

Curriculum Vitae of Dr. Chitta Ranjan Deb, Sr. Professor



Department of Botany

Nagaland University, Lumami, Nagaland, India

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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, Department of Botany, Nagaland University. Prof. Deb also served in different administrative positions including **Head, Department of Botany, Dean, Students Welfare, Director, IQAC, & Dean, School of Sciences**. I graduated from Tripura University, Agartala and Postgraduate (in 1994) and a Doctoral degree (in 2000) from the 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, Uttarakhand, CSIR, New Delhi. He has completed **18 (eighteen) major research projects/programmes** funded by different funding agencies. **Currently two research projects/programmes/consultancies are in progress**. 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 is 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 over **185** 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 6 are granted**. His works are being appreciated world over and cited by different internationally renowned Scientists in their works and also 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 VDGOD Professional Association, India in 2021, 'Dynamic Professor Award' in 2023 by Avishkar Foundation, Solapur, India, 'Karl Erey Legendary International Education & Research Excellence Award, 2024 in Plant Science' by the IMRF Institute of Higher Education & Research, India, Vijayawada, A.P., India and Lifetime Devotion Award by the Microbiologist's Society, India in 2024. 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. Under his Supervision 23 Scholars awarded Ph. D. degree, One Scholar submitted Ph. D. thesis, two Scholars presented Ph. D. Pre-submission Seminar and 7 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

Sex : Male

Nationality : Indian

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

Specialization : Plant Biotechnology, Plant Physiology, Plant-microbes interaction, Bioprospecting of medicinal and aromatic plants, Molecular characterization

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 VDGOD Professional Association, India

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

[IV] Fellow of Scholars Academic and Scientific Society (FSASS) in 2021.

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

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

VII. **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).**

VIII. 'Karl Erey Legendary International Education & Research Excellence Award, 2024 in Plant Science' by the IMRF Institute of Higher Education & Research, India, Vijayawada, A.P., India.

IX. 'MBSI Lifetime Devotion-2023-24' award by the Microbiologist's Society, India

Significant Academic/Research Achievements:

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

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

4. 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: Over 45 National and International Journals

3. Served/serving as 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)

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.

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

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

[IX] 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.

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

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

[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] Deputy 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 till July 14, 2025.

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

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

Teaching Specialization/Teaching Experiences

- I. **Nearly 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**

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
26	Non-gelling alternatives for agar in plant tissue culture	Guru Nanak College, Velachery, Chennai, India	GNC Bioclues & Microbiologist Society, India, January 22, 2025	National
25	Wild <i>Musa</i> 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	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

	materials (Plenary Lecture)			
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	2 nd 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 Clonal Fidelity Testing	Department of Botany, Rajiv Gandhi University, Arunachal Pradesh, October 14-20, 2022	National
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	<i>In Vitro</i> 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	National

			Spermatophyte Taxonomy & BSI, February 21-22, 2022	
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' & 2 nd 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	National Conference on "Orchids: Systematics and Diversity Analysis for Conservation and Sustainable Utilization, March 19-21, 2010.	GBPIHED, Almora	National

	development of Nagaland			
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No. of Research Project Completed: Eighteen
Completed Projects /Consultancies

Sl. No.	Title	Year of completion	Funding Agency	Whether PI/Co PI	Period
1	Micropropagation and <i>in vitro</i> conservation of some rare and endangered orchids of Nagaland'	2005	DBT, New Delhi	PI	March 2002- March 2005
2	Mass Multiplication and Short to Medium-Term Conservation of Two Rare and Threatened Orchids of Nagaland – An <i>In Vitro</i> Approach	2008	GBPIHED, Almora	PI	April 2005 to March, 2008
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
4	Rapid Mass Multiplication of Two Economically Important Plants of North-East India	2013	GBPIHED, Almora	PI	March 01, 2010 - February 28, 2013
5	Studies on Reproductive Biology of <i>Dioscorea villosa</i> and <i>Panax pseudoginseng</i>	2013	DBT, New Delhi	PI	June, 2010 to May, 2013
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
7	Developing a digital database on bio-resources of N.E. India – Through a network approach among N.E. states	2015	DBT, New Delhi	Co-PI	December, 2011 – November 2014
8	Bioinformatics Infrastructure Facilities Centre	2017	DBT, New Delhi	Coordinator	2011-2017
9	Preventing extinction and improving conservation status of threatened plants through application of biotechnological tools	2018	DBT, New Delhi	PI	2012-2018
10	Orchid Bioresources of the North-East India – Conservation, Database Development and Information Networking	2019	DBT, New Delhi		2016-2019
11	<i>Jal Abhyaranya Abhiyann</i> (Water Sanctuary Campaign) (Consultancy)	2019	MoEF&CC-GBPNIHES D	Team Leader	September-October, 2019
12	Advance Level Biotech Hub (Phase –I)	2019	DBT, New Delhi	Coordinator	Nov 2011 to Nov 2019
13	SAP-DRS(III) (Coordinator)	2020	UGC	Coordinator	April 2015-March 2020
14	Inventory of Wild <i>Musa</i> of Nagaland, Nutritional Assessment and Production of Clonal Planting Materials of Few Commercially Viable Species'	2021	MoEFCC & GBPNIHES D, Almora	PI	3 years 3 months w.e.f. March 01, 2018
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
16	DST-FIST (Level I)	2022	DST	Coordinator	5 years w.e.f. September 26, 2017
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-GBPNIHES D	Coordinator	3 years w.e.f. July 15, 2020

18	Establishment of seed village for <i>Elite</i> species for the benefit of the farmers of Zunheboto District of Nagaland	2025	ICAR-NIPB, New Delhi	PI	March 04-31, 2025
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Ongoing Projects/Consultancies: Two

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

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

Ph. D. Awarded: Twenty Three

1. Name of the Scholar: Dr. Temjensangba

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

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 Economically 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. Ms. 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

Ph. D. Thesis Submitted: 01

1. Name of the Scholar: Ms. 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 Ph. D. thesis submission: November 01, 2024

Ph. D. Pre-submission Seminar Presented: 02

1. Mr. Thejavitsu Noah Vupru **Nutritional value assessment and studies on the genetic diversity of some selected wild *Musa* species of Nagaland.**

Ph. D. Registration No. & Date: Ph.D/BOT/00274 dated August 17, 2019

Date of Pre-submission Seminar: April 09, 2025

3. 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 Pre-submission Seminar: April 09, 2025

Ph. D. work in progress: 09

Sl. No. Name of the Scholar (& date of Registration)	Approved Title of the Thesis
1. Mr. Jadumani Singh Ahongshangbam	Production of clonal planting materials for conservation of some threatened and ornamenteally important <i>Musa</i> species of Nagaland.

Ph. D. Registration No. & Date: Ph.D./BOT/00160 dated August 20, 2018

2. 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

3. Ms. Jonming Chetia **Studies on Some Plant Growth Promoting Microbes for Eco-restoration of Jhum Fallows in Zunheboto District of Nagaland, India**

Ph. D. Registration No. & Date: Ph.D/BOT/00545 dated September 07, 2022.

4. 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

5. 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

6. 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

7. 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

8. 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

9. Mr. Precious Stone Khriam

Ph. D. Registration No.: 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: 05

Review Article Published in Referred Journal: 12

Popular Articles: 03

Book Chapters: 19

Research Paper in Referred Journal Published/Accepted/Communicated: 153

Major Research Projects Completed: Eighteen

Final Project Technical Report submitted: Seventeen

Major Research Project/Programme (Approved for sanction): 05

Projects under active consideration: 03

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 Mo. 20 2024 103 275, IPC: A61K 31/575.** Date of grant: 12.07.2024.
2. Tatung, M. and Deb, C. R. **A novel bacterial consortium 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 August 04, 2025).**

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

145. Haripriya, D., Devi, J. S., Santhosh, A., Bupesh, G., Phukan, M. M., Panigrahi, J., Deb, C. R., Mathyazhagan, M., Kirubakaran, D., Saravanan, K. M., Padmanabhan, P., Mathe, D., Archunan, G. 2025. Evaluation of synergistic effect of Zerumbone with Cisplatin on anti-angiogenic potential in zebrafish model. *Medical Oncology.* 42:252 <https://doi.org/10.1007/s12032-025-02819-w>.
144. Longchar, T. B. and Deb, C. R. 2025. Efficient *in vitro* protocol for immature seed germination and regeneration of *Cymbidium bicolor* Lindl. plants with enhanced phytochemicals and

antioxidant properties. *Plant Cell Tiss. Org. Cult.* 162:10 <https://doi.org/10.1007/s11240-025-03101-7>

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140. Pongener, B., Deb, C. R. and Paul, A. 2024. Isolation of root nodule endophytes from cowpea (*Vigna unguiculata* L.) growing in jhum field in Nagaland (India). *Appl. Biol. Res.* 26(4): 459-465. <https://doi.org/10.48165/abr.2024.26.01.53>.

139. Tatung, M. and Deb, C. R. 2024. Exploring the phosphate solubilising rhizobacteria isolated from wild *Musa* rhizosphere and their efficacy on growth promotion of *Phaseolus vulgaris*. *J. Exp. Biol. Agricult. Sci.* 12(5): 742-755. [https://doi.org/10.18006/2024.12\(5\).742.755](https://doi.org/10.18006/2024.12(5).742.755)

138. Ngullie, T. and Deb, C. R. 2024. Development of a simple macropropagation technique of banana through corms splitting and formulation of effective potting media. *South Afr. J. Bot.* 174: 870-875. <https://doi.org/10.1016/j.sajb.2024.10.002>

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plantlets of *Dendrobium heterocarpum* Wall. ex Lindl.: a medicinal orchid. *J Pharma Phytochem.* 10(4):331-336. <https://doi.org/10.22271/phyto.2021.v10.i4d.14169>.

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

Place: Lumami

Sd/-

(Chitta Ranjan Deb)