

Personal Profile (Dr. Arindam Barman)



Name: Dr. Arindam Barman
Designation: Associate Professor & Head
Address for Correspondence: Department of Horticulture
Rajiv Gandhi University
Rajiv Gandhi University (A Central University) Rono Hills,
Doimukh, Arunachal Pradesh-791112
Phone No. 8794703810
Email: arindam.barman@rgu.ac.in
Educational Qualification:
M.Sc (GBPUA&T, Pantnagar)
Ph.D (IIT, Dhanbad)
Area of Specialization: Vegetable Science and Genetics & Plant Breeding

Professional experience

Sl. No.	Positions held	Name of the Institute	From	To
1	Assistant Professor	North-Eastern Hill University, Meghalaya	31.07.2012	30.07.2018
2	Assistant Professor (Stage 2)	North-Eastern Hill University, Meghalaya	31.07.2018	27.07.2023
3	Associate Professor	Rajiv Gandhi University, Arunachal Pradesh	28.07.2023	Till date

Administrative Experience

Sl. No.	Positions held	From	To
1	Head, Department of Horticulture, Rajiv Gandhi University, Arunachal Pradesh	29.08.2023	Till date

Publications

Sl. No	Author(s)	Title	Name of Journal	Volume	Page	Year
1	Barman, Arindam. , Singh, D. K., Maurya, S.K and Singh, Amar.	Indigenous genetic resources characterization of Snapmelon (<i>Cucumis melo</i> L. var <i>momordica</i> Duth & Full.) through seed protein profiling pattern	<i>International Journal of Basic and Applied Agricultural Research (Pantnagar Journal of Research)</i>	10 (2)	92-97	2012
2	Barman, Arindam. , Singh, D. K. and Maurya, S. K.	SDS based Protein Profiling and diversity assessment of indigenous germplasms of photo (<i>Cucumis melo</i> L. var <i>momordica</i> Duth & Full)	<i>Progerssive Horticulture</i>	45 (1)	169-173	2013
3	Barman, Arindam and Barman, M. R.	Morphological diversity among landraces of Snapmelon	<i>Transient</i>	3	9-18	2013
4	Barman, Arindam and Barman, M. R.	Detection and Management of Plant Viruses	<i>Transient</i>	4	42-58	2014
5	Barman, Arindam and Barman, R. M	QTL Analysis for Fruit Quality Traits in Tomato	Proceedings National Seminar on Newer trends in Chemistry and Environment, 9 th - 10 th Dec, 2014, Don Bosco College, Tura, Meghalaya, India	-	127-137	2015

6	Barman, R. M. and Barman, Arindam	Application of Biopesticides as an Ecofriendly Approach to Pest Control	Proceedings National Seminar on Newer trends in Chemistry and Environment, 9 th - 10 th Dec, 2014, Don Bosco College, Tura, Meghalaya, India	-	225-229	2015
7	Barman, Arindam. , Mitra R., Singh, D. K. and Anshumali	Diversity among indigenous germplasms of melon (<i>Cucumis melo</i> L.) through seed protein profiling pattern	<i>Vegetos</i>	28 (3)	65-70	2015
8	Barman, R.M., Mishra, B.K. and Barman, Arindam.	OCP Residues Analysis in Cow Milk of Dhanbad City, Jharkhand, India	International Journal of Applied and Pure Science and Agriculture	2 (5)	6-11	2016
9	Sangma, O.K., Barman, Arindam. , Marak, C.M. and Sangma, C.S	Occurrence of <i>Gymnopetalum cochinchinense</i> (Lour.) Kurz. (Apolka) in Garo Hills of Meghalaya, India	International Journal of Applied and Pure Science and Agriculture	2 (4)	211-215	2016
10	Chakraborty, S., Barman, A. , Sangma, T.M.	Correlation Studies of Carrot (<i>Daucus carota</i> L.) germplasms from Garo Hills of Meghalaya, India	NDP Journal of Horticulture and Plant Science	1(1)	5-8	2016
11	Marak, C.M., Barman, A. , Barman, R.M.	A review on Green Biotechnology: An essential approach to tackle future challenges	<i>Trasient</i>	5	33-48	2016

12	Chakraborty S and Barman A	Correlation studies of quantitative characters in radish (<i>Raphanus sativus</i> L.) in Garo Hills Of Meghalaya, India	<i>International Journal of Agriculture Sciences</i>	8 (54)	2899-2902	2016
13	Sangma, C.S., Barman, A. , Sangma, O.K	Analysis of Diversity of Scarlet Egg plant from Garo Hills of Meghalaya	NDP Journal of Horticulture and Plant Science	1(1)	1-3	2016
14	Barman, A. , Anshumali., Barman, R.M., Marak, C.M.	Rapid seed DNA extraction for species identification and diversity analysis of Pumpkin	<i>Journal of Biodiversity and Environmental Sciences</i>	10 (1)	161-168	2017
15	Arindam Barman and Anshumali	Genetic diversity estimates in landraces of Pumpkin (<i>Cucurbita moschata</i> Duch.) from North Eastern Himalayan region of India using agro-morphological and molecular traits	<i>Indian Journal of Agricultural Sciences</i>	88 (1)	79-85	2018
16	Arindam Barman , Anshumali and Prakash Chandra Gupta	Antilithiatic and diuretic activity of <i>Cucurbita moschata</i> on ethylene glycol induced lithiasis in male albino Wistar rats	<i>Indian Journal of Animal Sciences</i>	88 (4)	407-411	2018

17	Arindam Barman and Anshumali	Divergence analysis among the landraces of pumpkin (<i>Cucurbita moschata</i> Duch.) from Meghalaya, India	Proceedings National Conference on “Biogeochemical Cycles and Climate Change, 10 th to 11 th August, 2018, IIT (ISM), Dhanbad, Jharkhand, India	-	1 – 9	2018
18	Lyngdoh Pale, J. P., Sanjay Chetri, C. P. Suresh, Y. S. Singh, A. Chaurasiya and Barman, A	Morphological and Bio-chemical Characterization of Bael (<i>Aegle marmelos</i> Correa.) in West Garo Hills, Meghalaya, India	<i>International Journal of Current Microbiology and Applied Sciences</i>	8(10)	2414-2420	2019
19	Ashish Kar, Arindam Barman , Rimiki Mannar and Dipankar Saharia	Traditional Uses of <i>Phrynium pubinerve</i> (Packing Leaf) in Northeastern States	<i>NDP Journal of Horticulture and Plant Science</i>	2(1)	1-5	2019
20	Arindam Barman , Sheena Haorongbam, Rituparna Mitra Barman	Estimation of Cyanogenic glycoside content of some edible Bamboo Shoots from Meghalaya, India	Stochastic modeling and applications	26 (3)	223-226	2022
21	Arindam Barman and Richmond Marboh	Genetic variability and correlation analysis in indigenous germplasm of okra (<i>Ablemoschus esculentus</i> L. Moench)	<i>Annals of Plant and Soil Research</i>	24 (3)	452-457	2022

22	Arindam Barman , Ashish Kar, Sheena Haorongbam	Indigenous uses of Packing leaves (<i>Phrynium pubinerve</i>) and their commercial cultivation for livelihood promotion in Northeast India	Stochastic modeling and applications	26 (3)	239-244	2022
23	Arindam Barman , Anshumali, Rituparna Mitra Barman	Simple sequence repeat and rbcL marker based diversity analysis of Pumpkin (<i>Cucurbita moschata</i> Duch.) germplasm from North Eastern Himalayan regions of India	Stochastic modeling and applications	26 (3)	273-279	2022

Books

Sl. No	Title	Author's Name	Publisher	Year of Publication
1	Instant Vegetable Science, 1 st Ed	Barman, Arindam	Sharma Publishers & Distributor ISBN: 13- 978-81-920090-2	2012
	Instant Vegetable Science, 2 nd Ed	Barman, Arindam	Sharma Publishers & Distributor ISBN: 13- 978-81-920090-2-5	2013
	Instant Vegetable Science, 3 rd Ed	Barman, Arindam	Sharma Publishers & Distributor ISBN: 13- 978-81-920090-2-5	2014
	Instant Vegetable Science, 4 th Ed	Barman, Arindam	Sharma Publishers & Distributor ISBN: 13- 978-81-920090-2-5	2017
	Instant Vegetable Science, 5 th Ed	Barman, Arindam	Sharma Publishers & Distributor ISBN: 13- 978-81-920090-2-5	2020
	Instant Vegetable Science, 6 th Ed	Barman, Arindam	Sharma Publishers & Distributor ISBN: 13- 978-81-920090-2-5	2022

2	Plant Pathogen Interaction: Recent Trends	Mitra, Rituparna and Barman, Arindam	Sharma Publishers & Distributor ISBN: 978-93-82910-04-4	2016
3	Recent Trends in Agricultural Biotechnology	Barman, Arindam, Anshumali, Cheana S Sangma and Rituparna Mitra Barman	New Delhi Publishers, New Delhi, India, ISBN: 978-93-86453-52-5	2018
4	MCQ in Vegetable Science	Barman, Arindam, and Cheana S Sangma	Renu Publishers, New Delhi, India, ISBN: 978-81-940943-4-0	2020

Protocol Book and Souvenir

1. Hands-on Workshop on “Protein Electrophoresis for Diversity Analysis” from October 14th to October 15th, 2015 organized by Department of Horticulture, North-Eastern Hill University, Tura Campus, Meghalaya

2. Hands-on training Workshop on “PCR techniques and its applications” from September 28th to October 1st, 2015 organized by Department of Horticulture, North-Eastern Hill University, Tura Campus, Meghalaya.

3. “Training-cum-workshop on “DNA fingerprinting for species identification” from October 18th to October 21st 2016 at Department of Horticulture, North-Eastern Hill University, Tura Campus, Meghalaya.

4. “National Seminar on Potential and Prospects of Horticulture in North Eastern Region” from March 27th to March 28th, 2017 organized by Department of Horticulture, North-Eastern Hill University, Tura Campus, Meghalaya.

5. “National Seminar on Conservation of Biodiversity (NSCB 2022)” from September 2nd to September 3rd, 2022 organized by Biotech KISAN Hub, North-Eastern Hill University, Tura Campus, Meghalaya.

6. “International Conference on Environment And Sustainable Development (ICESD 2022)” from November 24th to November 25th, 2022 organized by Biotech KISAN Hub, North-Eastern Hill University, Tura Campus, Meghalaya.

Book Chapter

1. **Barman, Arindam.**, Mitra, Barman, Rituparna. And Chatterjee, Ranjit. (2016). Molecular Breeding of Eggplant (*Solanum melongena* L.) for Biotic Stress Resistance. In. Mitra, Rituparna and Barman, Arindam. (Eds), Plant Pathogen Interaction: Recent Trends. New Delhi, India. Sharma Publishers & Distributor. ISBN: 978-93-82910-04-4
2. Mitra, Barman, Rituparna., **Barman, Arindam.** And Munshi, A. D. (2016). Role of Natural Products in Plant Disease Resistance. In. Mitra, Rituparna and Barman, Arindam. (Eds), Plant Pathogen Interaction: Recent Trends. New Delhi, India. Sharma Publishers & Distributor. ISBN: 978-93-82910-04-4
3. Das, Kumar, Shaon. And **Barman, Arindam.** (2016). Systemic Acquired Resistance in Plants and Responsible Chemicals. In. Mitra, Rituparna and Barman, Arindam. (Eds), Plant Pathogen Interaction: Recent Trends. New Delhi, India. Sharma Publishers & Distributor. ISBN: 978-93-82910-04-4
4. Das, Kumar, Shaon. And **Barman, Arindam.** (2016). Microbial Toxins Macrolides: Promising Plant Pathogen Control Agent. In. Mitra, Rituparna and Barman, Arindam. (Eds), Plant Pathogen Interaction: Recent Trends. New Delhi, India. Sharma Publishers & Distributor. ISBN: 978-93-82910-04-4
5. **Barman, A** and Barman, R.M. (2016). Supply chain management and quality of vegetables. In. Bhagat, D and Akoijam, S.L.S. (Eds), Agricultural Marketing System in India. New Delhi, India. Biotech Books. ISBN: 978-81-7622-361-4
6. **Barman, A** and Barman, R.M. (2017). Challenges in supply chain system of vegetables in India. In. Bhagat, D and Akoijam, S.L.S. (Eds), Agricultural Marketing Issues and Challenges. New Delhi, India. Biotech Books. ISBN: 978-81-7622-392-8
7. Cheana S Sangma, Ornella K Sangma, Francis A Sangma and **Barman, Arindam.** (2018). Scope of crop improvement in vegetables through biotechnological tools. In. Barman A, Anshumali, Sangma C.S and Barman, R.M. (Eds), Recent Trends in Agricultural Biotechnology. New Delhi, India. New Delhi Publishers. ISBN: 978-93-86453-52-5, p. 77-95.
8. Ravi Kiran Thirumdasu, Ranjit Chatterjee, Somashekar Gajjela and **Barman, Arindam.** (2018). Process, progress, pipeline and parturiency on the production of transgenic vegetables. In. Barman A, Anshumali, Sangma C.S and Barman, R.M. (Eds), Recent Trends in Agricultural Biotechnology. New Delhi, India. New Delhi Publishers. ISBN: 978-93-86453-52-5, p. 96-110.
9. Cheana S Sangma, Baltachina Momin and **Arindam Barman.** (2018). Application of Biofortification for crop improvement. In. Barman A, Anshumali, Sangma C.S and Barman, R.M. (Eds), Recent Trends in Agricultural Biotechnology. New Delhi, India. New Delhi Publishers. ISBN: 978-93-86453-52-5, p. 111-121.

10. Chinky M. Marak, **Arindam Barman** and Cheana S Sangma. (2018). Green Biotechnology: Potential and prospects to tackle future challenges. In. Barman A, Anshumali, Sangma C.S and Barman, R.M. (Eds), Recent Trends in Agricultural Biotechnology. New Delhi, India. New Delhi Publishers. ISBN: 978-93-86453-52-5, p. 123-135.

11. Barman Arindam, Chinky M. Marak, Rituparna Mitra Barman and Cheana S. Sangma. (2018). Nutraceutical Properties of Legume Seeds and Their Impact on Human Health. In. Jose C. Jimenez-Lopez (Eds), Legume Seed Nutraceutical Research. London, UK. Intech Open Limited. DOI: 10.5772/intechopen.75158, ISBN: 978-1-78985-398-8, Print ISBN: 978-1-78985-397-1.

12. Barman Arindam, Neha M. Sangma, and Richmond Marboh. (2023). Diversity Analysis of Indigenous Germplasm of *Abelmoschus Esculentus L.* Moench (Okra) Under Garo Hills Condition of Meghalaya. In. R. V. S. Uppaluri and L. Rangan (Eds.), Conservation of Biodiversity in the North Eastern States of India. Springer Nature Singapore Pte Ltd., Singapore. ISBN 978-981-99-0944-5, ISBN 978-981-99-0945-2 (eBook), https://doi.org/10.1007/978-981-99-0945-2_2, p. 25-42.

13. Barman Arindam, Nillo Yedi, and Neha M. Sangma. (2023). Phenotypic and Genotypic Characterization of Predominant Lactic Acid Bacteria Isolated from Traditionally Fermented Brassica Leaf (Gundruk). In. R. V. S. Uppaluri and L. Rangan (Eds.), Conservation of Biodiversity in the North Eastern States of India. Springer Nature Singapore Pte Ltd., Singapore. ISBN 978-981-99-0944-5, ISBN 978-981-99-0945-2 (eBook), https://doi.org/10.1007/978-981-99-0945-2_8, p. 133-154.

Magazine published

1. “AGRI Vision” magazine of Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya.

Hub Building established

1. Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya building established.

Demonstration Unit established

1. Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya Demonstration unit established.

Adoption of village

1. Adoption of village, Darechikgre, Block: Rongram, Meghalaya under Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya.

Professional Recognition/ Award/ Prize/ Certificate, Fellowship received

Sl. No	Name of Award	Awarding Agency	Year
1	Awarded University Merit Scholarship	UBKV	2004-2008
2	Gold Medal in B.Sc	UBKV	2008
3	Junior Research Fellowship (JRF)	ICAR	2008
4	Rajiv Gandhi National Fellowship	UGC	2010
5	ICAR NET	ICAR	2010
6	ICAR SRF	ICAR	2010
7	IARI Merit Fellowship	IARI	2010
8	Best Poster Presentation Award in National Symposium on Conservation Horticulture	GBPUA&T	2010
9	ICAR NET	ICAR	2011
10	Best Poster Presentation Award in National Seminar on Advances of Bioinformatics and Computational Biology in Applied Biotechnology	NEHU	2015
11	Best oral presentation award in “National Seminar on Potential and Prospects of Horticulture in North Eastern Region”	NEHU	2017
12	Best poster award in Theme 1 in “National Seminar on Potential and Prospects of Horticulture in North Eastern Region”	NEHU	2017
13	Best poster award in Theme 2 in “National Seminar on Potential and Prospects of Horticulture in North Eastern Region”	NEHU	2017
14	Best oral presenter award at “1st International Conference on Environment and Society (ICES 2019)” organized by Glocal Environment & Social Association (GESA), New Delhi from December 22 nd to 23 rd , 2019 at Harcourt Butler Technical University (HBTU) Kanpur, U.P., India	GESA, New Delhi	2019
15	Young Scientist Award for research in biotechnology by Glocal Environment & Social Association (GESA), New Delhi	GESA, New Delhi	2019
16	Best oral presenter award at “International (Web) Conference on Environment and Society (ICES 2020)” organized by ABRF, Prayagraj, UP, India from 26 th to 28 th December 2020	ABRF, Prayagraj, UP, India	2020
17	Research Excellence Award for contribution in the field of conservation and documentation of indigenous crops by Society for Conservation of Natural Resources, West Bengal	SCNR, West Bengal	2022

Research Projects

Sl. No.	Sponsoring Agency	Title of Project	Period	Position
1	DBT, New Delhi	Molecular and morphological diversity analysis of cucurbits of Garo Hills Meghalaya	2015-2017	Principal Investigator & Project Coordinator
2	DST (SERB), New Delhi	Phytochemical and molecular characterization, bioprospecting of genes, value addition and quality enrichment of Bamboo through plant tissue culture technique from North East India	2017-2020	Principal Investigator
3	DST, New Delhi	Utilization of novel biotechnological tools using agro-waste products for livelihood improvement of farmers of Meghalaya India	2017-2020	Mentor Scientist
4	DBT, New Delhi	Isolation and characterization of bioactive components from indigenous plants of NEH region for antiurolithiatic potential with standardized phytochemical and pharmacological parameters	2018-2021	Principal Investigator & Project Coordinator
5	DST (SERB), New Delhi	Extraction and l1hysic11erization of functional phytochemicals from khoonphal (<i>Haematocarpus validus</i>) of Meghalaya and its value addition	2018-2021	Co-investigator
6	National Mission on Himalayan Studies (NMHS), G.B. Pant National Institute of Himalayan Environment and Sustainable Development, Kosi-Katarmal, Almora	Cultivation of packing leaves plant for livelihood enhancement of ST communities and promotion of packing leaves as substitute of plastics in Meghalaya	2019-2022	Principal Investigator
7	National Innovation	Dissemination of farmers' varieties of different crops	2020-2022	Principal Investigator

	Foundation, Govt. of India		identified by NIF-India in Meghalaya for societal development		
8	DBT, New Delhi		Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) in Meghalaya (Biotech Kisan Hub)	2022-2024	Principal Investigator & Project Coordinator
9	DBT, New Delhi		Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) in Kamrup (Metropolitan), Kamrup (Rural), Chirang and Kokrajhar districts (Biotech Kisan Hub)	2022-2024	Co-investigator
10	SCNR, West Bengal		Bio-Resources Development Hub	2023-2026	Principal Investigator & Project Coordinator

Workshop/ Seminar/ Knowledge Enrichment Programs Organized

- 1. “Hand on Training workshop on PCR techniques and its applications”** from September 28th to October 1st 2015 at Department of Horticulture, North-Eastern Hill University, Tura Campus.
- 2. “Hands-on Workshop on “Protein Electrophoresis for Diversity Analysis” from October 14th – October 15th, 2015** at Department of Horticulture, North-Eastern Hill University, Tura Campus.
- 3. “Training-cum-workshop on “DNA fingerprinting for species identification”** from October 18th to October 21st 2016 at Department of Horticulture, North-Eastern Hill University, Meghalaya.
- 4. “National Seminar on Potential and Prospects of Horticulture in North Eastern Region”** from 27th March-28th March, 2017 at Department of Horticulture, North-Eastern Hill University, Tura Campus.
- 5. “National Workshop on Conservation of Biodiversity”** on 28th of November, 2018 at Department of Horticulture, North-Eastern Hill University, Tura Campus.
- 6. “Two days training programme on skill development for the upliftment of livelihood through post harvest management of horticultural crops”** from 28th March-29th March, 2019 at Department of Horticulture, North-Eastern Hill University, Tura Campus.
- 7. “Selection of quality planting material for packing leaf cultivation”** on 24th August, 2019 at Village Ganol Songma, West Garo Hills district, Meghalaya.
- 8. “Cultivation practice and management of packaging leaf plantation sites”** on 14th September, 2019 at Village Chibragre, West Garo Hills district, Meghalaya.

9. **“Harvesting and processing of packaging leaves”** on 30th November, 2019 at Village Asanang, West Garo Hills district, Meghalaya.
10. **“International Web Conference on recent advances in science (IWCRAS 2020)”** from 30th July – 31st July 2020 at Tura, Meghalaya.
11. **“International (Web) Conference on Environment and Society (ICES 2020)”** from 26th to 28th December, 2020 at Prayagraj, UP, India.
12. **“National Seminar on Conservation of Biodiversity (NSCB 2022)”** from 2nd to 3rd September, 2022 at North-Eastern Hill University, Tura Campus, Meghalaya.
13. **“Kisan Mela 2022”** from 2nd to 3rd of September, 2022 at North-Eastern Hill University, Tura Campus, Meghalaya.
14. **“Bio-Entrepreneurship Development Training Programme”** organized by Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya on 18th November 2022 at Darechikgre village, Block: Rongram, Meghalaya.
15. **“International Conference on Environment and Sustainable Development (ICESD 2022)”** from 24th to 25th November, 2022 at North-Eastern Hill University, Tura Campus, Meghalaya.
16. **“Village adoption and Entrepreneurship Development programme”** organized by Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya on December 8th 2022 at Darechikgre village, Block: Rongram, Meghalaya.
17. Inauguration of **“Field Demonstration Unit”** of Biotech KISAN Hub, North-Eastern Hill University, Tura Campus, Meghalaya was organized by Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya on December 9th 2022 at NEHU, Tura Campus, Meghalaya
18. **“Training cum input distribution programme for farmers”** organized by Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya on 11th March 2023 at Cherong SHG, Katuli Walkamgre, South West Garo Hills, Meghalaya and at Bandalkona Training Centre, South West Garo Hills, Meghalaya.
19. **“Capacity Development Programme for Entrepreneurship Development”** organized by Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya on 20th March 2023 at Bandalkona Training Centre, South West Garo Hills, Meghalaya.
20. Inauguration programme for the Biotech KISAN Hub and Bio-Resources Development Hub Building of North-Eastern Hill University, Tura Campus, Meghalaya on 20th March 2023 at NEHU, Tura Campus, Meghalaya.
21. **“Start Up & Entrepreneurs Exhibition 2023”** organized by Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya from 20th to 21st March, 2023 at North-Eastern Hill University, Tura Campus, Meghalaya.

22. “Farmer’s Scientist Interaction on Formation of FPO (Farmer’s Producers Organization) on Entrepreneurship Development” organized by Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya on 30th May 2023 at North-Eastern Hill University, Tura Campus, Meghalaya.

23. “National Symposium on Agriculture, Environment and Food Security (NSAE&F 2023)” organized by Biotech KISAN Hub, NEHU, Tura Campus, Meghalaya on 5th June 2023 at North-Eastern Hill University, Tura Campus, Meghalaya.

Academic Collaborations

- Arindam Barman collaborated with Prof. Ranjit Chatterje, Uttar Banga Krishi Viswavidyalaya, Coochbehar, West Bengal on the DBT, New Delhi project entitled “Molecular and Morphological Diversity Analysis of Cucurbits of Garo Hills Meghalaya”.
- Dr. Arindam Barman collaborated with Dr. Prakash Gupta, Chhatrapati Shahu Ji Maharaj University, Kanpur, Uttar Pradesh; Dr. Dharitri Bhrama, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences is a medical institute of India, Shillong, Meghalaya and Dr. Ashish Kar, The Energy and Research Institute (The North-Eastern Regional Centre), Guwahati on the DBT, New Delhi project entitled “Isolation and characterization of bioactive components from indigenous plants of NEH region for antiurolithiatic potential with standardized phytochemical and pharmacological parameters”
- Dr. Arindam Barman collaborated with Dr. Ashish Kar, The Energy and Research Institute (The North-Eastern Regional Centre), Guwahati on the National Mission on Himalayan Studies (NMHS) project entitled “Cultivation of packing leaves plant for livelihood enhancement of ST communities and promotion of packing leaves as substitute of plastics in Meghalaya”.
- Dr. Arindam Barman collaborated with Krishi Vigyan Kendra- Chokpot, South Garo Hills, Meghalaya; Department of Agriculture and Farmers Welfare, West Garo Hills, Meghalaya; Department of Horticulture, West Garo Hills, Meghalaya on the DBT, New Delhi project entitled “Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) in Meghalaya (Biotech Kisan Hub)”.
- Dr. Arindam Barman collaborated with The Energy and Research Institute (The North-Eastern Regional Centre), Guwahati; Krishi Vigyan Kendra- Kokrajhar, Assam; Krishi Vigyan Kendra- Chirang, Assam on the DBT, New Delhi project entitled “Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) in Kamrup (Metropolitan), Kamrup (Rural), Chirang and Kokrajhar districts (Biotech Kisan Hub)”.
- Dr. Arindam Barman collaborated with Society for Conservation of Natural Resources, West Bengal on Bio-Resources Development Hub.
- Dr. Arindam Barman collaborated with OneLifeTech, Delhi on project entitled “Transfer of Innovative Agricultural Technologies in Garo Hills of Meghalaya”.

Research Guidance & Support (M.Sc)

Sl No	Name	Degree	Thesis Title	Year of Completion
1	Mrs. Susmita Chakraborty	M.Sc	Studies on Genetic Diversity of Radish (<i>Raphanus sativus</i> L.)	2015
2	Ms. Tare M Sangma	M.Sc	Studies on Genetic Diversity of Carrot (<i>Daucus carota</i> L.)	2015
3	Ms. Dilresha N Sangma	M.Sc	Physico-chemical analysis and protein profiling of roselle (<i>Hibiscus sabdariffa</i> L.)	2016
4	Mr. Cheangkal Adriel Dalbot Shira	M.Sc	Protein profiling and 15 hysic-chemical characterization of <i>Solanum kurzii</i> Br.	2016
5	Ms. Cheana S Sangma	M.Sc	DNA fingerprinting and Protein Profiling of Scarlet Eggplant (<i>Solanum aethiopicum</i> L.) from Meghalaya	2017
6	Ms. Ornella K Sangma	M.Sc	Molecular Characterization and Protein Profiling of <i>Gymnopetalum cochinchinense</i> (Lour.) Kurz	2017
7	Mr. Lalramchanna	M.Sc	Divergence analysis and molecular characterization of Snake gourd (<i>Trichosanthes anguina</i>) under West Garo Hills District Meghalaya	2018
8	Ms. Chingseme S Sangma	M.Sc	Morphological and molecular diversity analysis of Snap melon (<i>Cucumis melo</i> var. <i>momordica</i>) under West Garo Hills District of Meghalaya	2018
9	Ms. Tech Nama	M.Sc	Evaluation of Cucumber (<i>Cucumis sativus</i>) germplasm under West Garo Hills District of Meghalaya	2018
10	Mr. Vikash Pangam	M.Sc	Evaluation of indigenous cherry tomato under Garo hills condition of Meghalaya	2019
11	Ms. Evangelene Rani	M.Sc	Evaluation of King chilli (<i>Capsicum chinense</i> Jacquin) germplasm under West Garo hills condition of Meghalaya	2019
12	Ms. Chinnu A. Sangma	M.Sc	Evaluation of indigenous bird's eye chilli (<i>Capsicum frutescens</i>) germplasm from West Garo Hills, Meghalaya	2020
13	Mr. Richmond	M.Sc	Characterization of indigenous	2020

	Marboh		germplasm of okra (<i>Abelmoschus esculentus</i> L. Monoech) based on morphological and biochemical traits	
14	Ms. Chera Meju	M.Sc	Morphological and biochemical characterization of germplasm of Eggplant (<i>Solanum melongena</i> L.) from West Garo Hills region of Meghalaya	2020
15	Ms. Balarimiki Ryngkhlem	M.Sc	Isolation and Molecular Identification of lactic Acid Bacteria (LAB) using 16s rRNA Genes from traditionally fermented leaves of Roselle (<i>Hibiscus sabdariffa</i> L.)	2021
16	Mr. Nillo Yedi	M.Sc	Isolation and Molecular identification of Lactic Acid Bacteria using 16s rRNA genes from Gundruk (traditionally fermented <i>Brassica</i> leaf)	2021
17	Ms. Nisanki Phawa	M.Sc	Isolation and identification of Lactic Acid Bacteria(LAB) using 16s rRNA genes from Sinki (traditionally fermented Radish tap root)	2021
18	Ms. Neha Sangma	M.Sc	Isolation and Molecular Identification of Lactic acid bacteria (LAB) using 16S rRna Genes from Anishi (traditionally fermented <i>Colocasia</i> leaf)	2021
19	Ms. Hozeana Chuane R. Marak	M.Sc	Preparation and Standardization of Pumpkin (<i>Cucurbita moschata</i> Duch. Ex Poir) Jam with different Sweeteners for nutritional studies	2022
20	Ms. Felicia War	M.Sc	Screening of genotypes of Green Pea (<i>Pisum sativum</i> L.) for drought tolerance	2022
21	Ms. Amy D Shira	M.Sc	Screening of Okra (<i>Abelmoschus esculentus</i> L. Monoech) genotypes for drought tolerance	2022
22	Mr. Filberth Mukhim	M.Sc	Morpho-biochemical characterization and antioxidant activity analysis of Sohphlang (<i>Flemingia vestita</i>)	2023
23	Ms. Tricy Tonambam	M.Sc	Isolation and characterization of plant growth-promoting rhizobacteria from rhizosphere of Roselle (<i>Hibiscus sabdariffa</i> L.) and their application as biofertilizer	2023

24	Ms. Ibanrishisha Ksoo	M.Sc	Isolation and characterization of plant growth-promoting rhizobacteria from rhizosphere of Pumpkin (<i>Cucurbita moschata</i> Duch. Ex Poir.) and their application as biofertilizer	2023
25	Mr. Sengku M. Marak	M.Sc	Characterization of indigenous germplasm of Roselle (<i>Hibiscus sabdariffa</i> L.) from Garo Hills Region of Meghalaya, India on morphological and biochemical traits	2023
26	Mr. Leadingson Brandon Mukhim	M.Sc	Screening of Pumpkin (<i>Cucurbita moschata</i> Duch. ex. Poir) genotypes for drought tolerance	2023

Research Guidance & Support (Ph.D)

Sl No	Name	Degree	Thesis Title	Year of Completion
1	Mr. Toijam Sanjeev Lyngdoh	Ph.D	Effect of bioactive compounds of <i>Dillenia pentagyna</i> on gamma irradiated biological models	Ongoing
2	Mr. Uttam Paul	Ph.D	Metabolic Characterisation of alkaloids found in different species of tomato (<i>Solanum</i> sp) through chromatographic analysis	Ongoing

Lecture presented

Sl. No	Title	Venue
1	QTL Analysis for Fruit Quality Traits in Tomato	National Seminar on Newer Trends in Chemistry and Environment organized by Department of Chemistry, Don Bosco College, Tura on 10 th – 11 th December, 2014
2	Bioinformatic analysis of PCR products	“Hand on Training workshop on PCR techniques and its applications” from September 28 th to October 1 st 2015 at Department of Horticulture, North-Eastern Hill University, Tura Campus
3	Protein Electrophoresis for Diversity Analysis	“Hands-on Workshop on “Protein Electrophoresis for Diversity Analysis” from October 14 th – October 15 th , 2015 at Department of Horticulture, North-Eastern Hill University, Tura Campus

4	Markers in diversity analysis	“Training-cum-workshop on “DNA fingerprinting for species identification” from October 18 th to October 21 st 2016 at Department of Horticulture, North-Eastern Hill University, Meghalaya
5	Dynamic QTL analysis in tomato for quality improvement	“National Seminar on Potential and Prospects of Horticulture in North Eastern Region” from 27 th March-28 th March, 2017 at Department of Horticulture, North-Eastern Hill University, Tura Campus
6	Economics of protected cultivation of tomato	International Seminar on Entrepreneurship in the Fast Changing Society: The Socio-Economic Perspectives organized by the Department of Management, NEHU, Tura Campus on 26 th - 27 th June, 2014.
7	Divergence analysis among the landraces of pumpkin (<i>Cucurbita moschata</i> Duch.) from Meghalaya, India Key note presentation	“National Conference on “Biogeochemical Cycles and Climate Change” by Department of Environmental Science and Engineering, Indian Institute of Technology (ISM), Dhanbad, Jharkhand, 10-11 th August 2018
8	Overview on Role of Comparative Genomics in Conservation of Biodiversity	“National Workshop on Conservation of Biodiversity” on 28 th of November, 2018 at Department of Horticulture, North-Eastern Hill University, Tura Campus.
9	PCR and its applications	Popular Lectures on Modern Technology in Biological Sciences organized by Biotech Hub, Don Bosco College, Tura, Meghalaya on 25 th September, 2018
10	Genetic engineering and it’s applications	Undergraduate Trainees under “3-Day Hands-on-Training Programme” organized by IBT Hub, Don Bosco College, Tura from 4 th to 6 th March, 2019
11	Molecular diversity assessment of a collection of pumpkin landraces from Garo Hills region of Meghalaya	“1 st International Conference on Environment and Society (ICES 2019)” organized by Glocal Environment & Social Association (GESA), New Delhi from December 22 nd to 23 rd , 2019 at Harcourt Butler Technical University (HBTU) Kanpur, U.P., India.

12	Bamboo: Nutritional aspects and combating desertification Key note presentation	International webinar on the occasion of “World Desertification and Drought Day” organized by Bakhtiyarpur College of Engineering, Patliputra, Patna, India on 17 th June, 2020.
13	Studies of Genetic diversity of Roselle	International (Web) Conference on Environment and Society (ICES 2020) organized by ABRF, Prayagraj, UP, India from 26 th to 28 th December 2020.
14	Genomic approaches for utilization of vegetable genetic resources of North Eastern region Invited lecture	Three days online training programme on New Paradigm in Production and Utilization of Vegetables for Health and Livelihood organized by GBPUA&T, Pantnagar, Uttarakhand, India from 23 rd to 25 th February 2021.
15	Microgreens: Its Potential and Prospects Invited lecture	“Organic Farming for Sustainable Agricultural Production in Garo Hills” organised by Krishi Vigyan Kendra, ICAR, West Garo Hills, Meghalaya on 23 rd April 2021.
16	Career Opportunities in Horticulture with special reference to Micro Green Cultivation Guest speaker	A webinar series to enrich and strengthen our UG academic program organized by Department of Agriculture, Brainware University, Barasat, West Bengal on 30 th October 2021.
17	Diversity Analysis of Indigenous Germplasm of <i>Abelmoschus Esculentus L.</i> Moench (Okra) Under Garo Hills Condition of Meghalaya	“North-East Research Conclave 2022” organized by Indian Institute of Technology Guwahati on May 20, 2022 - May 22, 2022
18	Phenotypic and Genotypic Characterization of Predominant Lactic Acid Bacteria Isolated from Traditionally Fermented Brassica Leaf (Gundruk)	“North-East Research Conclave 2022” organized by Indian Institute of Technology Guwahati on May 20, 2022 - May 22, 2022
19	Conservation of Biodiversity: Its Potential and Prospects Keynote speaker	“ National Seminar on Conservation of Biodiversity (NSCB 2022) ” from 2 nd to 3 rd September, 2022 at North-Eastern Hill University, Tura Campus, Meghalaya.
20	Bioprospecting of vegetable genetic resources for crop improvement Keynote speaker	“ International Conference on Environment and Sustainable Development (ICESD 2022) ” from 24 th to 25 th November, 2022 at North-Eastern Hill University, Tura Campus, Meghalaya.

21	Microgreen Farming: A New Approach for Start Up Programme Resource Person	Seminar on “National Education Policy – 2020: Its implementation and prospects to ABC” jointly organized by Department of Education, NEHU, Tura Campus, Meghalaya and Mendipathar College, Mendipathar, Meghalaya on March 24, 2023
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Gene Bank submission

Category of achievement	Title	Year	Additional information, if any
NCBI GenBank Accession number MN368293	<i>Pseudomonas stutzeri</i> strain NB2 16S ribosomal RNA gene, partial sequence	2019	

Protocol developed

- **DNA Extraction Method** – Identified modified DNA extraction protocol - Suitable for seed DNA extraction of vegetables.

Membership of Scientific Societies/Professional Bodies

- Life member of The Agricultural Society of India, Kolkata, India.
- Life member of Glocal Environment & Social Association (GESA), New Delhi, India.
- Life member of Asian Biological Research Foundation (ABRF), Prayagraj, India.
- Life member of Society for Conservation of Natural Resources (SCNR), West Bengal, India.
- Chief Editor of NDP Journal of Horticulture and Plant Science (IJHPS) of New Delhi Publishers, New Delhi, India.
- Reviewer of “International Journal of Agriculture Sciences” of Bioinfo Publication, Pune, Maharashtra.
- Chairman Departmental Development Committee, Horticulture, NEHU, Tura, Meghalaya (2013 to 2015).
- Member of Board of Post Graduate Studies in Horticulture (BPGS), NEHU, Tura, Meghalaya (2014 to 2017).
- Member of Board of Studies in Horticulture (BOS), NEHU, Tura, Meghalaya (2014 to 2017), (2020 to 2023)
- Member of School Board of School of Human and Environmental Sciences, NEHU, Shillong (2015 to 2017).
- Member of Board of Studies in the Department of RDAP (BOS), NEHU, Tura, Meghalaya (2016 to 2017).
- Member Departmental Purchase Committee of ABM&FT, NEHU, Meghalaya (2017 to 2018).

- Member of Board of Studies in Department of Environmental Studies (BOS), NEHU, Shillong, Meghalaya (2017 to till date).
- Member Departmental Purchase Committee of Horticulture, NEHU, Meghalaya (2012 to 2023).
- In Charge of Departmental Laboratory, Department of Horticulture, NEHU, Tura, Meghalaya (2015 to 2023).
- In Charge of NEHU Botanical Nursery, NEHU, Tura, Meghalaya (March 2023 to July 2023).