Resume

Professor Chiranjib Chakraborty, PhD

e-mail:drchiranjib@yahoo.com
Phone-+91-9871608125
Skype id: drchiranjib
https://scholar.google.com/citations?user=3m8rwpUAAAAJ

SHORT BIOSKETCH

Professor Chiranjib Chakraborty has been a full professor for the past ten years. Presently, Professor Chakraborty is working as a Professor at the Department of Biotechnology at Adamas University Kolkata. He was a former Professor at Galgotias University, India (NIR Franking 100-150 in the year 2023 and A+ ranking in NAAC), and a former Associate Professor at VIT University, Vellore, India (NIRF ranking 8 in the year 2023 and A++ ranking in NAAC). Dr. Chakraborty is also a visiting Professor at Institute for Skeletal Aging (ISA), Hallym University, South Korea (QS World University Ranking 571-580 in the year 2023). **He has 27 years of research experience, including four years of industrial R&D experience. Professor Chakraborty has 19 years of teaching experience.** He has more than ten years of Editorial experience in reputed journals such as Infection, Genetics, and Evolution (IF=3.2), associate editor of Frontiers in Pharmacology (IF=5.6), iScience (Cell Press Journal) (IF= 5.8) (2020-2022); editorial board member of Genomics, Proteomics & Bioinformatics (Elsevier) (2011-2015)(IF= 9.5), Scientific Reports (IF: 4.6), 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, infectious disease, ncRNA, drug targets and therapeutics, etc. **Dr. Chakraborty has developed 13 technologies. Among his 13 innovative technologies, one patent has been granted and patent applications were filed for other seven technologies. He received eleven awards. He published more than 281 SCI/SCIE and Scopus index biomedical articles, five books, and two edited books.** These peer-reviewed articles have been published in different prestigious journals such as **Nature, Lancet Infectious Diseases, Molecular Therapy, Molecular Therapy Nucleic Acids, Theranostics, Frontiers Immunology, Journal of Infection and Public Health, GeroScience, Infectious Diseases of Poverty, Journal Advances Research, WIREs RNA, Brain Behavior and Immunity, Journal of Medical Virology, Biochimica et Biophysica Acta (BBA) - Reviews on Cancer, Reviews in Medical Virology, mBio, Travel Medicine and Infectious Disease, Journal of Controlled Release (JCR), Aging and Disease, Journal of nanobiotechnology, International**

Journal of Surgery, Archives of Medical Research, Medicinal Research Reviews, International Journal of Biological Macromolecules, Pharmacological Reviews, Computer Methods and Programs in Biomedicine and many more. His research metrics are as follows: h-index: 53; i10 index: 146; Citation: 8889 (According to Google Scholar); Cumulative SCIE Impact Factor (IF): 1868.166; Average SCI/SCIE Impact Factor: 6.64). He was selected for India's highly prestigious "Tata Innovation Fellowship" for 2022-2023 from the Department of Biotechnology, Ministry of Science and Technology, Govt. of India. He was listed top 2% of Scientists in the World by Stanford University, USA/Elsevier BV for three consecutive years (2020, 2021, and 2022).

CURRENT POSITION AND EXPERIENCE SUMMARY

- Professor, School of Life Science and Biotechnology, Adamas University, Barrackpore –Barasat Rd, Kolkata, India.
- Director, Center for Research and Innovation (CRI), Adamas University, Kolkata, India
- Visiting Professor, Institute for Skeletal Aging & Orthopedic Surgery, Hallym University, College of Medicine, Chuncheon, Gangwon-do, South Korea(QS world university Ranking 571-580 in the year 2023)
- **Full professor position for more than ten years**
- More than 19 years of teaching experience, 27 years of research experience, and more than ten years of Editorial experience in reputed journals.
- Editor of Infection, Genetics, and Evolution (IF=3.2), associate editor of Frontiers in Pharmacology (IF=5.6), Frontiers in Bioengineering and Biotechnology (IF=5.7),
- Previously served as an academic editor iScience (Cell Press Journal) (IF= 5.8)(2020-2022); previous editor of Current Microbiology (IF= 2.6)(2021-2022) (Springer nature journal); editorial board member of Genomics, Proteomics & Bioinformatics (Elsevier) (2011-2015)(IF= 9.5)
- **Editorial Board Member of more than 10 SCI/SCIE journals such as Scientific Reports (IF: 4.6) (Nature group)**; Interdisciplinary Sciences: Computational Life Sciences (Springer) (**IF: 4.8**); Biocell **(IF: 1.2**) (2020-till date) and several others.
- **Selected for India's highly prestigious "Tata Innovation Fellowship" for 2022-2023 from the Department of Biotechnology, Ministry of Science and Technology, Govt. of India**
- **Listed top 2% of the Scientists in the world listed by Stanford University, USA/Elsevier BV in three consecutive years (2020, 2021, and 2022).**

RESEARCH INTERESTS AND CITATION INDEX

- **Research interest**: Medical Bioinformatics, Immunoinformatics, Infectious disease, ncRNA, Mutation, Drug targets and Therapeutics
- **Research Matrix**

Number of publication: SCIE& Scopus indexed Publications: 281; Book Chapters: 09
Citation in Google Scholar: h-index: 53; i10 index: 146; Citation: 8889; 7 Papers with more than 200 citations (i200 index: 7) and 19 Papers with more than 100 citations(i100 index: 19)
Citation in Scopus: Scopus h-index: 44 Citation: 6396
Cumulative SCI Impact Factor: 1868.166 Average SCIE Impact Factor:6.62;
Technology developed: 12 ; Patent (Granted):1 Patent (applied): 7
Single Author (SCI & Scopus indexed): 4; First Author (SCI & Scopus indexed): 105;
Corresponding Author (SCI & Scopus indexed):130 (Corresponding since 2003);
PhD guided:03 (Degree awarded);**Invited talks: 19; Research Award received: 10**

PERSONAL INFORMATION

Name: Chiranjib Chakraborty
(As per all Certificates, family name (Surname) spelled as: **Chakravartty**)
Date of Birth: January 11, 1973
Nationality: Indian
Citizenship: Indian
Marital Status: Married

PROFESSIONAL EXPERIENCE

More than 27 years in Scientific Research and Teaching experience in India and aboard.

- Total research experience**:** 27 Years [including industrial R&D (Industrial Research & Development) experience:4 years]
- Total teaching experience:**19 Years**
  - ❖ **Within India**

S.No.	Position held	Name of the Organization	Period
1.	**Professor**	Adamas University, Kolkata, India	October, 2018- Till Date
2.	**Professor**	Galgotias University, Greater Noida, India (NIRF ranking 157 in the year 2022)	May, 2012 to September,2018
3.	**Associate Professor**	VIT University,Vellore, India (NIRF ranking 9 in the year 2022)	April, 2010 to April, 2012
4.	**Associate Professor**	College of Engineering and Technology, (IILM Academy of Higher Learning), Greater Noida, UP, India	Jan,2009 toApril,2010
5.	**Assistant Professor**	College of Engineering and Technology, (IILM Academy of Higher Learning), Greater Noida, UP, India	July,2005 to Dec, 2008
6.	**Assistant Professor and HOD**	Institute of Applied Medicine and Research, UP, India	June,2004 to June, 2005
7.	**Sr. Scientist**	Genmark Laboratories, Mumbai, India	May,2002 to June,2004
8.	**Research Scientist**	Macleods Pharmaceuticals, Mumbai, India	August,2000 to April,2002
9.	**Lecturer (Ad-Hoc)**	Burdwan Raj College, Burdwan, WB, INDIA	April,1999 to July,2000
10.	**Junior Research Fellow**	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.	**Visiting Scientist**	Indian Statistical Institute, Kolkata, India	March 12, 2011 to March 21, 2011
2.	**Visiting Scientist**	Indian Statistical Institute, Kolkata, India	December 02,-2011 to December30,2011
3.	**Visiting Research Fellow**	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.	**Visiting Professor**	Institute for Skeletal Aging (ISA),Hallym University, College of Medicine, Chuncheon, Gangwon-do, South Korea(QS World University Ranking 571-580 in the year 2023)	December 2018 to January 2019 (Approx. one month)
2.	**Visiting Professor**	Institute for Skeletal Aging (ISA), Hallym University, College of Medicine, Chuncheon, Gangwon-do, South Korea(QS World University Ranking 571-580 in the year 2023)	May2015 to June 2015 (Approx. one month)
3.	**Visiting Professor**	Institute for Skeletal Aging (ISA), Hallym University, College of Medicine, Chuncheon, Gangwon-do, South Korea(QS World University Ranking 571-580 in the year 2023)	November2013 to December, 2013(Approx. one month)
4.	**Visiting Research Fellow**	Department of Computer Sciences, Hong Kong Baptist University, Kowloon Tong, Hong Kong(QS World University Ranking 281 in the year 2023)	November, 2014 to December,2014 (Approx. one month)
5.	**Sr. Visiting Fellow**	Institute of Animal Science and Veterinary Medicine, Chinese Academy of Agricultural Sciences, Beijing 100193, China	October,2009 to December, 2009(Approx. three months)
6.	**Visiting Research Professor**	Dept. of Marine Biotechnology and Resources, National Sun Yat-sen University; Kaohsiung; Taiwan(QS World University Ranking 428 in the year 2023)	July,2006 to January, 2007 (Six months)
7.	**Post Doctoral Fellow**	University of Massachusetts, Dartmouth, USA(QS World University Ranking 581-590 in the year 2023)	October, 2002 to December,2003 (One year and one month)

ADMINISTRATIVE EXPERIENCE

S.No.	Position held	Name of the Organization	Period
1.	**Vice-Chancellor (Acting)**	Adamas University, Kolkata, India	3rd October 2019 (For one day)
2.	**Dean**	School of Life Science and Biotechnology, Adamas University, Barrackpore –Barasat Rd, Kolkata, India	March, 2019 to December, 2019 (Approx. 10 months)
3.	**Director**	Innovation Centre, Adamas University, Barrackpore – Barasat Rd, Kolkata, India	October, 2018 to Till date (More than three years)
4.	**Research Director**	Galgotias University, Greater Noida, India	March, 2018 to September,2018 (Six months)
5.	**Head, Dept. of Biotechnology**	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

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

Language of instruction: English

AWARD

- **2023-Selected for India's highly prestigious "Tata Innovation Fellowship" For 2022-2023**

Awarding organization: Department of Biotechnology, Ministry of Science and Technology, Govt. of India

- **2023-Global Research Excellence Award**

Awarding organization: IEEE and IAS (IEEE Industry Application Society)

Award citation: This **special Award was given** for the outstanding contribution to the research. This special Award has been given in the conference "2023 IEEE IAS Global Conference on Renewable Energy and Hydrogen Technologies (GlobConHT)" at The Maldives National University, Male City, Maldives. The award was handed over by Professor Syed Mofizul Islam Associate Deputy Vice Chancellor (Research and Innovation) Federation University Australia.
Award Receiving Date: 11th and 12th March 2023

- **2021- Chancellor Award (The Award is also called Spirit of Adamas University).**

Awarding organization: Hon'ble Chancellor, Adamas University, Kolkata, India,
Award citation: This **special Award was given by the Hon'ble Chancellor, Adamas University, Kolkata,** India, who "has gone the extra mile" for the university. This special Award has been given for the commendable research performance in 2021. The award was handed over by Hon'ble Chancellor, Adamas University, Kolkata.
Award Receiving Date: 18th December 2021

- **2021- Research excellence award**

Awarding organization: Adamas University, Kolkata, India
Award citation: The Award was given as the best researcher for the year 2021 among the faculty members of School of Life Science and Biotechnology
Award Receiving Date: 18th December 2021

- **2021- Dr. Sang-Soo Lee international research award**

Awarding organization: Institute for Skeletal Aging and Chuncheon sacred heart hospital, Hallym University, South Korea
Award citation: The Award given for research excellence in the area of medical bioinformatics for the year 2020. The Award was given by ISA and Chuncheon Sacred Heart Hospital, South Korea (Award Value: 1 million Korean won after deduction of tax (Taxation of Nonresident Alien))
Award Receiving Date: 12th November 2021

- **2020- AEB-IFI National Award**

Awarding organization: Academy of Environmental Biology, Lucknow, India,
Award citation: The Award received from the Academy of Environmental Biology, for the Excellence in Science. The Award is given by the Academy every year to one eminent scientist for his profound contribution to Science.
Award Receiving Date: 28th December 2020

- **2020-Research excellence award**

Awarding organization: Adamas University, Kolkata, India
Award citation: The Award was given as the best researcher for the year 2020 among the faculty members of the School of Life Science and Biotechnology
Receiving Date: 18th December 2020

- **2016- Recipient of EET-CRS 4th Academic Brilliance Awards**

Awarding organization: EET-CRS
Award citation: The Award was given to the best researcher for the year 2016 per the discussion in the organization meeting of EET-CRS
Award Receiving Date: 7th February 2016

- **2012- Publication award , VIT University, India**

Awarding organization: VIT University, Vellore, India
Award citation: The Publication award was given by the VIT University, Vellore, India, for the publication in a peer-reviewed journal in 2010 & 2011. The Award contains a cash award of INR 5,000 and a certificate.
Award Receiving Date: 12nd January 2012

- **2010- Publication award, National Sun Yat-sen University, Taiwan**

Awarding organization: Marine Biotech Department, National Sun Yat-sen University, Taiwan
Award citation: The Award was given by Dr. CH Lin, Dean of School of Marine Science, for the publication in SCI/SCIE and Scopus indexed with Good impact factor journals with Affiliation of Marine Biotech Department, National Sun Yat-sen University, Taiwan. It contains a cash award of USD 1471 after deduction of tax (Taxation of Nonresident Alien).
Award Receiving Date: 22nd September 2010

- **Snahalata Banerjee Gold Medal (1998)**

Awarding organization: Academy of Environmental Biology, Lucknow, India,
Award citation: It was awarded by the Academy of Environmental Biology, for adjudicated best-published research award from the Ph.D. work. **Publication:** 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. The award was handed over by Professor B. Satyam Rector Andhra University, Visakhapatnam.
Award Receiving Date: 2nd December 1999

HONORS

- My interview was highlighted in the journal "The Lancet Infectious Diseases" through the topic entitled "DNDi receives Dutch funding boost."
  Bagcchi S. DNDi receives Dutch funding boost. Lancet Infect Dis. 2023 May;23(5):535. doi: 10.1016/S1473-3099(23)00222-0. PMID: 37086729.
  [https://pubmed.ncbi.nlm.nih.gov/37086729/]
  [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(23)00222-0/fulltext]
- Reorganization for **Top Cited Article 2021-2022 published** in Reviews in Medical Virology from Wiley [PMCID: PMC8420283].
- **2022: Listed in the World's Top 2% Scientists**(Elsevier BV/Stanford University, USA) (https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/5)
- Session Chair (Evening session on September 21, 2021, [IST: 8:00 Pm to 10 Pm]) International conference [Blended Mode] on "BIONEXT 2022: Frontiers on modern biology" September 21-23, 2022.
- Convener, International conference on "BIONEXT 2022 : Frontiers on modern biology" during September 21-23, 2022[Blended Mode]
- Session Chair (Afternoon session(12:00 to 1:30pm) on 16th September 2022) in Global Summit on Sustainable Science and Technology (GS3T) during15-16th September 2022.

- Appointed as Conference General Chair of 3rd International Conference on Artificial Intelligence and Healthcare in 2022 (August 26th to 28th , 2022) (CAIH2022) (http://www.icaih.org/; http://www.icaih.org/committeeSpeaker)
- **2021: Listed in the World's Top 2% Scientists** (Elsevier BV/Stanford University, USA)(https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3)
- Session Chair (Afternoon session on 22nd 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
- **2020: Listed in the World's Top 2% Scientists** (Elsevier BV/Stanford University, USA)(https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/2)
  (Baas, Jeroen; Boyack, Kevin; Ioannidis, John P.A. (2021), "August 2021 data-update for "Updated science-wide author databases of standardized citation indicators", Mendeley Data, V3, doi: 10.17632/btchxktzyw.3 and
  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), 28-30thMay, 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),.26-29th 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)28-30thOctober, 2011, Shanghai, China
- Technical Committee Member, National Conference on Emerging Trends in Applied Science, on September 23-24, 2016.
- Technical Committee Member, 2nd 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 27-28thApril, 2006.

RESEARCH ACHIEVEMENTS

- **Citation**

Cumulative Citation Index: **8889**; h-Index: **53**; i10-index: **146** (citation report based on Google scholar

report) **19 Papers with more than 100 citations**
Google Scholar ID: 3m8rwpUAAAAJ
Scopus ID: 56219079200
Orcid ID: 0000-0002-3958-239X
Web of Science Researcher ID: AAV-1132-2021

- **Publication Achievements**
  Total peer reviewed publication: **288**
  Total SCI/SCIE and Scopus index Publications**: 281 (and 3 SCI book chapters);** Cumulative SCIE Impact Factor: **1868.166** Average SCI Impact Factor: **6.64**

- **Publication- books**
  Edited book:**2**; Book: **4**

LIST OF PUBLICATIONS

SCIE and Scopus index ***PUBLICATIONS***

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

[**2023**]

281. Islam MA, Dhama K, Islam AA, Bhattacharya P, Chandran DD, Bhattacharya M, **Chakraborty C,** Harapan H, Gawlik BM, Barcelo D, Sonne C. (2023) Mpox virology, epidemiology, immune response, pathology, diagnosis, potential treatments, and preventive measures: A zoonotic human disease. Frontiers in Public Health 11:1182196 doi: 10.3389/fpubh.2023.1182196 **IF: 5.2**

280. Pal S**,** Bhattacharya M, Dash S, Lee SS, **Chakraborty C** (2023) Future potential of quantum computing and simulations in biological science. Molecular Biotechnology **IF: 2.6 (Accepted)**

279. Pal S, Bhattacharya M, Islam MA, **Chakraborty C** (2023) ChatGPT or LLM in next-generation drug discovery and development: Pharmaceutical and biotechnology companies can make use of the artificial intelligence (AI)-based device for a faster way of drug discovery and development. International Journal of Surgery **IF: 15.3 (Accepted)**

278. **Chakraborty C**, Bhattacharya M. (2023) The current landscape of long COVID clinical trials: NIH's RECOVER to Stanford Medicine's STOP-PASC initiative. Molecular Therapy - Nucleic Acids. **IF: 8.8 (Accepted)**

277. **Chakraborty C**, Bhattacharya M, Islam MA, Agoramoorthy G, (2023) ChatGPT indicates the path and initiates the research to open up the black box of artificial intelligence. International Journal of Surgery **IF: 15.3 (Accepted)**

276. **Chakraborty C**, Bhattacharya M, Lee SS. (2023) Artificial intelligence (AI) enabled ChatGPT and large language models (LLMs) in drug target discovery, drug discovery and development. Molecular Therapy - Nucleic Acids. **IF: 8.8 (Accepted)**

275. Chakraborty S, Chopra H, Akash S, **Chakraborty C**, Dhama K. (2023) Advances in artificial intelligence (AI)-based diagnosis in clinical practice-correspondence. Annals of Medicine and Surgery (Lond) 85(7):3757-3758. doi: 10.1097/MS9.0000000000000959.
[https://pubmed.ncbi.nlm.nih.gov/37427159/]

274. Chakraborty S, Mohapatra RK, Chandran D, Chopra H, Mishra S, Tuglo LS, **Chakraborty C**, (2023) Dhama K. Countering hepatitis E infection in South Sudan in the backdrop of recent outbreak. New Microbes and New Infections:101165. doi:10.1016/j.nmni.2023.101165 **IF: 4.0**
[https://pubmed.ncbi.nlm.nih.gov/37485075/]

273. Pal S, Bhattacharya M, Lee SS, **Chakraborty C** (2023) A domain-specific next-generation large language model (LLM) or ChatGPT is required for biomedical engineering and research. Annals of Biomedical Engineering doi:10.1007/s10439-023-03306-x **IF: 3.8**
[https://pubmed.ncbi.nlm.nih.gov/37428337/]

272. Chatterjee S, Bhattacharya M, Lee SS, **Chakraborty C** (2023) Can artificial intelligence-strengthen ChatGPT or other large language models (LLM) transform nucleic acid research? Molecular Therapy - Nucleic Acids doi: 10.1016/j.omtn.2023.06.019 **IF: 8.8**

271. Chakraborty S, Chopra H, Akash S, Chakraborty C, Dhama K. (2023) Artificial intelligence (AI) paving critical role in drug discovery, drug designing and studying drug-drug interactions - Correspondence. International Journal of Surgery 2023 Jun 22. doi: 10.1097/JS9.0000000000000564. **IF: 15.3**
[https://pubmed.ncbi.nlm.nih.gov/37352517/]

270. Chopra H, Chakraborty S, Akash S, **Chakraborty C**, Dhama K. (2023) Organ-on-Chip: a new paradigm for clinical trials-Correspondence. International Journal of Surgery doi: 10.1097/JS9.0000000000000578 **IF: 15.3**
[https://pubmed.ncbi.nlm.nih.gov/37352514/]

269. **Chakraborty C,** Bhattacharya M, Lee SS (2023) Need an AI-enabled, next-generation, advanced ChatGPT or large language models (LLMs) for error-free and accurate medical information. Annals of Biomedical Engineering doi: 10.1007/s10439-023-03297-9 **IF: 3.8**
[https://pubmed.ncbi.nlm.nih.gov/37368124/]

268. Saied AA, Metwally AA, Dhawan M, Chandran D, **Chakraborty C**, Dhama K. (2023) Wastewater surveillance strategy as an early warning system for detecting cryptic spread of pandemic viruses. QJM: An International Journal of Medicine doi: 10.1093/qjmed/hcad130. PMID: 37307065. **IF: 13.3**
[https://pubmed.ncbi.nlm.nih.gov/37307065/]

267. **Chakraborty C,** Bhattacharya M, Dhama K, Lee SS, (2023) Quantum computing on nucleic acid research: Approaching towards next-generation computing. Molecular Therapy - Nucleic Acids doi: 10.1016/j.omtn.2023.06.007 **IF: 8.8**

266. Chatterjee S, Bhattacharya M, Dhama K, Lee SS, **Chakraborty C**(2023) Molnupiravir's mechanism of action drives "error catastrophe" in SARS-CoV-2: A therapeutic strategy that leads to

lethal mutagenesis of the virus. Molecular Therapy - Nucleic Acids doi: 10.1016/j.omtn.2023.06.006. **IF: 8.8**
[https://pubmed.ncbi.nlm.nih.gov/37397276/]

265. Bhattacharya M, Alshammari A, Alharbi M, Dhama K, Lee SS, **Chakraborty C** (2023) A novel mutation-proof, next-generation vaccine to fight against upcoming SARS-CoV-2 variants and subvariants, designed through AI enabled approaches and tools, along with the machine learning based immune simulation: A vaccine breakthrough. International Journal of Biological Macromolecules : 124893. doi:10.1016/j.ijbiomac.2023.124893 **IF: 8.2** (Joint-first and Corresponding Author)
[https://pubmed.ncbi.nlm.nih.gov/37207746/]

264. **Chakraborty C,** Bhattacharya M, Saha A, Alshammari A, Alharbi M, Saikumar G, Pal S, Dhama K, Lee SS (2023) Revealing the structural and molecular interaction landscape of the favipiravir-RTP and SARS-CoV-2 RdRp complex through integrative bioinformatics: Insights for developing potent drugs targeting SARS-CoV-2 and other viruses. Journal of Infection and Public Health. 16 (7):1048-1056. doi:10.1016/j.jiph.2023.05.010 **IF: 6.7**
[https://pubmed.ncbi.nlm.nih.gov/37196368/]

263. Pal S, Bhattacharya M, Lee SS, **Chakraborty C** (2023) Quantum computing in next-generation computational biology landscape. Molecular Biotechnology doi: 10.1007/s12033-023-00765-4 **IF: 2.6**
[https://pubmed.ncbi.nlm.nih.gov/37244882/]

262. **Chakraborty C,** Bhattacharya M, Saikumar G, Alshammari A, Alharbi M, Dhama K, Lee SS, (2023) A European perspective of phylogenomics, sublineages, geographical distribution, epidemiology, and mutational landscape of mpox virus: Emergence pattern may help to fight the next public health emergency in Europe. Journal of Infection and Public Health 16(7):1004-1014. doi: 10.1016/j.jiph.2023.04.017 **IF: 6.7**
[https://pubmed.ncbi.nlm.nih.gov/37172461/]

261. Kaiwan O, Sethi Y, Khehra N, Padda I, Chopra H, Chandran D, Dhama K, **Chakraborty C,** Islam MA, Kaka N (2023) Emerging and re-emerging viral diseases, predisposing risk factors, and implications of international travel: a call for action for increasing vigilance and imposing restrictions under the current threats of recently emerging multiple Omicron subvariants. International Journal of Surgery 2023 Mar 1;109(3):589-591. doi: 10.1097/JS9.0000000000000176. **IF: 15.3**
[https://pubmed.ncbi.nlm.nih.gov/37093096/]

260. Praveen SV, Kasilingam D, Lohia R, Bhatia R, **Chakraborty C**, Ahmed SK, Dhama K (2023) Understanding the emotions of Syrians and Turks towards the 2023 earthquake using Natural Language Processing techniques – Crucial for Mental health professionals in treating patients. Asian Journal of Psychiatry. doi: 10.1016/j.ajp.2023.103590 **IF: 9.5**

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- **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 tigerprawn 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]

TEACHING EXPERIENCE

More than 19 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 LearningUP India (2005-2006 and 2007-2010)

4) Department of Marine Biotechnology Department of Marine Biotechnology and Resources; National Sun Yat-senUniversity,Taiwan. (2006-2007)(**QS World University Ranking 428 in the year 2023)**

5) School of Bio-Sciences and Technology, VIT University, Vellore, India (2010-2012) **(NIRF ranking 9 in the year 2022)**

6) Department of Bio-informatics and biochemistry, Galgotias University, India (2012-2018)**(NIRF ranking 157 in the year 2022)**

7) Hallym University, College of Medicine, Chucheon, Gangwon-do, South Korea**(QS World University Ranking 571-580 in the year 2023)**

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 Bioinformatics, Bioinformatics, Statistics and Bioinformatics, Statistics and computational biology (and its application), Drug discovery and Development, Pharmaceutical Biotechnology, Medical Biotechnology, Immunology, Animal biotechnology, Aquaculture Biotechnology,etc. All courses has been taught more that 4/5 semesters.
- Experienced in OBE based teaching system.
- Experience in handling Faculty Empowerment Program (FEP) and Fully Flexible Credit System (FFCS) courses

RESEARCH EXPERIENCE

- Total research experience:**29 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. 25 students
- Research projects completed: 5 (five)

PATENTS:

PATENT GRANTED:

Sr No.	Title of the Invention	Inventors	Patent number and Patent application number	Patent Application Date and Patent Grant Date:	Applicant	Patent Granted Country
1	**Development method of epitope-based peptide vaccine against SARS-COV-2 virus**	Lee Sang Soo, **Chiranjib Chakravartty**, Ashish Ranjan	**Patent no** 10-2425 492 **Patent**	**Application Date:** 27. 04. 2020.	Hallym University Industry-University Cooperation Foundation (2-2007-	South Korea

		Sharma, Garima Sharma, Manojit Bhattacharya	**application no.** 10-2020-0050552	**Grant Date:** 21. 07. 2022	019517-5)	

PATENTS APPLIED:

Sr No.	Claim	Inventors	Patent application number and reference number	Application Date:	Applicant	Country of Application
1.	**Epitopes isolated from SARS-CoV-2 and coronavirus multi-epitopes vaccine composition comprising the same**	Lee Sang Soo, Ashish Ranjan Sharma, Garima Sharma, Manojit Bhattacharya, **Chiranjib Chakravartty**	**Patent application no.** 10-2020-0172923 **Reference number:** P202300	11.12.2020	Hallym University Industry-University Cooperation Foundation	South Korea
2.	**Epitopes identified from prostate antigen protein and prostate cancer multiple-epitopes vaccine composition comprising the same**	Lee Sang Soo, Ashish Ranjan Sharma, Garima Sharma, Shin Dae Yong, Manojit Bhattacharya, **Chiranjib Chakravartty**	**Patent application no**. 10-2020-0172924 **Reference number:** P202350	11.12.2020	Applicant Name: Hallym University Industry-University Cooperation Foundation	South Korea
3.	**The leprosy vaccine composition, among the cellular epitopes described in the present invention, VVGIGQHAA, MMHRSPTR, and the epitopes are linked with a linker.**	Lee Sang Soo, **Chiranjib Chakravartty**, Ashish Ranjan Sharma, Garima Sharma, Manojit Bhattacharya	**Technology developed; Patent application started.[Research work reference: PMID: 35150891**		Applicant Name: Hallym University Industry-University Cooperation Foundation	South Korea
4	**The leprosy vaccine screening method, with respect to the step of selecting the epitopes for leprosy described in the present invention by in silico cloning, the characteristics**	Lee Sang Soo, **Chiranjib Chakravartty**, Ashish Ranjan Sharma, Garima Sharma, Manojit Bhattacharya	**Technology developed; Patent application started.[Research work reference: PMID: 35150891**		Applicant Name: Hallym University Industry-University Cooperation Foundation	
5	**A novel non-replicating mRNA (NRM) vaccine and self-amplifying mRNA (SAM) vaccine candidates against SARS-COV-2 virus**	Lee Sang Soo, **Chiranjib Chakravartty**, Ashish Ranjan Sharma, Garima Sharma, Manojit Bhattacharya	**Technology developed; Patent application started.[Research work reference: PMID: 34981440; PMCID: PMC8723807]**		Applicant Name: Hallym University Industry-University Cooperation Foundation	

6	**A next-generation vaccine candidate using alternative epitopes to protect against Wuhan and all significant mutant variants of SARS-CoV-2**	Lee Sang Soo, **Chiranjib Chakravartty**, Ashish Ranjan Sharma, Garima Sharma, Manojit Bhattacharya	**Technology developed; Patent application started.**[Research work reference: **PMID: 34881093** and **PMCID: PMC8612605**]			
7	**Next-generation vaccines designed to counter mutations predicted new variant antigens: Designed with machine learning-based immune simulation and AI support**	Lee Sang Soo, **Chiranjib Chakravartty**, Manojit Bhattacharya			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	Next-generation vaccines designed to counter mutations predicted new variant antigens: **Designed with machine learning-based immune simulation and AI support**	Technology was Developed and Patent application started. [Research work reference: **PMID: PMID: 37207746 PMCID: PMCID: PMC10188376**]	Not Available	Not Available
2.	A novel multi-epitopic peptide-based potential next-generation vaccine candidate against monkeypox virus through screening its whole genome encoded proteins	Technology was Developed Patent application started. [Research work reference: **PMID: 36265732 PMCID: PMC9575583**]	Not Available	Not Available
3.	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 (**Patent application no.** 10-2020-0050552 **Reference number**:	Not Available	Not Available

		P200860)]		
4.	An multi epitope-based peptide vaccine against SARS-COV-2 virus	Patent applied [Vaccine candidate patent(**Patent application no.** 10-	Discussion going on for technology transferred to an	
5.	A novel non-replicating mRNA (NRM) vaccine and self-amplifying mRNA (SAM) vaccine candidatesagainst SARS-COV-2 virus	Technology developed; Patent application started. [Research work reference: PMID: 34981440; PMCID: PMC8723807]	Not Available	Not Available
6.	A next-generation vaccine candidate using alternative epitopes to protect against Wuhan and all significant mutant variants of SARS-CoV-2	Technology developed [Research work reference: **PMID: 34881093** and **PMCID: PMC8612605**]	Not Available	Not Available
7.	Multi epitopes bases peptide vaccine candidate against prostate cancer.	Technology developed and patent applied **(Patent application no**. 10-2020-0172924 **Reference number:** P202350)	Not Available	Not Available
8.	Anepitopic-peptide vaccine against Bunyamwera orthobunyavirus	Technology developed [Research work reference:**PMID: 34867129**; **PMCID: PMC8634745**]	Not Available	Not Available
9.	Multi-epitopic peptide vaccine candidate against *Helicobacter pylori*	Technology developed Technology developed [Research work reference: PMID: 33495694; PMCID: PMC7816556]	Not Available	Not Available
10.	An antigenic epitopes selection from the outer membrane protein sequences of Aeromonas hydrophila and its analyses with a vaccine construct.	Technology developed Technology developed [Research work reference:**PMID: 32298854**]	Not Available	Not Available
11.	The leprosy vaccine composition, among the cellular epitopes described in the present invention, VVGIGQHAA, MMHRSPTR, and the epitopes are linked with a linker	Technology developed; Patent application started. [Research work reference: PMID: 35150891]	Not Available	Not Available
12.	The leprosy vaccine screening method, with respect to the step of selecting the epitopes for leprosy described in the present invention by in silico cloning, the characteristics	Technology developed; Patent application started. [Research work reference: PMID: 35150891]	Not Available	Not Available

13.	An assessment of indigenous hatchery technology of freshwater giant prawn, Macrobrachiumrosenbergii (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. Next-generation vaccines designed to counter mutations predicted new variant antigens: Designed with machine learning-based immune simulation and AI support
Technology was designed for the next-generation vaccines to counter mutations predicted for new variants' antigens, and the technology was designed with machine learning-based immune simulation and AI support.
We developed a next-generation vaccine for the SARS-CoV-2 virus's significant mutation using the technology. The technology used top-ranked antigenic selection approaches where nine mutations were selected from 835 RBD mutations for vaccine design.

Technology- 3 and Technology- 4.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 a well-cited article in Google Scholar within two years (citation index: more than 298). 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).
We are the first group to develop the world's first COVID-19 vaccine construct. It was the first published vaccine construct. However, it was an immunoinformatics/ in silico vaccine construct.

Technology- 5.A novel non-replicating mRNA (NRM) vaccine and self-amplifying mRNA (SAM) vaccine candidates against SARS-COV-2 virus
We are the first group that has developed and published India's first mRNA COVID-19 vaccine construct and published it, Mol. Biotechnol. Journal (**IF: 2.860**). For publication, Please see the link below.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8723807/
To read our paper (mRNA vaccine paper), One TB vaccine scientist from the USA (Professor Chinnaswamy Jagannath, Weill Cornell Medical College, USA) has developed one mRNA vaccine contract (NRM based contract) for TB and has tested it in the mouse model and found it is working well. He has sent emails, complemented our excellent work, and shown his interest in collaborating with me.

Technology- 6. A next-generation vaccine candidate using alternative epitopes to protect against Wuhan and all significant mutant variants of SARS-CoV-2
We are the first group globally who have developed and published the world's first modern COVID-19 vaccine construct (immunoinformatics/in silico vaccine construct) compared to the current vaccine. It will help us fight against all the SARS-CoV-2 variants, and this vaccine construct can fight against all kinds of emerging variants, especially variants of concerns (VOCs). However, it was an immunoinformatics/in silico vaccine construct published in Aging Dis. Journal (**IF: 9.968**).
For publication, Please see the link below.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8612605/

Technology- 13. An assessment of indigenous hatchery technology of giant freshwater prawn, *Macrobrachiumrosenbergii* (de Man)
During my Ph.D. research work, I had developed the hatchery technology of giant freshwater prawn, *Macrobrachiumrosenbergii* . 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 Award/completion	Current position	Remark
1.	Shayamsundar 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 atNational Institute of Virology Mumbai Unit**, (**Indian Council of Medical Research(ICMR)), Mumbai	Shayamsundar Nandi received degree from Guru Ghasidas University, India. - Jointly Guided with Dr. RaginiGothlwal
2.	Jinny Tomar	Structural, functional and evolutionary bioinformatics of caspases and its receptor	2012	Presently, Dr. Jinny Tomaris working as Assistant Professor, Department of Biotechnology at Amity University,Gurgaon, Haryana	Jinny Tomarreceived degreefrom GautamBudha 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 Bhattacharyais working as AssistantProfessor, Department of Zoology at Fakir Mohan University, Odisha, India	Manojit Bhattacharya received degreefrom 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	Tata Innovation Fellowship **Project title:** Prediction of antigenic epitopes of all dengue virus serotypes, development of multi-epitopic peptide vaccine constructs using antigenic epitopes, and understanding of antigen processing through immunoinformatics and Artificial Intelligent-Machine Learning- Deep learning (AI-ML-	30 lacks	2023-2025	Department of Biotechnology, Ministry of Science and Technology, Govt. of India (D.O. No. HRD-16012/6/2020-ASF-DBT; Dated: 29.03.2023)

	DL) approaches			
2.	Cloning, expression and purification of human granulocyte colony stimulating factor (hGCSF)	25 lacks	2003-2006	Glenmark Laboratories, Mumbai
3.	Analysis of stability of human recombinant epidermal growth factor (rEGF) with silver sulfadiazine a	1.2 lacks	2003	Glenmark Laboratories, Mumbai

EDITOR/EDITORIAL ACTIVITIES

- Editor, Infection, Genetics and Evolution (Elsevier journal)(**IF=3.2**)(2020-till date)
- Associate Editor, iScience(Cell press Journal)(**IF= 5.8)**(2020-2022)
- Associate Editor, Frontiers in Bioengineering and Biotechnology(**IF=5.7**)(specialty section: Preclinical Cell and Gene Therapy) (2020-till date)
- Associate Editor, Frontiers in Pharmacology(**IF= 5.6**)(specialty section: Experimental Pharmacology and Drug Discovery)(2010-till date)
- Editor,'Current Microbiology' (**IF= 2.6**)(2021-2022)

EDITORIAL BOARD MEMBER

- Scientific Reports (Nature group) (2015-till date)(**IF= 4. 6**)
- BIOCELL (Impact Factor =2.82) (2020-till date)(**IF= 1.2**)
- Interdisciplinary Sciences: Computational Life Sciences(Springer)(2011-till date) (http://www.springer.com/life+sciences/bioinformatics/journal/12539)(**IF= 4.8**)
- Genomics, Proteomics & Bioinformatics (Elsevier) (2011-2015)(**IF= 9.5**)
- 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

Ongoing Special Issue

- **Special issue**: Non-coding RNA's: human health and diseases(2022) (Current Research in Pharmacology and Drug Discovery) : Edited by Chiranjib Chakraborty and Anthony Gerber (**Ongoing**)
  (https://www.journals.elsevier.com/current-research-in-pharmacology-and-drug-discovery/call-for-papers/non-coding-rna-s-human-health-and-diseases)

Completed Special issue:

- **Special issue**:SARS-CoV-2 Variant and Vaccines Development (Vaccines **IF= 7. 8**): Edited by Kuldeep Dhama and Chiranjib Chakraborty (https://www.mdpi.com/journal/vaccines/special_issues/Variant_vaccines)

- **Special issue**: Methods and Application in Experimental Pharmacology and Drug Discovery (Frontiers in Pharmacology; **IF= 5.6**): 2021: Edited by WawaimuliArozal,Letizia Polito,Yuhei Nishimura, Chiranjib Chakraborty,Aprilita Rina Yanti Eff (https://www.frontiersin.org/research-topics/30541/methods-and-application-in-experimental-pharmacology-and-drug-discovery-2021)

- **Special issue:** Anti-Infectives (2021) (Current Opinion in Pharmacology; **IF: 4.767**):Edited by Elijah Ohimain, Chiranjib Chakraborty

- **Special issue**: Recent paradigm shift in genomics and proteonomics in medical biology (2015) Frontiers Biosciences (Landmark Ed) (**IF:3.115**)**:** : Edited by Chiranjib Chakraborty and George Priya Doss (http://www.bioscience.org/special-issue-details?editor_id=89)

REVIEWER ASSIGNMENT

ADHOC reviewer more than 25 SCI and Scopus indexedjournals

- Reviewer, Lancet(**IF: 254.7**)
  [The Lancet Editors. Thank you to The Lancet statistical and peer reviewers in 2022. Lancet. 2023 4-10 February;401(10374):e4–e16. doi: 10.1016/S0140-6736(23)00230-1. Epub 2023 Feb 2. PMCID: PMC9894606.]
- Reviewer, The Lancet Infectious Diseases(**IF:56.3**)
- Reviewer, Nature Biotechnology (**IF:46.9**)
- Reviewer, Molecular Cancer(**IF:37.3**)
- Reviewer, Aging and diseases (**IF:7.4**)
- Reviewer, Frontiers in Immunology(**IF:7.3**)
- Reviewer, Reviewer, Frontiers in Pharmacology(**IF:5.6**)
- Reviewer, Frontiers in Oncology(**IF:4.7**)
- Reviewer, Advanced Science(Wiley-VCH) (**IF:15.1**)
- Reviewer, PLoS ONE
- Reviewer, Cell Biochemistry and Biophysics (Springer)
- Reviewer. Applied Biochemistry and Biotechnology (Springer)
- Reviewer, Process Biochemistry (Elsevier)

- Reviewer, Biotechnique(**IF:2.7**)
- 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 THEUNIVERSITY LEVEL COMMITTEE/ 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),GalgotiasUniversity (2015-2018)
- Member, School Research Committee (SRC)GalgotiasUniversity (2017-2018)

Keynote Speech

2022: Title of the talk**: "Recent Advances of Artificial Intelligence /Machine learning/ Deep learning (AI/ML/DL) in drug discovery to clinical trial"i**n the 3rd Conference on Artificial Intelligence and Healthcare (CAIH 2022) on **August 26, 2022 (**3:30pm CST and 1pm IST.**)** by the International Committee, Conference on Artificial Intelligence and Healthcare (CAIH)through zoom meeting. (http://www.icaih.org/speaker)

Invited Lectures

2022: Title of the talk**: "Immunoinformatics in vaccine design and development"** In the 12 International Conference on Biotechnology and Bioengineering (ICBB)from 27 to 30 September, 2022. (Date of presentation: **September 28, 2022 (**3:30pm CST and 1pm IST**).The conference** Conference **is co-organized by Asia-Pacific Association of Science, Engineering and**

Technology, Institute of Bioorganic Chemistry, Polish Academy of Sciencesthrough zoom meeting (https://icbb.apaset.edu.pl/speakers/).

2022: Title of the talk**: "The biosketch of mutation: from diseases development to the creation of virus variants"** In The 2nd International Symposium on Intelligent Biomedical and Drug Delivery Materials (**7th May (**1:30 P.M. KST, 10:00 A.M. IST, 6:30 A.M. CET**)**by the Department of Biomedical Science, Kangwon National University, Chuncheon 24341, Republic of Korea**[QS world university Ranking 1001-1200 in the year 2022-2023]** through zoom meeting (under BK21 FOUR Project of Republic of Korea).

2021: Title of the talk**: "Dreaming for India's next-generation bioinformatics and basic research toward 2047"** A refresher course (on 'Biotechnology & Bioinformatics'From 16th August to 31st August 2021supported by UGC-Human Resource Development Centre, NEHU, Shillong) and organized by Department of Biotechnology & Bioinformatics, North Eastern Hill University, **India (NIRF ranking 66 in the year 2022)**(**25th August(**9:30 am to 11:00 am**)** through zoom meeting).Delivered lecture as a resource person.

2021: Title of the talk**: "Structural Bioinformatics in Drug Discovery"** A refresher course (on 'Biotechnology & Bioinformatics' From 16th August to 31st August 2021supported byUGC-Human Resource Development Centre, NEHU, Shillong) and organized by Department of Biotechnology & Bioinformatics, North Eastern Hill University, **India (NIRF ranking 66 in the year 2022)** (**24th August(**11:30 am to 12:30 am**)**through zoom meeting).Delivered lecture as a resource person.

2020: Title of the talk**: "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: Title of the talk**: "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 2015organized by **Centre for Cellular and Molecular Biology (CCMB)**, Hyderabad, Telangana, **India.**

2015: Title of the talk: "**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: Title of the talk:**"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; 18th June 2015,* **South Korea**

2014: Title of the talk: "**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: Title of the talk: "**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: Title of the talk: "**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***; 18th December.*

2011: Title of the talk: "**Molecular phylogenetics, conserved domain and binding grooves of critical nodes in a signal-transduction pathway: An exploration of insulin signaling pathway**". *In*: *Machine Intelligence Un*it, *Indian Statistical Institute; Kolkata,* **India**; 28th December.

2011: Title of the talk: "**Computational Biology in Genomics and Proteomics**". *In: Department of Zoology, Vidyasagar University; Midnapore, West Bengal,* **India***; 23rd August.*

2007: Title of the talk: "**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**) 1-4th Feb.

2006: Title of the talk: "**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**. 16th November.

2006: Title of the talk: "**Bioinformatics and drug discovery**". In: *College of Biological Science, National Sun Yat-sen University; Kaohisung;* **Taiwan**. 5th October.

2006: Title of the talk: "**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, TajenUniversity;* **Taiwan***)* 28th September.

2006: Title of the talk: "**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***) 10th March*

2005: Title of the talk: "**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** 7th& 8th May.

1998: Title of the talk: "**Fish diseases**". In: *(Organized by Department Agriculture and Food Engineering, Indian Institute of Technology, Kharagpur,* **India***) 23-29th November*

MEMBERSHIP

INTERNATIONAL SOCIETY MEMBERSHIP

- Member, Royal Netherlands Society for Microbiology (KNVM)
- Senior member, Hong Kong Chemical, Biological& Environmental Engineering Society (HKCBEES) (http://www.cbees.org/)(Senior member; Member NO.: 101830)
- 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)
- International Parkinson and Movement Disorder Society (MDS)(MDS membership ID: 118777)

NATIONAL SOCIETY MEMBERSHIP

- Indian Science Congress Association(Life member; Membership no:L24700) (http://www.sciencecongress.nic.in/)
- Academy of Environmental Biology (AEB), India(Life member;Life Membership No.817)
- Society of Biological Chemists, India(Life member;Membership no:4336) (https://sbcihq.in/)
- Indian Association of Aquatic Biologists (IAAB)(Life member)
- Bioinformatics and Drug Discovery Society (BIDDS) (Life member; Life Membership NoBIDDS17-332) (https://www.bidds.org/)
- The Biotech Research Society, India (Life member; Life Membership No LM 2720) (https://brsi.in/)

FELLOW

TATA Innovation Fellow [Department of Biotechnology (DBT), Ministry of Human Resources, Government of India]

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, August18, 2004)
4. Our research article entitled "Potentialities of induced pluripotent stem (ips) cells for treatment of diseases (Current Molecular Medicine10(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 11thFebruary, 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 22ndMarch, 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 2nd May 2011.
7. Our research article entitled "Effect of caffeine, norfloxacin and nimesulide on heartbeat and VEGF expression of zebrafish larvae"(Journal of Environmental Biology32(2): 179-183) has been highlighted by NewsRX, a science news publisher in USA. The new has been published by NewsRX on 23rd 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 25nd May 2011
9. My comment on a new AI helps make use of chlorine for safe drinking water on 26th September 2022. https://www.scidev.net/asia-pacific/news/ai-helps-make-use-of-chlorine-for-safe-drinking-water/
10. Our research article entitled "Appearance and re-appearance of zoonotic disease during the pandemic period: Long-term monitoring and analysis of zoonosis is crucial to confirm the animal origin of SARS-CoV-2 and

monkeypox virus."Veterinary Quarterly 42(1):119-124. has been highlighted by News Medical on Jun 13 2022 https://www.news-medical.net/news/20220613/Multi-national-scientific-task-force-needed-to-monitor-zoonotic-viruses-long-term.aspx

11. Our research article entitled "Immune response to SARS-CoV-2 vaccines" (Biomedicines10(7) 1464) highlighted by Taiwan News on June 23 2022; https://www.taiwannews.com.tw/en/news/4578493

MY INTERVIEW AND MEDIA COVERAGE

1. My interview was highlighted in the journal "The Lancet Infectious Diseases" through the topic entitled "DNDi receives Dutch funding boost."
Bagcchi S. DNDi receives Dutch funding boost. Lancet Infect Dis. 2023 May;23(5):535. doi: 10.1016/S1473-3099(23)00222-0. PMID: 37086729.
[https://pubmed.ncbi.nlm.nih.gov/37086729/]
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(23)00222-0/fulltext]

2. My interview was highlighted in the online Media "SciDev.Net" through the topic entitled "AI helps make use of chlorine for safe drinking water"
[https://www.scidev.net/asia-pacific/news/ai-helps-make-use-of-chlorine-for-safe-drinking-water/]
[https://www.innovationnewsnetwork.com/machine-learning-models-ensure-safe-levels-of-chlorine-in-drinking-water/25742/]

3. My interview was highlighted in the online science, technology and research news "phys.org" through the topic entitled "Corruption fuels carbon dioxide emissions in Asia: Study"
[https://phys.org/news/2022-11-corruption-fuels-carbon-dioxide-emissions.html]

4. My interview was highlighted in the Online medical news "news-medical" through the topic entitled "Study shows a genetic association of diarrhea in children"
[https://www.news-medical.net/news/20230331/Study-shows-a-genetic-association-of-diarrhea-in-children.aspx]

5. My interview was highlighted in the Online Media "SciDev.Net" through the topic entitled "Childhood diarrhoea has genetic links, study finds"
[https://www.scidev.net/asia-pacific/news/childhood-diarrhoea-has-genetic-links-study-finds/]

6. My study and interview were highlighted in the "Telegraph India" through the topic entitled "All about monkeypox — causes, symptoms and precautions."
[https://www.telegraphindia.com/my-kolkata/lifestyle/doctor-sanjeet-bagcchi-answers-faqs-about-causes-symptoms-and-precautions-about-monkeypox/cid/1884179]

7.My interview was highlighted in the online media communicating research "Danish Development Research Network" through the topic entitled "India's Covid Vaccination Capabilities: Major Supplier of Vaccines in Global South but Gaps in Own Strategies."

[https://ddrn.dk/8363/]

References

1. **Professor Dr.GovindasamyAgoramoorthy**
   Distinguished Research Processor
   College of Environmental and Health Sciences,
   TajenUniversity, Yanpu, Pingtung 907, Taiwan
   Tel: +886-916752019; Fax: 886-75253623
   E-mail: agoram@mail.nsysu.edu.tw

2. **Dr. Sang-Soo Lee, M.D., Ph.D.**
   Professor
   Director, Institute For Skeletal Ageing, Room No. 3604
   College of Medicine, Hallym University,
   Dept. of Orthopedic Surgery, College of Medicine, Hallym University, Chuncheon
   Sacred Heart Hospital, 153 Kyo-Dong, Chuncheon, Gangwon-Do 200-704, South Korea
   Mobile +82-10-9484-7744
   Fax: 82-33-252-9875
   E-mail: 123sslee@gmail.com

3. **Dr.Bidhan Chandra Patra**
   Professor
   Department of Zoology,
   Vidyasagar University. Midnapore, West Bengal,721102 India
   Mobile: + 91 9434185066,
   Fax: +91 3222 275329 / 275297.
   E-mail:bcpatra@mail.vidyasagar.ac.in

4. **Dr. Dibakar Das**
   Professor and Dean
   School of Engineering Sciences and Technology (SEST),
   University of Hyderabad(Central University)
   Gachi Bowli, Hyderabad-500046, Telangana
   India
   Phone: +91-9581048798 (M), +91-8978339119 (M)
   E-mail: ddse@uohyd.ernet.in

5. **Dr. Kuldeep Dhama**
   Principal Scientist, Division of Pathology
   Indian Veterinary Research Institute (IVRI) (ICAR)
   Izatnagar-243 122
   Bareilly
   Uttar Pradesh, India
   Phone: +91-9837654996 (M)
   E-mail: kdhama@rediffmail.com