

# Resume

## Professor Chiranjib Chakraborty, PhD

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<https://scholar.google.com/citations?user=3m8rwpUAAAAJ>



### SHORT BIOSKETCH

Dr. Chiranjib Chakraborty is a Professor at the Department of Biotechnology at Adamas University Kolkata. He was a former Professor, Galgotias University, India, and a former Associate Professor, VIT University, Vellore, India. Dr. Chakraborty is also a visiting Professor at Institute for Skeletal Aging & Orthopedic Surgery, Hallym University, South Korea. He has 25 years of research experience, including four years of industrial R& D experience. He has 18 years of teaching experience. At the same time, he is academic editor of iScience, handling/receiving editors of infection, genetics, and evolution, associate editor of 'Frontiers in Pharmacology', 'Frontiers in Bioengineering and Biotechnology,' editor of 'Current Microbiology' and editorial board member of 'Nature Scientific Reports,' 'Interdisciplinary Sciences: Computational Life Sciences,' 'BIOCELL' etc. He has guided 3 Ph.D. students and several B.Tech., M.Tech., and M.Sc. projects. His research interest is Medical bioinformatics/immunoinformatics, noncoding RNA, COVID-19, diabetes, etc. **He published more than 184 SCI and Scopus index papers, five books, and two edited books (h-index: 43; i10 index: 96; Citation: 5787 (According to Google Scholar); Cumulative SCI Impact Factor (IF): 792.678; Average SCI Impact Factor: 4.30). He has been listed top 2% of Scientists in the World by Stanford University, USA/Elsevier BV in two consecutive years (2020 and 2021).**

### CURRENT POSITION

- Professor, School of Life Science and Biotechnology, Adamas University, Barrackpore –Barasat Rd, Kolkata, India
- Director, Center for Research and Innovation, Adamas University, Barrackpore –Barasat Rd, Kolkata, India
- Visiting Professor, Institute for Skeletal Aging & Orthopedic Surgery, Hallym University, College of Medicine, Chucheon, Gangwondo, South Korea
- **Academic Editor / Associate Editor, iScience (Cell press Journal) (IF= 5.458)**
- **Handling/Receiving Editors, Infection, Genetics and Evolution (Elsevier Journal) (IF= 3.342)**

- Associate Editor, Frontiers in Pharmacology (IF= 5.458) (specialty section: Experimental Pharmacology and Drug Discovery) (Frontiers Journal)
- Associate Editor, Frontiers in Bioengineering and Biotechnology ( specialty section: Preclinical Cell and Gene Therapy) (IF= 5.890) (Frontiers Journal)
- **Editorial Board Member of more than 10 SCI journals such as Scientific Reports (IF: 4.379) (Nature group); Interdisciplinary Sciences: Computational Life Sciences (Springer) (IF: 2.233); Biocell (IF: 1.254) (2020-till date) and several others.**
- **Listed top 2% in the Scientists in the world listed by the Stanford University, USA/Elsevier BV in two consecutive years (2020 and 2021).**

## RESEARCH INTERESTS AND CITATION INDEX

- **Research interest:** Medical Bioinformatics/Immunoinformatics, COVID-19, ncRNA, Drug targets, Genomics and proteomics in medicine, Diabetes, Therapeutics
- **Research Matrix**

<b>h-index: 43; i10 index: 96; Citation : 5,787</b> (According to Google Scholar, March, 2022); <b>5 Papers with more than 200 citations (i200 index: 5) and 10 Papers with more than 100 citations (i100 index: 10)</b>
<b>Scopus h-index: 36; SCI &amp; Scopus indexed Publications: 184; Book Chapters: 09;</b>
<b>Cumulative SCI Impact Factor: 792.678; Average SCI Impact Factor: 4.30;</b>
<b>Single Author (SCI &amp; Scopus indexed): 4; First Author (SCI &amp; Scopus indexed): 95;</b>
<b>Corresponding Author (SCI &amp; Scopus indexed): 115</b> (Corresponding since 2003);
<b>PhD guided: 03</b> (Degree awarded); <b>Invited talks: 18</b>

## PERSONAL INFORMATION

**Name:** Chiranjib Chakraborty

(As per all Certificates, family name (Surname) spelled as: **Chakravartty**)

**Date of Birth:** January 11, 1973

**Citizenship:** Indian

**Marital Status:** Married

## PROFESSIONAL EXPERIENCE

More than 25 years in Scientific Research and Teaching experience in India and abroad.

- Total research experience: 25 Years [including industrial R&D (Industrial Research & Development) experience: 4 years]
- Total teaching experience: 18 Years

### ❖ Within India

#### Positions:

S. No.	Position held	Name of the Organization	Period
1.	Professor	Adamas University, Kolkata, India	October, 2018- Till Date

2.	<b>Professor</b>	Galgotias University, Greater Noida, India	May, 2012 to September, 2018
3.	<b>Associate Professor</b>	VIT University, Vellore, India	April, 2010 to April, 2012
4.	<b>Associate Professor</b>	College Of Engineering And Technology, (IILM Academy of Higher Learning), Greater Noida, UP, India	Jan, 2009 to April, 2010
5.	<b>Assistant Professor</b>	College Of Engineering And Technology, (IILM Academy of Higher Learning), Greater Noida, UP, India	July, 2005 to Dec, 2008
6.	<b>Assistant Professor and HOD</b>	Institute of Applied Medicine and Research, UP, India	June, 2004 to June, 2005
7.	<b>Sr. Scientist</b>	Genmark Laboratories, Mumbai, India	May, 2002 to June, 2004
8.	<b>Research Scientist</b>	Macleods Pharmaceuticals, Mumbai, India	August, 2000 to April, 2002
9.	<b>Lecturer (Ad-Hoc)</b>	Burdwan Raj College, Burdwan, WB, INDIA	April, 1999 to July, 2000
10.	<b>Junior Research Fellow</b>	Marine Aquarium And Research Centre, ZSI, Digha, WB	December, 1995 to April, 1999

#### Visiting Position (India)

S. No.	Position held	Name of the Organization	Period
1.	<b>Visiting Scientist</b>	Indian Statistical Institute, Kolkata, India	March 12, 2011 to March 21, 2011
2.	<b>Visiting Scientist</b>	Indian Statistical Institute, Kolkata, India	December 02, -2011 to December 30, 2011
3.	<b>Visiting Research Fellow</b>	Department of Life Science and Biotechnology, Jadavpur University, Calcutta, India	October 27, 1998 to November 14, 1998

#### ❖ Outside India

S. No.	Position held	Name of the Organization	Period
1.	<b>Visiting Professor</b>	Institute for Skeletal Aging & Orthoepdic Surgery, Hallym University, College of Medicine, Chucheon, Gangwondo, South Korea	December 2018 to January 2019 (Approx. one month)
2.	<b>Visiting Professor</b>	Institute for Skeletal Aging & Orthoepdic Surgery, Hallym University, College of Medicine, Chucheon, Gangwondo, South Korea	May 2015 to June 2015 (Approx. one month)
3.	<b>Visiting Professor</b>	Institute for Skeletal Aging & Orthoepdic Surgery, Hallym University, College of Medicine, Chucheon, Gangwondo, South Korea	November 2013 to December, 2013

		Korea	(Approx. one month)
4.	<b>Visiting Research Fellow</b>	Department of Computer Sciences, Hong Kong Baptist University, Kowloon Tong, Hong Kong	November, 2014 to December, 2014 (Approx. one month)
5.	<b>Sr. Visiting Fellow</b>	Institute of Animal Science and Veterinary Medicine, Chinese Academy of Agricultural Sciences, Beijing 100193, China	October, 2009 to December, 2009 (Approx. three months)
6.	<b>Visiting Research Professor</b>	Dept. of Marine Biotechnology and Resources, National Sun Yat-sen University; Kaohsiung; Taiwan)	July, 2006 to January, 2007 (Six months)
7.	<b>Post Doctoral Fellow</b>	University of Massachusetts, Dartmouth, USA	October, 2002 to December, 2003 (One year and one month)

### ADMINISTRATIVE EXPERIENCE

S. No.	Position held	Name of the Organization	Period
1.	<b>Vice-Chancellor (Acting)</b>	Adamas University, Kolkata, India	3 <sup>rd</sup> October 2019 (For one day)
2.	<b>Dean</b>	School of Life Science and Biotechnology, Adamas University, Barrackpore –Barasat Rd, Kolkata, India	March, 2019 to December, 2019 (Approx. 10 months)
3.	<b>Director</b>	Innovation Centre, Adamas University, Barrackpore – Barasat Rd, Kolkata, India	October, 2018 to Till date (More than three years)
4.	<b>Research Director</b>	Galgotias University, Greater Noida, India	March, 2018 to September, 2018 (Six months)
5.	<b>Head, Dept. of Biotechnology</b>	Dept. of Biotechnology, Institute of Applied Medicines and Research (IAMR) (Under CCS University, Meerut, UP), Ghaziabad, UP, India	July, 2004 to June, 2005 (More than a year)

## EDUCATION

Language of instruction: English

S. No.	Degree	Board / University	Year of Passing	Remark
1.	<b>Ph.D.</b>	Vidyasagar University (Research work carried in Marine Aquarium and Research Centre (ZSI), WB, India)	2001	Subject: Zoology (Science) <b>[SNAHALATA BANERJEE GOLD MEDAL was awarded in 1999 from Academy of Environmental Biology (India) for adjudicated best-published research award from the PhD work]</b>
2.	<b>Master's Degree: M.Sc in Zoology</b>	Kanpur University (Presently, Chhatrapati Shahu Ji Maharaj University)	1995	Subject: Zoology
3.	<b>Bachelor's Degree: B.Sc. (Hons.) in Zoology</b>	The University of Burdwan	1993	Subject: Zoology (Honors), Chemistry (General), Botany (General)

## RESEARCH ACHIEVEMENTS

- Citation**

Cumulative Citation Index: <b>5787</b> ; h-Index: <b>43</b> ; i10-index: <b>96</b> (citation report based on Google scholar report) <b>10 Papers with more than 100 citations</b>
<b>Google Scholar ID:</b> 3m8rwpUAAAAJ
<b>Scopus ID:</b> 56219079200
<b>Orcid ID:</b> 0000-0002-3958-239X
<b>Web of Science Researcher ID:</b> AAV-1132-2021

- Publication Achievements**

Total peer reviewed publication: **194**

Total SCI Publications: **184 (and 3 SCI book chapters)**; Cumulative SCI Impact Factor: **792.678**;

Average SCI Impact Factor: **4.30**

- Publication- books**

Edited book: **2**; Book: **4**

## LIST OF PUBLICATIONS

### SCI PUBLICATIONS

(\*Corresponding Author; #contributed equally) (Impact Factor=IF)

[2022]

184. Sharma AR, S Banerjee, Bhattacharya M, Lee SS, **Chakraborty C\*** (2022) Recent progress of circular RNAs in different types of human cancer: technological landscape, clinical opportunities, and challenges. International Journal of Oncology (\*Corresponding Author) **IF: 5.65 (Accepted)**

183. Mohapatra RK, El-Shall NA, Tiwari R, Nainu F, Ramana KV, Mohamed TA, **Chakraborty C**, Dhama K (2022) Need of booster vaccine doses to counteract the emergence of SARS-CoV-2 variants in the context of the Omicron variant and increasing COVID-19 cases: an update. Human Vaccines and Immunotherapeutics **IF: 3.452 (Accepted)**

182. Bhattacharya M#, Sharma AR, Dhama K, Agoramoorthy G, **Chakraborty C\*#** (2022) Omicron variant (B.1.1.529) of SARS-CoV-2: Understanding mutations in the genome, S-glycoprotein, and antibody binding regions. GeroScience doi: 10.1007/s11357-022-00532-4 (\*Corresponding Author) **IF: 7.713** (# equally contributed)  
[https://pubmed.ncbi.nlm.nih.gov/35258772/]

181. Bhattacharya M, Sharma AR, Ghosh P, Patra P, Mallick B, Patra BC, Lee SS, **Chakraborty C\*** (2022) TN strain proteome mediated therapeutic target mapping and multi-epitopic peptide-based vaccine development for Mycobacterium leprae. Infection, Genetics and Evolution doi: 10.1016/j.meegid.2022.105245 (\*Corresponding Author) **IF: 3.342**  
[https://pubmed.ncbi.nlm.nih.gov/35150891/]

180. Mohapatra RK, Tiwari R, Sarangi Ak, Rabiul Islam D, **Chakraborty C**, Dhama K. (2022) Omicron (B.1.1.529) variant of SARS-CoV-2– Concerns, challenges and recent. Journal of Medical Virology. doi: 10.1002/jmv.27633. **IF: 2.327**  
[https://pubmed.ncbi.nlm.nih.gov/35118666/]

179. **Chakraborty C\***, Sharma AR, Bhattacharya M, Lee SS\* (2022) A detailed overview of immune escape, antibody escape, partial vaccine escape of SARS-CoV-2 and their emerging variants with escape mutations. Frontiers in Immunology doi: 10.3389/fimmu.2022.801522 (\*Corresponding Author) **IF: 7.561**  
[https://pubmed.ncbi.nlm.nih.gov/35222380/]

178. Bhattacharya M, Sharma AR, Ghosh P, Patra P, Patra BC, Lee SS, **Chakraborty C\*** (2022) Bioengineering of novel non-replicating mRNA (NRM) and self-amplifying mRNA (SAM) vaccine candidates against SARS-CoV-2 using immunoinformatics approach. Molecular Biotechnology doi: 10.1007/s12033-021-00432-6 (\*Corresponding Author) **IF: 2.695**  
[https://pubmed.ncbi.nlm.nih.gov/34981440/]

177. Ghosh P, Bhattacharya M, Patra P, Sharma G, Patra BC, Lee SS, Sharma AR\*, **Chakraborty C\*** (2022) Evaluation and designing of epitopic-peptide vaccine against Bunyamwera orthobunyavirus using M-polyprotein target sequences. International Journal of Peptide Research and Therapeutics 28(1):5. doi: 10.1007/s10989-021-10322-9 (\*Corresponding Author) **IF: 1.931**  
[https://pubmed.ncbi.nlm.nih.gov/34867129/]

176. **Chakraborty C\***, Bhattacharya M, Sharma AR (2022) Emerging mutations in the SARS-CoV-2 variants and their role in antibody escape to small molecule-based therapeutic resistance. Current Opinion in Pharmacology 62:64-73 doi: 10.1016/j.coph.2021.11.006 **IF: 5.547** (\*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/34920267/]

175. **Chakraborty C\***, Sharma AR, Bhattacharya M, Agoramoorthy G\*, Lee SS\* (2022) A Paradigm Shift in the Combination Changes of SARS-CoV-2 Variants and Increased Spread of Delta Variant (B.1.617.2) across the World. Aging and Disease doi: 10.14336/AD.2021.1117 (\*Corresponding Author) **IF: 6.745** [http://www.aginganddisease.org/EN/10.14336/AD.2021.1117]

[2021]

174. **Chakraborty C\***, Sharma AR, Bhattacharya M, Zayed H and Lee SS\* (2021) Understanding gene expression and transcriptome profiling of COVID-19: An initiative towards the mapping of protective immunity genes against SARS-CoV-2 infection. Frontiers in Immunology doi: 10.3389/fimmu.2021.724936 (\*Corresponding Author) **IF: 7.561** [https://pubmed.ncbi.nlm.nih.gov/34975833/]

173. Bhattacharya M, Chatterjee S, Sharma AR, Agoramoorthy G\* and **Chakraborty C\*** (2021) The D614G mutation in S-glycoprotein in SARS-CoV-2 variants and the implication on structure, function, infectivity, immunity, and vaccine escape. Applied Microbiology and Biotechnology doi: 10.1007/s00253-021-11676-2. (\*Corresponding Author) **IF: 4.813** [https://pubmed.ncbi.nlm.nih.gov/34755213/]

172. **Chakraborty C\***, Sharma AR, Bhattacharya M, Agoramoorthy G\* and Lee SS\* (2021) The drug repurposing for COVID-19 clinical trials provide very effective therapeutic combinations: Lessons learned from major clinical studies. Frontiers in Pharmacology 12: 704205. doi: 10.3389/fphar.2021.704205 (\*Corresponding Author) **IF: 5.810** [https://pubmed.ncbi.nlm.nih.gov/34867318/]

171. **Chakraborty C\***, Sharma AR, Bhattacharya M, Agoramoorthy G and Lee SS\* (2021) COVID-19 vaccines and vaccination program for aging adults. European Review for Medical and Pharmacological Sciences 25 (21): 6719-6730. doi: 10.26355/eurrev\_202111\_27117 (\*Corresponding Author) **IF: 3.507** [https://pubmed.ncbi.nlm.nih.gov/34787877/]

170. Ohimain EI\*, **Chakraborty C\*** (2021) Editorial: An initiative towards Ebola virus disease (EVD) free world: An edited special anti-infective issue on Ebola Virus Disease. Current Opinion in Pharmacology 62:12-14. doi: 10.1016/j.coph.2021.10.006 **IF: 5.547** (\*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/34864559/]

169. **Chakraborty C** (2021) Therapeutics development for Ebola virus disease: A recent scenario. Current Opinion in Pharmacology 60: 208-215. doi: 10.1016/j.coph.2021.07.020. **IF: 5.547** [https://pubmed.ncbi.nlm.nih.gov/34464933/]

168. **Chakraborty C\***, Sharma AR, Bhattacharya M, Agoramoorthy G and Lee SS\* (2021) Transmission, and mutational landscape of Newly Emerging SARS-CoV-2 Variants. mBio 12(4):e0114021. doi: 10.1128/mBio.01140-21 (\*Corresponding Author) **IF: 7.867**



[<https://pubmed.ncbi.nlm.nih.gov/34465019/>]

167. **Chakraborty C\***, Saha A, Sharma AR, Bhattacharya M, Lee SS\*, Agoramoorthy G\* (2021) D614G mutation eventuates in all VOI and VOC in SARS-CoV-2: Is it part of the positive selection pioneered by Darwin? Molecular Therapy-Nucleic Acids 26:237-241 doi: 10.1016/j.omtn.2021.07.011.

(\*Corresponding Author) **IF: 8.886**

[<https://pubmed.ncbi.nlm.nih.gov/34484868/>]

166. **Chakraborty C\***, Sharma AR, Bhattacharya M and Lee SS\* (2021) Lessons learned from cutting-edge immunoinformatics on next-generation COVID-19 vaccine research. International Journal of Peptide Research and Therapeutics 27, 2303–2311. doi:10.1007/s10989-021-10254-4 (\*Corresponding Author)

**IF: 1.931**

[<https://pubmed.ncbi.nlm.nih.gov/34276266/>]

165. **Chakraborty C\***, Sharma AR, Bhattacharya M and Lee SS\* (2021) From COVID-19 to cancer mRNA vaccines: moving from bench to clinic in the vaccine landscape. Frontiers in Immunology 12:679344. doi:10.3389/fimmu.2021.679344 (\*Corresponding Author) **IF: 7.561**

[<https://pubmed.ncbi.nlm.nih.gov/34305909/>]

164. Sharma G, Alle M, **Chakraborty C**, Kim JC. (2021) Strategies for transdermal drug delivery against bone disorders: A preclinical and clinical update. Journal of Controlled Release 336:375-395. doi: 10.1016/j.jconrel.2021.06.035. **IF: 9.776**

[<https://pubmed.ncbi.nlm.nih.gov/34175368/>]

163. **Chakraborty C\***, Bhattacharya M, Sharma AR\* (2021) Present variants of concern (VOC) and variants of interest (VOI) of SARS-CoV-2: their significant mutations in S-glycoprotein, infectivity, re-infectivity, immune escape, and vaccines activity. Reviews in Medical Virology doi:10.1002/rmv.2270

(\*Corresponding Author) **IF: 6.989**

162. Sarkar BK, Sharma AR, Bhattacharya M, Sharma G, Lee SS\*, **Chakraborty C\*** (2021) Determination of k-mer density in a DNA sequence and subsequent cluster formation algorithm based on the application of electronic filter. Scientific Reports 11(1):13701. doi: 10.1038/s41598-021-93154-3

(\*Corresponding Author) **IF: 4.379**

[<https://pubmed.ncbi.nlm.nih.gov/34211040/>]

161. Shawan MMAK, Sharma AR, Bhattacharya M, Mallik B, Akhter F, Shakil MS, Hossain MM, Banik S, Lee SS\*, Hasan MA\*, **Chakraborty C\*** (2021) Designing an effective therapeutic siRNA to silence RdRp gene of SARS-CoV-2. Infection Genetics and Evolution doi: 10.1016/j.meegid.2021.104951

(\*Corresponding Author) **IF: 3.342**

[<https://pubmed.ncbi.nlm.nih.gov/34089909/>]

160. **Chakraborty C\***, Sharma AR, Bhattacharya M, Agoramoorthy G, Lee SS \* (2021) Asian-origin approved COVID-19 vaccines and current status of COVID-19 vaccination program in Asia: a critical analysis. Vaccines 9(6): 600. doi: 10.3390/vaccines9060600 (\*Corresponding Author) **IF: 4.422**

[<https://pubmed.ncbi.nlm.nih.gov/34199995/>]

159. **Chakraborty C\***, Sharma AR, Bhattacharya M, Lee SS, Agoramoorthy G\*(2021) SARS-CoV-2 Brazil variants in Latin America: More serious research urgently needed on public health and vaccine protection. Annals of Medicine and Surgery doi: 10.1016/j.amsu.2021.102428 (\*Corresponding Author)



[<https://pubmed.ncbi.nlm.nih.gov/34109031/>]

158. Sharma AR, Bhattacharya M, Bhakta S, Saha A, Lee SS\*, **Chakraborty C\***(2021) Recent research progress on circular RNAs: Biogenesis, properties, functions, and therapeutic potential. Molecular Therapy-Nucleic Acids 25: 355-371 doi: 10.1016/j.omtn.2021.05.022 (\*Corresponding Author)

**IF: 8.886**

[<https://pubmed.ncbi.nlm.nih.gov/34484862/>]

157. Bhattacharya M, Sharma AR, Ghosh P, Lee SS\*, **Chakraborty C\***(2021) A next-generation vaccine candidate using alternative epitopes to protect against Wuhan and all significant mutant variants of SARS-CoV-2: an Immunoinformatics approach. Aging and Disease 12(8):2173-2195 doi: 10.14336/AD.2021.0518 (\*Corresponding Author) **IF: 6.745**

[<https://pubmed.ncbi.nlm.nih.gov/34881093/>]

156. **Chakraborty C\***, Sharma AR, Bhattacharya M, Agoramoorthy G\*, Lee SS\*(2021) The current second wave and COVID-19 vaccination status in India. Brain Behavior and Immunity. doi:10.1016/j.bbi.2021.05.018 (\*Corresponding Author) **IF: 7.217**

[<https://pubmed.ncbi.nlm.nih.gov/34022371/>]

155. **Chakraborty C\***, Sharma AR, Bhattacharya M, Agoramoorthy G\*, Lee SS\*(2021) All nations must prioritize the COVID-19 vaccination program for elderly adults urgently. Aging and Disease 12 (3): 688-690. doi:10.14336/AD.2021.04026 (\*Corresponding Author) **IF: 6.745**

[<https://pubmed.ncbi.nlm.nih.gov/34094633/>]

154. Sharma AR, Sharma G, Bhattacharya M, Lee SS, **Chakraborty C\***(2021). Circulating miRNA in atherosclerosis: a clinical biomarker and early diagnostic tool. Current Molecular Medicine. doi: 10.2174/1566524021666210315124438. (\*Corresponding Author) **IF: 2.222**

[<https://pubmed.ncbi.nlm.nih.gov/33719955/>]

153. Samanta S, Sharma AR, Saha A, Singh MK, Das A, Bhattacharya M, Saha R\*, Lee SS\*, **Chakraborty C\***.(2021) The bacteriophage Mu lysis system – A new mechanism of host lysis? Biocell. 2021 45(5): 1175-1186 doi:10.32604/biocell.2021.015537 (\*Corresponding Author) **IF: 1.254**

[<https://www.techscience.com/biocell/v45n5/43075/html>]

152. Mallick B, Sharma AR, Bhattacharya M, Lee SS\*, **Chakraborty C\***. (2021) PPAR $\gamma$  LBD and its ligand specificity reveal selection of potential partial agonist: Molecular dynamics based T2D drug discovery initiative. Biocell. 45(4):953-961. doi:10.32604/biocell.2021.015530 (\*Corresponding Author) **IF: 1.254**

[<https://www.techscience.com/biocell/v45n4/42348>]

151. **Chakraborty C\***, Sharma AR, Bhattacharya M, Lee SS, Agoramoorthy G\* (2021) COVID-19 vaccine: Challenges in developing countries and India's initiatives. Infez Med 29(1):165-166 (\*Corresponding Author) [<https://pubmed.ncbi.nlm.nih.gov/33664189/>]

150. **Chakraborty C\***, Sharma AR, Bhattacharya M, Saha RP, Ghosh S, Biswas S, Samanta S, Sharma G, Agoramoorthy G, Lee SS\* (2021) SARS-CoV-2 and other human coronaviruses: Mapping of protease recognition sites, antigenic variation of spike protein and their grouping through molecular phylogenetics.

Infection, Genetics and Evolution 89:104729. doi: 10.1016/j.meegid.2021.104729. (\*Corresponding Author) **IF: 3.342** [<https://pubmed.ncbi.nlm.nih.gov/33497837/>]

149. **Chakraborty C\***, Sharma AR, Bhattacharya M, Sharma G, Lee SS\* (2021) Immunoinformatics approach for the identification and characterization of T cell and B cell epitopes towards the peptide-based vaccine against SARS-CoV-2. Archives of Medical Research 29:S0188-4409(21)00009-6. (\*Corresponding Author) **IF: 2.235** [<https://pubmed.ncbi.nlm.nih.gov/33546870/>]

148. **Chakraborty C\***, Bhattacharya M, Mallick B, Sharma AR, Sharma G, Lee SS, Agoramorthy G\* (2021) SARS-CoV-2 protein drug targets landscape: A potential pharmacological insight view for the new drug development. Expert Review of Clinical Pharmacology 14(2):225-238 doi: 10.1080/17512433.2021.1874348. (\*Corresponding Author) **IF: 5.046** [<https://pubmed.ncbi.nlm.nih.gov/33423554/>]

147. Ghosh P, Bhakta S, Bhattacharya M, Sharma AR,, Sharma G, Lee SS\*, **Chakraborty C\*** (2021) A novel multi-epitopic peptide vaccine candidate against *Helicobacter pylori*: In-silico identification, design, cloning and validation through molecular dynamics. International Journal of Peptide Research and Therapeutics :1-18. doi: 10.1007/s10989-020-10157-w. (\*Corresponding Author) **IF: 1.931** [<https://pubmed.ncbi.nlm.nih.gov/33495694/>]

146. **Chakraborty C\***, Sharma AR, Mallick B, Bhattacharya M, Sharma G, Lee SS\* (2021) Evaluation of molecular interaction, physicochemical parameters and conserved pattern of SARS-CoV-2 Spike RBD and hACE2: In silico and molecular dynamics approach. European Review for Medical and Pharmacological Sciences 25 (3): 1708-1723 (\*Corresponding Author) **IF: 3.507** [<https://pubmed.ncbi.nlm.nih.gov/33629340/>]

145. **Chakraborty C\***, Sharma AR, Bhattacharya M, Sharma G, Saha RP, Lee SS\*. (2021) Ongoing clinical trials of vaccines to fight against COVID-19 pandemic. Immune Network 21:e1. doi: 10.4110/in.2021.21.e5 (\*Corresponding Author) **IF: 6.303** [<https://pubmed.ncbi.nlm.nih.gov/33728098/>]

144. **Chakraborty C\***, Sharma AR, Sharma G, Bhattacharya M, Patra BC, Sarkar BK, Banerjee S, Banerjee K, Lee SS\* (2021) Understanding the molecular evolution of tiger diversity through DNA barcoding marker ND4 and NADH dehydrogenase complex using computational biology. Genes Genomics. doi: 10.1007/s13258-021-01089-w. (\*Corresponding Author) **IF: 1.839** [<https://pubmed.ncbi.nlm.nih.gov/33884571/>]

143. Sharma G, Sharma AR, Bhattacharya M, Lee SS\*, **Chakraborty C\***(2021) CRISPR/Cas9: A preclinical and clinical perspective for the treatment of human diseases. Molecular-Therapy 29(2):571-586. (\*Corresponding Author) **IF: 11.454** [<https://pubmed.ncbi.nlm.nih.gov/33238136/>]

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6. **C. Chakraborty** (1999) Fish vaccination: an overview. *Fishing Chimes* , 19 (9), 7 -10.
5. **C. Chakraborty**, T. K.Chatterjee, S. K. Chakraborty (1999) Water quality of larval rearing system of giant freshwater prawn *Macrobrachium rosenbergii* (de Man). *Environment and Ecology*, 17 (2), 432-435.
4. **C. Chakraborty**, T. K.Chatterjee (1999) Effects of Stocking Density and Light Intensity on Growth and Survival in Larval Rearing of Fresh Water Prawn *Macrobrachium rosenbergii* (de Man).*Environment and Ecology*, 17 (2), 288-290.
3. **C Chakraborty**, TK Chatterjee, SK Chakraborty (1998) Effect of rearing tank background colour on survivability of giant fresh water prawn larvae, *Macrobrachium rosenbergii* (deMan) *Trans. Zool Soc. India*.
2. **C Chakraborty**, TK Chatterjee. (1998) Studies on feeding pattern of fresh water prawn larvae *Macrobrachium rosenbergii* (deMan) in hatchery system. *Trans. Zool Soc. India*, 2, 24-29.
1. **C. Chakraborty** and A. K. Chattopadhyay (1998) Ethology of *Oreochromis niloticus* (L) in response to bacterial infection of fins in the fry. *Environment & Ecology*, 16 (2)385-387.

## CONFERENCE PROCEEDINGS

1. **C. Chakraborty** and T. K. Chatterjee (1999) Antibiotic resistant *Aeromonas hydrophila* with R plasmid DNA from larval rearing system of freshwater prawn, *Macrobrachium rosenbergii* (de Man): a treat to aquaculture. *Proceeding Environmental Biology*(20th Annual Session of the Academy of Environmental Biology Symposium: "Man & Environment : Reflections & vision for future). (The Academy of Environmental Biology, India); 8 (2):217-221. **Best research paper award.**



## BOOK CHAPTER

### International Book Chapter

5. Bhattacharya, M., Kar, A., Malick, R.C., **Chakraborty, C.**, Das, B.K. and Patra, B.C., 2020. Application of Internet Assistance Computation for Disease Prediction and Bio-modeling: Modern Trends in Medical Science. In Principles of Internet of Things (IoT) Ecosystem: Insight Paradigm (pp. 327-346). (Springer) (eBook ISBN 978-3-030-33596-0 Hardcover ISBN 978-3-030-33595-3). [[https://link.springer.com/chapter/10.1007/978-3-030-33596-0\\_13](https://link.springer.com/chapter/10.1007/978-3-030-33596-0_13)]

4. Thirumal DK, Judith E, Priyadharshini JC, Siva R, Tayubi IA, **Chakraborty C**, George CP, Zayed H. (2019) Computational and modeling approaches to understand the impact of the Fabry's disease causing mutation (D92Y) on the interaction with pharmacological chaperone 1-deoxygalactonojirimycin (DGJ). Advances in Protein Chemistry and Structural Biology (APCSB) 2019;114:341–407. (**Impact Factor: 3.014**) [**PMID: 30635085**] (Elsevier) (1876-1623 ISSN) [<https://pubmed.ncbi.nlm.nih.gov/30635085/>]

3. George Priya Doss C, **Chakraborty C**, Vaishnavi Narayan, Thirumal Kumar. D (2014) Computational approaches and resources in single amino acid substitution analysis towards clinical research. Advances in Protein Chemistry and Structural Biology (APCSB) 94:365-423. (**Impact Factor: 3.014**) [**PMID: 24629192**] (CHAPTER TEN) (Elsevier) (1876-1623 ISSN) [<https://pubmed.ncbi.nlm.nih.gov/24629192/>]

2. George Priya Doss C, **Chakraborty C** (2014) Integrating computational methods, molecular docking, and molecular dynamics simulation approaches towards personalized medicine in hematological disorders. Frontiers in Clinical Drug Research-Hematology 277-325 pp. (Bentham e Books; Edited by: Atta-ur-Rahman ISBN: 978-1-60805-859-4) (Bentham science publisher) [<https://www.eurekaselect.com/122860/chapter/integrating-computational-methods%2C-molecular-docking%2C-and-molecular-dynamics-simulation-approaches-towards-person>]

1. George Priya Doss C, **Chakraborty C**, N. Monford Paul Abishek, D. Thirumal Kumar, Vaishnavi Narayanan (2014) Application of evolutionary based in silico methods to predict the impact of single amino acid substitutions in vitelliform macular dystrophy. Advances in Protein Chemistry and Structural Biology (APCSB) 94:177-267. (**Impact Factor: 3.014**) [**PMID: 24629188**] (CHAPTER SIX) (Elsevier) [<https://pubmed.ncbi.nlm.nih.gov/24629188/>]

### National book chapter

4. B. Sarkar, **C. Chakraborty** (2014) Current Changing Scenario of Biochemistry and Biotechnology in the Perspective of Aquaculture and Animal Biotechnology Advances in biochemistry and biotechnology (Vol.II) (ISBN 978-93-5124-312-0) Aster International (Previously Daya Publishing House, Delhi. India) p1-4.

3. Nandi SS, **Chakraborty C**, Deb J.K. & Gothalwal R (2005) Human granulocyte colony stimulating factor: a therapeutic protein. Advances in biochemistry and biotechnology (Vol.1) (ISBN 81-7035-362-9) Daya Publishing House, Delhi. India; p.53-80.

2. **C. Chakraborty** (2005) From editor desk: Current changing scenario of biotechnology and biochemistry. Advances in biochemistry and biotechnology (Vol.1) (ISBN 81-7035-362-9) Daya Publishing House, Delhi. India; p.1-9.

[[https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=From+editor+desk%3A+Current+changing+scenario+of+biotechnology+and+biochemistry.+Advances+in+biochemistry+and+biotechnology+&btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=From+editor+desk%3A+Current+changing+scenario+of+biotechnology+and+biochemistry.+Advances+in+biochemistry+and+biotechnology+&btnG=)]

1. **C. Chakraborty**, T.K. Chatterjee and S.K. Chakraborty (2000) Development of indigenous larvae rearing method for the seed production of freshwater prawn *Macrobrachium rosenbergii* (de Man). Waste Recycling and Resource Management in the Developing World (Edited by B.B. Jana, R.D. Banerjee, B. Guterstam, I. Heeb),(Proceeding,International Ecological Engineering Society,Switzerland) 149-155. (Kalyani University Pulication)  
[[https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=Development+of+indigenous+larvae+rearing+method+for+the+seed+production+of+freshwater+prawn+Macrobrachium+rosenbergii+%28de+Man%29.+Waste+Recycling+and+Resource+Management+in+the+Developing+World+&btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Development+of+indigenous+larvae+rearing+method+for+the+seed+production+of+freshwater+prawn+Macrobrachium+rosenbergii+%28de+Man%29.+Waste+Recycling+and+Resource+Management+in+the+Developing+World+&btnG=)]

## **BOOKS**

### **Edited books**

- **Sarkar B and Chakraborty C. (2014)** Advances in biochemistry and biotechnology (Vol.II) (ISBN 978-93-5124-312-0) Aster International (Previously Daya Publishing House, Delhi. India) p.245  
[<https://www.amazon.in/Advances-Biochemistry-Biotechnology-Vol-2/dp/9351302741>]
- **C. Chakraborty (2005)** Advances in biochemistry and biotechnology (Vol.I) (ISBN 81-7035-362-9) Daya Publishing House, Delhi. India; p.283.  
[<https://www.abebooks.com/9788170353621/Advances-Biochemistry-Biotechnology-Pt-1-8170353629/plp>]

### **Books**

- **C Chakraborty ,R. Jhingan (2005)** Protein based drugs: techno commercial approach (ISBN No. 8176221074) Biotech Books, New Delhi, India. p.194.  
[<https://www.amazon.in/Protein-Based-Drugs-Commercial-Approach/dp/8176221074>]
- **C. Chakraborty (2004):** Production technology of recombinant therapeutic proteins. (ISBN 81-7622-104-X) Biotech Books, New Delhi, India. p267.  
[<https://www.amazon.in/Production-Technology-Recombinant-Therapeutic-Proteins/dp/817622104X>]
- **C. Chakraborty (2004):** Bioinformatics: approaches and applications. (ISBN No. 81-7622-103-1) Biotech Books, New Delhi, India. p.223.  
[<https://www.amazon.in/Bioinformatics-Approaches-Applications-Chiranjib-Chakraborty/dp/8176221031>]
- **C. Chakraborty, A.K. Sadhu. (2001)** Biology, hatchery and culture technology of tiger prawn and giant freshwater prawn. (SBN 81-7035-231-2) Daya Publishing House, Delhi. India; p.101.  
[<https://www.amazon.in/Biology-Hatchery-Culture-Technology-Freshwater/dp/8170359767>]

## **AWARD**

- **2021- Chancellor Award (Spirit of Adamas University), Adamas University, Kolkata, India (December, 2021)**
- **2021- Research excellence award, Adamas University, Kolkata, India (December, 2021)**
- **2021- Dr. Sang-Soo Lee international research award for research excellence in the area of medical bioinformatics for the year 2020 (Award Value: 1 million Korean won deduction of tax (Taxation of**



Nonresident Alien)) [Institute for Skeletal Aging and Chuncheon sacred heart hospital, Hallym University, South Korea].

- 2020- AEB-IFI National Award for Excellence in Science [Academy of Environmental Biology, India]
- 2020-Research excellence award, Adamas University, Kolkata, India (December, 2020)
- 2016- Recipient of EET-CRS 4th Academic Brilliance Awards-2016 for Best Researcher in 2016
- 2012- Publication award for 2010 & 2011, VIT University, Vellore, India (contains cash award of 5,000 and a certificate).
- 2010- Publication award, National Sun Yat Sen University, Taiwan (contains cash award of USD 1471 after deduction of tax (Taxation of Nonresident Alien)).
- 1999-Snahalata Banerjee Gold Medal 1998, Academy of Environmental Biology, India for adjudicated best published research award.

## HONORS

- **Listed in the World's Top 2% Scientists (2021)** (Elsevier BV/Stanford University, USA) (<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3>)
- Session Chair (Afternoon session on 22<sup>nd</sup> April 2021) International e conference on “BIONEXT 2021 : Frontiers on modern biology” during 22- 24 April 2021.
- Convener, International e conference on “BIONEXT 2021 : Frontiers on modern biology” during 22- 24 April 2021
- **Listed in the World's Top 2% Scientists (2020)** (Elsevier BV/Stanford University, USA) (<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/2>) (Ioannidis et al. Updated science-wide author databases of standardized citation indicators. PLoS Biol. 2020 18(10):e3000918. PMID: 33064726)
- Session Chair (Neurobiology session) during the 14th Congress of Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB) entitled “Current Excitements in Biochemistry and Molecular Biology for Agriculture and Medicine” during 27 - 30 November 2015 organized by Centre for Cellular and Molecular Biology (CCMB), Hyderabad, Telangana, India.
- Session Chair (Medical biotechnology session) during the seminar entitled “Biogenesis-III” -6th to 7th March 2014, College of Eng and Technology (IILM Academy), Greater Noida
- Technical Committee Member-2nd International Conference on Biomedical Engineering and Biotechnology (iCBEB 2013), to be held in Wuhan, China, on October 11-13, 2013.
- Technical Committee Member-International Symposium on Chemistry and Pharmaceutical Science (CPS), 28-30<sup>th</sup> May, 2012, Macau, China and 2012 International Conference on Biomedical Engineering and Biotechnology (iCBEB) 28th to 30th May 2012, Macau, China
- Technical Committee Member-Spring World Congress on Engineering and Technology (SCET), 26-29<sup>th</sup> May, Xi' on, China 2012
- Guest of Honour and Judge for “Ryan Scientific Mileu”, Ryan group of Schools, Ryan International School, Greater Noida
- Member, Excellence Research Group (Biopharmaceutical Innovation) for the Aim for the Top University Plan of National Sun Yat Sen University, Taiwan, 2011
- Technical Committee Member-World Congress on Engineering and Technology (CET) 28-30<sup>th</sup> October, 2011, Shanghai, China
- Technical Committee Member, National Conference on Emerging Trends in Applied Science, on September 23-24, 2016.

- Technical Committee Member, 2<sup>nd</sup> National Conference on Emerging Trends in Applied Science, on August 17-18, 2017.
- Organizing Secretary, National Seminar on Biotechnology in Genomic Era: Industrial Priorities. April 27-28<sup>th</sup> April, 2006.

## TEACHING EXPERIENCE

More than 18 years of total teaching experience which include teaching assignments at

- 1) Burdwan Raj college, WB, India (1999- 2000)
  - 2) Institute of Applied Medicines and Research, UP India (2004 -2005)
  - 3) College of Engineering and Technology, IILM Academy of Higher Learning UP India (2005-2006 and 2007-2010)
  - 4) Department of Marine Biotechnology Department of Marine Biotechnology and Resources; National Sun Yat-sen University, Taiwan. (2006-2007)
  - 5) Vidyasagar Institute of Education Technology and Research (IILM Academy ),(2007-2010).
  - 6) School of Bio-Sciences and Technology, VIT University, Vellore, India (2010-2012)
  - 7) Department of Bio-informatics and biochemistry, Galgotias University, India (2012-2018)
  - 8) Department of Biotechnology, Adams University, India (October, 2018- Till Date)
- More than 10 years teaching experience in Post Graduate Courses
  - Teaching experience comprise the teaching of a number of courses science 1999. These courses are Animal biotechnology, Immunology, Medical Biotechnology, Pharmaceutical Biotechnology, Drug discovery and Development, Bioinformatics, Aquaculture Biotechnology etc. All courses has been taught more that 4/5 semesters.
  - Experience in handling Faculty Empowerment Program (FEP) and Fully Flexible Credit System (FFCS) courses

## RESEARCH EXPERIENCE

- Total research experience: **25 Years** (including industrial R&D; Industrial Research & Development Experience : **4 years**)
- PhD students: Three (three Ph.D completed, one is working)
- B.Tech. : 25 students, M.Sc. 20 students
- Research projects completed: 5 (five)

## PATENTS:

Sr No.	Claim	Inventors	Patent application number and reference number	Application Date:	Applicant	Country of Application
1	A method for developing an epitope-based peptide vaccine against SARS-COV-2 virus	Lee Sang Soo, <b>Chiranjib Chakravartty</b> , Ashish Ranjan Sharma, Garima Sharma, Manojit	<b>Patent application no.</b> 10-2020-0050552 <b>Reference number:</b> P200860	27. 04. 2020.	Hallym University Industry-University Cooperation Foundation	South Korea

		Bhattacharya			(2-2007-019517-5)	
2.	<b>Epitopes isolated from SARS-CoV-2 and coronavirus multi-epitopes vaccine composition comprising the same</b>	Lee Sang Soo, Ashish Ranjan Sharma, Garima Sharma, Manojit Bhattacharya, <b>Chiranjib Chakravartty</b>	<b>Patent application no.</b> 10-2020-0172923 <b>Reference number:</b> P202300	11.12.2020	Hallym University Industry-University Cooperation Foundation	South Korea
3.	<b>Epitopes identified from prostate antigen protein and prostate cancer multiple-epitopes vaccine composition comprising the same</b>	Lee Sang Soo, Ashish Ranjan Sharma, Garima Sharma, Shin Dae Yong, Manojit Bhattacharya, <b>Chiranjib Chakravartty</b>	<b>Patent application no.</b> 10-2020-0172924 <b>Reference number:</b> P202350	11.12.2020	Applicant Name: Hallym University Industry-University Cooperation Foundation	South Korea

## TECHNOLOGY DEVELOPED

Sl No.	Name of the Technology	Technology development	Technology transferred to the Industry	Technologies commercialized
1.	Technology for the design and development of an epitope-based peptide vaccine against SARS-COV-2 virus	Technology was Developed and patent applied [process patent ( <b>Patent application no.</b> 10-2020-0050552 <b>Reference number:</b> P200860)]	Not Available	Not Available
2.	An multi epitope-based peptide vaccine against SARS-COV-2 virus	Patent applied [Vaccine candidate patent( <b>Patent application no.</b> 10-2020-0172923 <b>Reference number:</b> P202300)]	Discussion going on for technology transferred to an company	
3.	A novel non-replicating mRNA (NRM) and self-amplifying mRNA (SAM) vaccine candidates	Technology developed and patent applying.	Not Available	Not Available
4.	A next-generation vaccine candidate using alternative epitopes to protect against	Technology developed [Research work reference: <b>PMID:</b>	Not Available	Not Available

	Wuhan and all significant mutant variants of SARS-CoV-2	<b>34881093 and PMID: PMC8612605]</b>		
5.	Multi epitopes bases peptide vaccine candidate against prostate cancer:	Technology developed and patent applied ( <b>Patent application no. 10-2020-0172924 Reference number: P202350</b> )	Not Available	Not Available
7.	An epitopic-peptide vaccine against Bunyamwera orthobunyavirus	Technology developed [Research work reference: <b>PMID: 34867129; PMID: PMC8634745]</b>	Not Available	Not Available
8.	Multi-epitopic peptide vaccine candidate against <i>Helicobacter pylori</i>	Technology developed [Research work reference: PMID: 33495694; PMID: PMC7816556]	Not Available	Not Available
9.	An antigenic epitopes selection from the outer membrane protein sequences of <i>Aeromonas hydrophila</i> and its analyses with a vaccine construct.	Technology developed [Research work reference: <b>PMID: 32298854]</b>	Not Available	Not Available
10.	An assessment of indigenous hatchery technology of freshwater giant prawn, <i>Macrobrachium rosenbergii</i> (de Man) in West Bengal	The technology was developed during my Ph.D. work (1996-2000/2021)	Not Available	Not Available

### Note on developed technologies:

#### Technology- 1 and Technology- 2. Technology for the design and development of an epitope-based peptide vaccine against the SARS-CoV-2 virus and its multi-epitope vaccine construct

We have developed a vaccine candidate (multi-epitope-based peptide-based vaccine) against SARS-COV-2. It is the first immunoinformatic-based vaccine candidate against SARS-COV-2 throughout the world. This work is well-cited articles in Google Scholar within a year (citation index: more than 270). We have applied for a Korean patent for this innovative approach (**Patent application no. 10-2020-0050552 Reference number: P200860**) and the vaccine candidate (**Patent application no. 10-2020-0172923 Reference number: P202300**)

#### Technology- 8. An assessment of indigenous hatchery technology of giant freshwater prawn, *Macrobrachium rosenbergii* (de Man)

During my Ph.D. research work, I had developed the hatchery technology of giant freshwater prawn, *Macrobrachium rosenbergii*. The technology was invented, the larval rearing tank shape, tank color, light intensity, brooder selection technology, etc. The antibiotic resistance of bacterial diseases pattern was a significant problem in freshwater prawn hatchery from the larval rearing system, and the antibiotic resistance pattern of bacterial infections was also understood.

### PhD STUDENTS/ PhD GUIDED

Sl. No	Name of the Student	Thesis Title	Year of PhD	Current position	Remark
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			<b>Award/ completion</b>		
1.	Shayam sundar Nandi	Cloning, expression and purification of granulocyte colony stimulating factor (GCSF)	2009	Presently, Dr. Shayam Sundar Nandi is working as Assistant Director and Sr. Scientist at National Institute of Virology Mumbai Unit, (Indian Council of Medical Research(ICMR)), Mumbai	Shayam sundar Nandi received degree from Guru Ghasidas University, India. - Jointly Guided with Dr. Ragini Gothlwal
2.	Jinny Tomar	Structural, functional and evolutionary bioinformatics of caspases and its receptor	2012	Presently, Dr. Jinny Tomar is working as Assistant Professor, Department of Biotechnology at Amity University, Gurgaon, Haryana	Jinny Tomar received degree from Gautam Budha technical university (formerly U.P. Technical University, UP, India. Jointly Guided with Dr. VK Gera
3.	Manojit Bhattacharya	Characterizations and germplasm conservation of rare freshwater fish resources of north-eastern India through DNA bar-coding	2019	Presently, Dr. Manojit Bhattacharya is working as Assistant Professor, Department of Zoology at Fakir Mohan University, Odisha, India	Manojit Bhattacharya received degree from Vidyasagar University (WB), India. Jointly Guided with Professor Bidhan Chandra Patra

## RESEARCH GRANT

Sl. No	Name of the research grant	Grant amount	Duration	Granting Agency
1.	Cloning, expression and purification of human granulocyte colony stimulating factor (hGCSF)	25 lacks	2003-2006	Glenmark Laboratories, Mumbai
2.	Analysis of stability of human recombinant epidermal growth factor (rEGF) with silver sulfadiazine a	1.2 lacks	2003	Glenmark Laboratories, Mumbai

## EDITOR/EDITORIAL ACTIVITIES

- Associate Editor, iScience (Cell press Journal) (IF= 5.458) (2020-till date)

- Receiving Editors, Infection, Genetics and Evolution (Elsevier journal) (**IF=3.342**) (2020-till date)
- Associate Editor, Frontiers in Bioengineering and Biotechnology (**IF= 5.890**) (specialty section: Preclinical Cell and Gene Therapy) (2020-till date)
- Associate Editor, 'Frontiers in Pharmacology' (**IF= 5.810**) (specialty section: Experimental Pharmacology and Drug Discovery) (2010-till date)
- Editor, 'Current Microbiology' (**IF= 2.188**) (2021-2022)

## **EDITORIAL BOARD MEMBER**

- Scientific Reports (Nature group) (2015-till date) (**IF= 4.379**)
- BIOCELL (Impact Factor =2.82) (2020-till date) (**IF= 1.254**)
- Interdisciplinary Sciences: Computational Life Sciences(Springer)(2011-till date) (<http://www.springer.com/life+sciences/bioinformatics/journal/12539>) (**IF= 2.233**)
- Genomics, Proteomics & Bioinformatics (Elsevier) (2011-2015) (**IF= 7.691**)
- Current Biotechnology (2012-2014)
- World Journal of Hepatology (2009-2013) (<http://www.wjgnet.com/1948-5182/edboard.htm>)
- World Journal of Gastrointestinal Pharmacology and Therapeutics (<http://www.wjgnet.com>) (2010-2018) (<http://www.omicsonline.com/open-access/editorialboard-advanced-chemical-engineering-open-access.php>)
- World Journal of Pharmacology (2011-2018) (<http://www.wjgnet.com>)
- World Journal of Stem Cells (<http://www.wjgnet.com>) (2011-2018) (<http://www.wjgnet.com>)

## **GUEST EDITOR FOR SPECIAL ISSUE**

- **Special issue:** Anti-Infectives (2021) (Current Opinion in Pharmacology; **IF: 5.547**) Edited by Elijah Ohimain, Chiranjib Chakraborty
- **Special issue:** Recent paradigm shift in genomics and proteonomics in medical biology (2015) Frontiers Biosciences (Landmark Ed) (**IF: 4.009**) ([http://www.bioscience.org/special-issue-details?editor\\_id=89](http://www.bioscience.org/special-issue-details?editor_id=89))

## **REVIEWER ASSIGNMENT**

ADHOC reviewer more than 25 SCI and Scopus indexed journals

- Reviewer, Lancet (**IF: 79.32**)
- Reviewer, The Lancet Infectious Diseases(**IF: 25.071**)
- Reviewer, Nature Biotechnology (**IF: 25.071**)
- Reviewer, Molecular Cancer (**IF: 27.401**)
- Reviewer, Aging and diseases (**IF: 6.745**)
- Reviewer, Frontiers in Immunology (**IF: 7.561**)
- Reviewer, Reviewer, Frontiers in Pharmacology (**IF: 5.810**)
- Reviewer, Frontiers in Oncology (**IF: 6.244**)
- Reviewer, Advanced Science(Wiley-VCH) (**IF: 16.804**)
- Reviewer, PLoS ONE
- Reviewer, Cell Biochemistry and Biophysics (Springer)

- Reviewer, Applied Biochemistry and Biotechnology(Springer)
- Reviewer, Process Biochemistry (Elsevier)
- Reviewer, Biotechnique
- Reviewer, IET Systems Biology ( Journal from Institution of Engineering and Technology Digital Library)
- Reviewer, BMC Biotechnology (BMC-series journals)
- Reviewer, Environmental Biology of Fishes (Springer)
- Reviewer, Applied Energy (Elsevier)
- Reviewer, Applied Microbiology and Biotechnology (Springer)
- Reviewer, Fish and Shellfish Immunology (Elsevier)
- Reviewer, Preparative Biochemistry & Biotechnology (Taylor & Francis)

Many More

### **MEMBER OF THE COMMITTEE UNIVERSITY / ACADEMIC RESPONSIBILITIES**

- Member, Internal Quality Assurance Cell (IQAC), Adamas University (2020-till date)
- Member, Academic Council, Adamas University, India (2019-till date)
- Chairman, Animal Ethics Committee, Adamas University, India (2019-till date)
- Member, Research Advisory Board, Adamas University, India (2019-till date)
- Member, Board of Studies, Department of Biotechnology, Adamas University, India (2019-till date)
- Member, Faculty council, School of Life Science and Biotechnology, Adamas University, India (2019-till date)
- Chairman, Question Paper Moderation Committee, School of Life Science and Biotechnology, Adamas University, India (2019-till date)
- Chairman, Mentorship Committee, Adamas University, India (2019-till date)
- Member, University Research Committee (URC), Galgotias University (2015-2018)
- Member, School Research Committee (SRC) Galgotias University (2017-2018)

### **Invited Lectures**

**2021: Topics: “Dreaming for India’s next-generation bioinformatics and basic research toward 2047”** A refresher course (on ‘Biotechnology & Bioinformatics’ From 16th August to 31st August 2021 supported by UGC-Human Resource Development Centre, NEHU, Shillong) and organized by Department of Biotechnology & Bioinformatics, North Eastern Hill University, **India (25th August(9:30 am to 11:00 am)** through zoom meeting). Delivered lecture as a resource person.

**2021: Topics: “Structural Bioinformatics in Drug Discovery”** A refresher course (on ‘Biotechnology & Bioinformatics’ From 16th August to 31st August 2021 supported by UGC-Human Resource Development Centre, NEHU, Shillong) and organized by Department of Biotechnology & Bioinformatics, North Eastern Hill University, **India (24th August (11:30 am to 12:30 am)** through zoom meeting). Delivered lecture as a resource person.



- 2020: Topics: “Overview of Drug discovery and Development using Bioinformatics : A recent scenario”.** A webinar organized by Amity Institute of Biotechnology, Amity University, Gurgaon, India (8 th May 2020 Time 2:00 PM through zoom meeting).
- 2015: Topics: “Zebrafish model: an Absolute Animal Model to Study in vitro Drug Discovery, Different Diseases Mechanism and miRNA Research”** In: 14th Congress of Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB) entitled “*Current Excitements in Biochemistry and Molecular Biology for Agriculture and Medicine*” during 27 - 30 November 2015 organized by **Centre for Cellular and Molecular Biology (CCMB)**, Hyderabad, Telangana, **India**.
- 2015: Topics: “From bench to market: an overview about the process of drug discovery and development”** (Popular lecture) In: “*Interdisciplinary approach of Science in Advancement of Technology: Art of human Welfare*” during 15-16 October, 2015 organized by Galgotias College of Engineering and Technology, Greater Noida, UP, **India**.
- 2015: Topics: “miRNA-an emerging therapeutic tool for different human diseases”**  
In: *Institute For Skeletal Aging & Orthopedic Surgery, Hallym University-Chuncheon Sacred Heart Hospital, Chuncheon, 200704, Korea; 18<sup>th</sup> June 2015, South Korea*
- 2014: Topics: “Computational Biology in Genomics and Proteomics Research”** In: “Climate Change, Bioresource & Green Biotechnology” during 12-13 March, 2014 organized by Department of Aquaculture Management & Technology, *Vidyasagar University, Midnapore, West Bengal, India*
- 2014: Topics: “Application of Computational Biology in Genomics and Proteomics”** In: *Biogenesis- III -6th March 2014, College of Eng and Technology, (IILM Academy), Greater Noida, India*
- 2013: Topics: “Genomics and Proteomics for Medical Science Research Using Bioinformatics”** In: *Institute For Skeletal Aging & Orthopedic Surgery, Hallym University-Chuncheon Sacred Heart Hospital, Chuncheon, 200704, South Korea; 18<sup>th</sup> December,*
- 2011: Topics: “Molecular phylogenetics, conserved domain and binding grooves of critical nodes in a signal-transduction pathway: An exploration of insulin signaling pathway”.** In: *Machine Intelligence Unit, Indian Statistical Institute; Kolkata, India; 28<sup>th</sup> December*
- 2011: Topics: “Computational Biology in Genomics and Proteomics”.** In: *Department of Zoology, Vidyasagar University; Midnapore, West Bengal, India; 23<sup>rd</sup> August.*
- 2007: Topics: “Pharmacogenomics and drug discovery”.** In *International conference and workshop entitled “International conference and workshop of genetics: the basis and diagnosis of genetic disorders”.* (Organized by: *Department of Human Genetics, Sri Ramachandra University, Chennai, India*) 1-4<sup>th</sup> Feb.

- 2006:** Topics: “**Different animal models for drug discovery and development**”. In: *Department of Marine resources & Biotechnology, College of Marine Science, Department of Marine Biotechnology and Resources; National Sun Yat-sen University; Kaohisung; Taiwan.* 16<sup>th</sup> November
- 2006:** Topics: “**Bioinformatics and drug discovery**”. In: *College of Biological Science, National Sun Yat-sen University; Kaohisung; Taiwan.* 5<sup>th</sup> October.
- 2006:** Topics: “**Drug screening and drug discovery from Indian medicinal plant using the zebrafish model**”. In seminar entitled “*Development of active pharmaceutical ingredients from Medicinal plants through international cooperation and academic exchanges with India*” (Organized by Department of Pharmaceutical Science, Tajen University; **Taiwan**) 28<sup>th</sup> September.
- 2006:** Topics: “**From bench to market: Application of drug discovery and development**”. In seminar entitled “*Biohorizon’ 2006, the 8th National symposium on Biochemical Engineering and Biotechnology*” (Organized by Biochemical Engineers and Technologists Association (BETA), Department of Biochemical Engineering and Biotechnology, Indian Institute of Technology, Delhi, **India**) 10<sup>th</sup> March
- 2005:** Topics: “**Therapeutics’ biotechnology**”. In seminar entitled “*New Horizons in applied biosciences & entrepreneurship development*” (Organized by Indian federation of biotechnologists (IFB) & Indian Institute of Petroleum (CSIR), Dehradun, **India** 7<sup>th</sup> & 8<sup>th</sup> May.
- 1998:** Topics: “**Fish diseases**”. In: (Organized by Department Agriculture and Food Engineering, Indian Institute of Technology, Kharagpur, **India**) 23-29<sup>th</sup> November

## MEMBERSHIP

- Senior member, Hong Kong Chemical, Biological & Environmental Engineering Society (HKCBEEES)
- International Association of Engineers (IAENG)
- IAENG Society of Bioinformatics, Canada & IAENG Society of HIV/AIDS, Canada
- European Society of Cardiology, France (Working Group on Atherosclerosis and Vascular Biology)
- Indian Science Congress Association (Life member)
- Academy of Environmental Biology (AEB), India (Life member)
- Society of Biological Chemists, India (Life member)
- Indian Association of Aquatic Biologists (IAAB) (Life member)

## EVALUATOR/ REVIEWER OF INTERNATIONAL RESEARCH GRANT

Evaluated several research grants as external reviewer/international reviewer for the following funding agencies:

- British Council in Israel, Israel, 2009
- Association Française contre les Myopathies (AFM), France
- SPARC (Ministry of Human Resource Development), India, 2019

- University of Puerto Rico COVID-19 Grant, Puerto Rico Science, Technology and Research Trust, 2020
- The Wellcome Trust/DBT India Alliance Fellowship, 2021
- The Qatar National Research Fund (QNRF), 2021

## **WORKSHOP ATTENDED**

- Techniques on molecular biology & biotechnology for insect plant studies, Entomology Research Institute (Loyola College), Chennai, India, 1999. (One month)
- Electron microscopy and its application in biological science, Electron Microscopy Society in India, 1997(One week).

## **FACULTY DEVELOPMENT PROGRAMME (FDP) ATTENDED**

- FDP on faculty induction training programme, VIT University, Vellore, India, 2010(3 Days)
- FDP on “ Microbial Diagnostics, Public Health & Modeling in Health Sciences”, VIT University, Vellore, India, 2010(1 Days)
- FDP on “ Protein Interactions and Dynamics ”, VIT University, Vellore, India, 2011(2 Days)
- FDP on “ Recent Research Trends in Nano-Biotechnology ”, VIT University, Vellore, India, 2011(2 Days)

## **MEDIA COVERAGE**

1. Snahalata Banerjee Gold Medal, 1998 was highlighted by Fishing Chimes, a magazine of fishery science [[Fishing Chimes](#) (1999)19(9)37].
2. An interview was published in Bioimpulse, a life science magazine [[Bioimpulse](#) (2007), 1, 40-41].
3. My bioinformatics book (Bioinformatics: Approaches and Applications) was highlighted by The Navhind Times (Navhind Times Science division, August 18, 2004)
4. Our research article entitled “Potentialities of induced pluripotent stem (ips) cells for treatment of diseases( [Current Molecular Medicine](#) 10(8):756-62)”has been highlighted by NewsRX, a science news publisher in USA. The new has been published by in the Drug Week section (NewsRX) on 11<sup>th</sup> February, 2011.
5. Our research article entitled “Landscape mapping of functional proteins in insulin signal transduction and insulin resistance: A network based protein-protein interaction analysis. (PLoS ONE. 6(1): e16388.)” has been highlighted by NewsRX, a science news publisher in USA. The new has been published by in the Life Science Weekly section (NewsRX) on 22<sup>nd</sup> March, 2011.
6. Our research article entitled “relationship between the nuclear reprogramming factors for (iPS) cells generation”( [Medical hypotheses](#). 76(4):507–511) has been highlighted by NewsRX, a science news publisher in USA. The new has been published by Biotech Business Week section of NewsRX on 2<sup>nd</sup> May 2011.
7. Our research article entitled “Effect of caffeine, norfloxacin and nimesulide on heartbeat and VEGF expression of zebrafish larvae”( [Journal of Environmental Biology](#) 32(2): 179-183) has been highlighted by NewsRX, a science news publisher in USA. The new has been published by NewsRX on 23<sup>rd</sup> May 2011
8. Our research article entitled “effects of propofol on proliferation and anti-apoptosis of neuroblastoma SH-SY5Y cell line: New insights into neuroprotection.”( [Brain Research](#) 1384: 42–50) has been highlighted by NewsRX, a science news publisher in USA. The new has been published by Biotech Business Week section of NewsRX on 25<sup>nd</sup> May 2011

***Many more***

## References

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