



CURRICULUM VITAE (CV)

Name and Designation : DR. MOHAN CHANDRA KALITA (RETIRED)

Vice Chancellor, Krishnaguru Adhyatmik Visvavidyalaya (since 29th July 2024)

Professor (since 30th June, 2007) and Head (03-09-19 to 03-09-22)

Dean (01-07-21 to 01-09-22), Faculty of Technology,GU

Former Head (2007-2010), Deptt.of Biotechnology

Founder Head i/c (15-6-2009 to 25-10-14) Deptt.

Bioengineering and Technology, Gauhati University

Institute of Science and Technology (GUIST),Gauhati

University

Date of birth: 01-10-57

Nationality & Religion : Indian and Hinduism

Marital status and Sex : married and male

Mailing address : AEC Road, JALUKBARI, Sundarbari
(adjacent to Children Home)

Guwahati 781014, ASSAM

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Mobile: 09957181630

Education

B.Sc (Honours in Botany) securing **1st class 2nd position** and **M.Sc in Botany** (Plant Physiology & Biochemistry) securing **1st class 1st position** from Gauhati University (Guwahati, Assam) in 1979 & 1981 (held in 1983) respectively. Awarded the Degree of Doctor of Philosophy in Botany by Gauhati University in 1995.

Educational Qualifications

M.SC (GAU) PH.D (GAU) Post Doc (IARI, New Delhi), FLS (London)

Research

Plant Biochemistry & Biotechnology, Ethno pharmacology and human diseases, Biofertilizers & Biopesticides, Microalgae bioenergy and biomitigation of CO₂, Nanobiotechnology

Contact:

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mckalita@gauhati.ac.in

Medal/Award/Fellow accorded

- **Gold medal** for securing 1st class 1st position in **M.Sc.** examination.
- **Biotechnology National Associateship** (1996-97) Awarded by Department of Biotechnology, Ministry of Science & Technology, Govt. of India, New Delhi.
- **Fellow (FICCE)** by the International Congress of Chemistry & Environment
- **Fellow (FISPP)** by Indian Society for Plant Physiology
- **Fellow (FNRS)** by International Society for Conservation of Natural Resources
- **FLS (London)** by Linnean Society, UK

Teaching Experience

From	To	Designation	Institute
11.12.91	till Date	Professor in Biotechnology	Gauhati University, Assam
01.08.84	10.12.91	Lecturer in Botany	Handique Girls' College,

11.12.83 31. 07.84 Lecturer in Botany

Guwahati, Assam
Biswanath College, Biswanath
Chariali, Assam

RESEARCH EXPERIENCE

1. **Ph.D research** (1988-1993) “Physiological and Biochemical studies on the effect of pesticides, weedicides, fungicides and heavy metal pollutants on growth and metabolism of *Azolla-Anabaena* symbionts”

2. **BIOTECHNOLOGY NATIONAL ASSOCIATESHIP** (1996 - 97): Awarded by the Department of Biotechnology (DBT), Govt. of India for the period from 1st Oct.97 to 31 March 98 and carried out work on “DNA fingerprinting on Indian Mustard” at NRC or Plant Biotechnology IARI, New Delhi under the guideship of Dr. R. P. Sharma, Project Director, and Dr. T. Mahapatra, Sr. Scientist, National Research Center on Plant Biotechnology(NRCPB), IARI, New Delhi-12

PhD Thesis supervised to completion and Awarded degree (70)

Name of the Student	Title of the Thesis	Year of Degree Awarded
Emica Mary Gatphoh (jointly with Dr Arnab Sen ICAR RC, NE region, Meghalaya)	Expression of CSFV E2 Gene in Rice (<i>Oryza sativa</i> L.)	2023
Chandana Malakar (Jointly with Prof S Deka, IASST, Guwahati)	Effect of Rhamnolipid Biosurfactant and Rhamnolipid coated zinc oxide nanoparticles on wound healing with reference to antimicrobial activity against <i>Staphylococcus aureus</i>	2023
Rajesh Dev Sarkar	Assessment of green synthesized Selenium nanoparticle mediated responses in Mustard(<i>Brassica campestris</i> L) under salt stress	2023
Dipjyoti Kalita (jointly with Nilakshi Devi, Deptt. Of Botany, GU)	Population study of <i>Gynocardia odorata</i> R.Br. in Assam and its phytochemical evaluation	2023
ARUN Kumar (jointly with Dr M. Khan, IASST, Guwahati)	Study on the effect of potential probiotic bacteria in enhancing longevity and healthy ageing of <i>Caenorhabditis elegans</i>	2023
Momota Potshangbam (Jointly with Dr Indira Devi, IBSD, Imphal)	Understanding the host plant- endophyte interaction and its biotechnological applications	2023

Jayasri Das (Jointly with Dr D. Thakuria, CAU, ICAR, Meghalaya)	Role of Endophyte interactions on phosphorous nutrition and aluminium toxicity tolerance in rice under acidic soil	2021
Rabiya Sultana (Jointly with Dr M R Khan, IASST, Gauhati)	Development of an efficient microbial fuel cell system as a source of alternative energy	2021
Rashmi Baruah (Jointly with Dr Dipali Devi, IASST, Gauhati)	Fabrication and characterization of nanoparticles of silk fibroin produced by <i>Antheraea assamensis</i> and their applicability in tissue engineering	2021
Ng Ngashangva (Jointly with Dr Indira IBSD, Imphal)	Isolation and characterization of bioactive metabolites from the endophytes of traditionally used medicinal plants in North East India	2021
Manash Mazumder (Jointly with Dr K K Saikia, GUIST)	Phenotypic and Genotypic characterization of <i>Staphylococcus aureus</i> isolates circulating in Assam	2020
Rengonee Das	Utilization of waste Flue gas and Formation water from oil fields of Assam in the production of Biofuel using selected Oleagimous microalgae	2020
Trishnamoni Gautam (Jointly with Dr R C Boro, AAU, Jorhat)	Identification of Citrus Tristeza Virus from North East India and development of Immunological techniques for CTV detection	2020
Rupshikha Patowary (Jointly with Prof S Deka, IASST, Guwahati)	Biosurfactant enhanced bio-remediation of poly aromatic hydrocarbons(PAHs) from oil contaminated soil of Assam	2019
Anindita Talukdar (Jointly with Dr K K Saikia, GUIST, GU)	Nephroprotective potential of a few ethnopharmaceutical plants of N E India against cisplatin induced nephrotoxicity	2019
T Phazna Devi (Jointly with Dr. S. Indira Devi ,IBSD, Imphal)	Analysis of rhizosphere micro-biota in King chilli (Umorok) of NE India and its impact on plant health	2019
Afruz Zaman (Jointly with Dr T. Bandopadhyay, TRA, Jorhat, Assam)	Transformation of <i>E. coli</i> through manipulation of DFR and LAR genes for enhanced production of catechins	2019
Yogesh Babasaheb Chaudhari (Jointly with Dr M. Khan,	Isolation and characterization of cellulolytic microbes and their genes from soils of North-East India	2019

IASST, Guwahati)		
Md Iftikar Hussain	Molecular epidemiology of <i>Clostridium perfringens</i> and immunopotency of a novel epsilon toxoid vaccine adjuvanated with calcium phosphate nanoparticle	2019
Ankita Hazarika (Jointly with Dr S. Deka, IASST, Guwahati)	Protective effects of an herbal formulation from Northeast India on metabolic syndrome induced in animal model	2018
Sandipan Talukdar (Jointly with Dr K K Saikia, GUIST, GU)	Theoretical analysis of Neuron's intrinsic plasticity in the formation of memory	2018
Manuj Kr Das (Jointly with Dr P. Dutta, ICMR, Dibrugarh)	Mapping of chloroquine (cq), sulphadoxine-pyrimethamine (sp) and artesunate (atn) resistant isolates of plasmodium falciparum from north east india	2017
Shamim Rahman (Jointly with Prof A Dutta, Deptt. of Zoology, GU)	Development and characterization of DNA barcodes in EEL shaped fish species of Assam	2017
Jayashree Dutta	Hypoglycemic Evaluation of a few ethnic medicinal plants of Assam	2017
Prianka Sharma (Jointly with Dr Debajit Thakur, IASST, Guwahati)	Bioprospecting of antagonistic metabolites producing Actinomycetes from selected forest ecosystems of Assam	2017
Hijam Surnalata Devi (jointly with Dr N C Talukdar,IASST,Guwahati)	Diversity of Cellulolytic Microorganisms and Cellulase Enzymes from Earthworms of Imphal, Manipur	2017
Nilakshi Gohain (Jointly with Dr Anil Prakash, ICMR)	Antimalarial validation of Traditionally used medicinal plants of Ne india and dna barcoding of the potent Species	2017
Arijit Borah (Jointly with Dr H Gogoi, DRL(DRDO), Tezpur	Molecular characterization of Begomoviruses infecting <i>Bhut Jolokia (Capsicum assamicum)</i> in Assam	2017
Kaustavmoni Patowary (Jointly with Dr S. Deka, IASST, Guwahati)	Development of bacterial consortium for removal of hydrocarbons from contaminated sites of oil fields of Assam	2017

Bornali Baishya	Green synthesis of gold nanoparticles using medicinal plant species of assam, india	2017
Nitumani Kalita	Bioactive potential of selected ethno- medicinal plants of assam, india against a few pathogenic bacteria	2016
Pori Deka (Joint with Dr D. Baishya, GUIST)	<i>In vitro</i> propagation and Co- cultivation of <i>Artemisia annua</i> L. with <i>Piriformospora indica</i> for enhancing the production of Artemisinin and expression of related genes	2016
Sailendra Goyari (Joint with Dr N C Talukdar, IASST, Guwahati)	Characterization of cellulose degrading microorganisms and its cellulose enzymes from undisturbed forests soil located at different temperature regimes of N E India	2016
Minali Gogoi	Potentialities of Castor oil plant (<i>Ricinus communis</i>) for remediation of crude oil contaminated soil and biodiesel production	2016
Ms Laishram Surbala	Evaluation, characterisation and mechanism studies of anticancer compounds from traditional folklore medicines of Manipur	2016
Neeta Sarangthem (Joint with Dr Biseswori Thongam, IBSD, Manipur)	Molecular phylogenetic and diversity analysis of <i>Hedychium koenig</i> (Zingiberaceae) of North East India	2015
Bandita Bagchi (Joint with Dr B C Deka, ICAR, Meghalaya)	Utilization of Sohiong (<i>Prunus nepalensis</i>) for production of fermented and non fermented value added products	2015
Sanasam Shantibala Devi (Joint with Dr N C Talukdar, IBSD, Imphal)	Studies on role of cellulose degrading microorganisms and epigeic earthworm in conversion of Imphal city waste to compost/vermicompost	2015
Hanif Khan (Joint with Dr L. Singh, DRL, Tezpur, Assam)	Exploring the role of arbuscular mycorrhizal fungi and organic amendments in suppression of the cercospora leaf spot disease of <i>Capsicum</i> sp	2015
Vikash Gupta (Joint with Dr L. Singh, DRL, Tezpur, Assam)	Characterization of Mycotoxin producing fusarium spp isolates from north East India and Development of Molecular Based Detection tools	2015
Rituparna Borah	Phytomosquitocidal efficacy of a few medicinal plants of n.e.india and phytochemical and pharmacological investigation of potent species	2015
Rajib Chandra Dev	Studies on the CO ₂ abatement potential of selected	2015

Goswami	native microalgal strains of assam	
Jayanta Talukdar (Joint with Prof B C Goswami, Deptt. of Chemistry, GU)	Isolation, screening and characterization of biodiesel potential of a few selected freshwater oleaginous microalgae of assam with special emphasis on <i>botryococcus braunii</i> kützing	2014
Dinesh Singh Moirangthem (Joint with N C Talukdar, IBSD, Imphal)	Phytochemical and pharmacological studies of bioactive principles from <i>Cephalotaxus griffithii</i> Hook. f. and <i>Oroxylum indicum</i> (L.) Benth. ex Kurz	2014
Ms Parveen Ahmed (Joint with Dr Sudripta Das,, IBSD, Imphal)	Identification of Molecular Markers for Helopeltis resistance in Tea	2014
Nilanju Pran Sarma (Joint with Dr A. Prakash, ICMR, Dibrugarh)	Studies on genetic diversity and vectorial role of <i>Anopheles annularis</i> (diptera: culicidae) group of mosquitoes with special reference to <i>Anopheles philippinensis</i> and <i>Anopheles nivipes</i> in north –east india	2013
Trithankar Bandyopadhyay (Joint with Dr Sudripta Das,, IBSD, Imphal)	“Identification of differentially expressed transcripts induced by Infestation with Helopeltis Theivora in Tea”.	2012
Ellora Malakar	Search for suitable substrates and carrier materials towards Optimization of mass production and inoculum development for a few BGA biofertilizers of Assam .”	2012
Raju Bharalee (Joint with Dr Sudripta Das,, IBSD, Imphal)	“Generation, Analysis,Identification of expressed sequence Tags of differentially expressed genes of Tea under water stress.”	2012
Irom Manoj Singha (Joint with Dr B G Unni,, NEIST, Jorhat)	“Molecular characterization of potent phytopathogenic Fungal strains of a few vegetable crops and biofungicidal evaluation of some medicinal plants of North –East India.”	2012

Bornali Gohain (Joint with Dr Sudripta Das,, IBSD, Imphal)	“A molecular index for Assam and Darjeeling Tea.”	2012
Gargi Chakravarty	“Pseudomonas fluoresence based management of Bacterial Wilt of Brinjal caused by Ralstonia solanacearum (Smith) Yabuuchi et al.”	2011
Anamika Paul	“Micropropagation and genetic Transformation of Patchouli [Pogostemon cablin (Blanco) Benth.]”	2011
Simrat Kour	“Morphological ,Molecular and Fatty acid characterization of certain Microalgae from Assam for their potential as Biofuel.”	2011
Eeshan Kalita (Joint with Dr P. Verma NIPGR, New Delhi)	“Chickpea genes involved in signalling during Ascochyta infection.”	2010
Limpon Bora	“Production, purification, characterization and bio - technological application of microbial lipase.”	2010
Twinkle Sugla	“Development of an efficient transformation system in Mungbean (<i>Vigna radiate</i> L).”	2010
Ananya Borthakur (Joint with S.C.Das, Tocklai Tea research)	“Micro propagation of some important shade tree species used in Tea plantations and development of their soma clones with desirable traits.”	2009
Bula Choudhury (Joint with P. Azad, IASST, Guwahati)	“Biofertilizer potential of VAM fungi and its dual interaction with few selected strains of Rhizobia for enhancement of pulse production in	2008
Novonita Baruah (Joint with J.C.Kalita Deptt. of Zoology, GU)	Assam. Biocontrol prospects of Red mite (<i>Oligonychus coffeae</i> Nietner): A major pest of cultivated Tea.”	2008

Jyotsna Kumari (Joint with B.G Unni, RRL, Jorhat)	“Biochemical and molecular study of insect immunity in Muga (<i>Antheraea assama</i>) and Eri(<i>Philosamia ricini</i>) silkworms.”	2007
Dwipendra Thakuria (Joint with N.C. Talukdar of IBSD, Imphal)	“Interactive effect of direct and indirect plant growth promoting Rhizobacteria (PGPR) on microbial community structure of rice rhizosphere.”	2006
Anamika Boro (Arunachal University, Joint with P. Dwivedi)	“ <i>In vitro</i> propagation studies of elite clones of <i>Oroxylum indicum</i> for germplasm conservation.”	2006
D. Choudhury (Joint with Prof B.C. Goswami in Botany, GU)	“Studies on certain factors influenced the growth and yield of <i>Hevea brasiliensis</i> .”	2005
A.C. Deka	“ <i>In vitro</i> micropropagation of two species (<i>Piper betel</i> , <i>Piper longum</i>) and establishment of plantlets in natural environments.”	2004
Ms Farista Yasmin	“Nitrogen fixing BGA (Cyanobacteria) in Morigaon District, Assam and evaluation of biofertilizer potentiality of few species.”	2004
Samiron Phukan	“Phytopesticidal efficacy of few plants of N. E. India against mosquitoes and phytochemical characterization of potent species.”	2003
Ms Bijoylakhmi Goswami	“Vermitechnological evaluation of earthworm species of Assam for biomanagement of urban organic solid waste.”	2003
Gautam Kr. Handique	“Bioremediation potential of Lemongrass (<i>Cymbopogon flexuosus stapf.</i>) against toxic heavy metal pollutants.”	2001
Sarif Uddin Ahmed	Distribution pattern of BGA biofertilizer in Nagaon subdivision, Assam and application in rice crop.	2001

Ph.D Thesis Examined of other Universities:

1. **S. Yoiremntomba Meitei**, Department of Life Sciences, Manipur University, Manipur
2. **Devid Kardong**, Department of Life Science, Dibrugarh University, Assam
3. **N. Vijayanand**, Centre for Research in Botany, S N College, Madurai Kamraj
4. University, Madurai, Tamilnadu
5. **Mr Arif Jana**, Department of Department of Molecular & Cellular Engineering, Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad, UP
6. **Anjana Ray**, Department of Biophysics, Molecular Biology and Bioinformatics ,University of Calcutta., WB
7. **Mr Pravas Ranjan Kole**, Department of Biotechnology, Bundelkhand University
8. **Mr Sawlang Borsingh Wann**, Department of Life Sciences, Dibrugarh University
9. **Mr Lambit Kanwar**, Department of Life Sciences, Dibrugarh University, Assam
10. **S. Mohana Lakshmi**, Deptt. of Pharmaceutical Technology , Jadavpur University, WB
11. **Ms Haripyari Devi** , Manipur University
12. **Ms Ahanthem Ksheroda Devi**, Manipur University
13. **Mr Harisankar Dey** Department of Botany, North Orrisa University Faculty: Science
14. **Ningthoujam Shovarani**, Department of Biochemistry, School of Life Sciences, Manipur University
15. **ESMAIEL LF. SAAD**, Department of Molecular and Cellular Engineering, SHIATS, Allahabad, UP
16. **Bhaswati Sarma**, Department of Ecology and Environmental Science ,Assam University, Assam
17. **Dharitri Borah**, Department of Ecology and Env. Sci. Assam University, Assam
18. **Shampa Deb**, Department of Ecology and Environmental Science, Assam University
19. **Shwetosmita Nath**, Department of Life Science, Assam University, Silchar, Assam
20. **Devanand Kumar**, Department of Life Science and Bioinformatics, Assam University
21. **Haobam Khumanleima Chanu**, Department of Ecology and Environmental Sciences, Assam University, Silchar, Assam
22. **Yumnam Romila Devi** , Department of Biotechnology, Assam University, Assam
23. **Bharar Chandra Basistha**, Department of Botany, University of North Bengal, WB
24. **Ms Jyotchna Gogoi** , Department of Life Science, Dibrugarh University, Assam
25. **Munmi Borkataky** , Department of Life Science, Dibrugarh University, Assam
26. **S. Eswaran** , Department of Botany, Madurai Kamraj University, Madurai 625022
27. **P. C. Lalrinfela**, Department of Biotechnology, Mizoram University, Mizoram
28. **Atom Annupama Devi**, Deptt. of Biotechnology, Mizoram University, Mizoram
29. **Eshingchaobi Keisam Chanu**, Department of Life Science, Manipur University
30. **Patil Jaidip Sanatan Anjana** , Department of Botany, Dombivli Shikhan Mandal,s K V Pendharkar College of Arts, Science and Commerce, University of Mumbai
31. **SH Willson Monsang** , Department of Biochemistry, North Eastern Hill University

32. **A. Lakhikumar Sharma**, Department of Biotechnology, Manipur University
33. **S. Yoiremntomba Meitei**, Department of Life Sciences, Manipur University
34. **Ms Archana Borah**, Department of Life Sciences, Dibrugarh University
35. **Temin Payum** , Department of Botany, Rajib Gandhi University, Arunachal Pradesh
36. **Kaushal Sood**, Department of Life Science, Dibrugarh University, Assam
37. **Ms Sarmishta Dey**, Department of Biotechnology, Assam University, Assam
38. **Tampak Meena** , Department of Ecology and Environmental Science, Assam University, Silchar, Assam
39. **Tonlong Wangpan**, Department of Botany, Rajib Gandhi University, RGU, AP
40. **Pankaj Bharali**, Department of Botany, Rajib Gandhi University, RGU, AP
41. **Gaottham Gogoi**, Department . of Botany, Rajib Gandhi University , AP
42. **Predip Doley**, Department . of Botany, Rajib Gandhi University, AP
43. **Banshi Narayan Singh**, Department of Plant Physiology, Banaras Hindu University , UP
44. **Luxemburgh Hynniewta**, Deptt. of Biochemistry, NEHU, Shillong, Meghalaya
45. **Sanatombi R K**, Department . of Biotechnology, Manipur University, Manipur
46. **Rajat Pal**, Department of Biophysics, Molecular Biology and Bioinformatics, University of Calcutta., WB
46. **Knawang Chhunji Sherpa** ,Advanced Technology Development Centre, IIT, Kharagpur
47. **Yugal Kishor Mahanta**, Department of Lifescience, North Orissa University, Orissa
48. **Bikash Kar Nath**, Deptt. of Molecular Biology and Biotechnology, Tezpur University, Assam
49. **N. Sandhyarani Devi**, Department. of Lifescience, Manipur University, Manipur
50. **Ms Hage Asha** , **Department of Botany**, Rajib Gandhi University, AP
51. **Rajib Borah**, Department of Biotechnology and Bioinformatics, NEHU
52. **Lourebam Romen Meitei**, Department of Biotechnology, Assam University
53. **Ranjan Kumar Sahoo**, Department of Pharmaceutical Sciences, Dibrugarh University
54. **MsSudarshana Borah**, Department of Pharmaceutical Sciences, Dibrugarh University
55. **Ms Tulsi Kumari Joishy**, Department of Molecular Biology and Biotechnology, Cotton University
56. **Daiahun Thabah**, Department of Biochemistry, North Eastern Hill University
57. **Ms Konthoujam Rohini Devi**, Department of Life Sciences, Manipur University
58. **Thoungamba Amom**, Departmen tof Biotechnology, Manipur University
59. **Monashree Sarma Bora**, Department of Environmental Sciences, Tezpur University
60. **Bhaskar Chakravorty**, Deptt. Of Life Science, AU
61. **Nyater Ado**, Deptt. Of Botany, RGU

Abroad visited on academic programmes:

USA (San-Fransisco), **Australia** (Adelide), **Japan**, **South Korea**, **France** (Paris), **Germany** , **Switzerland and China** (Kunming and Beizing) , **London** (UK) , **Bankok** (Thailand), **Abu Dhabi** (UAE)

Patents Granted: (7 No.)

- 1) IPR, Govt of India. Patent Application No. **187/MUM/2004**, Publication **Date: 05/05/2006** (A method of extraction of an essential oils from Cymbopogon winterianus plant using Clevenger and Cleisen apparatus for protection against pests).
- 2) IPR, Govt of India. Patent Application No. **737/MUM/2004**, Publication **Date: 16/06/2006** (A method of extraction of bioactive compounds from Ipomoea cornea plant using solvents for protection against pests).
- 3) IPR, Govt of India. Patent Application No. **1585/KOL/2011** Publication **Dated 23/12/11** (Substrate based bioformulation for control of bacterial wilt of brinjal and its preparation threrof)
- 4) IPR, Govt of India. Patent Application No. **420/KOL/2011** Publication **Dated 30/03/11** (Bioformulation of Penicillum purpurogenum and process for preparation thereof)
- 5) **International Patent** WIPO. Application No. **WO 2020/115767** A1 Publication Date: 11/06/2020 (A herbal composition from Premna herbacea useful for prevention of obesity and type 2 diabetes and a method for its extraction)
6. IPR, Govt of India. Application No. **502/KOL/2011 Dated 05/04/11** (Herbal product for mosquito control and its process for preparation thereof)
7. IPR, Govt of India. Application No. **2560/DEL/2013 Dated 23/9/13**(A Spin Column System and a Method of Solid Phase Extraction of Target Compounds involving the same)

Patents Filed: (2 No.)

- **Application No. 1202/KOL/2014 Dated 19/11/14** *Crinum asiaticum* (Family Amaryllidaceae)- the potential plant based source for a potent antimalarial agent against *Plasmodium falciparum*
- **Application No: 201631030051Dated 02/09/2016** Herbal formulation for treatment of hypercholesterolemia.

Association with another patent granted

Mr. Kashyap Gogoi, then a high school student in Hindustan Central School, Guwahati, who was one of the awardees as children scientist under the National Children Science Congress

(1999) organized by Department of Science and Technology, Govt of India worked in my laboratory under my guidance and supervision for a period over two years since 1999 and scientifically validated his plant based formulation on the biopesticide for controlling termites developed by him in connection with the award for which Mr. Gogoi has been granted a patent on the invention he made (**a new formulation on plant based biopesticide against termites**).

DBT Post Doc.(RA) supervised: 2

Dr Pragma Sharma (July 2010-June 2011)

Topic: Biological synthesis of gold nanoparticle by algae.

Dr Pankaj Bharali (since April, 2017)

UGC- DS Kothari Postdoctoral Fellowship supervised: 3

Dr Madhuchanda Banerjee (June 2012-2014)

Topic: Investigation of antimicrobial and cytotoxic properties of nanoscale materials and Nanocomposites

Dr Akan Das (Sept. 2013- 2016)

Topic: Genome-wide identification of multidrug and toxic compound extrusion (MATE) gene Family in rice and their expression and allelic variation for aluminium stress tolerance in germplasm of N E India

Dr. Pojul Loying (July 2016 –June 2019)

Topic: Investigating FAK/Pyk2 as a regulator of Wnt signaling pathway: A promising therapeutic target in triple negative breast cancer (TNBC).

Dr. Janmoni Kalita (December 2018 –2020)

Topic: Isolation and quantification of acteoside from selected wild and cultivated edible plants from North East India.

DST Inspire Fellowship supervised 2

Mr Rajib Dev Goswami (Sept. 2010 -2015)

Topic: Studies on the CO₂ abatement potential of selective native microalgal strains of Assam

Ms Nitumani Kalita (Nov. 2012 -2016)

Topic: Bioactive potential of selected ethnomedicinal plants of N E India against pathogenic

microorganisms

Rajib Gandhi National Fellowship for SC candidates supervised: 2

Ms Bornali Baishya (2011-2016)

Topic: Green synthesis of gold nanoparticles using potent medicinal plant resources of N E India

Mr Manuj Kumar Das (2011-2016)

Topic: Mapping of Chloroquine and Sulfadoxine-Pyrimethamine Resistant Isolates of Plasmodium falciparum from N E India

UGC-NET Junior Research Fellowship (1)

Ms Jinu Medhi (2017-----)

Topic: Biorefinery Approaches for Production of Biofuel and Value Added Products from Microalgae

M.Sc./ B.Tech Dissertation supervised (31)

Name of the Students	Title	Year
Abhijit Chetry	Phytochemical evaluation and in vitro antioxidant and antidiabetic activities of wild edible mushroom (Pleurotus ostreatus of Assam and Arunachal Pradesh)	2018
Bibek Misra	Utilisation of discarded fish waste for production of biodiesel	2018
Mitra Manashi Das	Quest for antioxidant and antidiabetic potential of Solanum species	2017
Seema Das	A study on growth and total lipid contents of Scenedesmus sp. Grown in Formation water	2016
Kaushik Das	Evaluation of antioxidant activities of two ethnomedicinal plant species of Assam	2016
Sahrmistha Saikia	Pharmacological potential of alpha amylase and alpha glucosidase inhibition of a few ethnic	2015
Nirupama Sarkar	Pharmacological investigation of two ethnic medicinal plants of Assam and evaluation of its nephroprotective efficacy	2015
Minakshi Baishnab	“Pharmacological investigation of <i>Curanga amara juss.</i> of north east India: a potent ethno medicinal plant of NE India”	2014
Champak Thakuria	“Phytopharmaceutical evaluation of two important Garcinia species (<i>G.pedunculata</i> and <i>G.kydia</i>) of Assam.”	2014

Chandana Kalita	“Studies on Antibacterial activities of a few medicinal plants of Assam.”	2013
Vaswati Das	“Studies on Antibacterial activities of a few medicinal plants of Assam.”	2013
Binita Dey	“Biodiesel synthesis from sunflower oil using highly catalytic bimetallic gold silver nanoparticles.”	2013
Nakul Sharma	“Potential of Myrocystis bloom collected from Dighalipukhuri, Guwahati, Assam.”	2013
Aparajeeta Kalita	“Potential of Myrocystis bloom collected from Dighalipukhuri, Guwahati, Assam.”	2013
Rengonee Das	”Studies and the growth and total lipid content of the Microalgae Scenedesmus obliquus”.	2012
Mrinal Kumar Baishya	“Nanosilver: Its green synthesis, chracterizatization and antimicrobial Activity.”	2012
Nilakshi Gohain	“ <i>Chlorella vulgaris</i> mediated green synthesis of gold nanoparticle and their physico-chemical characterization.”	2011
Bornali Baishya	“Studies on the lipid content of different biological samples and their transesterification to Biodiesel.”	2011
Gayatri Baruah	“Changes in biochemical parameters and effect on pigmentation in- vivo in <i>Cyprinus carpio</i> treated with oleaginous and pigmented algae as fish food.”	<u>2010</u>
Nitumani Kalita	“Study on growth behavior and biochemical compounds of microalgae <i>Ankistrodeshmus falcatus</i> under in vitro culture”.	<u>2010</u>
Pranjal kr.Das	“Study on growth behavior and biochemical compounds of microalgae <i>Chlorococcum sp</i> under in vitro culture”.	2009

Pranjal kr.Das	“Study on growth behavior and biochemical compounds of microalgae <i>Chlorococcum sp</i> under in vitro culture”.	2009
Akan Das	“Studies on thermo-stable alkaline Protease enzyme from hot Spring <i>Bacillus</i> sps. of Arunachal Pradesh”.	<u>2008</u>
Kamal Jyoti Borah	Biolarvicidal efficacy of <i>Bacillus sphaericus</i> and a few plant extracts the filarial vector- <i>Culex quin-quefasciatus say</i> ”.	<u>2007</u>
Pinkee Phukan	“Invitro regeneration of <i>Curcuma amada</i> Roxb and its studies on <i>Agrobacterium rhizogenes</i> mediated transformation to augmant hairy root production”.	<u>2005</u>
Pallabi Dutta	“ <i>In vitro</i> regeneration and develop- of callus from leaf and nodal explants of <i>Artemisia annua</i> L”.	<u>2004</u>
Tirthankar Bandyopadhyay	“Tissue culture studies and <i>in vitro</i> micropropagation of <i>Phyllanthus fraternus</i> Webster- a herbal medicinal plant	<u>2004</u>
Anita Das	“Tissue culture studies and <i>in vitro</i> micropropagation of <i>Curcuma zedoaria</i> Rosc. : a herbal medicinal plant of N.E. India”.	<u>2003</u>
Raju Bharali	<i>In vitro</i> clonal propagation and callus induction of <i>Curcuma caesia</i> Roxb. : a rare medicinal plant.	<u>2003</u>
Anamika Baro	<i>In virto</i> micropopagation and tissue culture of <i>Cardiospermum halicacabum</i> :a herbal medicinal plant	<u>2002</u>

Name of the Students	Title	Year
Purabi Deka	Tissue culture studies and <i>in vitro</i> clonal propagation of <i>Spilenthos acmella</i> L. : a herbal pesticidal plant of N.E. India.	<u>2002</u>
Mahua Chakraborty	Tissue culture studies of <i>Rauvolfiaserpentina</i> L. and <i>Sida rhombifolia</i> L.: two highly potent medicinal plants of Assam.	<u>2001</u>
Farhana Rahman Saikia	Micropopagation of <i>Hydrocotyle rotundifolia</i> :apotent herbal medicinal plant.	<u>2000</u>
Sanjib Gayan	Micropagation of <i>Ocimum amaricamum</i> .	<u>1999</u>
Samiron Phukan	Micropagation protocol of <i>Boerhaavia diffusa</i> L. (Punnarnova) : a potent herbal medicinal plant.	<u>1996</u>
Ms. Uma Pathak	<i>In vitro</i> root culture of <i>Boerhaavia diffusa</i> L. and study of the punarnavoside profile.	<u>1996</u>
Alak Chandra Deka	<i>In vitro</i> micropopagation of potent herbal medicinal plant <i>Withania somnifera</i> (Ashwagandha).	<u>1995</u>
Kumari Panchali Divi	Morphogenetic response of transferred embryoids to ME, NAA and BAP of two <i>Citrus</i> species.	<u>1995</u>
Abbas Ahmed	Distribution of Blue Green algae (Cyanobacteria) and other algae in rice fields in an around Jalukbari, Guwahati Assam.	<u>1995</u>
Saswati Paul	Effect of organic supplementa tion on embryogenesis of ovules in certain species of <i>Citrus</i> .	<u>1994</u>
G.C. Goswami	Studies on the effects of different waste materials on biomass yield and total nitrogen accumulation of <i>Azolla pinnata</i> .	<u>1993</u>

Status of Research Projects (Completed)

Sl no.	Title	Sponsored by	Duration	JRF	Amount	Status
1	Investigation on utility of some aquatic plants in removing heavy metal pollutants from the aquatic bodies of Assam. Note: joint project with Dr. A. K. Handique, Deptt. of Biotechnology Gauhati University.	ASTEC (Assam Science Technology and Environment Council), Project No: STE. 187/94/72 dt. 24.10.94	Oct. 1995 to Oct. 1997	One	70,000.00	Completed
2.	Evaluation of <i>Azolla- Anabaena</i> symbionts of N.E. India as low cost biofertilizer for rice and development of a production center for potential strains.	UGC (University Grants Commission), Project No: F-3 – 18/98 (SR-11) Dt. 17.03.98	March 1998 to March 2001	One	4.69,000.00	Completed
3.	Biopesticidal evaluation of plant species used traditionally in N.E. India to control mosquitoes and termites and biochemical characterization of potent species.	DBT (Department of Bio-technology), Project No: BT/Pro 598/AGR/05/026/97 Dt. 01.11.98	Nov.1998 to March 2001	One	9,46,000.00	Completed
4.	Micropopagation and conservation of some important medicinal plants of	DBT (Department of Bio-technology), Project No: BT/PR2557/PBD/1	March 2002 to March	Two	17,76,000.00	Completed

	Arunachal Pradesh. Note: Collaborative project with Dr.P. Dwivedi, Department of Botany, Arunachal University.	7/ 140/2001 Dt. 20/3/02	2005			
5.	Collection, characterization and screening of biodiesel potential micro-algae of Assam.	DRL – T sponsored, Project No DRLT-PI-2007/Task 22	Feb. 2007 to Aug. 2008	One	4,98,000.00	Completed
6	<i>Optimization of Mass Cultivation of a few selected indigenous Microalgae for Biofuel Production</i>	Project No .DRL/1047/TC dated 06.01.2010, Principle Investigator	2 Years(2007-2009)		Rs 8,92,100/-	Completed
7.	Formulation of mosquito repellent and larvicidal bio-pesticide from certain ethno-medicinal plants of N. E. India.	NMPB sponsored, Project No . GO/AS-06/2007	April 2007 to April 2010	One	14,00,000.00	Completed
8.	<i>Algal flora from different habitats of Central Assam and Conservation of collected strains</i>	Funded by Ministry of Environment and Forests (MoEF), Govt. of India, New Delhi C0-PI	3 years (2009 to 2012)		Rs 15,17,520/-	Completed

9.	<i>Creation of facilities for Research and Training in Biomedical and Clinical Science</i> Co-PI	DBT, Govt. of India, New Delhi Sanction No: BT/HRD/01/002/2007 Dated 18/8/2009	5 years (2009 to 2014)		Rs 1,55,00000 /-	Completed
10.	Phytoremediation of arsenic from soil and water using locally available herbal plant species	Funded by: ASTEC, Govt. of Assam	2years (2009 to 2011)		Total fund: Rs 1, 10,000 /-	Completed
11.	<i>Design and development of mass cultivation system of selected oleaginous microalgae of Northeast India for renewable diesel production</i>	DBT, Govt. of India, New Delhi Sanction No: BT/PR1309/PB D/26/266/2011 Dated: 28/2/12	Duration : 3 years (2012 to 2015)	One JRF	Total fund: Rs 5597028/-	Completed
12	Harnessing Oleaginous Microalgal Diversity Of North East India For Development Of Renewable Biofuel Technology And Biomitigation Of Carbon Dioxide	Govt. of Assam Sanction No.: PMA (H)160/2010/83 Dated February 2, 2011	Duration 3 years (2011-2014)	One SRF	Total Fund: 50,00000/[- (Fifty lakhs only)	Completed
13	Screening of indigenous medicinal plant varieties for development of	DBT, Govt. of India, New Delhi(DBT-Twinning programme	3 years (2011 to 2014)	One	Rs 51,000,00 /-	Completed

	potential antimalarial drug/drug intermediates and characterization of potent plant species through DNA bacoading	with RMRC (ICMR), Dibrugarh, Assam: Collaborator PI: Dr Anil Prakash) Sanction No: Sanction No. BT/CP/03/NE/TBP/2010 Dated March 21 st , 2011				
14	Value addition and in vitro induction of active principle in <i>Artemisia annua</i> and <i>Tinospora cordifolia</i> after Co-cultivation with microbial consortium Co-PI	DBT, Govt. of India, New Delhi (DBT-Twining programme with Amity University; Collaborator PI : Prof Ajit Verma) Sanction No: BT/45/NE/TBP/2010 Dated 08/03/2011	Duration : 3 years (2011 to 2014)	One	Rs 60,000,00 /-	Completed
15	Molecular characterization of clinically important bacterial isolates and evaluation of antibacterial efficacy of some indigenous medicinal plants. Co	DBT, Govt. of India, New Delhi (DBT-Twining programme with Gauhati Medical College ; Collaborator PI : Dr N K Hazarika)	3 years (2012 to 2015)	One	Rs 75,000,00 /-	completed

	investigator	Sanction No: BT/213/NE/TB P/2011 Dated 28/11/11				
16	“Molecular profiling of Acute Myeloid Leukemia “,under DBT Twinning project Co-PI	DBT, Govt. of India, New Delhi (DBT-Twinning programme with Gauhati medical college,AIIMS. Co-PI Sanction No: BT/348/NE/TB P/2012 Dated 01/12/2013	3 years(2013 -2016)		Rs.111.70 Lakhs	Completed
17	Understanding host pathogen interaction in <i>Aquilaria malaccensis</i> and molecular mechanism of agarwood formation.	Funding Agency: DBT, Govt. of India Duration: Three years (2013-2016), (Co-PI} Sanction No: BT/PR6346/G BD/27/405/2012 Dated 15/05/2013	3 years (2013-2016)	one	Rs 39, 20,000/- lakhs	Completed
18	Nephroprotective therapeutic validation of	DBT Funded Twing (P) Duration :	One year	three		completed

	ethnomedicinal plants of N E India against cisplatin induced chemotherapeutic toxicity	2013-2014 Collaborators: PGMER Chandigarh and NEIGRIHMS, Shillong Sanction No. BCIL/NER-BPMC/2013/12 12Dated Nov. 12, 2013				
19	Synthesis, characterization and evaluation of anticancer activity of novel bioessential transition metal complexes having tumour targeting and antitumour active ligands(Co-PI)	DBT Funded Twing (P) Duration : 2014-2017 Project no: BT/466/NE/TB P/2013 Dated 12/12/2014	Three years	two	Rs 114.68 lakhs	Completed

20	Integrating herbal medicine of NER with contemporary approaches to develop therapeutic strategies for metabolic syndrome	DBT Funded under NER – DDRC Health SanctionNo. DBT-NER/Health/42/2013 Dated 16/06/2016	Three years 2016 to 2019	two	Rs 24.55 crore	Completed
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21	Integrated	DBT Indo-	Four	two	Rs 2.44	Completed
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	Biorefinery approach towards production of sustainable fuel and chemicals from algal biobased systems	Brazilresearch collaboration SanctionNo. DBT/IC-2/Indo-Brazil/2016-19/04 dated 15/06/2016	years 2016 to 2020		crore	ed
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22	Institutional Biotech HUB (2011 onwards)	Sponsored by DBT , Govt. of India Sanction No: BT/04/NE/2009 September 21, 2010.	Since 2010	1		Ongoing
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23	Quest for Cancer Drugs: Screening and Bioassay Guided Phytochemical Investigation of Selected Endemic Medicinal Plants of Eastern Himalaya.	DBT-Twining Project SanctionNo. BT/PR25181/NER/95/1061/2017 dated 18/09/2018	Three years Oct. 2018 to Oct. 2021	One (JRF)	Rs 1,35,33,988/- crore	Completed
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International Project Completed: (Indo-Brazil) :

Indo-Brazil Research Collaboration under the “Bilateral Scientific and Technological Cooperation between the **Republic of India** and the **Republic of Brazil** in the area of Biotechnology” sanctioned.

The collaboration was aimed on “ Integrated Biorefinery Approach towards production of sustainable fuel and chemicals from Algal biobased systems” submitted jointly by **Prof. M C Kalita** , Department of Biotechnology, **Gauhati University** , Department of Energy, **Tezpur University** and Department of Chemical Engineering, **Indian Institute Technology(IIT)**

Guwahati from **India** and Department of Chemical Engineering, **Federal University Rio de Janeiro** from **Brazil** .

The project has been sanctioned from the Ministry of Science and Technology, Deptt. of Biotechnology, Govt. of India for a period of four years (2016 to 2020).

Research Publications (197)

Area: Microbial Prospecting

2024

1. , Chandana Malakar, Bhaswati Kashyap, Swarnali Bhattacharya, **M C Kalita**, A K Mukherjee and Suresh Deka .Antibiofilm and wound healing efficacy of rhamnolipid biosurfactant against pathogenic bacterium *Staphylococcus aureus*, *Microbial Pathogenesis* 195 (2024) 106855
2. Momlota Potshangbam, P K Mukherjee, **M C Kalita** and Indira Devi S .Endophytes associated with cereal crops and its biocontrol potential against phytopathogen *Pythium ultimum*, *International Journal of Plant Pathology and Microbiology* 2024 4(1) : 106-113

2023

1. Chandana Malakar, Dipumani Barman, **M C Kalita** and Suresh Deka, A biosurfactant producing novel bacterial strain isolated from vermicompost having multiple plant growth promoting traits , *Journal of Basic Microbiology* 2023, 1-13
2. Priyanka Sarkar 1,2 , Raghuram Kandimalla 3 , Anupam Bhattacharya 1 , Romi Wahengbam 4 , Madhusmita Dehingia 1 , **Mohan Chandra Kalita** 5 , Narayan Chandra Talukdar 1,6 Rupjyoti Talukdar 2 and Mojibur R. Khan 1,* Multi-Omics Analysis Demonstrates the Critical Role of Non-Ethanollic Components of Alcoholic Beverages in the Host Microbiome and Metabolome: A Human- and Animal-Based Study *Microorganisms*, 2023, 11, 11501. Impact Factor 4.9

2022

1. Chandana Malakar, Suresh Deka and **M C Kalita**, Inhibition of *Staphylococcus aureus* Producing Biofilm by Rhamnolipid Biosurfactant *AMRIT:Annals of Multidisciplinary Research, Innovation and Technology* 1(1) 2022: 18-22
2. Rupsikha Patowary, K Patowary, **M C Kalita** ,S Deka, J M Borah, S J Joshi , Ming Zhang, W. Peng, G Sharma, J Rinklebe and Hemen Sarma, Biodegradation of hazardous naphthalene and cleaner production of Rhamnolipids: Green Approaches of pollution mitigation, *Environmental Research* 112875, 2022 **IF 6.49**

3. Arun Kumar, Tulsi Joishy, Santanu Das, **M C Kalita** , A K Mukherjee and M Khan, A Potential Probiotic *Lactobacillus plantarum* JBC5 Improves Longevity and Healthy Aging by Modulating Antioxidative Innate Immunity and Serotonin Signaling Pathways in *Caenorhabditid elegans*, *Antioxidants* 2022, 11, 268 **IF 5.90**
4. **Rupsikha Patowary, K Patowary, M C Kalita, S Deka, Su Shiung Lam and Hemen Sarma, Green production of noncytotoxic rhamnolipids from Jackfruit waste: process and prospects , Biomass Conversion and Biorefinery, Springer published online: 17th February 2022 : IF 4.99**

2021

1. Ng Ngashangva, Pulok Mukherjee, K. Chandradev Sharma, **M. C. Kalita** and Sarangthem Indira, Analysis of Antimicrobial Peptide Metabolome of Bacterial Endophyte isolated from Traditionally used Medicinal plant *Millettia pachycarpa* Benth *Frontiers in Microbiology* Vol 12 Article 656896 **IF 5.64**
2. Iftikar Hussain, Probodh Borah, Isfaqul Hussain , Rajib Kr Sarma and **M C Kalita**, Densitometric analysis of rep-PCR data: Insight into genetic variability and transmission of *Clostridium perfringens* typed with an improved multiplex PCR, *Anaerobe*, 70 , August 2021, 102383

2020

1. Joyashri Das, Sabira Sultana, Krishnappa Rangappa, **M. C. Kalita** and D Thakuria, Endophyte bacteria Alter Physiological Traits and promote growth of Rice (*Oryza sativa* L) in Aluminium toxic and Phosphorous deficient acid Inceptisols , *J. Pure Appl. Microbiol.* **14(1)** 627-639, 2020

2019

1. Phazna Devi, Dinabhandu Sahoo, Aravind Setti, **M C Kalita** and Indira Devi , Characterization of plant growth promotion and disease control trends of Rhizobacteria Isolated from Umorok (*Capsicum chinense*) *International Journal of Chemical Studies*, 2019, 7(2): 313- 321
2. Phazna Devi, Dinabhandu Sahoo, Indira Devi Aravind Setti, **M C Kalita** and, Aravind Setti .Rhizobacterial isolates of *Capsicum chinense* inhibitewd fungal pathogen *Rhizoctonia solani*, *International Journal of Scientific Research in Biological Sciences* ,6(1) 112-117, 2019
3. Rabiya Sultana, N C Adhikary, **M C Kalita**, N C Talukdar and M R Khan, Study of the Efficiency of a Double-chambered Microbial Fuel Cell using *Ctrobacter* sp. *International Journal of Scientific Research in Biological Sciences* **6(1)** P. 01-09, 2019

- 4.. Rabiya Sultana, N C Adhikary, **M C Kalita**, N C Talukdar and M R Khan Use of Glycerol as Substrate for Electricity Generation using Citrobacter sp. In a Double Chambered Microbial Fuel Cell. *Journal of Biological Engineering Research and Review* **6(1)** P. 14-20, 2019
- 5 Manas Majumder, Navneet Hazarika, **M C Kalita** and K K Saikia , Prevalence of Methicillin Resistant Staphylococcus aureus in Community and Hospital Environment in Assam, *International Journal of Pharmacy and Biological Sciences (IJPBS)* 2019 **9(2)** : 156-163

2018

1. Momota Potshangbam, D. Sahoo, P. Verma, S. Verma, **M. C. Kalita** and S Indira Devi . Draft genome sequence of Bacillus altitudinis Lc5, a Biocontrol and Plant Growth Promoting Endophyte Strain isolated from indigenous Black Rice of Manipur, *Genome, American Society for Microbiology*, 6(26) P 1-18 , 2018 **Impact Factor 2.166**
2. Kaustuvmani Patowary, Moonjit Das, Rupsikha Patowary ,**Mohan Chandra Kalita** and Suresh Deka . Recycling of Bakery Waste as an Alternative Carbon Source for Rhamnolipid Biosurfactant Production ,*J Surfact Deterg* (2018) DOI 10.1002/jsde.12242
3. Rupshika Patowary, Kaustuvmani Patowary, **Mohan Chandra Kalita**, Suresh Deka. Application of biosurfactant for enhancement of bioremediation process of crude oil contaminated soil .*International Biodeteriation and Biodegradation* (2018)doi.org/10.1016/J.ibiod.2018.01.004 **Impact Factor of 2.962**
4. Sanasam Shantibala Devi, Nongthombam Grihalakshmi Devi, **Mohan Chandra Kalita**, Narayan Chandra Talukdar. Isolation and srlection of cellulose degrading microorganisms for utilization along with eatyhworms in efficient conversion of municipality waste mix to compost. *Current Science* (2018) Vol. 114, No. 6. Pg 1261-1274. **Impact Factor – 0.926**
5. Phazna Devi, Aravind Setti ,**M C Kalita** and, Indira Devi, Rhizobacterial Diversity of Umorok in Juvenile Flowering and Fruiting Stages, *International Journal of Plant Biology and Research* 6(3) :1093

2017

1. Elizabeth Thokchom, Dwipendra Thakuria,**Mohan Chandra Kalita**, Chandradev K.Sharma and Narayan Chandra Talukdar. Root colonization by host- specific rhizobacteria alters indigenous root endophyte and rhizosphere soil bacterial communities and promotes the growth of mandarin orange. *European Journal of soil biology* Volume 79. 2017. **Impact Factor of 2.445**

2. Kaustuvmani Patowary, Rupshika Patowary, **Mohan Chandra Kalita** and Suresh Deka. Characterization of biosurfactant produced during degradation of hydrocarbons using crude oil as sole source of carbon. *Frontiers in Microbiology* volume 8 Article 279. **Impact Factor of 4.165**

2016

1. Rupshika Patowary, Kaustuvmani Patowary, **Mohan Chandra Kalita**, Suresh Deka. Utilization of panner whey waste for cost effective production of Rhamnolipid Biosurfactant. *App. Biochem Biotechnol.* 2016. **Impact Factor 1.751**
1. Kaustuvmani Patowary, Rupshikha Patowary, **Mohan C.Kalita** and suresh Deka. Development of an efficient Bacterial consortium for the potential Remediation of hydrocarbons from contaminated sites. *Frontries in Micrbiology.* Volume 7. 2016. **Impact Factor of 4.165**
2. R Patowary, K Patowary, **M C Kalita** and S Deka (2016) Utilization of paneer whey waste for cost- effecteive production of rhamnolipid biosurfactant. *Appl Biochem Biotechnol.* DOI 10.1007/s12010-016-2105-9 **Impact Factor 1.751**
3. Hijam S Devi, **M C Kalita** and N C Talukdar (2016) Isolation and identification of cellulose producing actinomycetes bacterium CAE 44 (KU519614) from the gut contents of the earthworm, *Perionyx excavates* EM2 (KT716822). *International Journal of Scientific Research* Vol 2 (2): 194-196
- P Sharma, **M C Kalita** and D Thakur (2016) Broad spectrum antimicrobial activity of forest derived soil actinomycete, *Nocardia* sp. PB- 52. *Frontiers in Microbiology* Vol 7: article 347 **Impact Factor of 4.165**

2015

1. Yogesh B Chaudhari, N C Talukdar, N C Adhikary, **M C Kalita** and M R Khan ((2015) Rice straw based evaluation of lignolytic and cellulolytic capabilities of novel strains of saprophytic fungi from Indo-Burma biodiversity Hotspot. *Energy Fuels* 29: 784-792 **IF-2.853**
2. K Patowary, **M C Kalita** and S Deka (2015) Degradation of polycyclic aromatic hydrocarbons (PAHs) employing biosurfactant producing *Pseudomonas aeruginosa* KS3 *Indian Journal of Biotechnology* Vol 14 : 208-215 **(IF- 1.22)**

S Goyari, SH Devi, L Bengyella, M Khan, C K Sharma, **M C Kalita** and N C Talukdar (2015) Unveiling the optimal parameters for cellulolytic characteristics of *Talaromyces verruculosus* SGMNPF3 and its secretory enzymes. *Journal of Applied Microbiology* 119: 88-98 **Impact Factor of 2.386**

3. D Baishya, Pori Deka and **M C Kalita** (2015) *In vitro* co-cultivation of Piriformospora indica filtrate for improve biomass productivity in *Artemisia annua* , *Symbiosis* , DOI 10.1007/s13199-015-0331-5 **Impact Factor; 1.300**

2014

1. Thokchom E, **Kalita MC**, Talukdar NC. Isolation, screening, characterization and selection of superior rhizobacterial strains as bioinoculants for seedling emergence and growth promotion of Mandarin orange (*Citrus reticulata* Blanco) . *Canadian journal of Microbiology* 2014 ,vol 60. pp 85-92. **(IF- 1.199)**
2. Goyari S, Devi S S, **Kalita M C** and Talukdar N C (2014) Population , diversity and characteristics of cellulolytic microorganism from Indo-Burma biodiversity Hotspot *Springer Plus* 3 :700 **Impact Factor 0.982**
3. Sharma P, Das R, **Kalita M.C** and Thakur D (2014). Investigation of the extracellular antifungal proteinaceous compound produced by *Streptomyces* sp. 5K10. *Africal journal of Microbiological Research*, Vol. 8(10), pp 986-993. **(IF - 0.54)**
4. Patowary K, Saikia R.R, **Kalita M.C**, Deka S (2014). Degradation of the polyaromatic hydrocarbon employing biosurfactant- producing *Bacillus pumillus* KS2. *Annals of Microbiology* ,Springer. DOI 10.1007/s13213-014-0854-7. **(IF- 0.99)**
5. Khan M.H, Meghvansi M.K, Gupta R , Veer V, Singh L, **Kalita M.C** (2014). Foliar spray with Vermiwash Modifies the Arbuscular Mycorrhizal Dependency and Nutrient Stoichiometry of Bhut Jolokia (*Capsicum assamia*). *PLOS ONE* , Vol 9, Issue 3, e92318. **(IF- 3.23)**

2012

1. Gargi chakravarty and **M.C.Kalita**. Biocontrol potential of *Pseudomonas fluorescences* against bacterial wilt of Brinjal and its possible plant growth promoting effects. (2012). Scholars Reseach library, *Annals of Biological research*, 3(11):5083-5094.

2011

1. Gargi Chakravarty and **M. C. Kalita** (2011) Comparative evaluation of organic formulations of *Pseudomonas fluorescens* based biopesticides and their application in the management of bacterial wilt of brinjal (*Solanum melongena* L.). *African J. Biotech.* 10(37): 7174-7182. (IF- 0.57)
2. Gargi Chakravarty and **M. C. Kalita** (2011) Management of bacterial wilt of brinjal by *P. fluorescens* based bioformulation; *ARNP Journal of Agricultural and Biological Science* :6(3) :1-11.
3. I M Singha, Y Kakoty, B G Unni, **M C Kalita**, J Das, A Naglot, S B Wann and L Singh(2011)Control of Fusarium wilt of tomato caused by *Fusarium oxysporum* f. sp. *Lycopersici* using leaf extract of *Piper betle* L. : a preliminary study.*World J Microbiol Biotechnol.*DOI 0.1007/s11274- 011-0730-6(IF-1.3)

2010

1. I M Singha, B G Unni Y Katakya J Das S B Wann L Singh and **M C Kalita** (2010) Evaluation of in vitro antifungal activity of medicinal plants against phytopathogenic fungi. *Archives of Phytopathology and Plant Protection* 44(11) :1033-1040**Impact 0.290**
2. B.Choudhury, P. Azad, **M.C. Kalita** (2010) Variability in Symbiotic Effectiveness of Native Rhizobia in Acid Stress. *Curr. Microbiol.*(Springer) 61: 85-91(IF – 1.4)
3. B.Choudhury, **M.C. Kalita** and P. Azad (2010) Distribution of arbuscular mycorrhizal fungi in marshy and shoreline vegetation of Deepar beel (Ramsar site) of Assam, India. *World J. Microbiol. Biotechnol.*(Springer): DOI 10.1007/s11274-010-0377-8 (IF-1.779)

2009

1. Dwipendra Thakuria, Narayan C. Talukdar, Chandan Goswami, Samarendra Hazarika, **Mohan C. Kalita** and Gary D. Bending(2009) Evaluation of rice- legume-rice cropping system on grain yield, nutrient uptake, nitrogen fixation and chemical, physical, and biological properties of soil.*Biol. Fertil. Soils* 45: 237-251. (IF- 3.39)

2008

- 1 Novonita Baruah, A.C. Deka, **M.C.Kalita** and J. C. Kalita (2008) Laboratory evaluation of entomopathogenic fungus *Beauveria bassiana* on Red spider mite(*Oligonychus coffeae*, Nietner), a major pest of tea. *The Bioscan* 3(3) : 277-282.
- 2 Bora L. and**Mohan C Kalita**(2008) Production of thermostable alkaline lipase on vegetable oils from a thermophilic *Bacillus* sp. DH4, characterization and its potential applications as detergent additive.*J. Chemical Technology and Biotechnology* 83:688-693(IF- 2.349)

2007

- 1 Bora L and **Kalita M C** (2007) Thermozyms: An area of potential research (Scientific Correspondence) *Current Science***93(5)**: P 593(**IF – 0.926**)
- 2 Bora L and Kalita M C (2007) Occurrence and extracellular enzymatic activity profiles of bacterial strains isolated from hot springs of West Kameng District of Arunachal Pradesh. *The Internet Journal of Microbiology* 4(1): 1-5

2006

- 1 Bora L, Kar A , Baruah I and **Kalita M C** (2006) Hot springs of Tawang and West Kameng district of Arunachal Pradesh (Scientific Correspondence) *Current Science***91(8)** :1011-1013(**IF –0.926**)
- 2 Bora L and **Kalita M C** (2006) Study of metal ions stabilization on the lipase activity of *Bacillus* sp. Isolated from Hot Springs of Arunachal Pradesh, India. *J. Appl. Biosci. Biotech.* **2(2)** : 37-40 . (**IF – 0.574**)
- 3 L. Bora, H. K. Gogoi and **M.C.Kalita** (2006) Production and properties of extracellular lipase from thermophilic *Bacillus* strain LBN12 isolated from hot spring of Arunachal Pradesh, India. *J. Cell and Tissue Research***6(1)**: 573-576.

2005

1. J. Sarma, B. G. Unni, R. Sarma, S. B. Wann, U Bora and **M C Kalita** (2005) Induction of bactericidal immune protein in the haemolymph of muga silkworm, *Antheraea assama* *Indian J Microbiology***45(4)**: 273-276. (**IF – 0.899**)
2. J. Sharma, Archana Yadav, B. G. Unni and **M. C. Kalita** (2005) Antibacterial proteins from non-mulberry silkworms against flacherie causing *Pseudomonas aeruginosa* AC-3, *Current Science***89(9)** :1613-1618 .(**IF- 0.926**)

Area: Plant Tissue Culture

2018

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6. **M.C. Kalita** (1993). Effect of Terramycin on germination and early seedling growth of wheat (*Triticum aestivum*). *Mendel* **10(1)**: 19-20.

1992

1. **M.C. Kalita** and C.M.Sarma (1992). Influence of phosphorus on biomass yield, chlorophyll content and nitrogen accumulation of *Azolla pinnata*. *Gau. Univ. J. Sci.* **31** : 37-39.
2. **M.C. Kalita** and N.Bora (1992). Rhizosphere mycoflora of *Desmodiumtriflorum* L. *J. Curr. Biosci.* **9(4)**: 127-130.

1987-1991

1. **M.C. Kalita** and C.M.Sarma (1991). Studies on the effects of aldrin on growth and certain biochemical parameters in *Azolla-Anabaena* symbionts. *J. Assam Sci. Soc.* **33(4)** : 16-22.
2. **M.C. Kalita**; Geeta Sarma and P. Hajarika (1990).Study of micro-fungi in some vegetables markets of Guwahati. *Mendal* **17(3-4)** :385-388.
3. **M. C. Kalita**; A.K.Buragohain and N.Bora (1987).Effect of malathion on green gram *Vigna radiata* L. *J. Assam Sci. Soc.* **29 (4)**:34-37

Area: Microalgal biofuel technology

2020

I.Minakshi Gohain et al . Rhodotorula mucilaginosa : A source of heterogenous catalyst for biodiesel production from yeast single cell oil and waste cooking

oil, *Renewable Energy*(Elsevier Ltd) 0960-1481/2020

2. Velentina Daset *al.* Cobalt- doped CaO catalyst synthesized and applied for algal biodiesel production , *Renewable Energy* (Elsevier Ltd.)

3. Banashree Sharma , P. Paul, A Devi, **M C Kalita**, D Deka and V Goud , Cost effective biomass production of *Chlorella homosphaera* and *Scenedesmus obliquus*-two biofuel potent microalga from N E India, *Asian J. Microbiol. Biotech. Env. Scii* 22(3), 486-490

2019

1. Velentina Das, Anuchaya Devi, Rengonee Das, **M. C. Kalita** and Dhanapati, Deka, Microalgal lipid augmentation of *Chlorella* sp. and algal biodiesel Production using CaO as catalyst: A green outlook, *Journal of Algal Biomass Utilization* 2019, 10(1), 43-53

2015

1. Chungkham Silvia, Wankhem Indira Devi, Gunapati Oinam, Oinam Avijeet sing, **M. C Kalita** et al., pigment production and growth metabolites amongst Nostoc Strains of unexplored areas of Manipur, India falling under Indo - Burma biodiversity hotspots. 2015. 3(10) 1752 – 1761.
2. Studies on bioflocculant exopolysaccharides production by *Lyngbya* sp. BTA166 and *Anabaena* Sp. BTA35. Romi Khangembam, **M.C Kalita** et al, 2015. *Annals of Biological Research*. 6(11); 47-54.

2014

1. Talukdar J, **Kalita M.C**, Goswami B.C, Hong D.D and Das H.C (2014). Liquid hydrocarbon production potential of the novel strain of the microalga *Botryococcus braunii* Kutzing: Assessing the reliability of in situ hydrocarbon recovery by wet process solvent extraction. *Energy & fuels*, 28 (6): 3747-3758 dx.doi.org/10.1021/ef402298r. (IF -2.79)

2013

1. Talukdar J, **Kalita M.C**, Goswami B.C (2013). Characterization of the biofuel potential of a newly isolated strain of the microalga *Botryococcus braunii* Kutzing from Assam, India. *Bioresource Technology* 149 (1) 268 – 279 ,140(2013)268-275. (IF- 4.49)

2012

1. R C D Goswami, N Kalita and **M C Kalita** (2012). A study on growth and carbon dioxide mitigation by microalgae *Selenastrum* sp.: its growth behavior

under different nutrient environments and lipid production. *Annals of Bio. Res*, 3 (1):499-510.

2. Jayanta Talukdar, **Mohan Chandra Kalita** and Bhabesh Chandra Goswami. Effects of salinity on Growth and total lipid content of the Biofuel potential Microalga *Ankistrodesmus falcatus* (Corda) Ralfs June 2012 *International journal of scientific and Engineering Research*. Volume 3, Issue 7.
3. Jayanta Talukdar, **Mohan Chandra Kalita** and Bhabesh Chandra Goswami. Influence of Dissolved Inorganic Carbon and nitrogen sources on growth, total lipid content and calorific value of the freshwater Oleaginous Microalgae *Ankistrodesmus falcatus* (Corda) Ralfs. (2012). *Environmental Research, Engineering and management* no 3 (61), P 14-25.
4. Jayanta Talukdar, **Mohan Chandra Kalita** and Bhabesh Chandra Goswami. Growth, total lipid content and fatty acid profile of a Native Strain of the Freshwater Oleaginous Microalgae *Ankistrodesmus falcatus* (Ralf) grown under salt stress condition. (2012). *International Research Journal of Biological sciences*. Vol 1 (7), 1-6.

2011

1. S Kaur M Sarkar R B. Srivastava H K. Gogoi **M C. Kalita** (2011) Fatty acid profiling and molecular characterization of some freshwater microalgae from India with potential for biodiesel production. *New Biotechnology*, 15: 29 (3): 332 – 44, DOI: 10.1016/j.nbt.2011.10.009. **(IF-2.88)**
2. R C D Goswami and **M C Kalita** (2011) *Scenedesmus dimorphus* and *Scenedesmus quadricauda* : two potent indigenous microalgae strains for biomass production and CO₂ mitigation - A study on their growth behavior and lipid productivity under different concentration of urea as nitrogen source. *J. Algal Biom. Util.* 2(4): 42-49.
3. R C D Goswami and **M C Kalita** , J. Talukdar, R. Bora and P. Sharma (2011) Studies on the growth behavior of *Chlorella*, *Haematococcus* and *Scenedesmus* sps. in culture media with different concentrations of sodium bicarbonate and carbon dioxide gas. *African J. Biotech.* 10 (61) 13128-13138. **(IF- 0.657)**
4. S Kaur, **M C Kalita**, R B Srivastava and C Spillane (2011) Eco-Physiological Barriers and Technological Advances for Biodiesel Production from Microalgae. *Biodiesel-Feedstocks and Processing Technologies*, Margarita Stoytcheva and Gisela Montero (Ed.), ISBN: 978-953-307-713-0.

5. N Kalita, G Baruah, R C D Goswami, J Talukdar and **M C Kalita** (2011) *Ankistrodesmus falcatus*: A promising candidate for lipid production, its biochemical analysis and strategies to enhance lipid productivity . *J. Microbiol. Biotech. Res.* 1 (4): 148-15. **(IF- 1.525)**

2010

1. Simrat Kaur, H.K. Gogoi, R.B. Srivastava and **M.C. Kalita** (2010) Algal Biodiesel: Procedures and Resources for Laboratory Study. *Algal Biotechnology: New Vistas*, Ed: M K Das, Pub: Daya Publishing House, New Delhi
2. J. Talukdar, A. Difusa, **M.C.Kalita**, and B.C.Goswami (Abstract proceeding) Isolation and characterization of fatty acid methyl esters of a native freshwater microalgae *ankistrodeshmus falcatus* of Assam for their for its potential biotechnological application.

Area: Nanobiotechnology

2023

1. Rajesh Dev Sarkar and Mohan Chandra Kalita (2023) Alleviation of salt stress complications in plants by nanoparticles and the associated mechanisms : An overview, *Plant Stress* 7 100134

2021

1. Rajesh Dev Sarkar, Prianka Lahkar and **M C Kalita** (2021) Glycosmis pentaphylla (Retz) DC leaf extract mediated synthesis of selenium nanoparticle and investigation of its antibacterial activity against urinary tract pathogens, *Bioresource Technology Reports (ELSEVIER)* 17(2022) 100894
 2. Rajesh Dev Sarkar, H B Singh and **M C Kalita** (2021) Enhanced lipid accumulation in microalgae through nanoparticle mediated approach for biodiesel production : A mini review, *Heliyon* , www.cell.com/heliyon
 3. Dipjyoti Kalita, H Rajbanshi, N. Debi, **M C Kalita** and S Baruah (2021) Biosynthesis and characterization of *Gynocardia odorata* R. Br. Mediated silver nanoparticles and evaluation of its antimicrobial activities , *Plant Science Today* , 81(4) 754-761
4. C. Kalita, R D Sarkar, V. Verma, S K Bharadwaj, **M C Kalita**, P K Boruah, M R Das and P. Saikia, Bayesian Modeling Coherenced Green Synthesis of NIO Nanoparticles using *Camellia*

sinensis for efficient antimicrobial activity , *Bionanoscience(Springer published) online*, 25June, 2021

5. Subhankar Das, Rantumoni Sharma, M I Kalyani ,Namita Nath, **M C Kalita**

and Susmita Shukla, Sunlight driven biosynthesis of silver nanoparticles using aqueous stem extract of *Tinospora sinensis* and evaluation of its catalytic and antibacterial activity, *Biomedicine*, 2020 40(3) :301-308

2019 1.Subhankar Das, Vishal Gupta, Manjula I Kalyani, **M C Kalita** and Sushmita Shukla (2019)Biological synthesis and characterization of silver nanoparticles using stem extract of *Langenaria siceraria* and their antibacterial activity against *Escherichia coli* *Biomedicine* 2019, 39(4) :580-586

2018

1. Subhankar Das, **Kalita M C** and Shukla Susmita(2018)Rapid biosynthesis of silver nanoparticles using leaf extract of Brassica oleracea and their antimicrobial activity against bacteria *World Journal of Phaemacy and Pharmaceutical Sciences* 7(8): 1135-1145

2016

1. B K Nath, C Chaliha, E Kalita and **M C Kalita** (2016) Synthesis and characterization of ZnO:CeO₂ : nanocellulose:PANI bionanocomposite, A biomodel agent for arsenic absorption and antibacterial action, *Carbohydrate Polymers*: 148 (2016) 397-405

2014

1. Banerjee M, Dey B, Talukdar J, **Kalita M.C**(2014). Production of biodiesel from sunflower oil using highly catalytic bimettalic gold-silver core – shell nanoparticle. *Energy*, 69, (2014): 695- 699.(**IF-4.884**)

2013

1. M K Baishya, D Baishya and **M C Kalita**(2013) Biogenesis of silver nanoparticles using *Alternanthera ficoidea* leaf extract and its antibacterial potential *Int. J. Pharm Bio Sci* 4(3) :104-110. (**IF – 0.28**)
2. Bornali Baishya and **M C Kalita**(2013) Green synthesis of gold nanoparticles using Musa balbisiana bract extract *Int. J. Pharm Bio Sci* 4(3) :873-88. (**IF – 0.28**)

2011

1. P J Babu, P Sharma, **M C Kalita** and U Bora (2011) Green synthesis of biocompatible gold nano particles using *Fagopyrum esculentum* leaf extract. *Front. of Mat. Sci.* 5(4): 379-387.

Area: Metabolic Syndrome

2018

1. Purabi Sarkar, Ananya Bhowmick, **Mohan Chandra Kalita**. Effects of reserveratrol and mangiferin on PPAR γ and FALDJ gene expressions in Adipose Tissue of Streptozotocin-Nicotinamide induced diabetes in Rats. *Journal of Dietary Supplements*, (2018): 1-17.

Area - Bioinformatics

2016

Akan Das, Purabi Das, **M C Kalita** and T K Mandal (2016) Computational Identification, Target Prediction and Validation of Conserved miRNAs in Insulin Plnt (*Costus pictus*), *Appl Biochem Biotechnol* : 178 :513-526

2017

1. S Talukdar, D.J.Das, **M.C.kalita** and K.K.Saikia. (2017). Glucocorticoid mediated specific regulation of Calcium channel: An in silico study. *International journal of Applied and pure science and agriculture*. **3(4)**.

2015

1. Akan Das, Sumi Choudhury, **M C Kalita** and T K Mondal (2015) In Silico identification , characterization and expression analysis of miRNAs in *Cannabis sativa* L. *Plant Gene* (ELSEVIER) 2 : 17-24.(**IF- 1.477**)
2. Akan Das, Purabi Das, **Mohan C.Kalita** and Tapan K.Mandal. Computational identification, Target prediction and validation of conserved mi RNAs in insulin plant (*Costus pictus* D.Don). *Applied Biochemistry and Biotechnology*. 10. 1007/s12010-015-1891-9. Springer. 2015. (**IF 1.735**)

Area: Miscellaneous

2017

1. Sandipan Talukdar, Deep Jyoti Das, **M C Kalita** and K K Saikia (2017) Glucocorticoid mediated specific regulation of Calcium Channel : An *In Silico* study International Journal of Applied and Pure Science and Agriculture Vol 3 (8) .

20161. R Khangembam, Onkar N Tiwari, **M C Kalita** (2016) Production of exopolysaccharides by the cyanobacterium *Anabaena* sp. BTA992 and application as bioflocculants. *Journal of Applied Biology and Biotechnology* Vol 4 (01): 8- 11

20151.Minali Baishya and **Mohan Chandra Kalita** (2015). Phytoremediation of crude oil contaminated soil using two local varieties of castor oil plant (*Ricinus communis*) of Assam. *Int. J Pharm Bio Sci* 6(4) 1173 – 1182.

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Bagchi B, **Kalita M.C** and Deka BC.A study of the change of physicochemical properties of Sohiong (*Prunus nepalensis*) during maturation.*International journal of horticulture & crop science research*. 2014, Vol 4, number 1, pp 19-92.

2011-2013

1. Bandita Bagchi, Bidyut C. Deka, **Kalita M.C**. Preparation of fruit wine from *Prunus Nepalensis* for utilization of over-ripe fruit. (2013). Proceeding of 3rd INCOFTECH.
2. Ahmed P, Bhagwati P, Das S.K, Das S and **Kalita M.C** (2013). Hypersensitive reaction and anatomical changes of young tea leaf (*Camellia Sinensis*, clone TV1) during feeding by tea mosquito bug (*Helopeltis theivora* Waterhouse: Hemiptera : Miridae). *International journal of current Microbiology and Applied Sciences* , ISSN: 2319-7706 Volume 2 Number 8 (2013).
3. V K Gupta, P Chattopadhyay, **M C Kalita**, A K Chaurasia, H K Gogoi, L Singh (2011) Isolation and determination of deoxynivalenol by reversed-phase high-pressure liquid chromatography. DOI: 10.4103/2229-4708.81087. *Pharmaceutical Methods*, 2(1), 25–29.

2001-2003

1. D. Chaudhuri, **M.C. Kalita** and B.C.Goswami (2003) Effect of altitude on rubber yield and its components of some *Hevea* clones under two agroecoregions of India; *Indian Agric.* **47**(3&4) : 179-191.
2. A.K.Bhagabati and **M.C. Kalita** (2003) Linking of major rivers of India: Natural and human implications. *Proc. National Seminar on Linking the Major Rivers of India: Possibilities and Apprehensions*, 2003, Assam Science Society: PP 46 –54.
3. M. Deka and **M. C. Kalita** (2001) Impact of milk processing environment on qualities of yogurt. *Proceedings of International Congress of Chemistry and Environment*. Indore. pp 189 –.

BOOKS PUBLISHED/UNDER PUBLICATION(7 books published)

❖ **Biodiversity and Environmental Biotechnology**

Published in 2007 by Scientific Publishers (India), Jodhpur (Price Rs 1650/-).

❖ **Biodiversity of Assam : Status , strategy and action plan for conservation**

Published in 2006 by EBH Publisher, Panbazar, Guwahati 1 (Price Rs 1195).

❖ **Biofertilizer** (a popular book in assamese language)Published by Assam Science Society in 1996

❖ **Biodiversity** (a popular book in assamese language) Published by Assam Science Society in 2014

❖ Popular book on the **Discovery of Chemical Elements** in Assamese language ,published by Bhabani Offset Pvt. Ltd. 2017

❖ **Studies on Medicinal and Aromatic Plants** (ISBN 978-1-913482-36-7): Published by Rubicon Publications, London, WCIA 2RP, England, 2021

❖ **Wild Edible Bioresources of North East India (Edited)** (ISBN: 978 93 90434 589)Published by EBH Publishers (India) 2021

❖ Organic Farming (in progress).

❖ **Green Energy** (in progress)

Books published under the Convenership (2015-2017) of Publication Sub-Committee of Assam Science Society:

❖ **NOBEL LAUREATES (1901- 2015)** : A book on Nobel Laureates from 1901 to 2015 , published by Assam Science Society in **2015**

❖ **Modern Agriculture** by D N Chakravorty, **2018**

❖ **History of Assam Science Society , 2018**, Compiled and Edited by Khiradhar Barooa and P awan Mahanta

BOOK CHAPTERS 14

- Rantumoni Sharma, S Das, R D Sarkar, H J Kro, N. Devi, Namita Nath, **M. C. Kalita** and M I Kalyani (2021)Taxonomic and biochemical profiling of some wild species of Solanaceae from Jalukbari, Assam, in *Studies in Medicinal and Aromatic Crops* (Editor Dr Sougata Sarkar) published by Rubicon Publications, p. 355-393 .
- Trishnamoni Gautom^{1*}, Dibya Jyoti Hazarika², Priyadarshini Dekal, Robin Chandra Boro², **Mohan Chandra Kalita**³ (2021) An Insight into Citrus Pathology, Agrobios Research: An Imprint of

Agrobios (India), Jodhpur (2021) In: Sampat Nehra, (eds) *Plant Pathogen, Pathogenesis and Management*, p. 331-372

- Jinu Medhi and **Mohan Chandra Kalita**, 2021 Nut Phytonutrients for Healthy Gut: Prebiotic Potential published in Nuts and Nuts Products in Human Health and Nutrition published *online book.department@intechopen.com*
- Jinu Medhi, Jintu Dutta and **Mohan Chandra Kalita** 2021 Biomonitoring Ecosystem: Modelling Relationship with Arthropods in Arthropods : Are They Beneficial for Mankind ? published online *book.department@intechopen.com*
- Jayashree Dutta and **M C Kalita** (2019) Anti-Hyperglycemic Plants of North East India: A Review , Medicinal ,Aromatic and Spice Plants(Traditional Knowledge, Chemistry and Agrotechnology) Edited by Akhil Baruah and published by EBH Publishers,Guwahati , Assam :India
- **M C Kalita** and Jayanta Talukdar (2016) BIOFUEL : a new option to Fossil Fuel, HORIZON, 154- 166 , book published by Jagoroad College, GU
- J. Talukdar , A Diffusa, **M C Kalita** and B C Goswami (2012) Harnessing Freshwater Oleaginous Microalgal Resources of Assam for sustainable Biodiesel production; Renewable Energy & Sustainable Development (Editors: Rupam Kataki and A C Borah) published by EBH Publishers,India
- J. Talukdar and **M. C. Kalita** (2011) Prospects of Microalgae of North East India for biodiesel production; *Algal Biofuel* (Ed: S K Bhatnagar , A Saxena and S Kraan) published by Studium Press(India) Pvt. Ltd : P 69-90.
- Simrat Kaur, H K Gogoi, R B Srivastava and **M C Kalita** (2011) Wetlands of Assam : Exploration of indigenous microalgae for biodiesel production; *Algal Biofuel* (Ed: S K Bhatnagar , A Saxena and S Kraan) published by Studium Press(India) Pvt. Ltd : P 103 - 109.
- Tissue culture studies of Medicinal Plants (2007) *Recent Progress in Medicinal Plants, 16 Phytomedicines* (Edited by Govil J. N., Singh V. K. and Bhardwaj R) Studium Press LLC, USA.
- Genetically Modified Organisms (2007) *Biodiversity and Environmental Biotechnology*, Published in 2007 by Scientific Publishers (India), Jodhpur.
- Organic Farming (2007) *Biodiversity and Environmental Biotechnology*, Published in 2007 by Scientific Publishers (India), Jodhpur.
- Nature: knowing by doing (Edited by B. Deka, 2004, published by Assam Science Society).
- Perspectives in Agroecosystem (Edited by Arvind Kumar, 2003).

- Ecology and Ethology of Aquatic Biota (Edited by Arvind Kumar, 2002).

Report Published

I had been the State **Coordinator (2000 to 2002)** on behalf of the Assam Science Society towards the preparation of report on State Biodiversity Strategy & Action Plan (**SBSAP**) for the State of Assam; which was under the National Biodiversity Strategy & Action Plan (**NBSAP**)-India. The project was funded by UNDP/GEF and executed by Ministry of Environment & Forests, Govt. of India.

The state report had been published in **April 2002** covering the status of biodiversity of Assam along with the suggestions of action strategies to be implemented for sustainable conservation of state bioresources.

Publications (Edited)

- ✚ **Editor, *Journal of Assam Science Society* 5 issues viz. JASS Vol.52(1)June , 2011, 52(2),Dec. 2011,52(2) Special issue, Dec. 2011 , 53(1),June 2012, 53(2) Dec. 2012**
- ✚ ***J. Applied Biosciences & Biotechnology*(2006)**A publication of North East Biotechnological Association (NEBA).
- ✚ ***Proceedings*(2006)**of the National Seminar on Biodiversity Conservation and Future Concern (17- 18 June 2005, organized by NEBA,Gauhati University).
- ✚ ***PRAJNA, Vol. 14* (2004-05);** an Annual Journal published by Gauhati University Teachers Association (GUTA).
- ✚ ***Proceedings***of the 48th Annual Technical Session of Assam Science Society held at Assam University, Silcharon January, 2003.
- ✚ ***Proceedings*** of the 47th &48th Annual Technical Session of Assam Science Society held at Regional Medical Research Centre (RMRC), Dibrugarh on February,2002.

Scientific articles published (in English) (20)

- Experience in motivation of farmers towards biofertilizer use. *Souvenir, 2nd N.E. Conference on Biofertilizer*, p.52-54.
- DNA Fingerprinting in higher plants : An overview(communicated).
- Molecular Markers and Conservation of Plant Genetic Resources, *Everyman's Science XXXV (1)* , 2000 :33-36.
- Biopesticides – a boon to modern eco –friendly agriculture, published in the *Souvenir, Annual Technical Session*, 1998, Assam Science Society.

- Potentialities of *Azolla* green manuring in N.E. Region –Published in “*Use and Development of Microbial Inoculants* Edited by T. Singh *et al.*”, and published by Regional Biofertilizer Development Center, Imphal.
- Green Biofertilizer – a tool for low cost biotechnology, *The Assam Tribune*, 29th Nov. 1994.
- Vermitechnology – New trend for biomanagement of organic waste, *The Assam Tribune*, 29th June, 1996.
- Biodiversity – Need to conserve. *Souvenir, Seminar on Environmental Awareness* June 4-5, Deptt. of Environmental Science, G.U.
- Biotechnology –A new tool for crop protection. *Souvenir, 1st Conference of the Botanical Society of Assam* 1993.
- Plant Tissue Culture – Its application to boost up Phytomedicines. *Souvenir, National Seminar on Biotechnology –Its Prospects in the North East*, March, 24-26, 1992, Deptt. of Biotechnology, G.U.
- M. C. Kalita and J. Talukdar (2010) Biorefinery fuel : A green option to petro fuel ; *PRAJNA* (2009-10): 21 : 86-98
- M C Kalita (2016) Global Carbon dioxide menace: What to do to save mankind? *Souvenir –cum-Abstract Volume – Published on the occasion of National Seminar on Science and Technology for Sustainable Development (61st Annual Technical Session of Assam Science Society, 2016) at Goalpara College, Assam 23rd January, 2016*
- M C Kalita and N Gohain (2016) Growing Malaria Mortality : Gaps and Lacunae in Research , *BioNE*, 1st Issue :16 Nov. 2016
- R C D Goswami and M C Kalita (2016) Microalgae to Mitigate Climate Change (Feature Article) *Science Reporter* , June, 2016 : 29-32
- M C Kalita and Jayasri Dutta (2016) A concern for all –healthwise , published in *The Assam Tribune*, a leading english daily in Assam , 25th Dec issue, 2016
- M C Kalita (2016) Search for Novel Drug Molecules and Energy potential of Biodiversity of N E India, *North East BIOLINE* Issue 2, December, 2016 : 09 – 11 .
- M C Kalita and N Gohain (2016) Growing Malaria Mortality : Gaps and Lacunae in Research , *BioNE*, 1st Issue: 16 Nov. 2016
- Shamim Rahman and M C Kalita (2017) Aquaculture Biotechnology : A glimpse , *North East Bioline*, Issue 3, March, 2017
- Mohan Chandra Kalita, Jayashree Dutta and Rantumoni Sharma (2017) Metabolic Syndrome: Quest for Novel Herbal Drug, *Everyman,s Sciecne* Vol 4 (Oct-Nov), 2017
- Algae as fundamental source of Energy can transform Human Society , *The Assam Tribune*, Aug. 18, 2020

Scientific articles published (in regional Assamese language) : 36 Nos.

Professional Experience

Sponsored by Department of Biotechnology, Ministry of Science & Technology, Govt. of India, New Delhi).

- ✓ Awareness Workshop on the Facilities of Inter University Consortium for D.A.E. Facilities at Indore, Feb 20-21, 2004, Department of Physics, IIT, Guwahati.
- ✓ Training course on “**Basic Techniques in Animal Cell and Tissue Culture**” conducted at NEHU, Shillong from 15 to 20 Sept.2003 by National Centre for Cell Science (NCCS), Pune.
- ✓ **GLOBE** (Global Learning and Observations to Benefit the Environment) International Training Workshop, New Delhi, India .14 – 22 January 2002.
- ✓ “**Training Course in Blue-Green Algae (CYANOBACTERIA)**” held at the National Facility for BGA collections, IARI, New Delhi, March, 11-23, 1996.
- ✓ “**Tissue culture and Biochemical Techniques for Crop improvement with special reference to Citrus and Tea**” held at the Department of Agricultural Biotechnology, Assam Agricultural University, Jorhat, Nov.6-25, 1995.
- ✓ “**Application of Tissue Culture Technology for Micropropagation and Regeneration of Agroforestry Species**” held at Central Arid Zone Research Institute (CAZRI), Jodhpur, March 20 to April 11, 1995.
- ✓ **Cloning, characterization and sequencing of plant genes**” held at the School of Life Sciences, Jawaharlal Nehru University, New Delhi, Dec. 8-28, 1994.
- ✓ “**National workshop cum Training of BIOINFORMATICS**” held at the Department of Agricultural Biotechnology, Assam Agricultural University, Jorhat, June 24-25, 1994.
- ✓ “**Technique in isolation and bioimmunological characterization of proteins**”, held at the Institute for Research in Reproduction (ICMR), Bombay, Aug.13-30, 1993.
- ✓ “**National Workshop on Advances in Plant Biotechnology**” ,held at the Centre for Plant Molecular Biology, Osmania University, Hyderabad, Nov.10-30, 1992.

BIOTECHNOLOGY NATIONAL ASSOCIATESHIP (1996- 97)

Awarded by the Department of Biotechnology (DBT) ,Govt. of India for the period from 1st Oct.97 to 31 March 98 and carried out work on “**DNA fingerprinting on indian mustard**” at NRC or Plant Biotechnology IARI, New Delhi under the guideship of Dr. R.P. Sharma ,Project Director, and Dr. T. Mahapatra, Sr. Scientist, National Research Center on Plant Biotechnology, IARI, New Delhi-12

Presentation of Research Papers / Abstracts Published and Participation in Workshops/ Symposium/ Seminars/ Conferences/ Seminar Organized

2019

1. **Invited Speaker** on “Quest for novel freshwater Oleaginous Microalgae of Northeast India for generation of sustainable energy and other value added products based on Biorefinery approaches” in the Global Congress titled “Biofuels, Energy and Economy 2019” held during July 17-18 in **Abu Dhabi, UAE**

2018

1. Presented paper titled “ **Prospects of microalgae Biorefinery start-up in north east India for generation of green energy and other novel products**” at the Global Congress on Biotechnology held during Sept. 6-7, 2018 in Bangkok, **THAILAND**

2017

1. Presented paper titled “**Microalgae of Northeast India for bio-energy and other products of commercial potential based on the Biorefinery approaches.**” at International conference on “6th world congress on Biofuel and bioenergy.”, in **UK** on **September 05-06, 2017**.

2. **Participated** in the “**Higher Education Tour to China (Kunming & Beijing)**” for Faculty, Research Scholars and Students from India” 13 to 18th April, 2017 under INDIA-CHINA Alliance for Cooperation .

2017

1. **Organised** as Chief Organising Secretary the **PAPOTHECARY-2017** North Eastern Regional Conference and Exhibition on Promotion and Protection of Traditional Health Care Remedy (*Trans;lational Approaches for Novel Drugs and Drug Intermediates*), organized by I-BH, GU in association with IASST, USTM, NEBA and IITG (24 to 26 March, 2017)

1. **Organized** DBT sponsored Workshop on “**Organized** DBT sponsored Workshop Cum Symposia on “*Prospecting Traditional Herbal Therapy to modern Drug Discovery*” 7 days (From 22 to 28 May, 2017) under I-Biotech HUB, Gauhati University

2013-2015

2. **Organized** DBT sponsored Workshop Cum Symposia on “Basic molecular biology Techniques and Natural product based drug discovery” 4 days (From 11th Feb - 14th Feb 2015) under I-Biotech HUB, Gauhati University

3. **Organized** DBT sponsored Workshop on “Advanced Techniques in life Science Research” 7 days (From 28th April – 4th May, 2014) under I-Biotech HUB, Gauhati University
4. **Organized** DBT sponsored Molecular Biology Workshop for Research Students 6 days (From April 22 – 27, 2013) under I-Biotech HUB, Gauhati University

2012

1. **Organised** DBT Sponsored Workshop on-“Advanced Molecular Biology Techniques Techniques” 7 days (From Nov. 19 – 25, 2012) under I-Biotech HUB, Gauhati University
2. Participated in International Bioenergy Summit-2012 (5-6 Nov. 2012, New Delhi (organized by TERI and DBT jointly)

2011

1. **Organized** DBT sponsored Workshop on “Basic Molecular Biology Techniques” 3days (September 14- 16, 2011) under I-Biotech HUB, Gauhati University
2. Organised as General Secretary of North East Biotechnological Association the National Environment Awareness Campaign (NEAC) on BIODIVERSITY on 7th May, 2011 at Assam Bioresource Centre, Madan Kamdev, Baihata Chariali, Kamrup.

Sponsored by MoEF (RRA: Assam Science Society)

2010

Organising Secretary, National Symposium on Biodiversity; hold on the occasion of International Biodiversity Year, 2010, organized by Assam Science Society, Gauhati on 30/11/2010

2007

1. Presented paper titled “**Isolation and screening of high lipid containing algal flora of Assam**” at National Symposium on Recent Advances in Phycology: from molecule to Ecosystem, organized by Panjab University, Chandigarh, 14-16 Nov. 07
2. Presented paper title “**Phytopesticidal efficacy of *Pongamia pinnata* against two mosquito vectors *Aedes aegypti* and *Culex quinquefasciatus***” at *National Seminar on Biodiversity Exploration, Conservation and Utilization of plant resources with special reference to N E India*; organized by North East Biotechnological Consortium (NEBC) at Guwahati on 18-19 Dec. 2007

2006

1. Evaluator of the **Biodiversity (Nurture Nature for our Future) Projects** on 14th *National Children Science Congress (NCSC)-2006* held at Sikkim Manipal Institute of Technology (27 to 31st Dec. 06), organized by DST, Govt. of India.
2. Presented paper title “**Micro algae: a promising bioresource for biodiesel in North-East India**” at *International Conference on Current Trends in Algal Bioresource Utilization* (4 – 6 Dec, 06), Assam University, Silchar, Assam – **International**

3. Presented paper titled “ **Larvicidal and repellency efficacy of essential oil of *Cymbopogon winterianus* against mosquitoes and isolation of bioactive compounds**” at *International Conference on Exploring Horizons in Biotechnology: A Global Venture*, S.P. University (2-4 Nov. 06), Anand, Gujrat - **International**
4. Convener of the Seminar organised on **nanobiotechnology** by the Deptt. of Biotechnology on 28th March, 2006, in the auditorium of the Department.
5. Presented paper titled “**Impact of *Metarhizium anisopliae* and *Beauveria bassiana* applied by wet and dry inoculum for the control of tea Red spider mite (*Oligonychus coffeae*)**” at *National Seminar on Zoology for Human Welfare*; organized by Zoological Society of Assam on 2nd Feb.2006 at GU. –**National**
6. Presented paper titled “ **Occurrence and extracellular enzymatic potential of bacterial strain from hot spring of Arunachal Pradesh**” at *National Seminar on Zoology for Human Welfare*; organized by Zoological Society of Assam on 2nd Feb.2006 at GU – **National**

2005

1. Participated in the National Orientation Workshop for State Level Resource Persons for NCSC-2006 on the theme ‘**Biodiversity**’ held at Dr Y S Parmar University of Horticulture & Forestry, Solan, 13-15 Oct. 2005
2. Presented two papers titled “***In vitro* clonal propagation and callus induction of *Curcuma caesia* Roxb. and *Curcuma zedoaria* Rosc.**” and “***In vitro* regeneration and proliferation of callus from leaf and nodal explants of *Artesimia annua* L**” at the *National Seminar on Biodiversity conservation and Future concern*. June 17-18,2005 at Gauhati University; organized by North East Biotechnological Association.
3. Presented two papers titled “**Effect of antibacterial protein on *in vitro* and *in vivo* growth of *Pseudomonas aeruginosa***” and “**Micropropagation protocol for *Rubia cordifolia* L.: an important medicinal plant**” at the *National Conference on Current Trends of Research in Science and Technology*, Feb.28-29, 2005 at Gauhati University, Assam – **National**

2004

1. Presented paper titled “**Shoot multiplication of *Oroxylum indicum* Vent. through *in vitro* culture**” at the *National Seminar on Medicinal Plant in N.E. India*, Oct. 7-10,2004, at Govt. Ayurvedic College, Guwahati, Assam- **National**
2. Presented paper titled “**Tissue culture studies and *in vitro* clonal propagation of three (*Cardiospermum halicacabum* L. *Boerhaavia diffusa* L. and *Spilanthes acmella* L.) herbal ethnomedicinal plants of N.E. India and establishment of the plantlets in a natural environment.** *World Congress on In Vitro Biology*, San Francisco, California, May 22-26, 2004. **International**
3. Presented paper titled “**Application of essential oils of four indigenous ethnobotanicales of N.E. India against mosquitoes and their GC/MS analysis**” at

the *National Symposium on Current Trends in Chemical Research*, Feb. 27-28, 2004; organized by Deptt. Of Chemistry, Gauhati University, Assam.

2003

1. Participated in the “**Regional Awareness-cum - Training Workshop for preparation of Peoples Biodiversity Registers**” Nov 8-10,2003 at IIBM, Guwahati (organized by Centre for Ecological Sciences, IISc, Bangalore and sponsored by MoEF, Govt. of India).-**Regional**
2. Presented paper titled “**Effect of different organic sources on Blue Green Algal biofertilizer multiplication under natural environment**” at the *National Symposium on Cyanobacteria and Plants under Environmental Stress: Responses, Defence strategies and Biotechnological prospects*(Feb 25 – 27, 2003); organised by Banaras Hindu University – **National**
3. Presented paper titled “ **Impact of heavy metals on proline accumulation in Lemongrass(*Cymbopogon flexuosus*)**” at the *2nd International Congress on Plant Physiology on sustainable plant productivity under changing environment* (8 – 12 January,2003), held at Indian Agricultural Research Institute(IARI), New Delhi,India-**International**

2002

1. Participated in the “**Workshop on biosafety issues related to genetically modified organisms (GMOs)**”. Organised by BCIL at Guwahati on 22nd Nov.2002 (Sponsored by DBT and MoEF, Govt. of India) **National**
2. Presented paper entitled “**Invitro micropropagation of *Cardiospermum halicacabum L.* from nodal segments**” at the *72nd Annual Session, The National Academy of Sciences, India (Oct.25 to 27,2002)* organised by N.E .H.U., Shillong.- **National**
3. Presented paper entitled “Phytopesticidal and repellency effect of four ethnobotanicals from N.E.India against mosquitoes and their GC/MS analysis. *33rd International Symposium on Essential Oils* ,4-7 Sept. 2002, Lisbon, Portugal- **International**

2001

1. Presented paper entitled “Impact of milk processing environment on quality of Yogurt” at the *International Congress of Chemistry and Environment* (16 – 18 Dec, 2001), held at Indore, India – **International**.
2. Presented paper entitled “**Ethnopesticidal and growth regulatory activities of some indigenous plant extracts of N.E.India against mosquitoes**” at the *International Conference on New Horizons in Biotechnology*, (April 18-21, 2001 Trivandrum, India); Organised jointly by India, France, Greece, Italy and Brazil.-**International**.
3. Presented paper entitled “**Effect of some plant extracts on the larvae and pupae of *Aedes aegypti* and *Culex quinquefasciatus***” at the Annual Technical Session Assam Science Society, held at Assam Agricultural University, Jorhat on 3rd Feb 2001;Organised by Assam Science Society, AAU Branch, AAU, Jorhat-**Regional**

4. Presented paper entitled “**Studies on various isolates of Azolla collected from different locations of N.E.India**” at the 2nd N.E Regional Conference on Biofertilizers” at the 2nd N.E. Regional Conference on Biofertilizers, held at Assam Agricultural University, Jorhat on 22-24th Jan 2001; Organised by Regional Biofertilizer Dev. Centre, Manipur & Assam Agricultural University, Jorhat. (Sponsored by Deptt. of Biotechnology, Govt. of India)-**Regional**

2000

1. Participated in the “**4th Regional Awareness workshop on Global Environment Facility(GEF)**”,held at Indian Institute of Management, Calcutta on 19 & 20 Jan.2000; Organized by Center for Development and Environment policy, IIM, Calcutta .-**National**
2. Presented two papers entitled “**Biopesticidal efficacy of some plants of N.E. India**” and “**Clonal multiplication of *Cunninghamea lanceolata***” at 5th Agricultural Science Congress, held at Assam Agricultural University, Vet. campus, Guwahati on April 4-7,2000;Organised by National Academy of Agricultural Sciences, New Delhi-**National**
3. Participated in the Workshop on “**State Biodiversity Strategy and Action Plan (SBSAP)**”,held at NIRD ,Guwahati on Oct.28 & 29,2000;Organised by Assam Science Society ,State Nodal Agency for implementation of NBSAP programme – **Regional**
4. Participated in the Workshop on “**National Biodiversity Strategy and Action Plan (NBSAP)**” held at Indian Science Academy(INSA) New Delhi, June 23 & 24,2000; Jointly organised by Ministry of Env.& Forests, Govt. of India and Biotech Consortium India Ltd., New Delhi (Funded by United Nations Development Programme (UNDP)/Global Environment Facility(GEF)).-**National**
5. Presented paper entitled “**Micropropagation of *Hydrocotyle rotundifolia***” at the National Seminar on the Frontiers of Research and Development in Medicinal plants (Sept.16-18,2000),held at CIMAP; organised by Central Institute of Medicinal and Aromatic plants(CIMAP), CSIR, Lucknow-**National**

1999

1. Participated in the Interaction Meet on “**Patent information ,processing and prospects** “Organized by ASTEC,WWF for Nature for N.E. Region in collaboration with Technology information, Forecasting and Assessment Cpouncil, DST, Govt. of India at Hotel Brahmaputra Ashok, Guwahati on 15th Sept.1999.-**National**
2. Participated in the workshop on “**Renewable energy in N.E. India with special reference to Bioenergy Technology**” sponsored by UGC and organized by Society for Chemical Education and Handique Girls’ College, Guwahati in Handique Girls’ College, Guwahati on 4th& 5th Sept.1999.-**Regional**.
3. Presented paper entitled “**Nitrogen fixing potential of Cyanobacteria isolated from rice field soils of Nagaon Sub - Division, Assam**” at the North Eastern Regional Conference on Biofertilizer held at Administrative Staff College ,Khanapara,Guwahati on 22 &23rd Jan.1999.-**National**

1996-1998

1. Participated in the “International Conference on Asian wetlands” organised by Indian Environment Society,(January 29-31,1998,New Delhi).-International
2. Presented paper entitled “*In vitro* root culture of *Boerhaavia diffusa* L.and study of the “Punarnanine” profile” at the Annual Technical Session, 1997. Assam Science Society, Dibrugarh University, (Dec.20, 1997). -Regional
3. **Community Biodiversity Workshop**” held at the Zoological Survey of India, Calcutta in collaborations with British Council Division, Calcutta, Jan.15-20, 1996. (Sponsored by British Council Div., Calcutta) - **National**

1995

1. Presented a paper entitled “*In vitro* micropropagation *Withania somnifera* (Aswagandha)” at the Seminar on “Plant Tissue Culture and its Application in N.E. India” held at Mangaldoi College, Assam and Sponsored by the University Grants Commission, New Delhi (October 14-15,1995).-Regional
2. Presented paper entitled “Effect of Atrazine *Azolla - Anabaena* symbionts” at the 82nd session of the Indian Science Congress Association held at Calcutta (Jadavpur University)from January 3-8,1995.-National
3. “ELISA and other Immunodiagnostic Assays” held at the Department of Microbiology, Assam Agricultural University, Jan.5-13, 1995.(Sponsored by ASTEC, Govt. of Assam .)-Regional

1992-1994

1. Regional Workshop on “X-ray Diffraction and X-ray Fluorescence: Procedures and Applications” held at USIC, Guwahati University, April 7.9.1994.(Sponsored by DST, Govt.of India)-Regional
2. Presented paper entitled “Green Biofertilizer..... North-East” at the National Seminar on “Biotechnology: Its prospects in the North East” held at Gauhati University, organised by Gauhati University Biotech Forum (March 24-26, 1992).-National.

List of Oral/Poster Presentations

2015

1. Kalita, M.C (2015) “Search for therapeutic potential of ethno medicinal plant diversity of N E India” International Conference on Medicinal Plants and Herbal Drugs for Human Welfare(ICMP -2015) 28-30 January, 2015 organised by University of Madras at Chennai .

2014

1. Kalita, M.C *et al.* (2014) “Biotechnological exploration of the traditional knowledge based phytopharmaceutical practices of North East India, **The MacroTrend Conference:Paris 2014**, Paris, France, 19-20 Dec. 2014

2. Gohain N, Gogoi K, Dohutia C, Sarma NP, Praksh A, Bhattacharyya D R, **Kalita M.C.** (2014) “Anti-malarial drug potential of an ethno-claimed plant - *Rubus rugosus* Sm.” In Vth Scientific Workshop on “Biotechnology Research in North East India: Present & Future” organized by DBT-AAU Centre, AAU.
3. Gohain N, Talukdar A, Baishnab M, **Kalita M.C.** (2014). Determination of total phenolics and flavonoids content, anti-oxidant assay, chromatographic profiling and haemolysis activity of different extracts of Indian species *Curanga amara* Juss. *National seminar organized by Assam science society.*
4. Sharma N, Kalita A and **Kalita M.C.** (2014) Studies on *Microcystis* sp. Isolated from Dighalipukhuri pond, Guwahati, Assam. Presented at International Conference on Harnessing Natural Resources for Sustainable development: Global Trends. 29th-31st January, 2014 organized by Cotton College, Guwahati.
5. Gohain N, Talukdar J, and **Kalita M.C.** (2014) Profiling of bioactive constituents from *litsea salicifolia* (roxburg ex nees)- an ethnomedicinal plant of Assam. International Conference on Harnessing Natural Resources for Sustainable development: Global Trends. 29th-31st January, 2014 organized by Cotton College, Guwahati.
6. Kalita N and **Kalita M.C.** (2014). Antibacterial activities of selected ethnomedicinal plant from Assam, North East, India. International Conference on Harnessing Natural Resources for Sustainable development: Global Trends. 29th-31st January, 2014 organized by Cotton College, Guwahati.
7. **Kalita M.C.** (2014) Bountiful freshwater microalgae resources of Assam : Potential renewable biomass feedstock of alternative (bio)fuel and chemicals. International Conference on Harnessing Natural Resources for Sustainable development: Global Trends. 29th-31st January, organized by Cotton College, Guwahati 2014.
8. Baishya B and **Kalita M.C.** Green synthesis of Gold nanoparticles using *musa balbisiana* bract extract. International Conference on Harnessing Natural Resources for Sustainable development: Global Trends. 29th-31st January, 2014.
9. Dutta J and **Kalita M.C.** In vitro assay of a amylase inhibitory activity of three culinary plants of Assam. International Conference on Harnessing Natural Resources for Sustainable development: Global Trends. 29th-31st January, 2014.
10. Baishya B and **Kalita M.C.** response of two local varieties (red and green) of castor (*ricinus communis*) plants in spent crude oil contaminated soil. International Conference on Harnessing Natural Resources for Sustainable development: Global Trends. 29th-31st January, 2014.

1. **Kalita, M C** and Talukdar, J (2012) Exploring freshwater microalgal resources of N E India for potential renewable feedstock of biofuel and value added co-products; **8th APCAB & ICCB 2012 ;9-12 July Adelaide, Australia**

2010

1. **Kalita, M C** and Talukdar J (2010) Freshwater oleaginous microalgae of N E India for production of alternative liquid biofuels and other value added products. 2nd Meeting of Asian Network of Research Resource Centres. Oct 28 – 29, 2010, RIKEN Bioresource Centre, **Tsubuka JAPAN**
2. Talukdar J, Difusa A, **Kalita M C**, Goswami B C (2010). Harnessing Freshwater Oleaginous Microalgal Resources of Assam for sustainable Biodiesel Production. Accepted for Oral Presentation in the National Conference on Renewable Energy for Development for Under-Developed Areas with Particular Reference to North-East India, to be held on Tezpur University, Assam on March 23-25, 2010.
3. **Kalita M.C.** & Talukdar J (2010). Oleaginous Microalgae of Assam: Potential alternatives for Sustainable Development of Next Generation Renewable Biofuels. Accepted for Oral Presentation in the World Renewable Energy Technology Congress held in New Delhi on March 18-20, 2010.
4. Talukdar J, Difusa A, **Kalita M C**, Goswami B C (2010) Isolation and characterization of fatty acid methyl esters of a native freshwater microalgae *Ankistrodesmus falcatus* of Assam for its potential biotechnological applications. National Seminar on Recent Trends in Phytochemical and Phytopharmacological Research and future prospects; organized by Deptt. of Chemistry, GU on 26 and 27 March, 2010

2009

1. **Kalita, M.C.** and Talukdar J. (2009) Prospects of oleaginous microalgae of Assam for sustainable development of next generation renewable biofuels. Abstract Proceedings P. 152-155; National Conference on Energy Resources of N E India, 11-12 Nov. 2009, Guwahati.
2. **Talukdar J**, Kalita M.C., Yasmin F. & Goswami B.C. (2009). Isolation and Screening of Two Native Freshwater Chlorophytes of Assam (India) for Potential Feedstock use of Biofuels. Accepted for Poster presented in the 7th Asia Pacific Conference on Algal Biotechnology, held on December 2009, New Delhi, India.
3. **Talukdar J**, Kalita M.C., & Goswami B.C. (2009). Oleaginous microalgae of Northeastern India: Potential Alternatives for Sustainable Development of Biofuels. Accepted for Poster Presentation in the 9th International Phycological Congress held in Tokyo, Japan on August 2-8, 2009.
4. **Talukdar J**, Kalita M.C., Yasmin F. & Goswami B.C. (2009). Isolation, growth study and lipid contents of a few selected freshwater microalgae of Assam. Accepted for paper presentation in the International Conference on Algal

Biomass: Resources and Utilization (ICABRU2009) held on 27th to 30th July in Chennai.

2008

1. **Talukdar J**, Kalita M.C., Yasmin F. & Goswami B.C. (2008). Prospects of Microalgae of North East India for Biodiesel Production. Algae Biofuel Summit (International Conference) (September 17-19, 2008 New Delhi, India).
2. **Talukdar J**, Kalita M.C., Yasmin F. & Goswami B.C. (2008). Biodiesel production from Freshwater Microalgae – the Indian Perspectives. Poster Presented & Abstract published on the proceedings of *National Conference on Current Trends in Algal Biodiversity and Biotechnology* (February 7-8, 2008 Chennai, India): 107-108.
3. **Talukdar J**, Kalita M.C., Yasmin F. & Goswami B.C. (2008). Morphology and Hydrocarbon content of a newly isolated strain of the green colonial microalgae *Botryococcus braunii*. Abstract accepted for poster presentation in the “**International Conference on Molecular Biology and Biotechnology (ICMBB)**” held on October 17-19, 2008 at Banasthali University, Jodhpur, India.
4. **Talukdar J**, Kalita M.C., Yasmin F. (2008). Photobiological Hydrogen Production by Microalgae - a Renewable source of Alternative Energy. Abstract published and presented in the “**National Seminar on Green Chemistry for Sustainable Future of Humanity**” held on October 17-19, 2008, organized by ADP College, Nagaon, Assam, India.

Prof M C Kalita, Coordinator, Advanced Level - Institutional Biotech Hub, Department of Biotechnology, Gauhati University.(since 2011)

Academic Programs conducted by Advanced Institutional Biotech Hub Department of Biotechnology, Gauhati University since 2011

1. Detail of major **Hands on Training Programmes / Workshops** organized since the inception of the Biotech Hub in 2011 (**Seven Days duration**)

Serial No.	Topic	Duration and Date	No. of Participants	Level of Participants
1	Workshop on ‘Basic Molecular Biology Techniques’	3 days (September 14-16, 2011)	17	Research Scholars and Master degree students
2	Workshop on Advanced Molecular Biology Techniques”	7 days (November – 19-25, 2012)	22	Research Scholars and master

				degree students
3	Molecular biology workshop for research students	6 days (April 22 – 27, 2013)	18	Research Scholar
4	Workshop on “Advance Techniques in life science Research”	7 days (28 th April – 4 th May, 2014)	19	Research Scholars and students
5	Workshop cum symposia on basic molecular biology techniques and natural product based drug discovery	4 days (11 th Feb – 14 th Feb, 2015)	15	Research Scholars and students
6	Workshop on Techniques in Biotechnology and Bio informatics	7 days (17th – 23rd March 2016)	17	Research Scholars and P.G students
7	Prospecting traditional Herbal therapy to modern drug discovery	7 days (22nd – 28th May 2017)	14	Research Scholars and P.G students

2. Workshop/seminars/awareness/outreach programmes conducted since the inception of the Biotech Hub. (1 to 3 Days duration)

Serial No.	Topic	Duration and Date	No. of participants	Level of participants
1	Electrophesis and its Application	October 28, 2012	45 (approx)	Undergraduate
2	One day workshop on Basics in Biotechnology	February 18, 2012	30 (approx)	undergraduate
3	Workshop on application of Allied Sciences in life science studies	March 24, 2013	30 (approx)	Undergraduate
4	Biotechnology and Human Welfare	May 31 st 2013	40 (approx)	Undergraduate
5	Prospects of Biotechnology research in North East India	March 21 st 2014	30 (approx)	Undergraduate
6	Bio resource potential of North East India: Biotech intervention	31 st Jan 2014	35 (approx)	Undergraduate

7	DNA extraction and PCR	30 th August 2013	40 (approx)	Undergraduate
8	Protein Chemistry, Theory and practices with special emphasis on PAGE	22 nd March, 2014	45 (approx)	Undergraduate
9	Biotechnology and its Future prospects	11 th April, 2014	30 (approx)	Undergraduate
10	Traditional Phyto-medicinal practices in North East India and biotechnological validation	5 th December 2014	50 (approx)	Post graduate and research scholars
11	Molecular biology application to medical genetics	11 th April 2015	20 (approx)	Doctors
12	Techniques of Molecular Biology	30 th May, 2014	35 (approx)	Undergraduate students
13	Biology and society	21 st December, 2014	25 (approx)	Higher secondary students
14	Techniques of Isolation of DNA Venue : Institutional Level Biotech HUB, Gauhati College	3 days 20/12/2015 – 22/12/2015	40 (Approx)	College students
15	Proteomics, Genomics and Bioinformatics Venue : Institutional Level Biotech HUB, ADP College, Nagaon	3 days 27/2/2016 - 29 /2/2016	30 (Approx)	College students
16	Bio resource of N.E India and Biotechnological exploration Venue: Darrang College, Tezpur, Assam	1 day 15/03/2016	35 (Approx)	College students
17	Biological Science and its impact on Society Venue: Narengkati higher Secondary School	1 day 23/05/2016	80 (Approx)	Students
18	Ever increasing applications of Biotechnology in medicine, Agriculture and Environment protection Venue: Narengkati higher Secondary School	1 day 23/05/2016	80 (Approx)	Students

19	Workshop for Science Laboratory Bearer Venue : B.Borooah College, Guwahati	1 day 11/06/2015	15 (Approx)	Laboratory Bearer and Office Staff
20	Trends on biotechnology	28 th June, 2015	30 (approx)	Undergraduate students
21	Chromatography – Methods and Principles Rangia Higher Secondary School, Rangia, Assam	26/11/2015	100 (approx)	Higher Secondary students
22	National Environment Awareness campaign (NEAC) (2014 -2015) Sponsored by the Ministry of Environment, Forests and Climate Change (Assam Science Society : Regional Resource Agency) Theme: Combating desertification, land degradation and drought was Organized by – North East Biotechnological Association (NEBA) in collaboration with Institutional Biotech Hub , Department of Biotechnology, Gauhati University.	6th May 2016	140 (approx)	Teachers trainee and students, public, college students, research scholars, admin professionals and faculty members from Gauhati University and DIET, Mirza.
23	Basics of Biological Tools and Techniques.- For B.Ed Trainees.	11 March 2017	20	B.Ed Trainees
24	The IBH, Gauhati University in association with the IASST, Guwahati, IIT Guwahati, USTM, Meghalaya, NEBA, Gauhati University conducted a North Eastern Regional Conference and Exhibition on Promotion and Protection of Traditional Health Care Remedy (Papothecary – 2017) with the theme of translation approaches for novel drugs and drug intermediates.	24 th March to 26 th March 2017	160 (approx.)	Traditional healers, students, research scholar, scientist, ayurvedic doctors, faculties of colleges and universities.
25	Workshop on Bioinformatics	14 October	25	College

	For ADP College students	2017		Student
26	Awareness on Plastics and harmful effects of Plastics. Venue : Gauhati University Model School.	11-13 November 2017	50	School Students.
26	Basic Training for Laboratory Staff	24-25 November 2017	20	Laboratory Staff
27	One Day farmer's awareness cum interaction on "Growing application of Chemical Fertilizers and Pesticides in Agriculture." Venue: Institutional Biotech Hub, Nagarbera College, Nagarbera.	21 January 2018	75	Farmers
28	Basic application of tools and techniques used in Biology For students of Puthimari Higher Secondary school.	9 February 2018	36	Students and teachers of Puthimari Higher Secondary School.
29	Potential of Edible Insects of NE India	30 March 2019	120	Students and Reseach Scholars
30	Resurgence of Non Conventional Wild Edible Plants of NE India	17 February 2020	150	Students and Reseach Scholars

(a) Hands on trainings conducted:

Serial No.	Topic	Duration and Date	No. of participants	Level of participants
29	Workshop on "Basic Biological Tools and Techniques"	5 days (26 th – 30 th March	11	DBT-BLISS school Coordinators, Post graduate

		2018)		students and Research Scholars
30	Workshop cum Awareness program conducted at Assam Science Centre, Tezpur on “Lifestyle diseases and its management” Organized by Advanced level IBH, GU in association with Assam Science Society.	1 day(24 th March, 2018)		100 75 (Female members), 25 (invited speakers, Guest, volunteers etc)
31	One day Workshop on “Biological Techniques” for H.S students on the Occasion of national Science Day Science.	1 day (28 th Feb, 2018)		23 (Higher Secondary students)
32	One day Workshop on “Fundamentals of Polymerase chain reaction” conducted at Advanced level Institutional Biotech Hub, Department of Biotechnology, GU	1 day (24 th Feb 2018)		12 (Master Degree passed students)
33	Workshop on Farmer's Awareness Program entitled “Growing Application of Chemical Fertilizers and Pesticides in Agriculture” Organized by Advanced level IBH GU in association with IBH B. P. Chaliha College, Conducted at B.P Chaliha College, Nagarbera, Kamrup Assam.	1 day (21st Jan 2018)		80 (Farmers from nearby villages of Nagarbera)
34	Hands on Training cum workshop on “Bee Keeping for Livelihood” Organized by Advanced level IBH GU Conducted at Bartari village, Barpeta, Assam.	2 days (6-7 th October 2018)		40 (Youth of Bartari Village, Barpeta, Assam)
35	Workshop on “Urban Agriculture” Organized by Advanced level IBH GU in association with Assam Science Society, Guwahati. Conducted at Assam Science Society Office, Khanapara,	25 th January 2019		60 (Citizens of Guwahati who were interested in learning the

	Guwahati, Assam		techniques of Urban Agriculture)
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Lab to Land Activities:

Title	Funding Agency	Duration	Approved amount (Rs)
1. Workshop on Production and Quality control of biofertilizers.	Regional Biofertilizer Development Centre(RBDC), Imphal, Manipur.	26-27 th Feb, 2003	20,000.00
2. Workshop cum Training programme on utilization, plantation and conservation of medicinal plants.	Ministry of Environment. & Forest(MoEF), Govt. of India.	16-17 th May, 1997	12,000.00
3. Domestic and agro-wastes utilization through Mushroom cultivation and vermintechnology .	Ministry of Environment. & Forest, (MoEF)Govt. of India (under NEAC, 1996).	08-10 th May, 1996	10,000.00
4. Awareness campaign –cum - training programme on the application of biofertilizers in crop field (for Village Level Extensions Workers).	Ministry of Environment & Forest(MoEF), Govt. of India (under NEAC, 1995).	23-24 th May, 1995	10,000.00

5. Awareness campaign-cum training programme on the application of biofertilizers in crop field (for farmers)	ASTE C (Assam Science, Technology and Environment Council).	Oct, 1994	21,000.00
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Invited Lectures delivered, Resource Persons, Chairmanship, Participation in National /International programme.etc.

1. **2022** 1. **Resource Person**(Virtual FU P 5 GU), delivered lecture on Start –up potential of Indigenous Bioresource of NE India, biotechnological intervention and Conservation on 11-2-22 , 3.00 to 4.30 pm PM organized by HRDC,GU

2021

2. **Resource Person (WEBINAR)** , delivered lecture on Start –up potential of Indigenous Bioresource of NE India, biotechnological intervention and Conservation on 09/09/21 11.30 – 1.00 PM to 11.30 AM organized by HRDC,GU

2020

- 1 **Invited lecture** delivered in the **Webinar** organized by Dhemaji College, Assam on 10th Aug. 2020 over the area Recent Trend in Biological Sciences in the topic Bioresources of N E India : Recent Trends in Biological Approaches towards Exploration , Entrepreneurship and Conservation .
- 2 **Invited lecture** in Assam Science Society,s**Popular Talk Series** on Economy in the context of Assam : A scientific study on 30th Aug.2020 in Biotechnological intervention , start-up potential and conservation of Bioresources of N E India
3. **Invited lecture (WEBINAR)** in North Esst Sciecnce Movement (NESM) under Bigyan Bharati on Indigenous Bioresources of NE India :Current Biological Trends towards Exploration, Entrepreneurship and Conservation, 13th Oct. 2020 .
4. **Resource Person (WEBINAR)** , delivered lecture on Start –up potential of Indigenous Bioresource of NE India, biotechnological intervention and Conservation on 25th Sept. 20, 10 to 11.30 AM organized by HRDC,GU
5. **Resource Person (WEBINAR)** , delivered lecture on Start –up potential of Indigenous Bioresource of NE India, biotechnological intervention and Conservation on 14th Oct. 20, 10 to 11.30 AM organized by HRDC,GU

2019

1. **Invited Lecture** delivered on “*Plentiful Plant Bioresource in NE India: Sustainable Utilization, Start-up Potential and Conservation*” in Assam Botanical Congress (**ABC 01**) and **International Conference** on Plant Science, organized by Deptt. of Botany, GU and Assam Botanical Society, 4-6 Feb. 2019
2. **Chairman** of a Technical Session on 6th Feb. 19 in Assam Botanical Congress (**ABC 01**) and **International Conference** on Plant Science, organized by Deptt. of Botany, GU and Assam Botanical Society, 4-6 Feb. 2019
3. **Resource Person** in the Orientation Programme, organized by HRDC, UGC Gauhati University and delivered lecture on “Indigenous Knowledge and Natural Resource Management” on 7th March, 2019
4. **Panelist** in the **Assam Science Festival** (23-25 March 2019) on 24th March, 2019 (*Stimulating the Young Minds*, an interactive students programme) organized by Tezpur University, sponsored by Ministry of Science and Technology, Govt. of Assam through ASTEC, Govt. of Assam

2018

1. **Plenary lecture** delivered on “Traditional Health Care Remedy in NE India: Challenges, Prospects and Approaches for Biotechnological Exploration” in **REDIMAP-2018** organised by ADP College, Nagaon on 18th Aug. 2018
2. **Resource person** on “Chemical Energy versus Bioenergy” in the Refresher Course on Environmental Science, organized by **UGC-HRDC**, Gauhati University on 28th Sept. 18
3. **Resource person** “Abundance of bioresource in NE India: Biotechnological intervention and start-up potential”, GU Refresher Course on Life Science by UGC-HRDC Date: 20-7-18
4. **Keynote Speaker** “Abundance of Microalgae of NE India for generation of sustainable Energy and other novel products” Symposium on Bioresources and Renewable Energy, organized by AIMT, Guwahati Date 14/5/18
5. **Resource person** “Chemical Farming and growing health hazards: *A man made disaster and alternative approaches for safe farming*” Short Term Refresher Course on Disaster Management organized by GU, HRDC, 2-11-18
6. **Invited Guest Speaker** “Traditional Herbal Health Care Practices in NE India: Quest for novel drug potential” *National Conference on Translational Drug Discovery: Current Trends and Future Interventions*, Organised by Assam down town University 10-th Nov. 2018

2017

1. **Invited Speaker** and delivered a speech in **BIOPROCESS INDIA 2017** (9-11 Dec. 2017) organised by the Deptt. of Biosciences and Bioengineering , IIT, Guwahati on “Commercial Potential of Microalgae of NE India for generation of sustainable Energy and other novel products.
2. Act as **Member** of the Governing Council (GC) Meeting of IASST,Guwahati , DST, Govt. of India at DST, New Delhi on 23/9/17
3. **Act as Judge** in **Assam Biotech Conclave-2017** on the Talent Search Contest on Innovative Research Ideas Leading to Entrepreneurial Venture in Biotech and Allied Areas on 5th and 6thJanuary , 2017 at hotel Lily, at Guwahati , organized by Guwahati Biotech Park
4. **Participated in** “ Higher Education Tour to China for Faculty, Research Scholars and Students from India” (13 to 18 April, 2017) , organized by the India China Alliance for Cooperation (ICAC) , New Delhi, India.
5. **Act as Co-Chairperson** in an invited Plenary Lecture delivered by Prof N R Seth on “Recent Trend on herbal drug research”in North East Pharmaceutical Convention (NEPC) , 2017 organised by North East Pharmaceutical Society (NEPS) and hosted by Girizadanda Institute of Pharmaceutical Science (GIPS) 6-7 May, 2017 at Maniram Dewan Trade Centre, Guwahati
6. **Invited Lecture and Chairperson** in the UGC sponsored National Seminar on “Biodiversity of N E India: Conservation and Management “ organized by Department of Geography, N L College(Autonomous) on 3rd and 4th Feb. 2017

2016

1. **Keynote Speaker** in the workshop on “**Biotechnology ans its applications**” organized by Institutional Biotech Hub, Darang College, Tezpur on 15/3/16
2. **Keynote Speaker** in the Seminar “ **Biological Science and its Impact on society**” organized by Narengkati Higher Secondary School under Bliss project, DBT, Govt. of India on 23/5/16
3. **Keynote Speaker** in the National Seminar “ **Recent Advances in Herbal Science and Technology for Drug Discovery**” organized by ADP College, Nagaon on 18/8/16
4. **Invited Lecture in the International Conference** “Global biodiversity, climate change and sustainable development (ICBCS -2016” organized by Rajib Gandhi University, 15-18th Oct. 2016
5. **Resource Person on UGC sponsored National Seminar on “Recent Advances in Medicinal Plant Research of NE India (RAMPR-NE2016)** and deliverd lecture on Ethnopharmaceutical Knowledges in NE India , 12 Nov. 2016
6. **Resource person in the Refresher Course in Environmental Science(ID)** held by the Gauhati University Academic Staff College and delivered lecture on Traditional Helath Care Remedy in NE India and Biotechnological Exploration on 14/12/2016

7. **Invited Lecture** in the 57th Annual Conference of Association of Microbiologists of India and **International Symposium** on “Microbes and Biosphere: What is new What is Next” on Abundant Microalgae diversity of Assam, India for generation of bioenergy and other valued products based on biorefinery approaches , organized by Deptt. of Botany, Gauhati University and IASST, Guwahati on 24th to 27th Nov. 2016A
8. **Chairman** in the 57th Annual Conference of Association of Microbiologists of India and **International Symposium** on “Microbes and Biosphere: What is new What is Next” on the Session II: Rhizosphere Biology on 26th Nov. 2016 , Time : 2-30 to 5-30 PM

2015

1. **Resource Person** in the **UGC** sponsored **Orientation Course** in Gauhati University Academic Staff College and delivered lecture on “Organic Farming and Sustainable Agriculture: Prospects in NEIndia on 09/09/15
2. **Resource Person** in the **UGC** sponsored **Refresher Course** in Gauhati University Academic Staff College and delivered lecture on “Biotechnology for a Better Environment” on 10/09/15
3. **Resource Person** in the **UGC** sponsored **Refresher Course** in Gauhati University Academic Staff College and delivered lecture on “Biohazards in Environment ” on 18/06/15
4. **Key Note lecture** delivered on “ Recent Trends in Biotechnology” in Tihu College, Assam organized by IB-HUB on 28/6/15
5. **Resource Person** in **Regional Science Congress, 2015** in Jawahar Navodaya, vidyalaya, Nalbari and delivered lecture on “Prospects of Biotechnology in North East India” on 20/11/2015

2014

1. **Invited lecture** on “Traditional Phyto-medicinal practices in North East India and biotechnological validation” on 5/12/14 on the occasion of **International Conference** on Disease Biology and Therapeutics (3-5 Dec. 2014) organized by IASST, Guwahati, Assam and acted as Chairperson in one session.
2. **Invited lecture** on “Phytopharmaceutical potential of indigenous bioresource of N E India” on the occasion of **National Workshop** on Biotechnology (Nov. 24-25 ,2014) on 25/11/14 organized by NIPER, Guwahati
3. **Chairman** of the Technical Session (Plant and Animal Molecular Biology) on Biotechnology Research in N E India (Present and Future) (18th to 20th Sept. 2014 sponsored by the DBT, Govt. of India on 20th Sept. 14 organised by the Biotech Centre,

AAU, Jorhat and delivered a lecture 9on “**Exploring the pharmaceutical and renewable energy potential of Plant Resource of N E India**

4. **Chairman**, DBT sponsored National Seminar on Emerging Bio-inputs in Biotechnology for a green environment(organized by Deptt. of Bioengineering and Technology,GUIST and North East Biotechnological Association(NEBA)May 9 and 10, 2014
5. **Invited Orientation Lecture** at University of Science, Technology and Management (USTM) , Meghalaya on 23/8/14
6. **Invited Resource Person** on the topic Climate change and Livelihood issues in North – East organized by Deptt. of Geography ,GU,12/3/14
7. **Chairman and invited talk** National Seminar on Advances in Biotechnology Research: Current Trends and Future Prospects , Assam University 25-26th March, 2014
8. **Chairperson and delivered an Invited talk** presented on the Occasion of International Conference on harnessing Natural Resources for sustainable development :- Global trend. Organized by Cotton college,Ghy (29 jan. -31 jan. 2014)
9. **Invited talk** on 28/3/14 Trends on Basic Biology Science Education: A retrospection and overhauling on the programme of Short term Course on Trends on Basic Science Education organized by Academic Staff College, GU
10. **Chairman, Editorial Board** of the Proceedings of International Conference on Green Energy and Smart Materials through Science, Technology and Management(GESM); jointly organized by Gauhati University and University of South Africa at GU on 21-23 January, 2014
11. **Chairperson and delivered an Invited talk** presented on the Occasion of International Conference on harnessing Natural Resources for sustainable development :- Global trend. Organized by Cotton college,Ghy (29 jan. -31 jan. 2014)
12. **Chairman and invited talk** National Seminar on Advances in Biotechnology Research: Current Trends and Future Prospects , Assam University 25-26th March, 2014
13. **Invited talk** on 28/3/14 Trends on Basic Biology Science Education: A retrospection and overhauling on the programme of Short term Course on Trends on Basic Science Education organized by Academic Staff College, GU

2013

1. **Key Note address** in the inaugural programme on the occasion of the Workshop on “ Advanced Studies and Hand on Training on Plant DNA Fingerprinting” on 15/4/13 at Bose Institute, Main Campus (Raja Bajar area) A P C Road, Kolkata-700009

2012

1. Invited Lecture delivered and **Chairmanship** of a session Biotechnology and Human welfare; **National Seminar** on Prospects of Molecular Biological and Biotechnological Applications for Human welfare; organized by Pandu College, Guwahati : 11-12 May, 2012

2. Invited Lecture delivered on Env. Biotechnology in **UGC Refresher Course** at Gauhati University. organized by Deptt. of Env. Science on 29/12/12
3. Approaches towards achieving sustainable agriculture ,food security and safe environment; **National Seminar** on Prospects of biotechnological applications for sustainable agriculture; organized by B B K College, Assam 30-31st Jan, 2012
 5. Biodiversity: Concept and Significance: **UGC Refresher Course** in Academic Staff c College, GU on 27/1/12

2011

1. Medicinal Plant Resources in North-East India: Prospects and Challenges in **International Symposium** entitled “ Importance of Germplasm in Crop Genomics and Breeding” on **9th Aug, 2011** organised by Korea Brassica Genome Resource Bank (KBGRB) at Chungnam National University, Daejeon 305764, **Republic of Korea.**
2. **Chairperson** of a Session in the **International Seminar** on Bioresource and Human Sustenance ; organized by ZSI, Assam and Cotton College, Guwahati on 20-22nd Oct. 2011
3. Biotechnological Advances for Conservations and Development of Biodiversity. **UGC Refresher Course** at Manipur University; organized by Deptt. of Biochemistry on 7 and 8 Jan. 2011
4. Prospects Microalgae in Northeast India for Production of Alternative Liquid Biofuels & Other Value-added Products. **UGC Refresher Course** at Manipur University; organized by Deptt. of Biochemistry on 7 and 8 Jan. 2011
5. Biotechnological Advances for Conservations and Development of Biodiversity and mitigation global warming. **UGC Refresher Course** at Morioni College, Jorhat; organized by the College on 29 Jan,2011

2010

1. Algae based Biodiesel Production: challenges in downstream processing, Deptt. of Chemical Engineering, **IIT, Gauhati** on 30/11/10
2. Emerging Areas of Research in Biotechnology. **Refresher Course** , Academic Staff College, GU on 14/12/2010

2009

1. Global Warming and Biodiversity. **DRL (DRDO), Tezpur**, on 24 /3/2009
2. **Key Note address** on Climate change and Biodiversity on the occasion of **National Seminar** on Biodiversity Spectrum of N E India on 19/9/2009, organized by A V College, Gauhati.

2003-2008

1. Biotechnology in human welfare: Invited lecture delivered at Govt. Ayurvedic College, Guwahati on 28th Feb.08 on the occasion of National Science Day
2. Climate Change and Plant Biodiversity: Lecture delivered on the occasion of International Biodiversity day (22 May, 2007) at science Complex, Khanapara, Guwahati (Organised by WWF and Assam Science Society)
3. Resource person on “**Biofertilizer**” in UGC sponsored refresher course organized by the Deptt. of Environmental Sciences, at the Academic Staff College, Gauhati University on 17/12/05 and 13/11/06
4. Resource person on “**Biodiversity and development**” in UGC sponsored refresher course in Geography, organised by the Academic Staff College, Gauhati University on 3/1/03

2002

1. Lectures (4 classes) as guest teacher on different aspects on **Environmental Biotechnology** in the Deptt. of Environmental Science, Gauhati University in May, 2002
2. Resource person on “**Vermitechnology and organic solid waste management**” in ASTEC sponsored refresher course in Biology for Higher Secondary School teachers on 30/7/02
3. Resource person on “**Biofertilizer and chemical fertilizer**” in UGC sponsored refresher course in Chemistry, organised by the Academic Staff College, Gauhati University on 29/7/02
4. Resource person on “**Biofertilizer and eco-friendly agriculture**” in UGC sponsored refresher course in Botany, organised by the Academic Staff College Gauhati University on 22/7/02

2001

1. Resource person in the “**National Workshop on Microbial Biodiversity prospecting for PGPR of N.E. Region for sustainable agriculture (15 - 19 Oct. 2001)**” organised by IASST and sponsored by DBT, Govt. of India
2. Resource person on “**Plant Biotechnology**” in the Seminar on 3/10/01 at Jagiroad College, Assam

1997-2000

1. Resource person on “**Biotechnology: concept and application**” in Refresher course for Higher Secondary School Subject Teacher on Biology in the Deptt. of Botany, Cotton College, Guwahati on 5/4/2000
2. Resource person on “**Biofertilizer and its prospects**” at Directorate of Agriculture, Assam in the training programme organised by Directorate of Agriculture, Assam and Regional Biofertilizer Developmental Centre, Imphal on 22/7/1999
3. Resource person on “**Bioenergy and its application**” in Refresher course for Higher Secondary Biology Subject Teacher, sponsored by AHSEC and organised by Cotton College at Zoology Deptt. on 17/7/1998

4. Popular lecture on “**Biofertilizer**” as a part of Biotechnology popular lecture series sponsored by Deptt. of Biotechnology, Govt. of India, New Delhi and organised by Prof. C. M. Sarma Deptt. of Botany, Gauhati University at Dakhin Kamrup Vidyapeeth High School, Mirza on 15/5/1998
5. Resource person in Refresher course for Higher Secondary School Subject Teachers on Biology, organised by AHSEC at Cotton College, Guwahati in the topic “**Biofertilizers and modern agriculture**” on 17/7/1997.

Radio/ Television Science Programmes

Participated in a numbers of radio and television programmes since 1994 in the areas of Environment, **Biodiversity**, **Vermitechnology** etc.

1. Discussion on NBSAP in 31st Dec. 02 in Television Centre, Guwahati.
2. Discussion on “**Biodiversity**” in 22 Sept. 01, broadcasted by Television Centre, Guwahati.
3. Discussion on “**National Biodiversity Strategy and Action Plan (NBSAP)**” on 16th Sept.01, broadcasted by Radio Centre, Guwahati.
4. Discussion on “**Conservation of Biodiversity**” in 23rd October, 1999 in Television Centre, Guwahati.
5. Demonstration programme on “**Vermitechnology and waste management**” in 17th June, 1996 broadcasted by Television Centre, Guwahati.
6. Group discussion on “**Cold tolerant plants**” in 6 January, 1994 broadcasted by Radio Centre, Guwahati.

Academic/Administrative Experiences

Dean, Faculty of Technology (2021 – 2022), Gauhati University

✚ **Head (2007 – 2010 and 03/09/2019 onwards)**, Deptt. of Biotechnology, Gauhati University

✚ **Head, In-Charge** (2009 - 2014) Deptt. of Bioengineering and Technology, Institute of Science and Technology (GUIST), Gauhati University

✚ **Chairman** (2008 -2010) Institutional Biosafety Committee, Deptt. of Biotechnology, GU

✚ **Member** (1998 –2001): Council for Institute of Advanced Study in Science & Technology (IASST), Govt. of Assam.

✚ **Member** (2005 onwards): Biosafety Committee, IIT, Gauhati. Assam University(2011- 14), TRA (2013-16), Jorhat, Assam

✚ **Member** (2007 onwards), Academic Council, Gauhati University

✚ **Member** (2007 -2010) Gauhati University Court

- ✚ **Member**, (from March 2010 upto May 2010), Executive Council, Gauhati University
- ✚ **Member**, Gauhati University Research Council (2012 -
- ✚ **Member**, Ph.D Regulation Amendment Committee, GU (2012 onwards)
- ✚ **Chairman** (2007 onwards) Institutional Biosafety Committee, GU
- ✚ **Chairman**, Town Advisory Committee (2012 Onwards)
- ✚ **Coordinator** (2010 onwards) Institutional Biotech HUB, GU
- ✚ **Convener** (2008 onwards) Biodiversity Park and Resource Centre, GU
- ✚ **Member** (2009 – 2012) -) Board of Post Graduate Studies In Biotechnology, Assam University, Silchar
- ✚ **Member** (2008-2011) Council for popularization of S & T, Govt. of Assam.
- ✚ **Member** (2010 -) Programme Support for NE Institutes in Biotechnology, Deptt. Of Biotechnology, Govt. of India
- ✚ **Governing Body Member**, Pub Kamrup College, Baihata Chariali, Kamrup, Assam (2009-2012)
- ✚ **Governing Body Member**, BPC College, Nagarbera, Kamrup, Assam (2009-2012)
- ✚ **External Member** – Board of PG Studies in Biotechnology AU (OCT 2009 – OCT 2012)
- ✚ **Member** (2014-2017): Institutional Ethics Committee (Human studies), IASST, Guwahati under DST, Govt. of India
- ✚ **External Member** – Board of PG studies in Ecology and Environment science ,AU (30 Sept . 2013 to 30 Sept. 2017)
- ✚ **Expert Member**, Advisory Committee, Star College Scheme, Pub Kamrup College, Assam
- ✚ **Visitor,s nominee** - Selection Committee under the School of Life Sciences, Assam University for a period of three years (2013-2016)
- **Nominee of Academic Committee Members** – Central Institute of Technology, Kokrajhar, 2014
- **Member** (2015-2018) Research Advisory Committee, FAA Medical College and Hospital, Barpeta, Assam
- **Expert Member** (2015-2016) Board of Research Studies in Assam Down Town University, Guwahati.
- **Member (2016 to 2019)** Board of PG Studies in Biotechnology, Assam University for a period of three years
- **Member (Jan. 2016 -)** Internal Quality Assurance Cell (IQAC), Gauhati University
- **Member (May, 2018 to May 2021)** Board of Studies in Molecular Biology and Biotechnology, Tezpur University for a period of three years
- **Member (Sept. 2016 onwards)** Research Council, KKHSOU

- **Member (2016)** Lab Research Council, DRL (DRDO), Tezpur, Assam
- **DBT-Nominee (2017-2020)** Institutional Biosafety Committee (**IBSC**), College of Veterinary Science, (CVS-AAU), Assam Agricultural University, Guwahati.
- **Member (2017) Expert Committee** for advising on strategy and roadmap for ensuing effective utilization of instruments of **Guwahati Biotech Park**.
- **Member** to the *Academic Council*, Krishnaguru Adhyatmik Visvavidyalaya, Nasatra, Barpeta, Assam, 2017 –
- **External Expert** to the NEIGRIHMS, Shillong Scientific Advisory Committee (NSAC)
- **External Member**, Departmental Research Committee (DRC), Deptt. of Botany, Cotton University (2017 to 2019)
- **Member 2019 to 2022(nominated by DST, Govt of India)**, Governing Council (GC), Institute of Advanced Study in Science and Technology(**IASST**), Govt. of India, Guwahati, ASSAM
- **External Expert Member** Institutional Biosafety Committee (**IBSC**), Assam University, Silchar ASSAM (Jan. 2019 to Jan. 2022).
- **DBT-Nominee (2019-2022)** Institutional Biosafety Committee (**IBSC**), IASST, Guwahati, DST, Govt. of India
- **Member, Planning Board**, Tezpur University(April, 2019 to April, 2022)
- **Member, Governing Body (GB)**, BPC College (Aug. 20 to Aug 2023)
- **Member, Board of Studies**, Don Bosco University (2020-2023)
- **Member, Board of Studies**, Deptt. of Biochemistry, NEHU, Meghalaya 16-11-20 to 26-11.23
- **Member**, Academic Planning and Development Committee(APDC), NIPER, Guwahati, since 2021
- **Member**, SEBA High level Committee for reformation of Secondary Education (2021...)
- **Member**, GMCH, Research Advisory Committee (2021-22 to 2025-26)
- **President**, Governing Body, Pub Kamrup College, Baihata Chariali (2021-2026)
- **Member**, **NEP-2020** Implementation Central Committee, Gauhati University, 2022
- **Expert Member, Board of Studies**, Assam Down Town University, Guwahati, since 2022
- **Member**, Academic Planning and Development Committee(APDC), NIPER, Guwahati, since July 2023

- **Chairman, Institutional Ethics Committee (HUMAN)**, Government Ayurvedic College and Hospital, Since AUG. 2023
- **beyond those, in the past served and currently serving in a number of committees constituted time to time by Gauhati University towards meeting the purpose like admission , security , horticulture, etc.**

Regional (Academic and Social)/National/InternationalAssociations:

- i) **President (2021-2023)** Assam Science Society (estb. 1953)
- ii) **President** (2014-) North East Biotechnological Association(**NEBA**) , an organization , I launched in the year 1996 towards spreading biotechnology education and knowledge and also research and development in north east India .
- iii) **General Secretary** (2007- 2009) North East Biotechnological Association (**NEBA**).
- iv) **Working President** (2006) **Organising Committee, State Children Science Congress** under the banner of **National Children Science Congress** (organized by DST, Govt. of India).
- v) **Convener** (2001 – 2003), **Annual Technical Session of Assam Science Society** held at RMRC, Dibrugarh on February 2, 2002 and Assam University, Silchar on January 18, 2003.
- vi) **Convener,Biodiversity Photographic Gallery** (executing by the Assam Science Society at Khanapara, Guwahati, Assam).
- vii) **Coordinator** of Assam (2002-), **Global Learning and Observations to Benefit the Environment (GLOBE) – International**
- viii) **Coordinator** (2000-2002, for the State of Assam), **State Biodiversity Strategy & Action Plan (SBSAP)** under the **National Biodiversity Strategy & Action Plan** (under my leadership as Coordinator , a **Biodiversity Photographic Gallery** depicting the threatened floral and faunal diversity of the region has been launched in 2006 in Khanapara, Guwahati . This has been been the source of inspiration to students and public towards creating awareness to the masses for conservation and development of biodiversity)
- ix) **General Secretary** (1999 –2001), Assam Science Society (a society playing pioneering role in Assam since 1953 for popularization of science and technology among the masses and development of science education in the State)
- x) **Member, Core Committee**, of a Programme titled **“Environmental orientation in the schools of N.E. India”** sponsored by MHRD, Govt. of India and executing by Assam Science Society from 2004.
- xi) Assam Science Society (**Working President** for the period (2017 to 2019 and 2019 to 2021, involved actively since Aug. 1984)

The Assam science Society is a voluntary organization established in 1953. The primary aim of the society is to popularise science , create an environment for developing scientific temperament among the masses and encourage scientific research and development . The Society has been working in the field of science communication for disseminating scientific knowledges continuously for the last over six decades in the state of Assam.

- xii) **Sikhasarathi** , a Society for supporting downtrodden students of the State (**founder President**), the initiative was launched in the year 2015 aiming to develop a book bank for poor students and also to facilitate financial support to the talented downtrodden students of the State)
- xiii) **Life Member**, Assam Sishu Kalyan Sadan (Children Home, Orphanage) , Jalukbari, Sondarbori, Guwahati 14 , 1996 onwards
- xiv) **Life Member**, Children Home Committee (Orphanage), **Indian Red Cross Society**, Lankeswar, Guwahati, Assam , 2021 onwards

Collaborative Research Programmes:

The following Institutes/Departments are being involved in collaborative research programmes:

- Regional Research Laboratory (RRL), Jorhat.Assam Agricultural University, Jorhat.
- Deptt. of Biotechnology, IIT, Gauhati
- Arunachal University, Arunachal Pradesh.
- Department of Chemistry, Gauhati University.
- Tocklai Tea Research Centre, Jorhat.
- ICAR, Borapani, Meghalaya
- ICMR(RMRC), Dibrugarh, Assam
- Deptt. of Bioengineering and Technology, GUIST, Gauhati University
- IBSD, Deptt. of Biotechnology, Govt. of India,Imphal
- IASST, DST, Govt. of India, Guwahati
- DRL(DRDO), Tezpur, Assam
- PGMER, Chandigarh
- NEIGRIHMS, Shillong, Meghalaya
- Department of Energy, Tezpur University
- Department of Chemical Engineering , IIT, Guwahati
- Department of Chemical Engineering, **University of Rio De Jenerio, Republic of Brazil.(International Collaboration)**

Membership /Office Bearers of Academic Bodies / Journals

1. Indian Society for Plant Physiology, IARI, New Delhi (**Life member**).
2. Indian Society for Plant physiology & Biochemistry, IARI, New Delhi (**Lifemember**).
3. Indian Science Congress Association (**Life member**).

4. Society for Plant Biochemistry & Biotechnology, IARI, New Delhi (**Life member**) & **Executive member** (1998-2000).
5. Academy of Plant Sciences, Muzzafarnagar, U.P. (**Life member**).
6. Biotech. Consortium of India Limited (BCIL), New Delhi (**Life member**).
7. National Academy of Sciences, Allahabad, (**Life member**).
8. Assam Science Society (**Life Member**) & **General Secretary** (1999-2001).
9. North East Biotechnological Association (NEBA) - **LifeMember&General Secretary** (2007-2009).
10. North East Biotechnological Association (NEBA) – **President** (2014-2016).
11. Biotechnology Society of India, New Delhi (**Life member**).
12. The Plant Physiology Club (APAU), Bapatla, (**Life member**).
13. Assam Science Society (**Working President** for the period 2017 to 2019)
14. Sikhasarathi , a Society for supporting downtrodden students of the State (**President since 2018**)
15. Assam Science Society (**PRESIDENT 2021-2023**)

Other interests

- ✚ Science and Technology Popularizations in Rural areas of Assam
- ✚ Environmental Awareness and Conservation of Nature & Biodiversity

I hereby, declare that all the statements /particulars made/furnished in this CV are true, complete and correct to the best of my knowledge and belief.



(Signature of the Applicant)