

RESUME



- 1. Name** : DR. SUPRIYO CHAKRABORTY
MSc, PhD, Postdoc (NCSU, USA)
- 2. Present position** : Professor, Dept of Biotechnology (since 2012)
Dept. of Biotechnology, Assam University, Silchar 788 011,
Assam (Joined Assam University on 9 July 2004)
Email: supriyoch_2008@rediffmail.com
Mb: +91 8473020886; Whatsapp: +91 6901042507
Former Dean, School of Life Sciences (11 March 2017 - 28 September 2020)
Former HOD, Dept of Biotechnology, AUS (2 terms)
- Past position held** : Assistant Professor cum Scientist (Plant Br. & Genetics)
Assam Agricultural University, Jorhat 785 012, Assam
(From 31st August 1996 to 8th July 2004)
- 3. Permanent home address** : 06, Sharada Regency, Pushpa Vihar Lane, Meherpur,
Silchar 788015, Assam, India
- 4. Date of birth & place** : 4 July 1968; Mariani (Assam, India)
- 5. Marital status** : Married (with 2 children); Wife: Home maker
- 6. Sex** : Male

7. Educational qualifications:

Examination	Year	Class/ Division	Board / University	Subject(s)
H.S.L.C. (10 th Std.)	1983	I	SEBA	Eng., G.Sc., G.Maths, S.S., His. W.E., MIL
P.U.(Sc) (12 th Std.)	1985	I	Gauhati University	Ph., Ch., Biol., Math., Eng., MIL
BSc (Agri) (4-year)	1990	I (<i>DISTINCTION</i>)	Assam Agril. University	All compulsory subjects with Plant Breeding & Genetics as elective
MSc (Agri) (2-year)	1992	I	Assam Agril. University	Plant Breeding & Genetics as major, Biotechnology as minor & Agril. Statistics as supporting subject
TOEFL	1992	Score 563 TWE 5.0	ETS, USA	English language
NET & JRF	1992	QUALIFIED	CSIR-UGC	Life Science
NET	1996	QUALIFIED	ICAR	Plant Breeding
NET	1997	QUALIFIED	ICAR	Genetics
PhD (3-year)	1998	By Research	Dibrugarh University	Life Sciences (<i>Spl. Plant Breeding & Genetics</i>)
Post-Doctorate	2011	By Research (Sponsored by DBT, GoI)	NC State University, Raleigh, USA	QTL mapping in plants

8. Title of MSc thesis: Studies on the performance of some local rice genotypes in *Sali* season

9. Title of PhD thesis : Genetic study of some quantitative components of yield in black gram (*Vigna mungo* L. Hepper)

10. List of Professional Courses Attended By Dr. Supriyo Chakraborty:

No.	Period	Duration (Days)	Title of the Professional Course	Sponsored by
1	Mar.17-31, 1997	15	Training Course on Advances in Crop Breeding	ICAR, GOI at PAU, Ludhiana
2	Sept.22-Oct. 12, 2004	21	Refresher Course in Life Sciences	UGC, GOI at DU
3	Sept 15-Oct 12, 2007	28	63 rd Orientation Program for University & College Teachers	UGC, GOI at Burdwan University, WB
4	Sept. 7-19, 2009	13	National Workshop on Molecular Biological Techniques	DBT, GOI at Burdwan University, WB

11. PUBLICATIONS:

No. of Books: 3
 Book Chapters: 2
 No. of Copyrights: 16
 No. of Research Papers: (as shown below)
 No. of Popular Articles: 5

BOOKS: 3

Supriyo Chakraborty (2005). *Plant Molecular Genetics*. Scientific Publishers, Jodhpur, India; No. of Pages: 174, ISBN No. 81-7233-396-X.

Supriyo Chakraborty (2004). *Biodiversity*. Pointer Publishers, Jaipur, India; No. of pages: 136, ISBN No. 81-7132-384-7.

Supriyo Chakraborty (2001). *Rice Breeding and Genetics*. Concept Publishing Co., New Delhi; No. of pages: 205, ISBN No. 81-7022-874-2.

BOOK CHAPTERS: 2

B. Deb and S. Chakraborty (2020) *Codon usage pattern analysis and compositional framework of human bocavirus 3 and its adaptation to human host*. Effect of COVID- 19 Pandemic on Agriculture and Allied Sciences. ISBN: 978-81-935728-8-7, Lucknow, India: 133-140.

S. Chakraborty (2006). *Plant Genetic Resources of North East India and their Sustainable Management*. In: Advancing Frontiers of Ecological Researches in India, eds. A. K. Kandyia and Asha Gupta, Dehra Dun : 673 -694.

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No	Title of copyright	Number	Year	Country	Status
1	Inventing Coding Sequence of a Gene for Lowest Production of Protein (INGLP)	SW-7762/2014	2014	India	Awarded
2	Codon Usage Diversity Measure	SW-9364/2017	2017	India	Awarded
3	Codon Usage Diversity Index (CUDI)	SW-9595/2017	2017	India	Awarded
4	Diversity of Codon Usage for Synonymous Codons of an Amino Acid (DCU)	SW-9904/2018	2018	India	Awarded
5	G Test as a Test of Goodness of Fit	SW-11482/2018	2018	India	Awarded
6	Free Energy Estimation of DNA or RNA (FREN)	SW-11011/2018	2018	India	Awarded
7	Tau_Corr as a Measure of Correlation	TXu002101738/2018	2018	USA	Awarded
8	G Test as a Test of Significance of Difference among Numerical Values (GTEST)	SW-10748/2018	2018	India	Awarded
9	Gini's coefficient as a measure of codon usage bias (GINI-COEFF)	SW-10282/2018	2018	India	Awarded
10	Amyloidogenicity of a Peptide (PEP_ AMYLOID)	SW-12536/2019	2019	India	Awarded
11	Average Accessible Surface Area of Peptide (ACCSURF)	SW-12535/2019	2019	India	Awarded
12	Average Hydropathicity of Peptide (HPKYTE)	SW-12290/2019	2019	India	Awarded
13	Average Antigenicity of a Peptide (PEP_ ANTIGENICITY)	SW-12299/2019	2019	India	Awarded
14	Nucleotide Count at Three Codon Positions (NUC3_ COUNT)	SW-12279/2019	2019	India	Awarded
15	Dinucleotide Counts in DNA (DINUC)	SW-12278/2019	2019	India	Awarded
16	Average Alpha Helix Propensity of Peptide (HELPROP)	SW-12289/2019	2019	India	Awarded

RESEARCH PAPERS AUTHORED BY DR. SUPRIYO CHAKRABORTY:

Aparajita Roy, **Supriyo Chakraborty** (2025). MicroRNA-mediated regulation and RNA editing profiles in Merkel cell polyomavirus associated with skin cancer. Future Virology.

<https://doi.org/10.1080/17460794.2025.2598150> (Online 5 December 2025) (IF: 1.4)

Supriyo Chakraborty, Deepika Sharma, Joydeep Chandra Das, Srinjay Kumar Bharadaj, Stella Bharadaj (2025). RNA editing sites in coding sequences of ABO blood group alleles. Human Immunology.

<https://doi.org/10.1016/j.humimm.2025.111586> (Online 18 September 2025) (IF: 2.2)

Nikita Kar, **Supriyo Chakraborty** (2025). Designing a cellular MicroRNA-based approach to silence bat-borne Nipah virus genes. Journal of NeuroVirology. <https://doi.org/10.1007/s13365-025-01268-5> (Online 07 July 2025) (IF: 1.9)

Aparajita Roy, **Supriyo Chakraborty** (2025). Selective inhibition of rabies virus gene expression by human miRNAs: a therapeutic approach using the 7mer-m8 model. Virus Genes. <https://doi.org/10.1007/s11262-025-02155-1> (Online 15 April 2025) (IF: 1.9)

Deepika Sharma, Srinjay Kumar Bharadaj, Stella Bharadaj, **Supriyo Chakraborty** (2025). MicroRNA-regulated suppression of some overexpressed genes in schizophrenia and their evolutionary significance. *Schizophrenia Research* 276 (2025) 143–156. <https://doi.org/10.1016/j.schres.2025.01.022> (Online 31 January 2025) (IF: 3.5)

Deepika Sharma, Yengkhom Sophiarani, **Supriyo Chakraborty** (2024). Unravelling codon usage patterns in the coding sequences of Bat RNA virus genomes of Rhabdoviridae family. *Journal of Applied Biology & Biotechnology* Vol. 12(5), pp. 133-142, Sep-Oct, 2024. <https://doi.org/10.7324/JABB.2024.187892> (Online 20 July 2024)

Deepika Sharma, **Supriyo Chakraborty** (2024). RNA editing sites and triplet usage in exomes of bat RNA virus genomes of the family Paramyxoviridae. *Microbial Pathogenesis* 194 (2024) 106796. <https://doi.org/10.1016/j.micpath.2024.106796> (Online 16 July 2024) (IF: 3.5)

Y Sophiarani, **S Chakraborty** (2023). Synonymous sites for accessibility around microRNA binding sites in bacterial spot and speck disease resistance genes of tomato. *Functional & Integrative Genomics*, 23:247 (<https://doi.org/10.1007/s10142-023-01178-x>) (online 20 July 2023) (IF: 2.90)

A Purkayastha, A Roy, S Bharadaj, S K Bharadaj, **S Chakraborty** (2023). Turning of a few overexpressed genes in prostate cancer with microRNAs using a 7mer-seed match model. *Journal of Cancer Research and Clinical Oncology*, <https://doi.org/10.1007/s00432-023-04910-z> (online 5 June 2023) (IF: 3.6)

S Chakraborty, D Nath (2022). A Study on microRNAs targeting the genes overexpressed in lung cancer and their codon usage patterns. *Molecular Biotechnology* 64(2), doi: 10.1007/s12033-022-00491-3 (IF: 2.86)

S Yengkhom, **S Chakraborty** (2022). Comparison of compositional constraints: Nuclear genome vs plasmid genome of *Pseudomonas syringae* pv. tomato DC3000. *Journal of Biosciences*, doi: [10.1007/s12038-022-00296-1](https://doi.org/10.1007/s12038-022-00296-1) (IF: 2.795)

S Yengkhom, **S Chakraborty** (2022). Computational identification and function annotation of *Pseudomonas syringae* pv. tomato (strain B13-200) miRNAs and prediction of their target genes in the tomato genome. *VSRD International Journal of Biotechnology and Pharmaceutical sciences*, (IF: 1.9542)

B Deb, D Nath, D Monoswita, **S Chakraborty** (2022). Identification of promising CD8 and CD4 T cell epitopes for peptide vaccine formulation against SARS-CoV-2. *Archives of Microbiology*, doi: [10.1007/s00203-022-02845-6](https://doi.org/10.1007/s00203-022-02845-6) (IF: 2.552)

M A.A Mustafa, D Nath, G John J, **S Chakraborty** (2022). Binding sites of miRNA on the overexpressed genes of oral cancer using 7mer-seed match. *Molecular and Cellular Biochemistry*, doi: [10.1007/s11010-022-04375-7](https://doi.org/10.1007/s11010-022-04375-7) (IF: 3.842)

N Begum, **S Chakraborty** (2021) Influencing elements of codon usage bias in Birnaviridae and its evolutionary analysis. *Virus Research*, doi: [10.1016/j.virusres.2021.198672](https://doi.org/10.1016/j.virusres.2021.198672) (IF: 6.286)

S Paul, M Saikia, **S Chakraborty** (2021). Identification of novel microRNAs in Rous sarcoma Virus (RSV) and their target sites in tumor suppressor genes of chicken. *Infection, Genetics and Evolution: Journal of Molecular Epidemiology and Evolutionary Genetics in Infectious Diseases*, doi: [10.1016/j.meegid.2021.105139](https://doi.org/10.1016/j.meegid.2021.105139) (IF: 4.393)

S Chakraborty, P Basumatary, D Nath, A Uddin (2021). Compositional features and pattern of codon usage for mitochondrial CO genes among reptiles. *Mitochondrion*, doi: [10.1016/j.mito.2021.11.004](https://doi.org/10.1016/j.mito.2021.11.004) (IF: 4.534)

- D Nath, **S Chakraborty** (2021). Identification of putative microRNAs in the complete genome of *Mycobacterium avium* and their possible interaction with human transcripts. *Journal of Applied Genetics*, doi: [10.1007/s13353-021-00666-9](https://doi.org/10.1007/s13353-021-00666-9) (IF: 2.653)
- S Yengkhom, **S Chakraborty** (2021). Prediction of microRNAs in *Pseudomonas syringae* pv. tomato DC3000 and their potential target prediction in *Solanum lycopersicum*. *Gene Reports*, doi: [10.1016/j.genrep.2021.101360](https://doi.org/10.1016/j.genrep.2021.101360) (IF: 0.13)
- G A Mazumder, A Uddin, **S Chakraborty** (2021). Analysis of codon usage bias in mitochondrial CO gene among Platyhelminthes. *Molecular and Biochemical Parasitology*, doi: [10.1016/j.molbiopara.2021.111410](https://doi.org/10.1016/j.molbiopara.2021.111410) (IF: 1.845)
- B Deb, A Uddin, **S Chakraborty** (2021). Analysis of codon usage of Horseshoe Bat Hepatitis B virus and its host. *Virology*, doi: [10.1016/j.virol.2021.05.008](https://doi.org/10.1016/j.virol.2021.05.008) (IF: 3.513)
- S Chakraborty**, S Yengkhom, A Uddin (2021) Free energy of mRNA positively correlates with GC content in chloroplast transcriptomes of edible legumes. *Genomics*, doi: [10.1016/j.ygeno.2021.06.026](https://doi.org/10.1016/j.ygeno.2021.06.026) (IF:4.547)
- D Nath, **S Chakraborty** (2021) Genome wide analysis of *Mycobacterium leprae* for identification of putative microRNAs and their possible targets in human. *Biologia*, doi: [10.1007/s11756-021-00778-x](https://doi.org/10.1007/s11756-021-00778-x) (IF: 1.653)
- S Chakraborty**, D Nath, P A Barbhuiya, A Uddin (2021) Silencing lung cancer genes using miRNAs identified by 7mer-seed matching. *Computational Biology and Chemistry*, doi: [10.1016/j.compbiolchem.2021.107483](https://doi.org/10.1016/j.compbiolchem.2021.107483) (IF: 3.737)
- A Borah, B Deb, **S Chakraborty** (2021) A Crosstalk on Antimicrobial Peptides. *International Journal of Peptide Research and Therapeutics*, DOI: [10.1007/s10989-020-10075-x](https://doi.org/10.1007/s10989-020-10075-x) (IF:2.191)
- S Chakraborty**, D Nath, S Paul, A Uddin (2021) A Crosstalk on Codon Usage in Genes Associated with Leukemia. *Biochemical Genetics*, doi: [10.1007/s10528-020-10000-3](https://doi.org/10.1007/s10528-020-10000-3) (IF: 2.220)
- PA Barbhuiya, A Uddin, **S Chakraborty** (2021). Understanding the codon usage patterns of mitochondrial CO genes among Amphibians. *Gene* 777, <https://doi.org/10.1016/j.gene.2021.145462> (IF: 3.913)
- B Deb, A Uddin & **S Chakraborty** (2021). Composition, codon usage pattern, protein properties, and influencing factors in the genomes of members of the family Anelloviridae. *Arch Virol* 166, 461–474. <https://doi.org/10.1007/s00705-020-04890-2> (IF: 2.23)
- B Deb, A Uddin & **S Chakraborty** (2020). Genome-wide analysis of codon usage pattern in herpesviruses and its relation to evolution. *Virus Research* 292. 198248. <http://doi.org/10.1016/j.virusres.2020.198248> (IF: 2.934)
- J Khawbung, D Nath & **S Chakraborty** (2020). Drug Resistant Tuberculosis: A Review. *Comparative Immunology Microbiology and Infectious Diseases*. 74. 101574. <http://doi.org/10.1016/j.cimid.2020.101574> (IF: 1.573)
- A Uddin & **S Chakraborty** (2020). Analysis of mitochondrial protein-coding genes of *Antheraea assamensis*: Muga silkworm of Assam. *Archives of Insect Biochemistry and Physiology*. <http://doi.org/10.1002/arch.21750> (IF: 1.28)

- S Chakraborty**, P Barbhuiya, S Paul, A Uddin, Y Choudhury, Y Ahn & Y Cho. (2020). Codon usage trend in genes associated with obesity. *Biotechnology Letters*. <http://doi.org/10.1007/s10529-020-02931-z> (IF: 1.982)
- S Chakraborty**, S Yengkhom & A Uddin. (2020). Analysis of codon usage bias of chloroplast genes in *Oryza* species. *Planta*. September. 1-20. <http://doi.org/10.1007/s00425-020-03470-7> (IF: 3.11)
- S Chakraborty**, D Nath, S Paul, Y Choudhury, Y Ahn, S Cho & A Uddin. (2020). A Crosstalk on Codon Usage in Genes Associated with Leukemia. *Biochemical Genetics*. September. 1-21. <http://doi.org/10.1007/s10528-020-10000-3> (IF: 1.820)
- P Barbhuiya, A Uddin & **S Chakraborty**. (2020). Codon usage pattern and evolutionary forces of mitochondrial ND genes among orders of class Amphibia. *Journal of Cellular Physiology*. September. <http://doi.org/1-19.10.1002/jcp.30050> (IF: 4.02)
- W Devi, Y Vivekananda, A Uddin, J Laishram & **S Chakraborty** (2020). Morpho-agronomic characterization and evaluation of a gene based marker in three aromatic pigmented Chakhao rice accessions of Manipur. *ORYZA- An International Journal on Rice*. 57 (2). 100-107. <http://doi.org/10.35709/ory.2020.57.2.3> (IF: 7.583)
- W Devi, Y Vivekananda, A Uddin, J Laishram & **S Chakraborty** (2020). Morphological markers associated with pericarp colour and its inheritance pattern in black scented rice of Manipur. *Tropical Plant Research*. 7(2). 396-402. <http://doi.org/10.22271/tpr.2020.v7.i2.046> (IF: 4.06)
- R Barbhuiya, A Uddin, **S Chakraborty**. (2020). Codon usage pattern and its influencing factors for mitochondrial CO genes among different classes of Arthropoda. *Mitochondrial DNA*. August. (IF: 1.76)
- S Chakraborty**, S Paul, D Nath, Y Choudhury, Y Ahn, Y Cho & A Uddin (2020). Synonymous codon usage and context analysis of genes associated with pancreatic cancer. *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis*. 821. 111719. <http://doi.org/10.1016/j.mrfmmm.2020.111719> (SNIP: 0.731)
- M Saikia, S Paul & **S Chakraborty** (2020). Role of microRNA in forming breast carcinoma. *Life Sciences*. 259. 118256. <http://doi.org/10.1016/j.lfs.2020.118256> (IF: 3.53)
- G Mazumder, A Uddin & **S Chakraborty** (2020). Analysis of codon usage pattern of mitochondrial ND genes in Platyhelminthes. *Molecular and Biochemical Parasitology*. 238. <http://doi.org/10.1016/j.molbiopara.2020.111294> (IF: 2.170)
- A Barman, B Deb & **S Chakraborty** (2020). Prediction of Potential Epitopes for Peptide Vaccine Formulation Against Teschovirus A Using Immunoinformatics. *International Journal of Peptide Research and Therapeutics*. 26. <http://doi.org/10.1007/s10989-019-09916-1> (IF: 1.080)
- A Barman & B Deb & **S Chakraborty** (2020). A glance at genome editing with CRISPR- Cas9 technology. *Current Genetics*. 1-18. <http://doi.org/10.1007/s00294-019-01040-3> (IF: 3.42)
- A Borah, B Deb & **S Chakraborty** (2020). A Crosstalk on Antimicrobial Peptides. *International Journal of Peptide Research and Therapeutics*. <http://doi.org/10.1007/s10989-020-10075-x> (IF: 1.080)

- P Barbhuiya, A Uddin & **S Chakraborty** (2020). Analysis of compositional properties and codon usage bias of mitochondrial CYB gene in anura, urodela and gymnophiona. *Gene*. 751. <http://doi.org/10.1016/j.gene.2020.144762> (IF: 2.984)
- S Roy, D Nath, P Paul & **S Chakraborty** (2020). Computational identification of conserved microRNAs and functional annotation of their target genes in Citrus limon. *South African Journal of Botany*. 130. 109-116. <http://doi.org/10.1016/j.sajb.2019.12.009> (IF: 1.792)
- D Das, B Deb, A Malakar & **S Chakraborty** (2020). Allele frequency analysis of GALC gene causing Krabbe disease in human and its codon usage. *Gene*. 747. 144673. <http://doi.org/10.1016/j.gene.2020.144673> (IF: 2.984)
- J Rajkumari, **S Chakraborty** & P Pandey (2020). Distinctive features gleaned from the comparative genomes analysis of clinical and non-clinical isolates of *Klebsiella pneumoniae*. *Bioinformation*. March. 256-268. (IF: 5.610)
- B Deb, A Uddin & **S Chakraborty** (2020). Codon usage pattern and its influencing factors in different genomes of hepadnaviruses. *Archives of Virology*. <http://doi.org/10.1007/s00705-020-04533-6> (IF: 2.23)
- A Uddin, T Mazumder, P Barbhuiya & **S Chakraborty** (2020). Similarities and dissimilarities of codon usage in mitochondrial ATP genes among fishes, aves, and mammals. *International Union of Biochemistry and Molecular Biology Life*. 2020. 1-16. <http://doi.org/10.1002/iub.2231> (IF: 3.244)
- S Yengkhom, A Uddin & **S Chakraborty** (2019). Deciphering codon usage patterns and evolutionary forces in chloroplast genes of *Camellia sinensis* var. *assamica* and *Camellia sinensis* var. *sinensis* in comparison to *Camellia pubicosta*. *Journal of Integrative Agriculture*. 2771–2785. [http://doi.org/10.1016/S2095-3119\(19\)62716-4](http://doi.org/10.1016/S2095-3119(19)62716-4) (IF: 2.247)
- S Chakraborty**, A Barman & B Deb (2019). Japanese encephalitis virus: A multi-epitope loaded peptide vaccine formulation using reverse vaccinology approach. *Infection, Genetics and Evolution*. 78. <http://doi.org/10.1016/j.meegid.2019.104106> (IF: 2.919)
- T Mazumder, A Uddin & **S Chakraborty** (2019). Insights into the nucleotide composition and codon usage pattern of human tumor suppressor genes. *Molecular Carcinogenesis*. 59. <http://doi.org/10.1002/mc.23124> (IF: 3.825)
- S Chakraborty**, P Barbhuiya, G Mazumder, B Deb & A Uddin (2019). Compositional features and codon usage pattern of TP63 gene. *Computational biology and chemistry*. 107119. <http://doi.org/10.1016/j.compbiolchem.2019.107119> (IF: 1.850)
- R Barbhuiya, A Uddin & **S Chakraborty** (2019). Compositional properties and codon usage pattern of mitochondrial ATP gene in different classes of Arthropoda. *Genetica*. 147. <http://doi.org/10.1007/s10709-019-00067-1> (IF: 1.292)
- A Malakar, B Halder, P Paul, H Deka & **S Chakraborty** (2019). Genetic evolution and codon usage analysis of NKX-2.5 gene governing heart development in some mammals. *Genomics*. 112. 1319-1329. <http://doi.org/10.1016/j.ygeno.2019.07.023> (IF: 6.205)

- B Bhattacharyya, A Uddin, S Das & **S Chakraborty** (2019). Mutation pressure and natural selection on codon usage in chloroplast genes of two species in Pisum L. (Fabaceae: Faboideae). *Mitochondrial DNA*. 30. <http://doi.org/10.1080/24701394.2019.1616701> (IF: 1.076)
- P Paul, A Malakar & **S Chakraborty** (2019). The significance of gene mutations across eight major cancer types. *Mutation Research - Reviews in Mutation Research*. 781. <http://doi.org/10.1016/j.mrrev.2019.04.004> (IF: 5.803)
- P Barbhuiya, A Uddin & **S Chakraborty** (2019). Genome-wide comparison of codon usage dynamics in mitochondrial genes across different species of amphibian genus Bombina. *Journal of Experimental Zoology Part B Molecular and Developmental Evolution*. 332. <http://doi.org/10.1002/jez.b.22852> (IF: 1.897)
- S Chakraborty**, B Deb, P Barbhuiya & A Uddin (2019). Analysis of codon usage patterns and influencing factors in Nipah virus. *Virus Research*. 263. <http://doi.org/10.1016/j.virusres.2019.01.011> (IF: 2.934)
- A Malakar, D Choudhury, B Halder, P Paul, A Uddin & **S Chakraborty** (2019). A review on coronary artery disease, its risk factors, and therapeutics. *Journal of Cellular Physiology*. 2019. (IF: 5.546)
- A Uddin, N Paul & **S Chakraborty** (2019). The codon usage pattern of genes involved in ovarian cancer. *Annals of the New York Academy of Sciences*. 1440. <http://doi.org/10.1111/nyas.14019> (IF: 4.728)
- A Uddin & **S Chakraborty** (2019). Codon Usage Pattern of Genes Involved in Central Nervous System. *Molecular Neurobiology*. 56. <http://doi.org/10.1007/s12035-018-1173-y> (IF: 4.519)
- M Barbhuiya, A Uddin & **S Chakraborty** (2018). A cross-talk on compositional dynamics and codon usage patterns of mitochondrial CYB gene in Echinodermata. *Mitochondrial DNA Part A*. 30. 1-16. <http://doi.org/10.1080/24701394.2018.1532414> (IF: 0.55)
- A Uddin, T Mazumder & **S Chakraborty** (2018). Understanding molecular biology of codon usage in mitochondrial complex IV genes of electron transport system: Relevance to mitochondrial diseases. *Journal of Cellular Physiology*. <http://doi.org/10.1002/jcp.27375> (IF: 4.003)
- D Nath, H Deka, A Uddin & **S Chakraborty** (2018). Chronic obstructive pulmonary disease: A crosstalk on nucleotide compositional dynamics and codon usage patterns of the genes involved in disease. *Journal of Cellular Biochemistry*. 120. <http://doi.org/10.1002/jcb.28039> (IF: 3.448)
- P Barbhuiya, A Uddin & **S Chakraborty** (2018). Compositional properties and codon usage of TP73 gene family. *Gene*. 683. <http://doi.org/10.1016/j.gene.2018.10.030> (IF: 2.772)
- H Deka, D Nath, A Uddin & **S Chakraborty** (2018). DNA compositional dynamics and codon usage patterns of M1 and M2 matrix protein genes in influenza A virus. *Infection, Genetics and Evolution*. 67. <http://doi.org/10.1016/j.meegid.2018.10.015> (IF: 2.728)
- G Mazumder, A Uddin & **S Chakraborty** (2018). Preference of A/T ending codons in mitochondrial ATP6 gene under phylum Platyhelminthes. *Molecular and Biochemical Parasitology*. 225. <http://doi.org/10.1016/j.molbiopara.2018.08.007> (IF: 2.180)
- W Devi, J M Laishram & **S Chakraborty** (2018). Antioxidant Activity and Polyphenol Contents of Paris polyphylla Smith and Prospects of in situ Conservation. *International Journal of Current*

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PUBLICATIONS: Popular Articles (in English) authored by Dr. Supriyo Chakraborty:

- S. Chakraborty** (2004). Insect pest management by DNA technology. *Journal of the NEC*, Shillong, India, Vol. 24, No. 2, April-June: 30-33.
- S. Chakraborty** (2003). Plant disease management by genetic engineering. *Journal of the NEC*, Shillong, India, Vol.23, No.3, July - September.
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- I. D. Singh and **S. Chakraborty** (1993). Application of biometrical genetics in tea breeding. *Two and a Bud*, 40(2): 11-14.
- S. Chakraborty** (1992). Genetic engineering – A challenge to life, The Eastern Clarion, December 3, Jorhat, India.

12. PROFESSIONAL EXPERIENCE:

a) ASSAM UNIVERSITY, SILCHAR:

i) **Teaching:** Since July 9, 2004, I have been teaching the PG students of Biotechnology in Assam University, Silchar (Courses: Genetics, Biostatistics, Molecular Biology, Genetic Engineering and Plant Biotechnology)

ii) **Research:** More than 10 Ph.D. scholars under my supervision have already been awarded PhD degree.

iii) **Other activity:** I have been associated with other academic activities assigned to me from time to time.

b) ASSAM AGRICULTURAL UNIVERSITY, JORHAT:

i) **As JRF (CSIR): Dept. of Agricultural Biotechnology:** January 1993 to October 1993:
Worked on RFLP analysis of tea

ii) **As Research Scholar: Dept. of Plant Breeding & Genetics:** January 1994 to June 1995:
Worked on quantitative genetics of black gram.

c) CENTRAL SILK BOARD, GOVT. OF INDIA:

Senior Research Assistant: July 1995 to August 1996: Worked on research and extension of Muga silkworm rearing.

13. CURRENT RESEARCH INTERESTS & ACCOMPLISHMENTS:

Current Research Interests:

a) Codon usage bias analysis of genes; Genomic analysis using tools of Bioinformatics; Population genetic analysis based on ABO & Rh blood group genes:

Research Accomplishments:

a) Codon usage bias analysis: Since 2014 I analyzed codon usage bias of genes and genomes for predicting potential expression of genes in plants, animals and microbes; developed several software based on different genetic codes using PERL computer language.

b) QTL mapping: As a part of my postdoctoral research work at North Carolina State University, Raleigh, USA under the guidance of Director, Bioinformatics Research Centre, I detected some major QTLs in rice, maize and Drosophila. The work was funded by the DBT, Govt. of India in 2010-2011.

c) Gene frequency & Genetic Distance Estimations: From the research work on population genetics at Assam University at Silchar, I estimated the Gene frequency of ABO and Rh Blood group systems in Hindus and Muslims of Barak Valley; calculated the Genetic Distance between these two populations vis-à-vis several world populations in the route of migration of mankind from Africa about 200,000 years ago.

d) Characterized the genetic diversity of bold grained rice genotypes of Barak Valley Zone of Assam (from 2005-2009). Made crosses in Boro rice (November-April) at AAU for developing high yielding varieties suitable for different Agro-ecological conditions in Assam.

e) Tea: Worked on quantitative genetics of tea (study on genetic variability and identification of stable clones & seed stocks of tea in NE India using biometrical genetic tools) for increasing productivity under the expert guidance of Dr. I.D. Singh, Former Commonwealth Advisor to the Tea Industry of Sri Lanka.

f) Green gram: Made crosses in the year 2001 among different genotypes for developing high yielding moisture-stress tolerant green gram variety.

g) Black gram: Made crosses among different genotypes in 2000 for developing high yielding moisture stress tolerant black gram variety suitable for Assam; from our team work under my leadership, one blackgram variety was released as a notified VARIETY by Assam Agricultural University in 2011 for commercial cultivation in Assam.

h) Germplasm Conservation: Collected, evaluated, and maintained Germplasm of greengram, blackgram, lentil and arhar to conserve the genetic diversity for further use in breeding program at AAU.

i) PhD Research work: Genetic analysis of quantitative components of seed yield in blackgram

j) Master's Research work: Genetic analysis of quantitative characters in *kharif* rice varieties

14. FELLOWSHIPS / HONOURS AWRDED:

a) Awarded University Merit scholarship in Bachelor's and Master's degree programs

b) Awarded Junior Research Fellowship by CSIR in 1992

c) Awarded Commonwealth Scholarship in 1992 but didn't avail it

d) Awarded Short term Fellowship in 2010 by DBT, Govt. of India to pursue research in USA

e) Biography included in the Dictionary of International Biography, IBC, Cambridge, England

15. I completed one project funded by ICMR, New Delhi on Codon usage bias of genes related to lung cancer.

16. Short term Training/Seminar/Workshop/Congress Attended by Dr. S. Chakraborty:

Sl. No.	Period	Duration (Days)	Title the Training/Seminar/ Workshop/Congress	Sponsored by
1	Feb.11-13, 1997	3	Jute & Ramie Production Technology	Directorate of Jute Dev., GOI
2	May12-14,1998	3	Jute & Ramie Production Technology	Directorate of Jute Dev., GOI
3	April 4-7, 2001	4	5 th Agricultural Science Congress	NAAS, Govt. of Assam, AAU.
4	Nov.22-23, 2002	2	Water & Land Management including CAD for Socio-Economic Upliftment of NE Region	NEC, MoA, MoRD, GOI
5	April19-20, 2002	2	Environmental Orientation to School Education	MoH.R.D., GOI
6	May 30, 2003	1	Patent Awareness Workshop	DST,GOI
7	Feb.11-12,	2	Criteria and Indicators for	IIFM, Bhopal

	2004		Sustainable Forest Management	
8	May 9-10, 2004	1	Application of Statistical Techniques in Basic and Social Science Research	ASS, Guwahati at G.U.
9	Sept. 11, 2004	1	National Seminar on IPR	MoHRD, New Delhi at G.U.
10	Nov.16-22.,2004	7	Statistical and Computing Methods for Life Science Data Analysis	ISI, Kolkata
11	Jan.28-29, 2005	2	National Conference on Current Trends of Research in Science & Technology	ASS, Guwahati
12	Feb. 28, 2005	1	National Science Day	AU, Silchar
13	Mar.21-22, 2005	2	Promoting Consumer Education	AU, Silchar
14	May2, 2005	1	Awareness Program on Human Development	UNDP & AU
15	June17-18, 2005	2	Biodiversity Conservation & Future Concern	NEBA, GU, Guwahati
16	Aug. 6,2005	1	Tea Industry in Assam : Problems & Prospects	AU, Silchar
17	Oct.18-22, 2005	5	Fourth International Food Legumes Research Conference	ISGPB, IARI, New Delhi
18	Dec.19-21, 2005	3	12 th National Liquid Crystal Conference	ILCS, Bangalore
19	March 25,2006	1	Capacity Building Program on Water Harvesting and Water Utilization	NERIWALM, GoI
20	April19-21, 2006	3	National Seminar on Biodiversity Conservation : The Post-Rio Scenario	MoEF, GoI and DST, GoI
21	Nov. 13-17, 2006	5	Workshop on Research Methodology in Basic Sciences	AIU, New Delhi
22	Dec. 20-21, 2008	2	National Seminar on Recent Progresses in Physical Sciences	UGC & DST, GoI at Kmj College
23	Jan. 3-7, 2009	5	96 th Indian Science Congress	NEHU, Shillong
24	Jan. 19-20, 2009	2	Workshop on Basic Bioinformatics	DBT at AU, Silchar
25	April 7, 2009	1	National Workshop on DNA Barcode of life	AU, Silchar
26	Sept. 4, 2009	1	Workshop on Current Trends in Wild Life Researches in NE India	AU, Silchar
27	Nov.26-27, 2009	2	Seminar on Contemporary Areas in Physical & Life Sciences	Kmj College & Saha Institute of Nuclear Physics, Kolkata