

GUWAHATI COLLEGE

FACULTY PROFILE



01. NAME : Dr. Uma Kanta Chowra
02. QUALIFICATION : Ph. D. in Life Science and Bioinformatics
03. DESIGNATION : Assistant Professor
04. DEPARTMENT : Botany
05. SPECIALIZATION : Plant Physiology and Molecular biology
06. EMAIL ID : johu.2009@gmail.com
07. PHONE NO : +91 7002948712
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09. DATE OF BIRTH : 12/12/1987
10. DATE OF JOINING : 17/02/2020
11. ACADEMIC RECORD

DEGREE	INSTITUTION	YEAR OF AWARD
B.A./B.SC./B.COM.	Sibsagar College, Joysagar	2009
M.A./M.SC./M.COM.	Assam University, Silchar	2011
M.PHIL	-----	-----
PhD	Assam University, Silchar	2018
NET / SLET	NER-SLET	2016
OTHERS		

12. TEACHING EXPERIENCE : Since 17/02/2020

13. SUBJECT / TOPIC TAUGHT: Botany

14. RESEARCH ACTIVITIES :

- 6 months (October 2014-April 2015) work experience as a Special Research Assistant, under Professor Hiroyuki Koyama, at United Graduate School of Agricultural Science, Faculty of Applied Biological Science, Gifu University, Japan.
- 2 years' work experience as a JRF in a DBT sponsored project "*Functional Proteomic studies in North East Rice (Oryza sativa L.) for dehydration Tolerance*" in the Department of Life Science and Bioinformatics, Assam University, Assam, India.
- Worked as Research Associate (RA) from 23rd July 2018 to 7th February 2020, in a DBT funded project "Integrative Taxonomic Analysis for Assessment of Diversity a phylogenetic Relationships among Gingers and Prunus from Northeast Region" in Institute of Bioresource and Sustainable Development, Manipur, India.

15. PUBLICATIONS

:

Chowra U., Yanase E., Koyama H., Panda S. K. (2016). Aluminium-induced excessive ROS causes cellular damage and metabolic shifts in black gram *Vigna mungo* (L.) Hepper. *Protoplasma*. DOI 10.1007/s00709-016-0943-5. **IF: 2.457. ISSN: 0033183X**

Awasthi J. P., Saha B., Regon P., Sahoo S., **Chowra U.**, Pradhan A., Roy A., Panda S. K. (2017). Morpho-physiological analysis of tolerance to Aluminium toxicity in rice varieties of North East India. *Plos One*. **IF: 2.8. ISSN: 19326203**

Regon P., **Chowra U.**, Awasthi J. P., Borgohain p. and Panda S. K. (2019). Genome-Wide Analysis of Magnesium Transporter Genes in *Solanum lycopersicum*. <https://doi.org/10.1016/j.compbiolchem.2019.05.014>. *Computational Biology and Chemistry*. **IF: 1.412. ISSN: 14769271**

Chowra, U., Awasthi, J. P., Saha, B., Regon, P., Devi, S. S. and Panda, S. K. (2019). Insight into aluminium-induced antioxidant enzyme responses in blackgram [*Vigna mungo* (L .) Hepper], *JETIR*. 6(6), 543–556. **ISSN-2349-5162**

16. BOOKS PUBLISHED

:

Umakanta Chowra, Jay Prakash Awasthi, Bedabrata Saha and Sanjib Kumar Panda (2018). Facets of ROS Responses in Plant under Al³⁺ Stress. *Recent trends in life Science: Chapter 4*, page no. 61-85. DOI No.: <https://doi.org/10.22271/ed.book19a04>. **ISBN: 978-93-5335-001-7**

17. SEMINARS/ CONFERENCES/WORKSHOPS ATTENDANT:

International

2017 Presented a paper (poster) in the International Conference on Functional Plant Biology, Assam University, Silchar, India.

2016 Participated in a 4 days GIAN course on Functional Genomics for Plant Abiotic Stress Tolerance, organized by Department of Life Science and Bioinformatics, Assam University, Silchar, India.

2014 Attended Special Lectures on Agriculture 1) To boost crop productivity under a changing climate, 2) Invasion ecology of weeds, 3) Environmental problems caused by harmful algal blooms, 4) Aquatic environment and its management, 5) Roles of Ethylene, Jasmonic acid and Salicylic acid in defence reactions to Traumatic stimuli in stems of woody species, 6) Aromatic components (lignins, lignans/neolignans and suberin aromatic domains) of stress, 7) Involvement of reactive oxygen species in Aging, 8) Regulation of daily and seasonal rhythms by environmental factors and biological clock in vertebrates, 9) Prorenin and its receptor associated novel renin angiotensin aystem and hyperglycemia in pathogenesis of preeclampsia, in Gifu University, Japan.

2010 Participated in the International seminar on Recent Trends In Medicinal And Aromatic Plant Researches, Department of Life Science and Bioinformatics in collaboration with Bioinformatics Centre, Assam University, Silchar, Assam.

National

2018 Presented paper (poster) in the National conference on “Bioscience and Biotechnology” held on 22nd and 23rd March 2018 organised by Department of life Science and Bioinformatics, Assam University, Silchar, Assam.

2018 Presented paper (poster) in the National Conference on “Biotechnological Interventions for Environmental Stress Management in Plants and Microbes & 42nd Annual Conference of Orissa Botanical Society” held on 20th -21st Jan 2018 organised by Department of Botany, Utkal University, Bhubneswar

2012 Participated in three days’ National workshop & Hands-on training programme on “Modern Molecular Techniques in Biology” organised by Assam University, Silchar, Assam.

2011 Participated in the Training Programme on “Bioinformatics and Biological Sequence Analysis”, organized by Bioinformatics Centre, Assam University, Silchar, Assam

2010 Participated in two days’ workshop on “Statistics in Drug Discovery Researches”, organized by the Bioinformatics Centre, Assam University, Silchar, Assam.

2010 Participated in two days’ National Seminar on “Biodiversity Conservation (Forest and Land Resource Management)”, orgnised by Department of Ecology and Environmental Science, Assam University, Silchar, Assam.

2010 Participated as Trainee in two days’ workshop on “Horticulture in Employment Generation”, organized by the Department of Botany, Sibsagar College, Joysagar, Assam.

18. ANY OTHERS :

Gene Sequence Submissions:

2016 *VmMATE*, GeneBank Accession: KT693207.1, *Vigna mungo* aluminium-activatedcitrate Transporter (MATE) mRNA, Complete cds.

VmALS3, GeneBank Accession: KT693208.1, *Vigna mungo* aluminium sensitive like protein-3 (ALS3) mRNA, complete cds.

VmSTOP1, GeneBank Accession: KT693206.1, *Vigna mungo* sensitive to proton rhizotoxicity-1-like protein (STOP1) mRNA, complete cds.

Dissertation Project Work:

“Role of Nitric Oxide in Oryza sativa L. under heavy metal stress (Cu)” in Assam University, Silchar, Cachar, Assam for the partial fulfilment of the requirements for the award of the degree of M. Sc. in Life Science.