D. Thesis: Phytochemical Evaluation of Some Potential Ethnomedicinal Plants of Nagaland (India) with Anti-diabetic Properties

Date of award: December 12, 2024

23. Dr. Thejano Ngullie (Regd. No.: Ph.D/BOT/00155 dated August 18, 2018)

Title of the Ph. D. Thesis: Development of protocols for production of clonal planting materials of two commercially viable *Musa* cultivars, nutritional assessment and genetic fidelity assessment of regenerates.

Date of award: February 17, 2025

24. Name of the Scholar: Dr. Bendangsenla Pongener (Regd. No. Ph.D/BOT/00161 dt. 1.08.2018)

Title of the Ph. D. Thesis: Molecular identification and biochemical characterization of the endophytic bacteria associated with root nodule of some crop legumes from two districts of Nagaland.

Date of award: November 01, 2025

25. Name of the Scholar: Dr. Thejavitsu Noah Vupru (Regd. No. & Date: Ph.D/BOT/00274 dated August 17, 2019)

Title of the Ph. D. Thesis: Nutritional value assessment and studies on the genetic diversity of some selected wild *Musa* species of Nagaland.

Date of award: February 06, 2026

26. Dr. Jonming Chetia (Regd. No. & Date: Ph.D/BOT/00545 dated September 07, 2022)

Title of the Ph. D. Thesis: Studies on Some Plant Growth Promoting Microbes for Eco-restoration of Jhum Fallows in Zunheboto District of Nagaland, India

Date of award: August 13, 2026, 2026.

Ph. D. Thesis Submitted: 01

1. Ms. Rokono Nagi — **Studies on the effect of human topopoisons on root meristematic cells of *Arabidopsis thaliana* (L.) Heynh.**

Ph. D. Registration No. & Date: Ph. D./BOT/00377 dated November 30, 2020

Date of Submission: October 06, 2026.

Ph. D. work in progress: 09

Sl. No.	Name of the Scholar (& date of Registration)	Approved Title of the Thesis
1.	Ms. Narola Jamir	Evaluation of the Antidiabetic Potential of Selected Medicinal Orchids of Nagaland, India
	Ph. D. Registration No. & Date: Ph.D/BOT/00476 dated September 07, 2022	
2.	Ms. Debashree Devi	Biochemical analysis and *in vitro* propagation of two potential essential oil yielding plants of North-East India

Ph. D. Registration No. & Date: Ph. D./BOT/00755 dated July 27, 2023

3. Mr. Kaushik Borah — **Phytochemical analysis and *in vitro* propagation of three medicinally important orchids from North East India**

Ph. D. Registration No. & Date: Ph. D./BOT/00753 dated August 03, 2023

4. Ms. Tajensangla Jamir — **Studies on the nutraceuticals and phytopathogenic fungi associated with different cultivars of *Cucumis sativa* L. from Mokokchung**

Ph. D. Registration No. & Date: Ph.D/BOT/00477 dated September 07, 2022

5. Mr. Wezotsho Puro — **Molecular characterization, analysis of some pharmacological potential phytochemicals and development of *in vitro* propagation protocols of three medicinal ginger species**

Ph. D. Registration No. & Date: Ph.D/BOT/00824 dated January 24, 2024

6. Mr. Temsumayang Imchen — **Studies on anti-inflammatory potential phytochemicals and *in vitro* propagation of three medicinal orchids**

Ph. D. Registration No. & Date: Ph.D/BOT/00829 dated January 26, 2024

7. Mr. Precious Stone Khriam — **: Studies on the cytotoxic [potential of essential oils from *Gaultheria fragrantissima* Wall. Ex Brandis and *Homalomena aromatica* Schott. on *Lathyrus sativus* L. root meristem cells as model**

Ph. D. Registration No.: Ph.D/BOT/00977 dated January 29, 2025.

8. Name: Ms Manam Tali — **:**

Ph. D. Registration No. & Date: Registration awaited.

9. Name: Ms Kerhenuo Kire — **:**

Ph. D. Registration No. & Date: Registration awaited.

Details of Supervision of Post Doctorate Fellow:

1. Dr. Temjensangba: For one-year w.e.f. April 01, 2007, to March 31, 2008, from CSIR, New Delhi (Completed).

2. Dr. Aujungla L.: For a period of three years w.e.f. January 19, 2011, for two years.

3. **Dr. Sungkumlong Ozukum**: For a period of three-year w.e.f. April 01, 2011, for one year.

4. Dr. Aolemla Pongener: CSIR PDF for a period of two w.e.f. April 01, 2011.

5. **Dr. Aolemla Pongener**: UGC PDF for five years w.e.f. October 2015 till October 2020.

6. **Dr. Bendangnaro Jamir**, DBT w.e.f. October 2018 till March 31, 2021.

Research publication

Book: THREE

1. 'Orchid Diversity of Nagaland' (ISBN: 978-81-903965-0-9)

Authors: Chitta Ranjan Deb and Temjensangba Imchen

Publisher: SCICHEM Publishing House, Udaipur, Rajasthan, India

Year of publication: 2008

2. 'Bioresources and Sustainable Livelihood of Rural India' (ISBN: 978-93-90692-57-6)

Editors: Chitta Ranjan Deb and A. Paul

Publisher: Mittal Publications, New Delhi

Year of Publication: 2021

3. 'Bioresources: Conservation and Sustainability' (ISBN: 978-93-5999-112-2).

Editors: Chitta Ranjan Deb and Talijungla and Neizo Puro

Publisher: Mittal Publications, New Delhi, India

Year of Publication: 2024

Total Publication (including Patents): 184 + 3+ 8 = 195

Patents: Applied: 08; Published: 08; Granted: 04

Review Article Published in Referred Journal: 17

Popular Articles: 03

Book Chapters: 19

Research Paper in Referred Journal Published/Accepted/Communicated: 162

Major Research Projects Completed: Eighteen

Final Project Technical Report submitted: Eighteen

Major Research Project/Programme in progress: 05

Projects under active consideration: 01

Post Doctorate Fellow guided: Six

List of publications

Patents: Applied: 08; Published: 08 (Indian: 04; International: 03); Granted: 05 (One Indian, Four International)

Published

1. Tatung, M. and Deb, C. R. **A novel bacterial composition for plant growth. Indian Patent Application No. 202431028204 A. Patent Office Journal No. 16/2014 dated April 19, 2024 is 37556)**

2. Ngullie, T. and Deb, C. R. **A novel biofertilizer for pseudostem and process there off. Indian Patent Application No. 202431028203 A dated April 05, 2024. Patent Office Journal No. 17/2014 dated April 26, 2024 is 39699).**

3**.** Bupesh, G., Jamir, N., Panigrahi, J., Deb, C. R., Mootapally, C., Pankaj, P. P. and Phukan, M. M. **A novel pharmaceutical formulation for treatment of diabetes and process there of**. **Indian Patent Application No. 202431042244 A. The Patent Office Journal No. 23/2024 Dated 07/06/2024 is 52189.**

Patent Granted

1. Bupesh, G., Deb, C. R., Konyak, L., Mootapally, C., Murugeswaran, R., Pankaj, P. P., Panwar, K. S., Parthasarathy, S., Phukan, M. M., Vijayanandh, A. **A novel pharmaceutical formulations for treating hyperglycemia in diabetes mellitus. German Patent Application No. 20 2024 103 275, IPC: A61K 31/575**. Date of grant: 12.07.2024.

2. Tatung, M. and Deb, C. R. **A novel bacterial consotium for plant growth in heavy metals and salinity. Indian Patent Application No. 202431029655. Grant No.554680 on November 20, 2024).**

3. Tatung, M. and Deb, C. R. **A novel bacterial consortium for plant growth in heavy metals and salinity. South African Patent Application No. 2024/03427, granted on November 22, 2024).**

4. Tatung, M. and Deb, C. R. **A novel bacterial composition for plant growth. South African Patent Application No. 2024/03428 granted on November 22, 2024**).

5. Ngullie, T. and Deb, C. R. **A novel biofertilizer for pseudostem and process there off. South African Patent Application No. 2024/09105, granted on 04.08.2025).**

Popular articles

1. Deb, C. R. 2003. Glorious Garlic. Science Reporter, April. Pp 55-58.

2. Deb, C. R. 2006. Single Cell Proteins: The Future Foods? PGSU Annual Magazine, Nagaland University.

3. Deb C. R. 2008. Biotechnology and Rural Economic Development of Nagaland. PGSU Annual Magazine, Nagaland University.

Published/ accepted/communicated in peer reviewed and indexed Journal/Review paper/book chapters

155. Vupru, T. N. and Deb, C. R. 2026. Nutritional and functional profiling of pseudostem and inflorescence of indigenous wild *Musa* species in Nagaland: A prospect for functional food development. *J. Food Sci. Technol*. 10.1007/s13197-026-06816-3.

154. Nagi, R., Ozokum, A., Mondal, R. and Deb, C. R. 2026. Investigating *Arabidopsis thaliana* (L.) Heynh topoisomerase 1β: heterologous expression, purification, and interaction with human topoisomerase I poisons. *J. Plant Biochem. Biotechnol.*35(3):987-998. https://doi.org/10.1007/s13562-026-01082-y.

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I, Chitta Ranjan Deb do here by declaring that the information stated above is true and relevant to the best of knowledge and belief.

Place: Lumami Sd/-

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