Resume

Professor Chiranjib Chakraborty, PhD



Chair Professor, School of Life Science and Biotechnology, Adamas University, Kolkata, India Research Director in Bioinformatics (as Advisory Professor), Institute of Skeletal Aging (ISA), Hallym University, South Korea

TATA Innovation Fellow (DBT, Government of India)

Future Leaders Mentorship Fellow, American Society of Microbiology, USA and Sigma Xi, USA

Editor: Infection, Genetics and Evolution (IF=2.6); Associate Editor: Frontiers in Bioengineering and Biotechnology (IF= 4.3); Associate Editor: Frontiers in Pharmacology (IF= 4.4)

Profile: http://community.frontiersin.org/people/ChiranjibChakraborty/18716

E-mail:drchiranjib@yahoo.com

Phone-+91-9871608125

Listed top 2% of Scientists in the World by Stanford University, USA for five consecutive years (2020, 2021, 2022, 2023 and 2024) (subject category worldwide ranking 39 in 2024)

Google Sch	olar Citatio	n Pattern	Citation Summary	Co-Authors Network
	All	Since 2019	Total citations on all papers 13072	4
Citations	13072	10903	h Index 61	
h-index	61	52	II IIIdex 01	
i10-index	193	173	<u>i10 Index 193</u>	Stronger Charles
		2200	Maximum citation of a single paper 846	Garage G. Sharma G.
		3200	Papers with more than 100 citations (i100) 30	Dos G Dos G Bandyonghay
		2400	Papers with more than 200 citations (i200) 13	Double Co. Brancharya M. Mussacharya M. Mussacharya M. Marian Charles Co. Brancharya M. Marian Charles Charles Charles Co. Brancharya M. Marian Charles Ch
		1600	Papers with more than 300 citations (i300) 6	
-11	ш	800		A STATE OF THE STA
2017 2018 2019	2020 2021 2022 2	2023 2024 0		**

Google Scholar Id: 3m8rwpUAAAAJ * Scopus ID: 56219079200 * Orcid ID: 0000-0002-3958-239X

SHORT BIOSKETCH

Professor Chiranjib Chakraborty is working as a Chair Professor at the School of Life Science and Biotechnology, Adamas University, Kolkata. He had served as a full professor for the past twelve years. At the same time, he holds a Research Director position in Bioinformatics (as Advisory Professor) at the Institute of Skeletal Aging, Hallym University, South Korea (OS World University Ranking 951-1000 in the year 2025). Professor Chakraborty was a former Professor at Galgotias University, India (NIR Franking 101-150 in the year 2024 and A+ ranking in NAAC), and a former Associate Professor at VIT University, Vellore, India (NIRF ranking 10 in the year 2023 and A++ ranking in NAAC). He has 29 years of research experience, including four years of industrial R&D experience. Professor Chakraborty has 20 years of teaching experience. Professor Chakraborty has more than ten years of Editorial experience in reputed journals such as Infection, Genetics, and Evolution (IF=2.6), associate editor of Frontiers in Pharmacology (IF=4.4), iScience (Cell Press Journal) (IF= 4.6) (2020-2022); editorial board member of Genomics, Proteomics & Bioinformatics (Elsevier) (2011-2015) (IF= 11.5), Scientific Reports (IF: 3.8), etc. He has guided 3 Ph.D. students and several B.Tech., M.Tech., and M.Sc. projects. His research interests are medical bioinformatics, immunoinformatics, infectious disease, ncRNA, drug targets and therapeutics, etc. Dr. Chakraborty has developed more than 20 technologies. Among 20 technologies, patent applications have been filed for 15 other technologies. Five international patents have been granted or accepted among his 20 innovative technologies. Among five patents, three are process or product patents and two are design patents. He received thirteen awards. He published over 321 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 Lancet, Nature, Lancet Neurology, Lancet HIV Lancet Infectious Diseases, Drug Resistance Update, 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: hindex: 61; i10 index: 193; Citation: 13072 (According to Google Scholar); Cumulative Impact Factor (IF)(SCI/SCIE/ESCI): 2259.4 Average SCI/SCIE Impact Factor: 7.01). He was selected for India's prestigious "Tata Innovation Fellowship" for 2022-2023 from the Department of Biotechnology, Ministry of Science and Technology, Govt. of India. He was listed in the top 2% of Scientists in the World by Stanford University, USA/Elsevier BV for five consecutive years (2020, 2021, 2022, 2023 and 2024). In the top 2% of scientists list, he has been listed in the subject categories of Biotechnology, pharmacology, and clinical medicine with 39 and 52 worldwide subject category ranking. He is an affiliate member of the Royal Society of Chemistry, a member of Sigma Xi, USA, and the American Society of Microbiology (ASM). Recently, he has been

selected as a Fellow of the Future Leaders Mentorship from the American Society of Microbiology (ASM) for the mentorship of future leaders.

CURRENT POSITION AND EXPERIENCE SUMMARY

- Chair Professor, School of Life Science and Biotechnology, Adamas University, Barrackpore –Barasat Rd, Kolkata, India.
- Research Director in Bioinformatics (as Advisory Professor), Institute of Skeletal Ageing (ISA), Hallym University, South Korea (QS world university Ranking 951-1000 in the year 2025)
- Full professor position for more than eleven years
- More than 20 years of teaching experience, 28 years of research experience, and more than ten years of Editorial experience in reputed journals.
- Editor of Infection, Genetics, and Evolution (IF=2.6), associate editor of Frontiers in Pharmacology (IF=4.4), Frontiers in Bioengineering and Biotechnology (IF=4.3),
- Previously served as an academic editor iScience (Cell Press Journal) (IF= 4.6) (2020-2022); previous editor of Current Microbiology (IF=2.3) (2021-2022) (Springer nature journal); editorial board member of Genomics, Proteomics & Bioinformatics (Elsevier) (2011-2015) (IF= 11.5)
- Editorial Board Member of more than 10 SCI/SCIE journals such as Scientific Reports (IF: 3.8) (Nature group); Interdisciplinary Sciences: Computational Life Sciences (Springer) (IF: 3.9) 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 Scientists in the World by Stanford University for five consecutive years (2020, 2021, 2022, 2023 and 2024). Listed in the subject categories of Biotechnology, pharmacology, and clinical medicine with 39 worldwide subject category ranking (normalized ranking: 52).

RESEARCH INTERESTS AND CITATION INDEX

• **Research interest**: Medical Bioinformatics, Infectious disease, ncRNA, Mutation, Disease modelling, Drug targets and Therapeutics

Research Matrix:

Number of publications: SCI/ SCIE indexed Publications: 322; Book Chapters: 11

Citation in Google Scholar: h-index: 61; i10 index: 193; Citation: 13072; 6 Papers with more than 300 (i300=6); 13 Papers with more than 200 citations (i200 index: 13) and 30 Papers with more than 100 citations (i100 index: 30)

Citation in Scopus: Scopus h-index: 50 Citation: 9341

Cumulative SCI/ SCIE Impact Factor: 2259.4 Average SCI/ SCIE Impact Factor: 7.01;

Technology developed: 20; Patent (Granted/accepted):5 (International) Patent (applied): 15

Single Author (SCI & Scopus indexed): 4; First Author (SCI & Scopus indexed): 163;

Corresponding Author (SCI & Scopus indexed):204 (Corresponding since 2003);

PhD guided:04 (3 Degree awarded and one current student); Invited talks: 23; Research Award received: 13

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 29 years in Scientific Research and Teaching experience in India and aboard.

• Total research experience: 29 Years [including industrial R&D (Industrial Research & Development) experience: 4 years]

• Total teaching experience: 20 Years

Within India

S.No.	Position held	Name of the Organization	Period	
1.	Chair Professor	Adamas University, Kolkata, India	July, 2024- Till Date	
2.	Professor	Adamas University, Kolkata, India	October, 2018- June, 2024	
3.	Research Director in Bioinformatics (as Advisory Professor)	Institute of Skeletal Againg (ISA), Hallym University, South Korea	January, 2014 - Till Date	
4.	Professor	Galgotias University, Greater Noida, India (NIRF ranking 101 to 150 in the year 2024)	May, 2012 to September, 2018	
5.	Associate Professor	VIT University, Vellore, India (NIRF ranking 10 in the year 2024) April, 2010 to April, 2012		
6.	Associate Professor	College of Engineering and Technology, (IILM Academy of Higher Learning), Greater Noida, UP, India	January, 2009 to April,2010	
7.	Assistant Professor	College of Engineering and Technology, (IILM Academy of Higher Learning), Greater Noida, UP, India	July,2005 to Dec, 2008	
8.	Assistant Professor and HOD	Institute of Applied Medicine and Research, UP, India	June,2004 to June, 2005	
9.	Sr. Scientist	Genmark Laboratories, Mumbai, India May,2002 to June,2004		
10.	Research Scientist	Macleods Pharmaceuticals, Mumbai, India	August,2000 to April,2002	
11.	Lecturer (Ad-Hoc)	Burdwan Raj College, Burdwan, WB, April,1999 to July,2000 INDIA		
12.	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	December 02,-2011 to December 30,2011
2.	Visiting Scientist	Indian Statistical Institute, Kolkata, India	March 12, 2014 to March 21, 2014
	_	Department of Life Science and Biotechnology, Jadavpur University, Calcutta, India	October 27,1998 to November 14,1998

❖ Outside India

S.	Position held	Name of the Organization	Period
No.			
1	Research Director Institute for Skeletal Aging (ISA), Hallym University, College		January 2014 to till date
	in Bioinformatics	Sioinformatics of Medicine, Chuncheon, Gangwon-do, South Korea (QS	
	(as Advisory	World University Ranking 951-1000 in the year 2025)	
	Professor)		
2.	Visiting Professor	Institute for Skeletal Aging (ISA), Hallym University, College	December 2018 to
		of Medicine, Chuncheon, Gangwon-do, South Korea	January 2019 (Approx.
			one month)
3.	Visiting Professor	Institute for Skeletal Aging (ISA), Hallym University, College	May2015 to June 2015
		of Medicine, Chuncheon, Gangwon-do, South Korea	(Approx. one month)
4.	Visiting Professor	Institute for Skeletal Aging (ISA), Hallym University, College	November2013 to
		of Medicine, Chuncheon, Gangwon-do, South Korea	December, 2013(Approx.
			one month)
5.	Visiting Research	Department of Computer Sciences, Hong Kong Baptist	November, 2014 to
	Fellow	University, Kowloon Tong, Hong Kong (QS World University	December,2014
		Ranking 252 in the year 2025)	(Approx. one month)
6.	Sr. Visiting Fellow	•	October,2009 to
		Academy of Agricultural Sciences, Beijing 100193, China	December, 2009(Approx.
			three months)
7.	Visiting Research	Dept. of Marine Biotechnology and Resources, National Sun	July,2006 to January,
	Professor	Yat-sen University; Kaohsiung; Taiwan (QS World University	2007
		Ranking 485 in the year 2025)	(Six months)
8.	Post Doctoral		October, 2002 to
	Fellow	University Ranking 1001-1200 in the year 2025)	December, 2003
			(One year and one month)

ADMINISTRATIVE EXPERIENCE

S.No.	Position held	Name of the Organization	Period
1.	Vice-Chancellor	Adamas University, Kolkata, India	3 rd October 2019
	(Acting)		(For one day)
2. Dean School of Life Science and Biotechnolog		School of Life Science and Biotechnology, Adamas	March, 2019 to December, 2019
University, Barrackpore –Barasat Rd, Kolkata, India (Approx. 10			(Approx. 10 months)
3. Director Innovation Centre, Adamas University, Barrackpore October, 20		October, 2018 to Till date (More	
		–Barasat Rd, Kolkata, India	than three years)
4.	Research Director in	Institute of Skeletal Againg (ISA), Hallym	January, 2014 - Till Date
	Bioinformatics	University, South Korea	_
	(as Advisory		
	Professor)		
5.	Research Director	Galgotias University, Greater Noida, India	March, 2018 to September, 2018
			(More than Six months)
6.	Head, Dept. of	Dept. of Biotechnology, Institute of Applied	July,2004 to June, 2005
	Biotechnology	Medicines and Research (IAMR) (Under CCS	(More than a year)
		University, Meerut, UP), Ghaziabad, UP, India	

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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)		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]
	Master Degree: M.Sc in Zoology	Kanpur University (Presently, Chhatrapati Shahu Ji Maharaj University)	1995	Subject: Zoology
	Bachelor Degree: B.Sc. (Hons.) in Zoology	The University of Burdwan		Subject: Zoology (Honors), Chemistry (General), Botany (General)

Language of instruction: English

AWARD

• 2024- Star Scientist Award (2024)

Awarding Organization: Adamas University, Kolkata, India.

Award citation: This special Award was given for consistent scientific effort, featuring in the 2% of scientists in the world list published by Stanford University, USA. The Award was handed over by the Hon'ble Vice Chancellor and Hon'ble Chancellor of Adamas University on the Adamas Star Achievers Award 2024 program.

Award Receiving Date: 5th October 2024

• 2024-AAAS Best Scientist Award (2024)

Awarding Organization: Academy for Advancement of Agricultural Sciences (AAAS), Kalyani, WB

Award citation: This special Award was given by the Academy for Advancement of Agricultural Sciences (AAAS), Kalyani, WB, for the outstanding contribution to the research. This special Award was given at the IPS North-Eastern Zonal Meet & AAAS National Conference on "Advances in Innovative Technologies & Plant Health Management Strategies in Climate Resilient Agriculture" at College of Agriculture Tripura, Lembucherra, Tripura from September 26-27, 2024. The Award was handed over by His Excellency Hon'ble Governor of Tripura state in India.

Award Receiving Date: 26th September 2024

• 2024- GeroScience Publication Award Honorable Mention!

Awarding organization: American Aging Association (AGE) and GeroScience (Official Journal of the American Aging Association (AGE)).

Award citation: It is a testament to the outstanding work, dedication, and contributions to the field of GeroScience [Receiving Date: 2nd July 2024].

[https://link.springer.com/journal/11357/updates/27292542]

[https://www.americanagingassociation.org/journal]

• 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 outstanding research contributions. 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

FELLOW

- TATA Innovation Fellow [Department of Biotechnology (DBT), Ministry of Human Resources, Government of India]
- Future Leaders Mentorship Fellow [American Society of Microbiology]

HONORS

- Session Co-Chair: IPS North-Eastern Zonal Meet & AAAS National Conference on "Advances in Innovative Technologies & Plant Health Management Strategies in Climate Resilient Agriculture" at College of Agriculture Tripura, Lembucherra, Tripura from September 26-27, 2024
- Keynote talk at IUBMB (In AI in biomedical research: IUBMB Trainee Initiative webinar on April 27th, 2024. by International Union of Biochemistry and Molecular Biology (IUBMB).

(Date of presentation: April 27th, 2024, 2024. (at 1pm GMT).)Trainee Initiative was highlighted in two different documents, which are as follows:

IUBMB newsletter 2024 (Page 11) Trends in Biochemical Sciences (Cell press Journal)

[Cozma E, Penndorf P. IUBMB Trainee Initiative: supporting emerging biochemists and molecular biologists worldwide. Trends Biochem Sci. 2024 Sep;49(9):749-751. doi: 10.1016/j.tibs.2024.07.004. PMID: 39241748]

- **2024:** Listed in the World's Top 2% Scientists (Elsevier BV/Stanford University, USA) (https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/7)
- My interview was highlighted in an Obituary article entitled "Phyllis Dako-Gyeke" the journal "The Lancet Infectious Diseases".

[Bagcchi S. Phyllis Dako-Gyeke. Lancet Infect Dis. 2024 Sep;24(9):950. doi: 10.1016/S1473-3099(24)00517-6. PMID: 39181136.]

[https://pubmed.ncbi.nlm.nih.gov/39181136/]

- My interview was highlighted in an Obituary article entitled "Kenneth Ira Berns" the journal "The Lancet Infectious Diseases".
 - [Bagcchi S. Kenneth Ira Berns. Lancet Infect Dis. 2024 Jun;24(6):576. doi: 10.1016/S1473-3099(24)00303-7. PMID: 38795723]
 - [https://pubmed.ncbi.nlm.nih.gov/38795723/]
- My interview was highlighted in a news article entitled "UNICEF report reveals gender gaps persist in HIV." in the journal "The Lancet Infectious Diseases".
 - [Das M. UNICEF report reveals gender gaps persist in HIV. Lancet Infect Dis. 2024 Mar;24(3):e159. doi: 10.1016/S1473-3099(24)00092-6. PMID: 38401563.] [https://pubmed.ncbi.nlm.nih.gov/38401563/]
- My interview was highlighted in a news article entitled "Laos eliminates lymphatic filariasis" in the journal "The Lancet Infectious Diseases."

[Bagcchi S. Laos eliminates lymphatic filariasis. Lancet Infect Dis. 2024 Jan;24(1):e17. doi: 10.1016/S1473-3099(23)00770-3. PMID: 38141647.]

[https://pubmed.ncbi.nlm.nih.gov/38141647/]

[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(23)00770-3/fulltext]

- My interview was highlighted in a news article entitled "DNDi receives Dutch funding boost" in the journal "The Lancet Infectious Diseases"
 - [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/]
- **2023:** Listed in the World's Top 2% Scientists (Elsevier BV/Stanford University, USA) (https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/6)
- Session Chair (Afternoon session on October 4, 2023, [IST: 2:30 pm to 4:30 pm]) International conference [Blended Mode] on "BIONEXT 2023: 3rd International Conference on Translation Research towards attending "good health and well Being" October 4-6, 2022. [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/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/; http://www.icaih.org/
- 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: 13072 h-Index: 61; i10-index: 193 (citation report based on Google scholar report) 30 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: 325

Total SCI/SCIE and Scopus index Publications: 322 (and 3 SCI book chapters); Cumulative SCIE

Impact Factor: 2259.4 Average SCI Impact Factor: 7.01

• Publication- books

Edited book:2; Book: 4
LIST OF PUBLICATIONS

SCIE and Scopus index **PUBLICATIONS**

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

[2024]

322. GBD 2021 Diarrheal Diseases Collaborators (2024) Global, regional, and national age-sex-specific burden of diarrheal diseases, their risk factors, and aetiologies, 1990–2021, for 204 countries and territories: a systematic analysis for the Global Burden of Disease Study 2021. The Lancet Infectious Diseases. doi:10.1016/S1473-3099(24)00691-1. IF: 36.4

[I am one of the members of GBD 2021 Diarrheal Diseases Collaborators]

- 321. Chakraborty C, Bhattacharya M, Pal S, Lee SS (2024) Prompt-engineering enabled LLM or MLLM and instigative bioinformatics pave the way to identify and characterize the significant SARS-CoV-2 antibody escape mutations. <u>International Journal of Biological Macromolecules</u> doi:10.1016/j.ijbiomac.2024.138547 IF: 7.7
- 320. Behzadi P, Chandran D, **Chakraborty C**, Bhattacharya M, Saikumar G, Dhama K, Chakraborty A, Mukherjee S, Sarshar M. The dual role of toll-like receptors in COVID-19: Balancing protective immunity and immunopathogenesis. <u>International Journal of Biological Macromolecules</u>:137836. doi: 10.1016/j.ijbiomac.2024.137836. **IF: 7.7**

[https://pubmed.ncbi.nlm.nih.gov/39613064/]

318. GBD 2021 HIV Collaborators (2024) Global, regional, and national burden of HIV/AIDS, 1990-2021, and forecasts to 2050, for 204 countries and territories: the Global Burden of Disease Study 2021. Lancet HIV S2352-3018(24)00212-1 IF: 12.8

[I am one of the members of GBD 2021 HIV Collaborators]

[https://pubmed.ncbi.nlm.nih.gov/39608393/]

318. **Chakraborty C,** Bhattacharya M, Alshammari A, Albekairi NA, Lee SS (2024) Mapping the potential genes and associated pathways involved in long COVID-associated brain fog using integrative bioinformatics and systems biology strategy. <u>Molecular Biotechnology</u> doi: 10.1007/s12033-024-01324-1. **IF: 2.4**

[https://pubmed.ncbi.nlm.nih.gov/39604720/]

317. GBD 2021 Stroke Risk Factor Collaborators (2024) Global, regional, and national burden of stroke and its risk factors, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. <u>The Lancet Neurology</u> 23(10) 973-1003. **IF: 46.5**

[I am one of the members of GBD 2021 Stroke Risk Factor Collaborators]

[https://pubmed.ncbi.nlm.nih.gov/39304265/]

- 316. Chakraborty C, Bhattacharya M (2024) Evolution and mutational landscape of highly pathogenic avian influenza strain A(H5N1) in the current outbreak in the USA and global landscape. <u>Virology</u> 600:110246. doi: 10.1016/j.virol.2024.110246. **IF: 2.8** [https://pubmed.ncbi.nlm.nih.gov/39288609/]
- 315. Chatterjee S, Bhattacharya M, Saxena S, Sang-Soo Lee, **Chakraborty C** (2024) Autoantibodies in COVID-19 and other viral diseases: molecular, cellular, and clinical perspectives. <u>Reviews in Medical Virology</u> 34(5):e2583. doi: 10.1002/rmv. 2583.**IF: 9.0** [https://pubmed.ncbi.nlm.nih.gov/39289528/]
- 314. Saha S, Bhattacharya M, SS Lee, **Chakraborty C** (2024) Recent advances of Nipah virus disease: pathobiology to treatment and vaccine advancement. <u>Journal of Microbiology</u>. doi: 10.1007/s12275-024-00168-3. **IF: 3.3**

[https://pubmed.ncbi.nlm.nih.gov/39292378/]

- 313. **Chakraborty** C, Bhattacharya M, SS Lee, Wen ZH, Lo, YH (2024) The changing scenario of drug discovery using artificial intelligence (AI) to deep learning (DL): Recent advancement, success stories, collaborations, and challenges. <u>Molecular Therapy Nucleic Acids</u> doi: 10.1016/j.omtn.2024.102295 **IF: 6.5**
- 312. **Chakraborty C**, Bhattacharya M, Pal S, Islam MA (2024) Generative-AI in drug discovery and development: The next revolution of drug discovery and development would be directed by generative AI. <u>Annals of Medicine and Surgery</u> doi: 10.1097/MS9.000000000002438 **IF: 1.7**
- 311. Kim JG, Sharma AR, LEE YH, Chatterjee S, Choi YJ, Rajvansh, **Chakraborty C**, Lee SS (2024) Therapeutic potential of quercetin as an antioxidant for bone-muscle-tendon regeneration and aging. <u>Aging and Disease</u> doi: 10.14336/AD.2024.0282 **IF: 7.0** [https://pubmed.ncbi.nlm.nih.gov/39012676/]
- 310. **Chakraborty** C, Saha S, Bhattacharya M. (2024) Recent advances in immunological landscape and immunotherapeutic agent of Nipah virus infection. <u>Cell Biochemistry and Biophysics</u> doi: 10.1007/s12013-024-01424-4 **IF: 1.8**

[https://pubmed.ncbi.nlm.nih.gov/39052192/]

- 309. Bhattacharya M. Sarkar A., Wen, ZH, Wu YJ, **Chakraborty C** (2024) Rational design of a multi-epitope vaccine using neoantigen against colorectal cancer through structural immunoinformatics and ML-enabled simulation approach. <u>Molecular Biotechnology</u> doi: 10.1007/s12033-024-01242-2. **IF: 2.4** [https://pubmed.ncbi.nlm.nih.gov/39190054/]
- 308. Bhattacharya M, Pal S, Chatterjee S, Lee SS, **Chakraborty C**. (2024) Large Language Model (LLM) to Multimodal Large Language Model (MLLM): A journey to shape the biological macromolecules to biological sciences and medicine. <u>Molecular Therapy Nucleic Acids doi:10.1016/j.omtn.2024.102255</u> **IF: 6.5**
- 307. GBD 2021 Forecasting Collaborators. (2024) Burden of disease scenarios for 204 countries and territories, 2022-2050: a forecasting analysis for the Global Burden of Disease Study 2021. <u>Lancet</u>. 403(10440):2204-2256. doi: 10.1016/S0140-6736(24)00685-8 **IF: 98.4**

[I am one of the members of GBD 2021 Forecasting Collaborators]

[https://pubmed.ncbi.nlm.nih.gov/38762325/]

306. GBD 2021 Risk Factors Collaborators. Global burden and strength of evidence for 88 risk factors in 204 countries and 811 subnational locations, 1990-2021: a systematic analysis for the Global Burden of Disease Study 2021. Lancet. 2024 May 18;403(10440):2162-2203. doi: 10.1016/S0140-6736(24)00933-4. Erratum in: Lancet. 2024 Jul 20;404(10449):244. doi: 10.1016/S0140-6736(24)01458-2. IF: 98.4

[I am one of the members of GBD 2021 Risk Factors Collaborators]

[https://pubmed.ncbi.nlm.nih.gov/38762324/]

305. Loganathan T, Fletcher J, Abraham P, Kannangai R, **Chakraborty C**, El Allali A, Alsamman AM, Zayed H, C GPD. (2024) Expression analysis and mapping of Viral-Host Protein interactions of Poxviridae suggests a lead candidate molecule targeting Mpox. <u>BMC Infectious Diseases</u> 24(1):483. doi: 10.1186/s12879-024-09332-x. **IF: 3.4** [https://pubmed.ncbi.nlm.nih.gov/38730352/]

304. **Chakraborty C,** Bhattacharya M. (2024) FLip mutations (L455F+F456L) in newly emerging VOI, JN.1: its antibody and immune escape. <u>International Immunopharmacology 133:</u> 112146. doi:10.1016/j.intimp.2024.112146 **IF: 4.8** [https://pubmed.ncbi.nlm.nih.gov/38677090/]

- 303. **Chakraborty C,** Bhattacharya M, Islam, MA. Zayed H. Ohimain EI, Lee SS, Bhattacharya P, Dhama K. (2024) Reverse zoonotic transmission of SARS-CoV-2 and monkeypox virus: A comprehensive review. <u>Journal of Microbiology</u>. doi: 10.1007/s12275-024-00138-9. **IF: 3.5** [https://pubmed.ncbi.nlm.nih.gov/38777985/]
- 302. GBD 2021 Causes of Death Collaborators. (2024) Global burden of 288 causes of death and life expectancy decomposition in 204 countries and territories and 811 subnational locations, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. <u>Lancet</u> 403(10440):2100-2132. doi: 10.1016/S0140-6736(24)00367-2. **IF: 98.4**

[I am one of the members of GBD 2021 Causes of Death Collaborators]

[https://pubmed.ncbi.nlm.nih.gov/38582094/]

301. Bhattacharya M, Chatterjee S, Saxena S, Nandi SS, Lee SS, **Chakraborty C** (2024) Current landscape of long COVID clinical trials. <u>International Immunopharmacology</u> 132:111930. doi: 10.1016/j.intimp.2024.111930. **IF: 4.8**

[https://pubmed.ncbi.nlm.nih.gov/38537538/]

300. GBD 2021 Fertility and Forecasting Collaborators. (2024) Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100: a comprehensive demographic analysis for the Global Burden of Disease Study 2021. <u>Lancet</u>: S0140-6736(24)00550-6. doi: 10.1016/S0140-6736(24)00550-6. **IF: 98.4**

[I am one of the members of GBD 2021 Fertility and Forecasting Collaborators] [https://pubmed.ncbi.nlm.nih.gov/38521087/]

- 299. Chen WF, Chuang JMJ, Yang SN, Chen NFU, Bhattacharya M, Liu HT, Dhama K, **Chakraborty C,** Wen ZH. (2024) Gene expression profiling and the isocitrate dehydrogenase mutational landscape of temozolomide-resistant glioblastoma. Oncology Letters. 28(2):378. **IF: 2.5** [https://pubmed.ncbi.nlm.nih.gov/38939621/]
- 298. GBD 2021 Demographics Collaborators. (2024) Global age-sex-specific mortality, life expectancy, and population estimates in 204 countries and territories and 811 subnational locations, 1950-2021, and the impact of the COVID-19 pandemic: a comprehensive demographic analysis for the Global Burden of Disease Study 2021. <u>Lancet</u>: S0140-6736(24)00476-8. doi: 10.1016/S0140-6736(24)00476-8. **IF: 98.4** [I am one of the members of GBD 2021 Demographics Collaborators] [https://pubmed.ncbi.nlm.nih.gov/38484753/]
- 297. Bhattacharya M, Pal S, Chatterjee S, Alshammari A, Albekairi TH, Jagga S, Ohimain EI, Zayed H, Byrareddy SN, Lee SS, Wen ZH. Agoramoorthy G, Bhattacharya P, **Chakraborty C.** (2024) ChatGPT's scorecard after the performance in a series of tests conducted at the multi-country level: A pattern of responses of generative artificial intelligence or large language models. <u>Current Research in Biotechnology</u>: 7: 100194 doi: 10.1016/j.crbiot.2024.100194 **IF: 3.6**
- 296. **Chakraborty C**, Bhattacharya M, Alshammari A, Albekairi TH (2024) Blueprint of differentially expressed genes reveals the dynamic gene expression landscape and the gender biases in long COVID. <u>Journal of Infection and Public Health.</u> 17(5):748-766. doi: 10.1016/j.jiph.2024.02.018 **IF: 4.7** [https://pubmed.ncbi.nlm.nih.gov/38518681/]
- 295. **Chakraborty C,** Bhattacharya M, Lee SS (2024) Regulatory role of miRNAs in the human immune and inflammatory response during the infection of SARS-CoV-2 and other respiratory viruses: A comprehensive review. Reviews in Medical Virology 34(2):e2526. doi: 10.1002/rmv.2526 IF: 9.0 [https://pubmed.ncbi.nlm.nih.gov/38446531/]
- 294. **Chakraborty C,** Mallick B; Bhattacharya M, Byrareddy SN (2024) SARS-CoV-2 Omicron Spike shows strong binding affinity and favourable interaction landscape with the TLR4/MD2 compared to other variants. <u>Journal of Genetic Engineering and Biotechnology</u> 22(1):100347doi: 10.1016/j.jgeb.2023.100347 **IF: 3.6** [https://pubmed.ncbi.nlm.nih.gov/38494253/]

293. **Chakraborty C,** Mazumder A, Bhattacharya M, Chatterjee S, Lee SS (2024) The landscape of neoantigens and its clinical applications: from immunobiology to cancer vaccines. <u>Current Research in</u> Biotechnology:100177 doi:10.1016/j.crbiot.2024.100177 **IF: 3.6**

[2023]

292. **Chakraborty C,** Pal S, Bhattacharya M, Islam MA (2023) ChatGPT or LLMs can provide treatment suggestions for critical patients with antibiotic-resistant infections: A next-generation revolution for medical science? <u>International Journal of Surgery</u>. doi: 10.1097/JS9.00000000000000987. **IF: 12.5**

[https://pubmed.ncbi.nlm.nih.gov/38085845/]

- 291. Chatterjee S, Bhattacharya M, Pal S, Lee SS, **Chakraborty C** (2023) ChatGPT and large language models in orthopedics: from education and surgery to research. <u>Journal of Experimental Orthopaedics</u> 10(1):128. doi: 10.1186/s40634-023-00700-1. **IF: 1.8** (**In the year of publication**) [https://pubmed.ncbi.nlm.nih.gov/38038796/]
- 290. **Chakraborty C,** Bhattacharya M, Pal S, Lee SS. (2023) From machine learning to deep learning: An advances of the recent data-driven paradigm shift in medicine and healthcare. <u>Current Research in Biotechnology</u>. doi: 10.1016/j.crbiot.2023.100164 **IF: 3.6**
- 289. Pal S, Bhattacharya M, Dash S, Lee SS, **Chakraborty C** (2023) A next-generation dynamic programming language Julia: its features and applications in biological science. <u>Journal of Advanced Research</u> S2090-1232(23)00352-1. doi: 10.1016/j.jare.2023.11.015. **IF: 11.4** [https://pubmed.ncbi.nlm.nih.gov/37992995/]
- 288. Pal S, Bhattacharya M, Islam MA, **Chakraborty C** (2023) AI-enabled ChatGPT or LLM: A new algorithm is required for plagiarism free scientific writing. <u>International Journal of Surgery</u>. doi: 10.1097/JS9.00000000000000939. **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/38000076/]
- 286. **Chakraborty** C, Bhattacharya M, Pal S, Agoramoorthy G (2023) India's quantum move: From budget allocation, action and future's challenges <u>Molecular Biotechnology</u> doi: 10.1007/s12033-023-00975-w. **IF: 2.4**

[https://pubmed.ncbi.nlm.nih.gov/38095823/]

285. **Chakraborty C,** Bhattacharya M, Lee SS (2023) Current status of microneedle array technology for therapeutic delivery: from bench to clinic. <u>Molecular Biotechnology</u> doi: 10.1007/s12033-023-00961-2. **IF: 2.4**

[https://pubmed.ncbi.nlm.nih.gov/37987985/]

- 284. Chatterjee S, Bhattacharya M, Lee SS, **Chakraborty** C (2023) An insight of different classes of RNA-based therapeutic, nanodelivery and clinical status: current landscape. <u>Current Research in</u> Biotechnology. doi:10.1016/j.crbiot.2023.100150 **IF: 3.6**
- 283. **Chakraborty C,** Pal S, Bhattacharya M, Dash S, Lee SS (2023) Overview of Chatbots with special emphasis on artificial intelligence-enabled ChatGPT in medical science. <u>Frontiers in Artificial Intelligence</u> doi: 10.3389/frai.2023.1237704 **IF: 3.0** [https://pubmed.ncbi.nlm.nih.gov/38028668/]
- 282. **Chakraborty C,** Bhattacharya M, Alshammari A, Alharbi M, Albekairi, Zheng C (2023) Exploring the structural and molecular interaction landscape of nirmatrelvir and Mpro complex: The study might assist in designing more potent antivirals targeting SARS-CoV-2 and other viruses. <u>Journal of Infection and Public Health.</u> 16(12):1961-1970. doi: S1876034123003271 **IF: 4.7** [https://pubmed.ncbi.nlm.nih.gov/37883855/]
- 281. Bhattacharya M, Chatterjee S, Dhama K, Lee SS, **Chakraborty** C (2023) Antibody evasion associated with the RBD significant mutations in several emerging SARS-CoV-2 variants and its subvariants. <u>Drug Resistance Updates</u> 71:101008. doi: 10.1016/j.drup.2023.101008. **IF: 15.8** [https://pubmed.ncbi.nlm.nih.gov/37757651/]
- 280. Sarkar BK, Bhattacharya M, Agoramoorthy G, Dhama K, **Chakraborty C** (2023) Entropydriven and integrative bioinformatics approaches reveals the recent transmission of the monkeypox virus from Nigeria to multiple non-African countries. <u>Molecular Biotechnology</u> doi: 10.1007/s12033-023-00889-7 **IF: 2.4**

[https://pubmed.ncbi.nlm.nih.gov/37798393/]

279. Pal S, Bhattacharya M, Dash S, Lee SS, **Chakraborty C** (2023) Future potential of quantum computing and simulations in biological science. <u>Molecular Biotechnology</u> doi: 10.1007/s12033-023-00863-3. **IF: 2.4**

[https://pubmed.ncbi.nlm.nih.gov/37717248/]

- 278. 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. <u>International Journal of Surgery</u> doi: 10.1097/JS9.0000000000000719 **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/37707542/]
- 277. **Chakraborty C**, Bhattacharya M. (2023) The current landscape of long COVID clinical trials: NIH's RECOVER to Stanford Medicine's STOP-PASC initiative. <u>Molecular Therapy Nucleic Acids</u>. 33: 887-889. doi:10.1016/j.omtn.2023.08.016 **IF: 6.5** [https://pubmed.ncbi.nlm.nih.gov/37680987/]
- 276. **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. <u>International Journal of Surgery doi:</u> 10.1097/JS9.00000000000000001. **IF:** 12.5

- 275. **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 33:866-868 doi:10.1016/j.omtn.2023.08.009 **IF: 6.5** [https://pubmed.ncbi.nlm.nih.gov/37680991/]
- 274. Chakraborty S, Chopra H, Akash S, **Chakraborty** C, Dhama K. (2023) Advances in artificial intelligence (AI)-based diagnosis in clinical practice-correspondence. <u>Annals of Medicine and Surgery (Lond)</u> 85(7):3757-3758. doi: 10.1097/MS9.000000000000959. **IF: 1.7** [https://pubmed.ncbi.nlm.nih.gov/37427159/]
- 273. 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: 2.9 [https://pubmed.ncbi.nlm.nih.gov/37485075/]
- 272. 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. <u>Annals of Biomedical Engineering</u> doi:10.1007/s10439-023-03306-x **IF: 3.0** [https://pubmed.ncbi.nlm.nih.gov/37428337/]
- 271. Chatterjee S, Bhattacharya M, Lee SS, **Chakraborty** C (2023) Can artificial intelligence-strengthen ChatGPT or other large language models (LLM) transform nucleic acid research? <u>Molecular</u> Therapy Nucleic Acids 33: 205-207. doi: 10.1016/j.omtn.2023.06.019 **IF: 6.5**
- 270. 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. <u>International Journal of Surgery</u>. doi: 10.1097/JS9.0000000000000564. **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/37352517/]
- 269. Chopra H, Chakraborty S, Akash S, **Chakraborty C**, Dhama K. (2023) Organ-on-Chip: a new paradigm for clinical trials-Correspondence. <u>International Journal of Surgery</u> doi: 10.1097/JS9.000000000000578 **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/37352514/]
- 268. **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. <u>Annals of Biomedical Engineering</u> doi: 10.1007/s10439-023-03297-9 **IF: 3.0** [https://pubmed.ncbi.nlm.nih.gov/37368124/]
- 267. 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. <u>QJM: An International Journal of Medicine</u> doi: 10.1093/qjmed/hcad130. PMID: 37307065. **IF: 7.3** [https://pubmed.ncbi.nlm.nih.gov/37307065/]

- 266. **Chakraborty C,** Bhattacharya M, Dhama K, Lee SS, (2023) Quantum computing on nucleic acid research: Approaching towards next-generation computing. <u>Molecular Therapy Nucleic Acids</u> 33:53-56. doi: 10.1016/j.omtn.2023.06.007 **IF: 6.5** [https://pubmed.ncbi.nlm.nih.gov/37449046/]
- 265. 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 33:49-52. doi: 10.1016/j.omtn.2023.06.006. **IF: 6.5** [https://pubmed.ncbi.nlm.nih.gov/37397276/]
- 264. 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. <u>International Journal of Biological Macromolecules</u>: 242(Pt 2):124893. doi:10.1016/j.ijbiomac.2023.124893 **IF: 7.7** (Joint-first and Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/37207746/]
- 263. **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. <u>Journal of Infection and Public Health.</u> 16 (7):1048-1056. doi:10.1016/j.jiph.2023.05.010 **IF: 4.7** [https://pubmed.ncbi.nlm.nih.gov/37196368/]
- 262. Pal S, Bhattacharya M, Lee SS, **Chakraborty C** (2023) Quantum computing in next-generation computational biology landscape: From protein folding to molecular dynamics. <u>Molecular Biotechnology</u> doi: 10.1007/s12033-023-00765-4 **IF: 2.4** [https://pubmed.ncbi.nlm.nih.gov/37244882/]
- 261. **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. <u>Journal of Infection and Public Health</u> 16(7):1004-1014. doi: 10.1016/j.jiph.2023.04.017 **IF: 4.7** [https://pubmed.ncbi.nlm.nih.gov/37172461/]
- 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. <u>Asian Journal of Psychiatry</u>. doi: 10.1016/j.ajp.2023.103590 **IF: 3.8**
- 259. Islam MA, Kaifa FH, Chandran D, Bhattacharya M, **Chakraborty C**, Bhattacharya P,Dhama K. (2023) XBB.1.5: A new threatening SARS-CoV-2 Omicron subvariant. Frontiers in Microbiology 14:1154296. doi: 10.3389/fmicb.2023.1154296 **IF: 4.0** [https://pubmed.ncbi.nlm.nih.gov/37143546/]

- 258. Ahmed KM, Dhama K, Abdulqadir SO, Omar S,Omar RM, Ahmed DR, **Chakraborty C**. (2023) The mental health of people in Turkey-Syria earthquake-affected areas needs urgent attention. <u>Asian Journal of Psychiatry</u> 84:103573. doi: 10.1016/j.ajp.2023.103573. **IF: 3.8** [https://pubmed.ncbi.nlm.nih.gov/37028233/]
- 257. Chatterjee S, Bhattacharya M, Dhama K, Lee SS, **Chakraborty C** (2023) Resistance to nirmatrelvir due to mutations in the Mpro in the subvariants of SARS-CoV-2 Omicron: another concern? <u>Molecular Therapy Nucleic Acids</u> 32 (13) 263-266 doi:10.1016/j.omtn.2023.03.013 **IF: 6.5** [https://pubmed.ncbi.nlm.nih.gov/37041859/]
- 256. **Chakraborty C,** Bhattacharya M, Dhama K (2023) SARS-CoV-2 vaccines, vaccine developmental technologies, and significant efforts of vaccine development during the pandemic: The lesson learned might help to fight against the next pandemic. <u>Vaccines.</u> 11(3): 682; doi:.10.3390/vaccines11030682 **IF: 5.2** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36992266/]
- 255. Dhama K, Tuglo LS, **Chakraborty C**, Saikumar G. (2023) Letter to the Editor: BF.7 Omicron subvariant (BA.5.2.1.7) posing fears of rise in COVID-19 cases again: critical appraisal and salient counteracting strategies. <u>International Journal of Surgery</u> doi: 10.1097/JS9.00000000000000286. **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/36917140/]
- 254. Ahmed SK, Abdulqadir SO, Omar RM, Abdullah AJ, Rahman HA, Hussein SH, Mohammed Amin HI, Chandran D, Sharma AK, Dhama K, Sallam M, Harapan H, Salari N, **Chakraborty C**, Abdulla AQ (2023) Knowledge, Attitude and Worry in the Kurdistan Region of Iraq during the Mpox (Monkeypox) Outbreak in 2022: An Online Cross-Sectional Study. <u>Vaccines.</u> 11(3):610. **IF: 5.2** doi:.3390/vaccines11030610 [https://pubmed.ncbi.nlm.nih.gov/36992194/]
- 253. Chatterjee S, Bhattacharya M, Dhama K, Lee SS, **Chakraborty** C (2023) Can the RBD mutation R346X provide an additional fitness to the "variant soup," including offspring of BQ and XBB of SARS-CoV-2 Omicron for the antibody resistance? <u>Molecular Therapy Nucleic Acids</u> 32:61-63 doi:10.1016/j.omtn.2023.02.030 **IF: 6.5** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36938362/]
- 252. Sharma AR, Lee Y-H, Bat-Ulzii A, Chatterjee S, Bhattacharya M, **Chakraborty C**, Lee SS. (2023) Bioactivity, molecular mechanism, and targeted delivery of flavonoids for bone loss. <u>Nutrients</u>. 15(4):919. doi:10.3390/nu15040919 **IF: 4.8** [https://pubmed.ncbi.nlm.nih.gov/36839278/]
- 251. **Chakraborty C,** Bhattacharya M, Sharma AR (2023) miRNA, siRNA, and lncRNAs: Recent development of bioinformatics tools and databases in support of combating different diseases. <u>Current Bioinformatics</u> doi: 10.2174/1574893618666230411104945 **IF: 4.0** (*Corresponding Author)
- 250. **Chakraborty C,** Saha A, Bhattacharya M, Dhama K, Agoramoorthy G (2023) Natural selection of the D614G mutation in SARS-CoV-2 Omicron (B.1.1.529) variant and its subvariants. <u>Molecular</u>

- <u>Therapy Nucleic Acids.</u> 23: 437-439. doi:10.1016/j.omtn.2023.01.013 **IF: 6.5** (*Corresponding Author)
- [https://pubmed.ncbi.nlm.nih.gov/36817724/]
- 249. Tamara F, Fajar JK, Soegiarto G Wulandari L, Kusuma AP, Pasaribu EA, Putra RP, Rizky M, Anshor T, Novariza M, Wijaya S, Prasetyo G, Pradita A, Aini Q, Mete MVPH, Yusni R, Putri YS, **Chakraborty C**, Dhama K, Harapan H. (2023) The refusal of COVID-19 vaccination and its associated factors: a systematic. F1000Research 2023, 12:54 doi: 10.12688/f1000research.128912.1
- 248. Islam MA, Marzan AL, Hoque ML, Barua A, Khan A, Dhama K, **Chakraborty C**, Bhattacharya P, Wei D, Shahi S (2023) Variant-specific deleterious mutations in the SARS-CoV-2 genome reveal immune responses and potentials for prophylactic vaccine development. <u>Frontiers in Pharmacology</u> 14:1090717. doi: 10.3389/fphar.2023.1090717 **IF: 4.4** [https://pubmed.ncbi.nlm.nih.gov/36825152/]
- 247. **Chakraborty C*,** Bhattacharya M, Dhama K, Lee SS (2023) Evaluation of differentially expressed genes during replication using gene expression landscape of monkeypox-infected MK2 cells: A bioinformatics and systems biology approach to understanding the genomic pattern of viral replication. <u>Journal of Infection and Public Health</u> 16(3):399-409. doi:10.1016/j.jiph.2023.01.015 **IF: 4.7** (*Corresponding Author)

[https://pubmed.ncbi.nlm.nih.gov/36724696/]

- 246. **Chakraborty C,** Bhattacharya M, Chopra H, Bhattacharya P; Islam A, Dhama K. (2023) The SARS-CoV-2 Omicron recombinant subvariants XBB, XBB.1 and XBB.1.5 are expanding rapidly with unique mutations, antibody evasion and immune escape properties- an alarming global threat of surge in COVID-19 cases again? <u>International Journal of Surgery</u> doi: <u>10.1097/JS9.0000000000000246</u> **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/36917125/]
- 245. Sharma G, Chatterjee S, **Chakraborty C***, Kim JC (2023) Advances in nanozymes as a paradigm for viral diagnostics and therapy. <u>Pharmacological Reviews</u> 27:PHARMREV-AR-2022-000719. doi: 10.1124/pharmrev.122.000719. **IF: 19.3** (*Co-corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36707250/]
- 244. **Chakraborty C*,** Bhattacharya M, Chopra H, Bhattacharya P; Islam A, Dhama K. (2023) Recently emerged Omicron subvariant BF.7 and its R346T mutation in RBD region reveals an increased transmissibility and higher resistance to neutralization antibodies: need to understand more under current scenario of rising cases in China and fears of driving new wave of COVID-19 pandemic. <u>International Journal of Surgery</u> 109(4):1037-1040 doi: 10.1097/JS9.0000000000000219. **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/37097619/]
- 243. Ahmed SK, El-Kader RGA, Jose M. Lorenzo JM, **Chakraborty C**, Dhama K, Mohammed MG, Rehman MEU, Abdulrahman DS. (2023) Hospital-based salient prevention and control measures to counteract the 2022 monkeypox outbreak. <u>Health Science Reports</u> 6(1):e1057. doi:10.1002/hsr2.1057 [https://pubmed.ncbi.nlm.nih.gov/36644314/] **IF: 2.1**

242. Chatterjee S, Bhattacharya M, Nag S, Dhama K. **Chakraborty C*** (2023) A detailed overview of SARS-CoV-2 Omicron: its subvariants, mutations and pathophysiology, clinical characteristics, immunological landscape, immune escape, and therapies. <u>Viruses</u> 5(1), 167; doi: 10.3390/v15010167 **IF: 3.8** (*Corresponding Author)

[https://pubmed.ncbi.nlm.nih.gov/36680207/]

- 241. Kaiwan O, Sethi Y, Khehra N, Inderbir P, 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 current threats of recently emerging multiple Omicron subvariants. <u>International Journal of Surgery</u> doi: 10.1097/JS9.0000000000000176 **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/37093096/]
- 240. **Chakraborty C*,** Chatterjee S, Bhattacharya M, Chopra H, Bhattacharya P; Dhama K (2023) D614G mutation helps to increase the transmissibility and reduces the virulence of SARS-CoV-2 variants through natural selection. <u>International Journal of Surgery</u> 109(2):171-174. doi: 10.1097/JS9.000000000000155. **IF: 12.5** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36799841/]
- 239. Chatterjee S, Bhattacharya M, Agoramoorthy G, **Chakraborty C*** (2023) Different cellular barriers to RNA therapeutics and strategies to overcome. <u>International Journal of Surgery</u> doi: 10.1097/JS9.00000000000000000 **IF: 12.5** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36906768/]
- 238. **Chakraborty C***, Bhattacharya M, Dhama K, Agoramoorthy G (2023) Artificial intelligence-enabled clinical trials might be a faster way to perform rapid clinical trials and counter future pandemics: Lessons learned from the COVID-19 period. <u>International Journal of Surgery</u> doi: 10.1097/JS9.000000000000088 **IF: 12.5** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36906740/]
- 237. **Chakraborty** C, Bhattacharya M, Dhama K, Agoramoorthy G (2023) Evidence on the existence of sublineages of the current human monkeypox virus: time for in depth study. <u>International Journal of Surgery</u> doi: 10.1097/JS9.00000000000000085 **IF: 12.5** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36906750/]
- 235. **Chakraborty C*,** Bhattacharya M, Chatterjee S, Sharma AR, Saha RP, Dhama K, Agoramoorthy G (2023) Integrative bioinformatics approaches indicate a particular pattern of some SARS-CoV-2 and non- SARS-CoV-2 proteins. <u>Vaccines.</u> 11(1) 38 doi: 10.3390/vaccines11010038 IF: 5.2 (*Corresponding Author)

[https://pubmed.ncbi.nlm.nih.gov/36679883/]

[2022]

234. Bhattacharya M, Chatterjee S, Lee SS, **Chakraborty C*** (2023) Therapeutic applications of nanobodies against SARS-CoV-2 and other viral infections: Current update. <u>International Journal of Biological Macromolecule</u> 229:70-80. doi:10.1016/j.ijbiomac.2022.12.284 **IF: 7.7** (Joint-first and Corresponding Author)

[https://pubmed.ncbi.nlm.nih.gov/36586649/]

233. Polito L, Arozal W, Nishimura Y, Yantieff AR and **Chakraborty C**. (2022) Editorial: Methods and Application in Experimental Pharmacology and Drug Discovery: 2021. <u>Frontiers in Pharmacology</u> doi: 10.3389/fphar.2022.1097770 **IF: 4.4**

[https://www.frontiersin.org/articles/10.3389/fphar.2022.1097770/full]

- 232. Sah R, Mohanty A, Rohilla R, Padhi BK, Chandran D, **Chakraborty** C, Dhama K. (2022) Recent Outbreaks of Hantavirus-a very lethal and zoonotic virus An Update and Counteracting Strategies. <u>International Journal of Surgery Open:</u>100582. doi: 10.1016/j.ijso.2022.100582. **IF: 0.8** [https://pubmed.ncbi.nlm.nih.gov/36447621/]
- 231. Dhama K, Nainu F, Frediansyah A, Yatoo MI, Mohapatra RK, Chakraborty S, Zhou H, Islam MR, Mamada SS, Kusuma HI, Rabaan AA, Alhumaid S, Mutair AA, Iqhrammullah M, Al-Tawfiq JA, Mohaini MA, Alsalman AJ, Tuli HS, **Chakraborty C**, Harapan H.(2022) Global Emerging Omicron Variant of SARS-CoV-2: Impacts, Challenges and Strategies. <u>Journal of Infection and Public Health</u>. 16(1):4-14. doi: 10.1016/j.jiph.2022.11.024.**IF: 4.7** [https://pubmed.ncbi.nlm.nih.gov/36446204//]
- 230. Bhattacharya M, Dhama K, **Chakraborty C** (2022) A call for a novel and next-generation vaccine against monkeypox disease. <u>Annals of Medicine and Surgery (Lond).</u> 84:104968. doi: 10.1016/j.amsu.2022.104968 **IF: 1.7** [https://pubmed.ncbi.nlm.nih.gov/36420518/]
- 229. **Chakraborty** C, Bhattacharya M, Dhama K (2022) Cases of BA.2.75 and recent BA.2.75.2 subvariant of Omicron are increasing in India: Is it alarming at the global level? <u>Annals of Medicine and Surgery (Lond)</u> 84:104963. doi: 10.1016/j.amsu.2022.104963. **IF: 1.7** [https://pubmed.ncbi.nlm.nih.gov/36415680/]
- 228. Praveen SV, Lorenzo JM, Ittamalla R, Dhama K, **Chakraborty C**, Srinivas Kumar DV, Mohan T (2022) Twitter-based sentiment analysis and topic modeling, using natural language Processing technique to understand the perspectives of people regarding COVID-19 booster vaccine shots in India: Crucial for increasing vaccination coverage among population. <u>Vaccines</u> 10(11), 1929; https://doi.org/10.3390/vaccines10111929 **IF: 5.2** [https://pubmed.ncbi.nlm.nih.gov/36423024/]
- 227. **Chakraborty C,** Bhattacharya M, Sharma AR, Agoramoorthy G, Lee SS(2022)Structural landscape of nsp coding genomic regions of SARS-CoV-2-ssRNA genome: A structural genomics approach towards identification of druggable genome, ligand-binding pockets, and structure-based

druggability. <u>Molecular Biotechnology</u> doi: 10.1007/s12033-022-00605-x **IF: 2.4** (*Corresponding Author)

[https://pubmed.ncbi.nlm.nih.gov/36463562/]

226. Chatterjee S, Bhattacharya M, Agoramoorthy G, **Chakraborty C***(2022)Current status in clinical advancement of RNA therapeutics. <u>International Journal of Surgery doi:10.1016/j.ijsu.2022.106996</u> **IF: 12.5** (*Corresponding Author)

[https://pubmed.ncbi.nlm.nih.gov/36368421/]

- 225. Bhattacharya M, Chatterjee S, Nag S, Dhama K, **Chakraborty** C*(2022)Designing, characterization, and immune stimulation of a novel multi-epitopic peptide-based potential vaccine candidate against monkeypox virus through screening its whole genome encoded proteins: An immunoinformatics approach. <u>Travel Medicine and Infectious Disease</u> 50:102481doi: 10.1016/j.tmaid.2022.102481**IF: 6.3** (Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36265732/]
- 224. **Chakraborty C***, Bhattacharya M, Sharma AR,Dhama K.(2022)Monkeypox virus vaccine evolution and global preparedness for vaccination. <u>International Immunopharmacology</u>113(Pt A):109346. doi: 10.1016/j.intimp.2022.109346 **IF: 4.8** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36274490/]
- 223. **Chakraborty C***, Bhattacharya M, Sharma AR, Dhama K, Lee SS*(2022)The rapid emergence of multiple sublineages of Omicron (B.1.1.529) variant: Dynamic profilinge via molecular phylogenetics and mutational landscape studies. <u>Journal of Infection and Public Health</u> 15(11):1234-1258.doi:10.1016/j.jiph.2022.10.004 **IF: 4.7** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36270226/]
- 222. Sah R, Hada V, Mohanty A, Zafer N Alshahrani N, Chakraborty S, Bhattacharya M, **Chakraborty** C, Dhama K (2022) Recent first report of human-to-dog transmission of Monkeypox virus emphasizes an urgent need of enhancing surveillance and strengthen further explorative research to reveal its real magnitude of reverse zoonosis from other animals including pets as like that happened with SARS-CoV-2 / COVID-19 pandemic Correspondence. <u>International Journal of Surgery</u> 106949. doi: 10.1016/j.ijsu.2022.106949. **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/36174830/]
- 221. Sharma AR, Lee YH,Bhattacharya M, **Chakraborty C**, Lee SS(2022) Recent advances of metal-based nanoparticles in Nucleic acid delivery for therapeutic applications. <u>Journal of Nanobiotechnology</u> 20(1):501.doi: 10.1186/s12951-022-01650-z. **IF: 10.6** [https://pubmed.ncbi.nlm.nih.gov/36434667/]
- 220. Dhama K, Chandran D, Chakraborty S, Yatoo MI, Islam MA, Bhattacharya M, **Chakraborty C**, Harapan H, Chaicumpa W (2022) Zoonotic concerns of Marburg virus: Current knowledge and counteracting strategies including One Health approach to limit animal-human interface. An update. International Journal of Surgery 106941. doi: 10.1016/j.ijsu.2022.106941. IF: 12.5 [https://pubmed.ncbi.nlm.nih.gov/36162729/]

- 219. Mohapatra RK, Sarangi AK, Chakraborty S, Tuli HS, Bhattacharya M, **Chakraborty C**, Chaicumpa W, Dhama K (2022) NeoCoronavirus (NeoCoV) and its possible future global health threats Current knowledge and counteracting prospects Correspondence. <u>International Journal of Surgery</u>:106922. doi: 10.1016/j.ijsu.2022.106922.. **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/36150652/]
- 218. Bhattacharya M, Chatterjee S, Mallik B, Sharma AR, **Chakraborty C**(2022) Therapeutic role of neutralizing antibody for the treatment against SARS-CoV-2 and its emerging variants: A clinical and pre-clinical perspective. <u>Vaccines</u> 10(10):1612. doi: 10.3390/vaccines10101612 **IF: 5.2** [https://pubmed.ncbi.nlm.nih.gov/36298477/]
- 217. Mohapatra RK, Mishra S, Kandi V, Sarangi AK, Ansari A, **Chakraborty C**, Biswal SK, Dhama K. (2022) Monkeypox plays a similar role like SARS-CoV-2; intensive animal screening is crucial after the first human-to-dog transmission report Correspondence. <u>International Journal of Surgery</u> 106925. doi: 10.1016/j.ijsu.2022.106925. **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/36122835/]
- 216. Sah R, Mohanty A, Mehta V, Chakraborty S, **Chakraborty C**, Dhama K. (2022) Crimean-Congo haemorrhagic fever (CCHF) outbreak in Iraq: Currently emerging situation and mitigation strategies Correspondence. <u>International Journal of Surgery</u>: 106916. doi: 10.1016/j.ijsu.2022.106916 .**IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/36115528/]
- 215. Chakraborty C, Bhattacharya M, Panda P, Dhama K. (2022) Monkeypox in South-East Asia: Is an alarming bell for this region? <u>International Journal of Surgery</u> doi: 10.1016/j.ijsu.2022.106917. IF: 12.5 [https://pubmed.ncbi.nlm.nih.gov/36115529/]
- 214. **Chakraborty C,** Bhattacharya M, Mohapatra RK, Chakraborty S, Dhama K.(2022) Immediate need for next-generation and mutation-proof vaccine to protect against current emerging Omicron sublineages and future SARS-CoV-2 variants: An urgent call for researchers and vaccine companies .<u>International Journal of Surgery</u> doi: 10.1016/j.ijsu.2022.106903 **IF: 12.5** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/36108909/]
- 213. Chakraborty S, Chandran D, Mohapatra RK, Rabaan AA, Alhumaid S, Al Mutair A, **Chakraborty** C, Harapan H, Dhama K. (2022) Sexual transmission of recently re-emerged deadly Marburg virus (MARV) needs explorative studies and due attention for its prevention and feasible spread. <u>International Journal of Surgery</u> doi: 10.1016/j.ijsu.2022.106884 **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/36075554/]
- 212. **Chakraborty C,** Bhattacharya M, Sharma AR, Dhama K (2022) Evolution, epidemiology, geographical distribution and mutational landscapeof newly emerging monkeypox virus. <u>GeroScience</u> doi: 10.1007/s11357-022-00659-4 (*Corresponding Author) **IF: 5.3** [https://pubmed.ncbi.nlm.nih.gov/36094771/]
- 211. Chakraborty S, Chandran D, Mohapatra RK, Alagawany M, Bhattacharya M, Chakraborty C, Dhama K (2022) Langya virus, a newly identified Henipavirus in China zoonotic pathogen causing febrile illness in humans, and its health concerns: Current knowledge and counteracting strategies. International Journal of Surgery doi: 10.1016/j.ijsu.2022.106884 IF: 12.5

- 210. Chakraborty S, Mohapatra RK, Chandran D, Alagawany M, SV P, Islam MA, Chakraborty C, Dhama K (2022) monkeypox vaccine and vaccination strategies: current knowledge and advances. <u>International Journal of Surgery</u> doi: 10.1016/j.ijsu.2022.106869. **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/36049620/]
- 209. Mohapatra RK, Sarangi AK, Kandi V, Chakraborty S, Chandran D, Alagawany M, **Chakraborty C,** Dhama K (2022) Recent re-emergence of Marburg virus disease in an African country Ghana after Guinea amid the ongoing COVID-19 pandemic: another global threat? Current knowledge and strategies to tackle this highly deadly disease having feasible pandemic potential. <u>International Journal of Surgery doi:</u> 10.1016/j.ijsu.2022.106863. **IF:** 12.5 [https://pubmed.ncbi.nlm.nih.gov/36087848/]
- 208. **Chakraborty** C, Bhattacharya M, Sharma AR, Roy SS, Islam MA, Chakraborty S, Nandi SS, Dhama K (2022) Deep learning research should be encouraged for diagnosis and treatment of antibiotic resistance of microbial infections in treatment associated emergencies in hospitals. <u>International Journal of Surgery</u> doi:10.1016/j.ijsu.2022.106857 **IF:12.5** [https://pubmed.ncbi.nlm.nih.gov/36028138/]
- 207. Chakraborty S, Chandran D, Mohapatra RK, Alagawany M, El-Shall NA., Sharma AK, **Chakraborty C**, Dhama K (2022) Clinical management, antiviral drugs and immunotherapeutics for treating monkeypox. An update on current knowledge and futuristic prospects. <u>International Journal of Surgery</u> doi: 10.1016/j.ijsu.2022.106847 **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/35995352/]
- 206.Chakraborty S, Mohapatra RK, Chandran D, Rana R, Nainu F, **Chakraborty C**, Chaicumpa W, Dhama K (2022)Hand-foot-and-mouth disease (HFMD) in children. Current scenario, andadvancements in developing vaccines and therapeutics: An update. <u>International Journal of Surgery</u> doi: 10.1016/j.ijsu.2022.106834. **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/35963573/]
- 205. Bhattacharya M, Chatterjee S, Sharma AR, Lee SS, **Chakraborty C***(2022)Delta variant (B.1.617.2) of SARS-CoV-2: Current understanding of infection, transmission, immune escape, and mutational landscape. <u>Folia microbiologica</u> doi: 10.1016/j.ijsu.2022.106834. **IF: 2.5** (*Corresponding Author)

[https://pubmed.ncbi.nlm.nih.gov/35963573/]

- 204. **Chakraborty C*,** Bhattacharya M, Sharma AR, Mallick B (2022)Omicron (B.1.1.529)- a new heavily mutated variant: mapped location and probable properties of its mutations with an emphasis on S-glycoprotein. <u>International Journal of Biological Macromolecule</u> 219:980-997doi:10.1016/j.ijbiomac.2022.07.254 **IF: 7.7** (*First and Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/35952818/]
- 203. Sharma AR, Gankhuyag B, LeeYH, **Chakraborty C,** Lee SS (2022)Effect of Alumina (Al2O3) particles on the osteogenic ability of osteoblasts. <u>Journal of Functional Biomaterials</u> 13(3): 105doi:10.3390/jfb13030105 **IF: 5.0**

202. Bhattacharya M#, Sharma AR, Mallick B, Lee SS, Seo EM, **Chakraborty C**#* (2022) B.1.1.7 (Alpha) variant is most antigenic compared to Wuhan strain, B.1.351, B.1.1.28/triple mutant and B.1.429 variants. <u>Frontiers in Microbiology</u> 13:895695.doi: 10.3389/fmicb.2022.895695(# Co-first and *Corresponding Author) **IF: 4.0**

[https://pubmed.ncbi.nlm.nih.gov/36033846/]

201. **Chakraborty C***, BhattacharyaM, Sharma AR, Dhama K, Agoramoorthy G (2022) A comprehensive analysis of the mutational landscape of the newly emerging Omicron (B.1.1.529) variant and comparison of mutations with VOCs and VOIs. <u>GeroScience</u> doi:10.1007/s11357-022-00631-2 (*Corresponding Author) **IF: 5.3**

[https://pubmed.ncbi.nlm.nih.gov/35989365/]

- 200. **Chakraborty C*,** Bhattacharya M,Sharma AR, Roy SS, Dhama K,Lee SS (2022) Deep learning research should be encouraged more and more in different domains of surgery: An open call. <u>International Journal of Surgery</u> 104:106749. doi: 10.1016/j.ijsu.2022.106749.**IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/35803516/]
- 199. Bhattacharya M#,Dhama K,**Chakraborty** C* (2022)Recently spreading human monkeypox virus infection and its transmission during COVID-19 pandemic period: A travelers' prospective. <u>Travel Medicine and Infectious Disease</u> 49:102398. doi: 10.1016/j.tmaid.2022.102398. (*Co-first and Corresponding Author) **IF: 6.3**

[https://pubmed.ncbi.nlm.nih.gov/35779853]

- 198. **Chakraborty C*,** Sharma AR, Bhattacharya M, Dhama K, Lee SS (2022) Continent-wide evolutionary trends of emerging SARS-CoV-2 variants: dynamic profiles from Alpha to Omicron. <u>GeroScience doi: 10.1007/s11357-022-00619-y.</u> (*Corresponding Author) **IF: 5.3** [https://pubmed.ncbi.nlm.nih.gov/35831773/]
- 197. Chatterjee S, Sharma AR, Bhattacharya M, Dhama K, Lee SS, Chakraborty C*(2022) Relooking the monkeypox virus during this present outbreak: Epidemiology to therapeutics and vaccines. <u>European Review for Medical and Pharmacological Sciences</u> 26 (16): 5991-6003 doi: 10.26355/eurrev_202208_29541.(*Corresponding Author) IF: 3.3 (Impact Factor, 2022) [https://pubmed.ncbi.nlm.nih.gov/36066177/]
- 196. **Chakraborty** C*, Sharma AR, Sharma G, Bhattacharya M, Lee SS (2022) Exploring the status of global terrestrial and aquatic microbial diversity through 'Biodiversity Informatics'. <u>Environment, Development and Sustainability doi:</u> 10.1007/s10668-022-02539-5 (*First and Corresponding Author) **IF:** 4.7
- 195. Mohapatra RK, Tuli HS, SarangiAK, Chakraborty S, Chandran D, **Chakraborty C**, Dhama K (2022)Unexpected sudden rise of human monkeypox cases in multiple non-endemic countries amid COVID-19 pandemic and salient counteracting strategies: another potential global threat? <u>International Journal of Surgery</u>.103:106705.doi: 10.1016/j.ijsu.2022.106705 **IF: 12.5**

- 194.Mohapatra RK, Ramana KV, Sarangi AK, Verma S, Tuli HS, Chakraborty S, Chakraborty C, Dhama K(2022)The recently emerged BA.4 and BA.5 lineages of Omicron and their global health concerns amid the ongoing wave of COVID-19 pandemic. <u>International Journal of Surgery.</u>103:106698.doi: 10.1016/j.ijsu.2022.106698 IF: 12.5 [https://pubmed.ncbi.nlm.nih.gov/35690362/]
- 193. **Chakraborty C***, Bhattacharya M,,Nandi SS, Mohapatra, RK,Dhama K,Agoramoorthy G (2022) 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. IF: 7.9 (*First and Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/35658858/]
- (Highlighted by News Medical; https://www.news-medical.net/news/20220613/Multi-national-scientific-task-force-needed-to-monitor-zoonotic-viruses-long-term.aspx)
- 192. Bellamkonda N, Lambe U, Sawant S, Nandi SS, **Chakraborty C**, Shukla D.(2022)Immune response to SARS-CoV-2 vaccines. <u>Biomedicines</u> 10(7) 1464 **IF: 3.9** (Highlighted by Taiwan News; https://www.taiwannews.com.tw/en/news/4578493) [https://pubmed.ncbi.nlm.nih.gov/35884770/]
- 191. Mohapatra RK, Ramana KV, Tuli HS, Verma S, Chakraborty S, Rabaan A, Chakraborty C, Dhama K (2022) Emerging cases of acute hepatitis of unknown origin in children amid the ongoing COVID-19 pandemic: needs attention. <u>International Journal of Surgery</u> 102:106682. doi: 10.1016/j.ijsu.2022.106682 IF: 12.5
 [https://pubmed.ncbi.nlm.nih.gov/35597436/]
- 190. **Chakraborty C*,** Sharma AR, Bhattacharya M, Dhama K, Lee SS (2022) Altered gut microbiota patterns in COVID-19: Markers for inflammation and disease severity. <u>World Journal of Gastroenterology</u> 28(25): 2802-2822 doi: 10.3748/wjg.v28.i25.2802(*First and Corresponding Author) **IF: 4.3** [https://pubmed.ncbi.nlm.nih.gov/35978881/]
- 189. **Chakraborty** C*, Bhattacharya M, Sharma AR, Dhama K(2022) Recombinant SARS-CoV-2 variants XD, XE, and XF: The emergence of recombinant variants requires an urgent call for research. <u>International Journal of Surgery</u> 102:106670(*First and Corresponding Author) **IF: 12.5** [https://pubmed.ncbi.nlm.nih.gov/35569759/]
- 188. Mohapatra RK, Kandi V, Tuli HS, **Chakraborty C**, Dhama K(2022) The recombinant variants of SARS-CoV-2: concerns continues amid COVID-19 pandemic. <u>Journal of Medical Virology</u> 94(8):3506-3508. doi: 10.1002/jmv.27780. **IF: 6.8** [https://pubmed.ncbi.nlm.nih.gov/35419806/]
- 187. **Chakraborty C*,** Bhattacharya M, Sharma AR, Mallick B, Nandi SS, Lee SS (2022) Comparative genomics, evolutionary epidemiology, and RBD-hACE2 receptor binding pattern in B.1.1.7 (Alpha) and B.1.617.2 (Delta) related to their pandemic response in UK and India. <u>Infection, Genetics and Evolution</u> 101:105282. doi:10.1016/j.meegid.2022.105282(*First and Corresponding Author) **IF: 2.6** [https://pubmed.ncbi.nlm.nih.gov/35427787/]

- 186.Sharma AR, Sharma G, Lee YH, **Chakraborty** C, Lee SS, Seo RM (2022)Sodium selenite promotes osteoblast differentiation via the WNT/β-catenin signaling pathway. <u>Cell Journal (Yakhteh)</u> 24(6):309-315. doi: 10.22074/cellj.2022.8314. **IF: 1.7** [https://pubmed.ncbi.nlm.nih.gov/35892229/]
- 185.Bhattacharya M#, Sharma AR, Dhama K Lee SS, Agoramoorthy G, **Chakraborty** C (2022)Hybrid immunity against COVID-19 in different countries with a special emphasis on the Indian scenario during the Omicron period. <u>International Immunopharmacology</u> 94(8):3506-3508. https://doi.org/10.1016/j.intimp.2022.108766 (*Co-first and Corresponding Author) **IF: 4.8** [https://pubmed.ncbi.nlm.nih.gov/35413676/]
- 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. <u>International Journal of Oncology</u> 60(5):56. doi: 10.3892/ijo.2022.5346. (*Corresponding Author) **IF: 4.5**

[https://pubmed.ncbi.nlm.nih.gov/35362541/]

- 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. <u>Human Vaccines and Immunotherapeutics</u> 18(5):2065824. doi: 10.1080/21645515.2022.2065824. **IF: 4.1** [https://pubmed.ncbi.nlm.nih.gov/35594528/]
- 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 44(2):619-637doi:10.1007/s11357-022-00532-4 (*Co-first and Corresponding Author) IF: 5.3 (# equally contributed) [https://pubmed.ncbi.nlm.nih.gov/35258772/]
- 181.Bhattacharya M, SharmaAR, 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. <u>Infection, Genetics and Evolution</u> 99:105245.doi: 10.1016/j.meegid.2022.105245(*Corresponding Author) **IF: 2.6** [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. <u>Journal of Medical Virology</u> 94(6):2336-2342doi: 10.1002/jmv.27633. **IF: 6.8** [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 13:801522.doi:10.3389/fimmu.2022.801522(*First and Corresponding Author) **IF: 5.7**

[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 64(5):510-525. doi: 10.1007/s12033-021-00432-6 (*Corresponding Author) IF: 2.4 [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. <u>International Journal of Peptide Research and Therapeutics</u> 28(1):5.doi: 10.1007/s10989-021-10322-9 (*Corresponding Author) **IF: 2.0** [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. <u>Current Opinion in Pharmacology</u> 62:64-73doi:10.1016/j.coph.2021.11.006 **IF: 4.0** (*First and 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. <u>Aging and Disease</u> 13(3):927-942doi:10.14336/AD.2021.1117(*First and Corresponding Author) **IF**: **7.0**

[https://pubmed.ncbi.nlm.nih.gov/35656100/]

- 174. Ohimain EI, **Chakraborty** C (2022) Editorial: An initiative towards Ebolavirus disease (EVD) free world: An edited special anti-infective issue on Ebola Virus Disease. <u>Current Opinion in Pharmacology</u> 62:12-14. doi:10.1016/j.coph.2021.10.006 **IF: 4.0** (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/34864559/]
- 173. **Chakraborty C*,** Bhattacharya M, Sharma AR (2022) Present variants of concern (VOC) and variants of interest (VOI) of SARS-CoV-2: their significant mutations in S-glycoprotein, infectivity, reinfectivity, immune escape, and vaccines activity. Reviews in Medical Virology 32(2): e2270 doi:10.1002/rmv.2270 (*First and Corresponding Author) **IF: 9.0** [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8420283/]

[2021]

- 172. **Chakraborty C***, Sharma AR, Bhattacharya M,Zayed H, 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. <u>Frontiers in Immunology</u> 12:724936.doi:10.3389/fimmu.2021.724936 (*First and Corresponding Author) **IF: 5.7** [https://pubmed.ncbi.nlm.nih.gov/34975833/]
- 171.Bhattacharya M, Chatterjee S, Sharma AR, Agoramoorthy G, **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. <u>Applied Microbiology</u> and <u>Biotechnology</u>105(24):9035-9045doi: 10.1007/s00253-021-11676-2. (*Corresponding Author) **IF: 3.9** [https://pubmed.ncbi.nlm.nih.gov/34755213/]

- 170. **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. <u>Frontiers in Pharmacology</u> 12: 704205.doi: 10.3389/fphar.2021.704205 (*First and Corresponding Author) **IF: 4.4** [https://pubmed.ncbi.nlm.nih.gov/34867318/
- 169. **Chakraborty** C*, Sharma AR, Bhattacharya M, Agoramoorthy G and Lee SS (2021)COVID-19 vaccines and vaccination program for aging adults. <u>European Review for Medical and Pharmacological Sciences</u> 25 (21): 6719-6730.doi: 10.26355/eurrev_202111_27117 (*First and Corresponding Author) **IF: 3.3 (Impact Factor, 2022)**

[https://pubmed.ncbi.nlm.nih.gov/34787877/]

- 168. 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: 4.0 [https://pubmed.ncbi.nlm.nih.gov/34464933/]
- 167. **Chakraborty C***, Sharma AR, Bhattacharya M, Agoramoorthy G, Lee SS (2021) Evolution, Mode of Transmission, and Mutational Landscape of Newly Emerging SARS-CoV-2 Variants. <u>mBio</u> 12(4):e0114021.doi: 10.1128/mBio.01140-21 (*First and Corresponding Author) **IF: 5.1** [https://pubmed.ncbi.nlm.nih.gov/34465019/]
- 166. **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? <u>Molecular Therapy Nucleic Acids</u>26:237-241doi: 10.1016/j.omtn.2021.07.011. (*First and Corresponding Author) **IF: 6.5**[https://pubmed.ncbi.nlm.nih.gov/34484868/]
- 165. **Chakraborty C***, Sharma AR, Bhattacharya M, Lee SS (2021) Lessons learned from cutting-edge immunoinformatics on next-generation COVID-19 vaccine research. <u>International Journal of Peptide Research and Therapeutics</u> 27(4):2303-2311. doi:10.1007/s10989-021-10254-4 (*Corresponding Author) **IF: 2.0**

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

- 164. **Chakraborty C***, Sharma AR, Bhattacharya M, Lee SS (2021) From COVID-19 to cancer mRNA vaccines: moving from bench to clinic in the vaccine landscape. <u>Frontiers in Immunology</u> 12:679344.doi:10.3389/fimmu.2021.679344(*First and Corresponding Author) **IF: 5.7** [https://pubmed.ncbi.nlm.nih.gov/34305909/]
- 163. Sharma G, Alle M, **Chakraborty C**, Kim JC (2021) Strategies for transdermal drug delivery against bone disorders: A preclinical and clinical update. <u>Journal of Controlled Release</u> 336:375-395.doi: 10.1016/j.jconrel.2021.06.035.**IF: 10.5** [https://pubmed.ncbi.nlm.nih.gov/34175368/]
- 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: 3.8

- 161. Shawan MMAK, Sharma AR, Bhattacharya M, Mallik B, Akhter F, Shakil MS, Hossain MM, BanikS, Lee SS*, Hasan MA*, Chakraborty C*(2021) Designing an effective therapeutic siRNA to silence RdRp gene of SARS-CoV-2. <u>Infection Genetics and Evolution</u> 93:104951.doi:10.1016/j.meegid.2021.104951(*Corresponding Author) IF: 2.6 [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-19vaccination program in Asia: a critical analysis. <u>Vaccines</u> 9(6): 600.doi:10.3390/vaccines9060600(*First and Corresponding Author) **IF:5.2** [https://pubmed.ncbi.nlm.nih.gov/34199995/]
- 159. **Chakraborty C*,** Sharma AR, Bhattacharya M, Lee SS, AgoramoorthyG(2021)SARS-CoV-2 Brazil variants in Latin America: More serious research urgently needed on public health and vaccine protection. <u>Annals of Medicine and Surgery</u> 66:102428doi: 10.1016/j.amsu.2021.102428(*First and Corresponding Author) **IF**: **1.7** [https://pubmed.ncbi.nlm.nih.gov/34109031/]
- 158. Sharma AR, Bhattacharya M, Bhakta S, SahaA, Lee SS*, **Chakraborty C***(2021)Recent research progress on circular RNAs: Biogenesis, properties, functions, and therapeutic potential. <u>Molecular Therapy-Nucleic Acids</u> 25: 355-371doi: 10.1016/j.omtn.2021.05.022 (*Corresponding Author) **IF**: **6.5** [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. <u>Aging and Disease</u> 12(8):2173-2195 doi:10.14336/AD.2021.0518 (*Corresponding Author) **IF:7.0** [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. <u>Brain Behavior and Immunity</u> 96:1-4doi:10.1016/j.bbi.2021.05.018 (*First and Corresponding Author) **IF:8.8** [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. <u>Aging and Disease</u> 12 (3): 688-690. doi:10.14336/AD.2021.04026(*First and Corresponding Author) **IF:7.0** [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. <u>Current Molecular Medicine</u>.22(3):250-262.doi: 10.2174/1566524021666210315124438. (*Corresponding Author) **IF:2.2** [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? <u>Biocell</u> 2021 45(5): 1175-1186doi:10.32604/biocell.2021.015537 (*Corresponding Author) **IF:0.8** [https://www.techscience.com/biocell/v45n5/43075/html]
- 152. Mallick B, Sharma AR,Bhattacharya M, Lee SS*, **Chakraborty C***. (2021) PPARγ LBD and it's ligand specificity reveal selection of potential partial agonist: Molecular dynamics based T2D drug discovery initiative. <u>Biocell</u> 45(4):953-961. doi:10.32604/biocell.2021.015530(*Corresponding Author) **IF**: **0.8** [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. <u>Infezioni in Medicina</u> 29(1):165-166 (*First and 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. <u>Infection, Genetics and Evolution</u> 89:104729.doi: 10.1016/j.meegid.2021.104729.(*First and Corresponding Author) **IF: 2.6** [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. <u>Archives of Medical Research</u>29:S0188-4409(21)00009-6. (*First and Corresponding Author) **IF: 4.7** [https://pubmed.ncbi.nlm.nih.gov/33546870/]
- 148. **Chakraborty C*,** Bhattacharya M, Mallick B, Sharma AR, Sharma G, Lee SS, Agoramoorthy 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):225-238doi: 10.1080/17512433.2021.1874348. (*First and Corresponding Author) **IF: 3.6** [https://pubmed.ncbi.nlm.nih.gov/33423554/]
- 147. GhoshP, Bhakta S, Bhattacharya M, SharmaAR, 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. <u>International Journal of Peptide Research and Therapeutics</u>: 27(2):1149-1166. doi: 10.1007/s10989-020-10157-w.(*Corresponding Author)**IF**: **2.0**

[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. <u>European Review for Medical and Pharmacological Sciences</u> 25 (3): 1708-1723 (*First and Corresponding Author) **IF: 3.3 (Impact Factor, 2022)**

[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. <u>Immune Network</u> 21:e1.

doi: 10.4110/in.2021.21.e5 (*First and Corresponding Author) **IF: 4.3** [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. <u>Genes & Genomics</u> 43(7):759-773.doi: 10.1007/s13258-021-01089-w. (*First and Co-corresponding Author) **IF: 1.6**

[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. <u>Molecular-Therapy</u> 29(2):571-586. (*Corresponding Author) **IF:12.1**

[https://pubmed.ncbi.nlm.nih.gov/33238136/]

142. Saha A, Sharma AR, Bhattacharya M, Sharma G, Lee SS*, **Chakraborty C***(2021) Response to: Status of Remdesivir: Not Yet Beyond Question. <u>Archives of Medical Research</u> 52(1):104-106. doi: 10.1016/j.arcmed.2020.09.005 (*Corresponding Author) **IF: 4.7** [https://pubmed.ncbi.nlm.nih.gov/32948379/]

[2020]

141. **Chakraborty** C*, Agoramoorthy G* (2020) India's cost-effective COVID-19 vaccine development initiatives. <u>Vaccine</u> 38(50):7883-7884. doi: 10.1016/j.vaccine.2020.10.056. (*First and Corresponding Author) **IF:** 5.2

[https://pubmed.ncbi.nlm.nih.gov/33129610/]

- 140. **Chakraborty C*,** Sharma AR,Bhattacharya M, Sharma G,Agoramoorthy G, Lee SS (2020) Diabetes and COVID-19: A major challenge in Pandemic period? <u>European Review for Medical and Pharmacological Sciences</u> 24(21):11409-11420.doi: 10.26355/eurrev_202011_23634. (*First and Corresponding Author) **IF: 3.3** (**Impact Factor, 2022**) [https://pubmed.ncbi.nlm.nih.gov/33215463/]
- 139.Bhattacharya M, Sharma AR, Mallick B, Sharma G, Lee SS, **Chakraborty C*** (2020) Immunoinformatics approach to understand molecular interaction between multi-epitopic regions of SARS-CoV-2 spike-protein with TLR4/MD-2 complex. <u>Infection Genetics and Evolution</u> 85:104587. doi: 10.1016/j.meegid.2020.104587. (*Corresponding Author) **IF: 2.6** [https://pubmed.ncbi.nlm.nih.gov/33039603/]
- 138. **Chakraborty C*,** Sharma AR, Sharma G, Lee SS (2020) Therapeutic advances of miRNAs: A preclinical and clinical update. <u>Journal of Advanced Research</u> 28:127-138. doi:10.1016/j.jare.2020.08.012 (*First and Corresponding Author) **IF: 11.4** [https://pubmed.ncbi.nlm.nih.gov/33364050/]
- 137. Sharma AR, Jagga S, **Chakraborty C**, Lee SS(2020) Fibroblast like Synoviocytes mediates secretion of pro-inflammatory cytokines via ERK and JNK MAPKs in Ti particle induced osteolysis. Materials 13(16):3628. IF: 3.1

- 136. Saha RP*, Sharma AR, Singh MK, Samanta S, Bhakta S, Mandal S, Bhattacharya M, Lee SS*, **Chakraborty C***. (2020) Repurposing drugs, ongoing vaccine and new therapeutic development initiatives against COVID-19. <u>Frontiers in Pharmacology</u> 11:1258. doi: 10.3389/fphar.2020.01258 (*Corresponding Author)**IF: 4.4**
- [https://pubmed.ncbi.nlm.nih.gov/32973505/]
- 135. Bhattacharya M, Sharma AR, Patra P, Ghosh P, Sharma G, Patra BC, SahaRP, Lee SS* and **Chakraborty**, **C***(2020) A SARS-CoV-2 vaccine candidate: In silico cloning and validation. <u>Informatics in Medicine Unlocked</u> 20: 100394.doi:10.1016/j.imu.2020.100394 (*Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/32835079/]
- 134. **Chakraborty C***, Sharma AR, Bhattacharya M, Sharma G, Saha RP, Lee SS(2020) Extensive partnership, collaboration, and teamwork is required to stop the COVID-19 outbreak. <u>Archives of Medical Research</u> 51(7):728-730.doi: 10.1016/j.arcmed.2020.05.021(*First and Corresponding Author) **IF: 4.7**

[https://pubmed.ncbi.nlm.nih.gov/32532523/]

- 133. **Chakraborty C***, Sharma AR, Bhattacharya M, Sharma G, Lee SS, AgoramoorthyG(2020) COVID-19: Consider IL6 receptor antagonist for the therapy of cytokine storm syndrome in SARS-CoV-2 infected patients. <u>Journal of Medical Virology</u> 92(11):2260-2262.doi: 10.1002/jmv.26078. (*First and Corresponding Author) **IF: 6.8** [https://pubmed.ncbi.nlm.nih.gov/32462717/]
- 132. Saha A, Sharma AR, Bhattacharya M, Sharma G, Lee SS*, **Chakraborty C***(2020) Tocilizumab: A therapeutic option for the treatment of cytokine storm syndrome in COVID-19. <u>Archives of Medical Research</u> 51(6):595-597.doi: 10.1016/j.arcmed.2020.05.009(*Corresponding Author) **IF: 4.7** [https://pubmed.ncbi.nlm.nih.gov/32482373/]
- 131.Saha A, Sharma AR, Bhattacharya M, Sharma G, Lee SS*, **Chakraborty C***(2020) Probable molecular mechanism of Remdesivir for the treatment of COVID-19: Need to know more. <u>Archives of Medical Research</u> 51(6):585-586.doi: 10.1016/j.arcmed.2020.05.001 (*Corresponding Author) **IF: 4.7** [https://pubmed.ncbi.nlm.nih.gov/32439198/]
- 130. **Chakraborty C*,** Sharma AR, Bhattacharya M, Sharma G, Lee SS, AgoramoorthyG. (2020) Consider TLR5 for new therapeutic development against COVID-19. <u>Journal of Medical Virology</u> 92(11):2314-2315.doi: 10.1002/jmv.25997(*First and Corresponding Author) **IF: 6.8** [https://pubmed.ncbi.nlm.nih.gov/32391920/]
- 129. **Chakraborty C,** Bhattacharya M. AgoramoorthyG. (2020) Single-cell sequencing of miRNAs: A modified technology. <u>Cell Biology International</u> 44(9):1773-1780.doi: 10.1002/cbin.11376 **IF: 3.3** [https://pubmed.ncbi.nlm.nih.gov/32379363/]
- 128. Patra P, Bhattacharya M, Ghosh P, Sharma AR, Sharma G, Patra BC, Lee SS*, Mallick B, Chakraborty C* (2020) Identification and design of a next-generation multi epitopes bases peptide

- vaccine candidate against prostate cancer: an in silico approach. <u>Cell Biochemistry and Biophysics</u> 78(4):495-509.doi: 10.1007/s12013-020-00912-7 (*Corresponding Author) **IF:1.8** [https://pubmed.ncbi.nlm.nih.gov/32347457/]
- 127. Bhattacharya M, Sharma AR Sharma G, Patra P, Mondal N, Patra BC, Lee SS*, **Chakraborty C***(2020) Computer aided novel antigenic epitopes selection from the outer membrane protein sequences of Aeromonas hydrophila and its analyses. <u>Infection Genetics and Evolution</u> 82:104320. doi: 10.1016/j.meegid.2020.104320. (*Corresponding Author) **IF:2.6** [https://pubmed.ncbi.nlm.nih.gov/32298854/]
- 126. **Chakraborty C*,** Sharma AR, Sharma G, Lee SS (2020)The interplay among miRNAs, major cytokines, and cancer-related inflammation. <u>Molecular Therapy-Nucleic Acids</u> 20:606-620.doi: 10.1016/j.omtn.2020.04.002_(*First and Corresponding Author)**IF:6.5** [https://pubmed.ncbi.nlm.nih.gov/32348938/]
- 125. **Chakraborty C***, Sharma AR, Sharma G, Bhattacharya M, Lee SS (2020) SARS-CoV-2 causing pneumonia-associated respiratory disorder (COVID-19): diagnostic and proposed therapeutic options. European Review for Medical and Pharmacological Sciences 24: 4016-4026(*First and Corresponding Author) **IF:3.3** (**Impact Factor, 2022**) [https://pubmed.ncbi.nlm.nih.gov/32329877/]
- 124. **Chakraborty C*,** Sharma AR, Bhattacharya M, Sharma G, Lee SS*. (2020) The 2019 novel coronavirus disease (COVID-19) pandemic: A zoonotic prospective. <u>Asian Pacific Journal of Tropical Medicine</u> 13: 242-246 doi:10. 4103/1995-7645.281613(*Corresponding Author) **IF:1.9** [https://www.apjtm.org/article.asp?issn=1995-7645;year=2020;volume=13;issue=6;spage=242;epage=246;aulast=Chakraborty#:~:text=On%209th%2

0January%2C%20the%20Chinese,disease%20(COVID%2D19)]

- 123. Bhattacharya M, Sharma AR, Patra P, Ghosh G, Sharma G, Patra BC, Lee SS*, **Chakraborty C*** (2020) Development of epitope-based peptide vaccine against novel Coronavirus 2019 (SARS-COV-2): Immunoinformatics approach. <u>Journal of Medical Virology</u> 92(6):618-631.doi:10.1002/jmv.25736(*Corresponding Author) **IF:6.8** [https://pubmed.ncbi.nlm.nih.gov/32108359/]
- 122. Bhattacharya M , Sharma AR, Sharma G, Lee SS*, **Chakraborty C*** (2020) Interaction between miRNAs and signaling cascades of WNT pathway in Chronic Lymphocytic Leukemia. <u>Journal of Cellular Biochemistry</u> 121(11):4654-4666.doi:10.1002/jcb.29683.(*Corresponding Author)**IF:3.0** [https://pubmed.ncbi.nlm.nih.gov/32100920/]
- 121. **Chakraborty C***, Sharma A, Sharma G, Bhattacharya M, Lee SS (2020) Insight into evolution and conservation patterns of B1-subfamily members of G-protein-coupled receptors. <u>International Journal of Peptide Research and Therapeutics</u> 26(4):2505-2517doi:10.1007/s10989-020-10043-5(*First and Corresponding Author) **IF: 2.0**[https://pubmed.ncbi.nlm.nih.gov/32421105/]
- 120. **Chakraborty** C*, Sharma A, Sharma G, Lee SS (2020) Comparative analysis and molecular evolution of Class I PI3K regulatory subunit p85α reveal structural similarity between nSH2 and cSH2

domains. <u>International Journal of Peptide Research and Therapeutics</u> 26:2555–2569(*First and Corresponding Author) **IF: 2.0**

[https://link.springer.com/article/10.1007/s10989-020-10039-1]

119. **Chakraborty** C*, Sharma A, Sharma G, Bhattacharya M, Lee SS (2020)MicroRNAs: possible regulatory molecular switch controlling the BBB microenvironment. <u>Molecular Therapy-Nucleic Acids</u> 19:933–936. doi:10.1016/j.omtn.2019.12.024 (*First and Corresponding Author) **IF:6.5** [https://pubmed.ncbi.nlm.nih.gov/32004864/]

[2019]

118. Jagga S, Sharma AR, **Chakraborty C***, Lee SS*. (2019) Ebola virus disease: Recent advances in diagnostics and therapeutics. <u>Asian Pacific Journal of Tropical Medicine</u>, 12(9), 385-395.**IF: 1.9** (*Cocorresponding Author)

[https://www.apjtm.org/article.asp?issn=1995-

7645;year=2019;volume=12;issue=9;spage=385;epage=395;aulast=Jagga#:~:text=Ebola%20virus%20di sease%3A%20Recent%20advances,Asian%20Pac%20J%20Trop%20Med&text=Ebola%20virus%20dis ease%20(EVD)%20is,(up%20to%2090%25)]

117. Jagga S, Sharma AR, Bhattacharya M, **Chakraborty C**, Lee SS. (2019) Influence of single nucleotide polymorphisms (SNPs) in genetic susceptibility towards periprosthetic osteolysis. <u>Genes & Genomics</u> 41(10):1113–1125.**IF:1.6**

[https://pubmed.ncbi.nlm.nih.gov/31313107/]

- **116.** Mallick B, Sharma AR, Lee SS*, **Chakraborty** C*. (2019) Understanding the molecular interaction of human Argonaute-2 and miR-20a complex: a molecular dynamics approach. <u>Journal of Cellular Biochemistry</u>120(12):19915–19924.(*Corresponding Author) **IF:3.0** [https://pubmed.ncbi.nlm.nih.gov/31318096/]
- 115. Sharma G, Sharma AR, Lee SS, Bhattacharya M, Nam JS, **Chakraborty C***. (2019) Advances in nanocarriers enabled brain targeted drug delivery across blood-brain barrier. <u>International Journal of Pharmaceutics</u> 559: 360–372 (*Corresponding Author) **IF: 5.3** [https://pubmed.ncbi.nlm.nih.gov/30721725/]

[2018]

114. Kundu SK, **Chakraborty C**, Yagihara S, Teoh SL, Das S. (2018) Anesthetic molecule interaction of noble gases with proteins and lipids and their effect: a review. <u>Current Drug Delivery</u> 15(10):1381-1392. **IF: 2.8**

[https://pubmed.ncbi.nlm.nih.gov/30124152/]

113. **Chakraborty** C*, Sharma A, Sharma G, Sarkar BK Lee SS (2018) The novel strategies for next-generation cancer treatment: miRNA combined with chemotherapeutic agents for the treatment of cancer. Oncotarget 9(11):10164-10174(*First and Corresponding Author) **IF:5.168** (on the year of publication)

[2017]

112. Gupta P, Bhattacharjee S, Sharma AR, Sharma G, Lee SS*, **Chakraborty C*.** (2017) miRNAs in Alzheimer disease - a Therapeutic perspective. <u>Current Alzheimer Research</u> 14(11):1198-1206(*Corresponding Author) **IF: 1.8**

[https://pubmed.ncbi.nlm.nih.gov/28847283/]

111. **Chakraborty** C*, Sharma A, Sharma G, Doss CG, Lee SS(2017) Therapeutic miRNA and siRNA: moving from bench to clinic as next generation medicine. <u>Molecular Therapy-Nucleic Acids</u>8: 132–143.(*First and Corresponding Author) **IF: 6.5** [https://pubmed.ncbi.nlm.nih.gov/28918016/]

110.Kumar S. Sharma AR, Sharma G, **Chakraborty C**, Kim J (2017) Regulatory functional territory of PLK-1 and their substrates beyond mitosis. <u>Oncotarget</u> 8(23):37942-37962 **IF: 5.1** (on the year of publication)

[https://pubmed.ncbi.nlm.nih.gov/28415805/]

109. Lich TN, Sharma AR, **Chakraborty C**, Saibaba B, Ahn ME, Lee SS.(2017) Review of prospects of biological fluid biomarkers in osteoarthritis. <u>International Journal Molecular Sciences</u> 18(3). pii: E601 **IF: 4.9**

[https://pubmed.ncbi.nlm.nih.gov/28287489/]

108.Doss CG, Siva R, Christopher BP, Chakraborty C, Zhu H. (2017) Zika: How safe is India? Infectious Diseases of Poverty 6(1):37. IF: 4.8 [https://pubmed.ncbi.nlm.nih.gov/28173851/]

107. **Chakraborty C***, Mallick B, Sharma AR, Sharma G, Jagga S, George Priya Doss C, Nam JS, Lee SS (2017) Micro-environmental signature of the interactions between druggable target protein, dipeptidyl peptidase-IV, and anti-diabetic drugs. <u>Cell Journal</u> 19(1): 65-83.(*First and Corresponding Author) **IF: 1.7**

[https://pubmed.ncbi.nlm.nih.gov/28367418/]

106. Nam JS, Sharma AR, Jagga S, Lee DH, Sharma G, Nguyen LT, Lee YH, Chang JD, **Chakraborty** C, Lee SS. (2017) Suppression of osteogenic activity by regulation of WNT and BMP signaling during Titanium particle induced osteolysis. <u>Journal of Biomedical Materials Research Part A</u> 105(3):912-926 **IF: 3.9**

[https://pubmed.ncbi.nlm.nih.gov/28076890/]

105. Bhattacharya M, Sharma AR, Sharma G, Patra BC, Nam JS, **Chakraborty C***, Lee SS*. (2017) The crucial role and regulations of miRNAs in zebrafish development. <u>Protoplasma</u> 254(1):17-31(*Corresponding Author) **IF**: 2.5

[https://pubmed.ncbi.nlm.nih.gov/26820151/]

- 104. **Chakraborty** C, Lin TS, Das S. (2017) The smart programmable CRISPR technology: a next generation genome editing tool for investigators. <u>Current Drug Targets</u> 18(14):1653-1663. **IF: 3.0** [https://pubmed.ncbi.nlm.nih.gov/27231109/]
- 103. Thent ZC, **Chakraborty** C, Mahakkanukrauh P, Kosai N, Rajan R, Das S. (2017) The molecular concept of atheromatous plaques. <u>Current Drug Targets</u> 18(11):1250-1258. **IF: 3.0** [https://pubmed.ncbi.nlm.nih.gov/27138760/]
- 102. Thirumal Kumar D, George Priya Doss C, Sneha P, Tayubi IA, Siva R, **Chakraborty C**, Magesh R. (2017) Influence of V54M mutation in Giant muscle protein titin: A Computational screening and Molecular Dynamics approach. <u>Journal of Biomolecular Structure and Dynamics</u> 35(5):917-928 **IF: 4.4** (**Impact Factor, 2022**)

[https://pubmed.ncbi.nlm.nih.gov/27125723/]

101. Chakraborty C, George Priya Doss C, Zhu H, Agoramoorthy G. (2017) Rising strengths Hong Kong SAR in bioinformatics. <u>Interdisciplinary Sciences-Computational Life Sciences</u> 9(2):224-236. **IF: 3.9**

[https://pubmed.ncbi.nlm.nih.gov/26961385/]

[2016]

100. **Chakraborty C**, Chin KY, Das S. (2016) miRNA-regulated cancer stem cells: understanding the property and the role of miRNA in carcinogenesis. <u>Tumor Biology</u> 37(10):13039-13048.**IF: 3.67 (on the year of publication)**

[https://pubmed.ncbi.nlm.nih.gov/27468722/]

99. **Chakraborty C*,** Sharma AR, Sharma G, Lee SS(2016) Zebrafish: A complete animal model to enumerate the nanoparticle toxicity. <u>Journal of Nanobiotechnology</u> 14(1):65 (*First and Corresponding Author) **IF:** 10.6

[https://pubmed.ncbi.nlm.nih.gov/27544212/]

98.Nagasundaram N, George Priya Doss C, **Chakraborty** C, Karthick V, Thirumal Kumar D, Balaji V, Siva R, Lu A,Zhang G, Zhu H.(2016) Mechanism of artemisinin resistance for malaria PfATP6 L263 mutations and discovering potential antimalarials: An integrated computational approach. <u>Scientific Reports</u> 6:30106. **IF: 3.8**

[https://pubmed.ncbi.nlm.nih.gov/27471101/]

- 97. **Chakraborty C**, Das S.(2016) Dynamics of diabetes and obesity: an alarming situation in the developing countries in Asia. <u>Mini-Reviews in Medicinal Chemistry</u> 16(15):1258-1268.**IF: 3.3** [https://pubmed.ncbi.nlm.nih.gov/27145852/]
- 96. **Chakraborty C***, Patra BC, Sharma AR, Bhattacharya M, Sharma G, Lee SS*(2016) MicroRNAs mediated regulation of MAPK signaling pathways in chronic myeloid leukemia. <u>Oncotarget</u> 7 (27), 42683-42697. (*Corresponding Author) **IF: 6.3** (on the year of publication) [https://pubmed.ncbi.nlm.nih.gov/26967056/]

95. Kumar S. Sharma AR, Sharma G, **Chakraborty C***, Kim J* (2016) PLK-1: Angel or Devil for cell cycle progression. <u>Biochimica et Biophysica Acta - Reviews on Cancer</u> 1865(2):190-203 (*Cocorresponding Author) **IF: 9.7**

[https://pubmed.ncbi.nlm.nih.gov/26899266/]

94. Bhattacharjee S, Sarkar B, Sharma AR, Gupta P,Sharma G, Lee SS*, **Chakraborty C***(2016) Formulation and application of biodegradable nanoparticles based biopharmaceutical delivery - an efficient delivery system. <u>Current Pharmaceutical Design</u> 22(20):3020-33. (*Corresponding Author) **IF: 2.6**

[https://pubmed.ncbi.nlm.nih.gov/26951099/]

- 93. Chakraborty C*, Wen ZH, Agoramoorthy G, Lin CS(2016) Therapeutic microRNA delivery strategies with special emphasis for cancer therapy and tumorigenesis: current trends and future challenges. Current Drug Metabolism 17: 469-477 (*First and Corresponding Author) IF: 2.1 [https://pubmed.ncbi.nlm.nih.gov/26813887/]
- 92. Chakraborty C*, Das S* (2016) Profiling cell-free and circulating miRNA: A clinical diagnostic tool for different cancers. <u>Tumor Biology</u>37(5):5705-14. (*First and Corresponding Author) **IF: 3.67** (on the year of publication)

[https://pubmed.ncbi.nlm.nih.gov/26831657/]

91. Nam JS, Sharma AR, Nguyen LT, **Chakraborty C**, Sharma G, Lee SS. (2016) Application of bioactive quercetin in oncotherapy: from nutrition to nanomedicine. <u>Molecules</u> 21(1) E108. doi: 10.3390/molecules21010108 **IF:4.2**

[https://pubmed.ncbi.nlm.nih.gov/26797598/]

- 90. Sharma AR, Sharma G, Lee SS*, **Chakraborty C*** (2016) miRNA regulated key components of cytokine signaling pathways and inflammation in rheumatoid arthritis. <u>Medicinal Research Reviews</u> 36(3):425-39.(*Corresponding Author) **IF: 10.9** [https://pubmed.ncbi.nlm.nih.gov/26786912/]
- 89. Karthick V, Nagasundaram N, Doss CG, **Chakraborty C**, Siva R, Lu A, Zhang G, Zhu H. (2016) Virtual screening of the inhibitors targeting at the viral protein 40 of Ebola virus. <u>Infectious Diseases of Poverty</u> 5:12 **IF: 4.8**

[https://pubmed.ncbi.nlm.nih.gov/26888469/]

88. **Chakraborty** C*, Bandyopadhyay S, Agoramoorthy G(2016) India's computational biology growth and challenges. <u>Interdisciplinary Sciences Computational Life Science</u> 8(3):263-76 (*First and Corresponding Author) **IF: 3.9**

[https://pubmed.ncbi.nlm.nih.gov/27465042/]

[2015]

87. **Chakraborty C.** Aging and health - A systems biology perspective. <u>Indian Journal Medical</u> Resesearch 2015;142(6):776-777. (Invited Book review) (*Corresponding Author) **IF: 2.7**

(Book Review: Aging and health - A systems biology perspective, A.I. Yashin, S.M. Jazwinski, editors (Karger, Basel, Switzerland) 2015. 194 pages. Price: US\$ 212.00 / CHF 180.00 ISBN 978-3-318-02729-7.)

[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4774080/]

- 86. Sharma G, Sharma AR, Nam JS, GeorgePriya Doss C, Lee SS*, **Chakraborty C***.(2015) Nanoparticle based insulin delivery system: the next generation efficient therapy for Type 1 diabetes. <u>Journal of Nanobiotechnology</u> 13:74 (*Corresponding Author) **IF: 10.6** [https://pubmed.ncbi.nlm.nih.gov/26498972/]
- 85. **Chakraborty** C*, Hsu MJ, Agoramoorthy G (2015) Drug metabolizing enzymes in type II diabetes and their pharmacogenetics during therapy of anti-diabetes drugs. <u>Current Drug Metabolism</u> 16(10):864-76. (*First and Corresponding Author) **IF: 2.1** [https://pubmed.ncbi.nlm.nih.gov/26652255/]
- 84. Nagasundaram N, Hailong Z, Liu J,Doss CGP, Vasudevan K, **Chakraborty C**, Chen L(2015) Analyzing the effect of mutation on protein function and discovering potential inhibitors of CDK4: Molecular modelling and dynamics studies. <u>PLoS One</u> 10(8):e0133969. **IF:2.9** [https://pubmed.ncbi.nlm.nih.gov/26252490/]
- 83. Sarkar BK, **Chakraborty** C*(2015) DNA pattern recognition using canonical correlation algorithm. <u>Journal of Biosciences</u> 40(4)709-719.(*First and Corresponding Author) **IF:2.1** [https://pubmed.ncbi.nlm.nih.gov/26564973/]
- 82. Agoramoorthy G, Chakraborty C(2015) India's budget reduction and AIDS initiatives. <u>Lancet Infectious Diseases</u> 15(6):636 (Correspondence piece) **IF: 36.4** [https://pubmed.ncbi.nlm.nih.gov/26008839/]
- 81. Bhattacharya M, Sharma AR, Patra B C, Sharma G, SeoEM, Nam JS, **Chakraborty C***, Lee SS*. DNA barcoding to fishes: current status and future directions. <u>Mitochondrial DNA Part A 9:1-9</u> (*Corresponding Author) **IF: 1.1** [https://pubmed.ncbi.nlm.nih.gov/26057011/]
- 80. **Chakraborty C***, Doss CGP, Sarin R, Hsu MJ, Agoramoorthy G (2015) Can the chemotherapeutic agents perform anticancer activity through miRNA expression regulation? -Proposing a new hypothesis. Protoplasma 252(6):1603-10. (*First and Co-corresponding Author) **IF: 2.5** [Erratum: Protoplasma. 2015 Nov;252(6):1611.] [https://pubmed.ncbi.nlm.nih.gov/25698235/]
- 79. **Chakraborty C**, Doss CGP, Bhatia R, Agoramoorthy G (2015) Profiling of phosphatidylinositol 3-kinase (PI3K) proteins in insulin signaling pathway. <u>Applied Biochemistry and Biotechnology</u> 175(7):3431-46. **IF: 3.1** (*First and Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/25637510/]
- 78. Sudhakar N, George Priya Doss C, Thirumal Kumar D, **Chakraborty C**, Anand K, Suresh M(2015) Deciphering the impact of somatic mutations in exon 20 and exon 9 of *PIK3CA* gene in breast tumors

among Indian women through molecular dynamics approach. <u>Journal of Biomolecular Structure and Dynamics</u> 13:1-13 **IF: 4.4** (**Impact Factor**, **2022**)

[https://pubmed.ncbi.nlm.nih.gov/25679319/]

77. Sharma G, Park J, Sharma AR, Jung JS, Kim H, **Chakraborty C**, Song DK, Nam JS, Lee SS (2015) Methoxy poly(ethylene glycol)-poly(lactide) nanoparticles encapsulating quercetin act as an effective anticancer agent by inducing apoptosis in breast cancer. <u>Pharmaceutical Research</u> 32(2):723-35 **IF: 3.5** [https://pubmed.ncbi.nlm.nih.gov/25186442/]

[2014]

- 76. Tomar J, **Chakraborty C***, George Priya Doss C Gera VK (2014) Understanding the conservation patterns and molecular phylogenetics of human death receptors family through computational biology. <u>3</u> <u>Biotech</u> 4(2): 177–187.(*Corresponding Author) **IF: 2.6** [https://pubmed.ncbi.nlm.nih.gov/28324447/]
- 75. Agoramoorthy G, **Chakraborty C** (2014) Ebola eradication may need wider partnership. <u>Canadian Medical Association Journal</u> 186(15):1170.(Letter to the editor) **IF: 9.4** [https://pubmed.ncbi.nlm.nih.gov/25332426/]
- 74. Patel P, Basu SK, **Chakraborty C**, Hsu MJ, Agoramoorthy G (2014)India's coastal zone management with an emphasis on rapidly developing Gujarat State. <u>Journal of Coastal Conservation</u> 18(6) 683-690.**IF: 1.7**

[https://link.springer.com/article/10.1007/s11852-014-0344-x]

- 73. Doss CGP, Rajith B, **Chakraboty C**, Naga Sundaram N, Shabana Kouser Ali, Hailong Zhu (2014) Structural signature of the G719S-T790M double mutation in the EGFR kinase domain and its response to inhibitors. <u>Scientific Reports 4</u>: 5868 | DOI: 10.1038/srep05868 **IF: 3.8** [https://pubmed.ncbi.nlm.nih.gov/25091415/]
- 72. Sharma AR#, Chakraboty C#*, Lee SS#, Sharma G, Yoon J K,George Priya Doss C, Song DK, Nam JS* (2014) Computational biophysical, biochemical and evolutionary signature of Human R-spondin Family Proteins, the member of canonical Wnt/β-catenin signaling pathway. <u>BioMed Research International</u> 2014:974316. doi: 10.1155/2014/974316.(*Co-first and Corresponding Author) IF:2.6 (In the year of publication)

[https://pubmed.ncbi.nlm.nih.gov/25276837/]

71. Huang SY, Feng CW, Hung HC, **Chakraborty C**, Chen CH, Chen WF, Jean YH, Wang HM, Sung CS, Sun YM, Wu CY, Liu W, Hsiao CD, Wen ZH. (2014) A novel zebrafish model to provide mechanistic insights into the inflammatory events in carrageenan-induced abdominal edema. <u>PLoS One</u> 9(8): e104414.**IF: 2.9**

[https://pubmed.ncbi.nlm.nih.gov/25141004/]

70. **Chakraborty C**, Bandyopadhyay S, Doss CGP, Agoramoorthy G (2014) Exploring genomic roadmap, molecular phylogenetics and association between the MODY cascades using computational biology. <u>Cell Biochemistry and Biophysics</u> 71(3)1491-1502. **IF: 1.8** [https://pubmed.ncbi.nlm.nih.gov/25395195/]

- 69. **Chakraborty** C, Hsu MJ, Agoramoorthy G (2014) Understanding the molecular dynamics of type-2 diabetes drug target DPP-4 and its interaction with antihyperglycemic drug 'Sitagliptin' and inhibitor 'Diprotin –A'. <u>Cell Biochemistry and Biophysics</u> 70(2):907-22 **IF:1.8** [https://pubmed.ncbi.nlm.nih.gov/24809328/]
- 68. **Chakraboty** C#*, Doss CGP, Bandyopadhyay S# and Agoramoorthy G (2014) Influence of miRNA in insulin signaling pathway and insulin resistance: Micro-molecules with a major role in type-2 diabetes. Wiley Interdisciplinary Reviews-RNA 5:697-712 (*First and Corresponding Author) IF: 6.4 [https://pubmed.ncbi.nlm.nih.gov/24944010/]
- 67. Doss CGP, Chakraboty C*, C. Debajyoti, S. Debottam (2014) Understanding sequence similarity and framework analysis between centromere proteins using computational biology. <u>Cell Biochemistry and Biophysics</u> 70(2):897-906. (*Corresponding Author) IF: 1.8 [https://pubmed.ncbi.nlm.nih.gov/24839063/]
- 66. Sharma AR, Kundu SK, Nam JS, Sharma G, Doss CGP, Lee SS*, Chakraborty C* (2014) Next generation delivery system for proteins and genes of therapeutic purpose: why and how? <u>BioMed Research International</u> 2014;2014:327950. doi: 10.1155/2014/327950. (*Corresponding Author)

 IF:2.6 (In the year of publication)
- [https://pubmed.ncbi.nlm.nih.gov/25126554/]
- 65. Nam JS#, **Chakraborty C#**, Sharma AR#, Bae KJ, Her H, Sharma G, George Priya Doss C, Lee SS, Hong MS (2014) Effect of WNT3a on keratinocytes utilizing in vitro and bioinformatics analysis. International Journal Molecular Science 15, 5472-5495.(*Co-first Author) **IF: 4.9** [https://pubmed.ncbi.nlm.nih.gov/24686518/]
- 64. Doss CGP, **Chakraboty** C, Chen L, Zhu H (2014) Integrating in silico prediction methods, molecular docking, and molecular dynamics simulation to predict the impact of ALK missense mutations in structural perspective. <u>BioMed Research International</u> 2014:895831. doi: 10.1155/2014/895831 **IF:2.6** (**In the year of publication**) [https://pubmed.ncbi.nlm.nih.gov/25054154/]
- 63. Sarkar BK, Sharma AR, Bae KJ, Sharma G, Dutta D, Ding S, Ganbold B, Nam JS, Lee SS, **Chakraborty** C, Priya Doss C G. (2014) Novel biomarker for prostate cancer diagnosis by MRS. Frontiers in Bioscience (Landmark Ed) 19:1186-201. **IF:3.3** (*All Authors have equally contributed*) [https://pubmed.ncbi.nlm.nih.gov/24896344/]
- 62. Doss C CGP, Agoramoorthy G, Chakraboty C* (2014) TNF/TNFR: drug target for autoimmune diseases and immune-mediated inflammatory. <u>Frontiers in Bioscience (Landmark Ed)</u> 19:1028-40.(*Corresponding Author) **IF:3.3** [https://pubmed.ncbi.nlm.nih.gov/24896334/]
- 61. **Chakraboty C***, Doss CGP, Patra BC, Bandyopadhyay S (2014) DNA barcoding to map the microbial communities: current advances and future directions. <u>Applied Microbiology and Biotechnology</u> 98: 3425–3436. (*First and Corresponding Author) **IF:3.9** [https://pubmed.ncbi.nlm.nih.gov/24896334/]

- 60. Doss. CGP, **Chakraboty C**, Syed Haneef SA, NagaSundaram N, Chen L, Zhu H (2014) Evolution-and structure-based computational strategy reveals the impact of deleterious missense mutations on MODY 2 (maturity-onset diabetes of the young, type 2). <u>Theranostics</u> 4(4):366-385. **IF:12.4** [https://pubmed.ncbi.nlm.nih.gov/24578721/]
- 59. Doss CGP, Rajith B, **Chakraboty** C, Balaji V, Magesh R, Gowthami B, Sneha Menon, Swati M, Manjari Trivedi, Jasmine Paul, Richa Vasan, Maitreya Das (2014) In silico profiling and structural insights of missense mutations in RET protein kinase domain by molecular dynamics and docking approach. <u>Molecular BioSystem s</u>(Presently, Molecular Omics) 10(3):421-36.**IF: 3.0** [https://pubmed.ncbi.nlm.nih.gov/24336963/]
- 58. **Chakraborty C**, Doss CGP, Chen L, Zhu H (2014) Evaluating protein-protein interaction (PPI) networks using in silico pharmacology: to understand the diseases pathway, target discovery and drugdesign. <u>Current Protein & Peptide Science</u> 15(6):561 571 **IF: 1.9** [https://pubmed.ncbi.nlm.nih.gov/25059326/]
- 57. **Chakraborty C,** Agoramoorthy G. (2014) Comparative bioinformatic analysis of the conserved domains, amino acid residues, and binding grooves of tumor necrosis factor. Med Glas (Zenica). 11(1):1-6. **IF: 0.202 (on the year of publication)** [https://pubmed.ncbi.nlm.nih.gov/24496333/]
- 56. **Chakraborty** C, Roy SS, Hsu MJ, Agoramoorthy G (2014) Network analysis of transcription factors for nuclear reprogramming into induced pluripotent stem cell using bioinformatics. <u>Cell Journal</u> 15(4):342-349. **IF: 1.7**

[https://pubmed.ncbi.nlm.nih.gov/24381858/]

[2013]

55. **Chakraborty C*,** Doss CGP (2013) Crucial protein based drug targets and potential inhibitors for osteoporosis: new hope and possibilities. <u>Current Drug Targets</u> 14(14):1707-13.(*First and Corresponding Author) **IF: 3.0**

[https://pubmed.ncbi.nlm.nih.gov/24144207/]

54. **Chakraborty C*,** Doss CGP, Bandyopadhyay S (2013)miRNAs in Insulin Resistance and Diabetes-Associated Pancreatic Cancer: The 'Minute and Miracle' Molecule Moving as a Monitor in the 'Genomic Galaxy'. <u>Current Drug Targets</u> 14(10):1110-7 (*First and Corresponding Author)(*Invited article) IF: 3.0

[https://pubmed.ncbi.nlm.nih.gov/23834149/]

53. Doss CGP, Rajith. B, **Chakraborty** C(2013)Predicting the impact of deleterious mutations in the protein kinase domain of FGFR2 in the context of function, structure, and pathogenesis – A Bioinformatics approach. <u>Applied Biochemistry and Biotechnology</u> 170(8):1853-70.**IF:3.1** [https://pubmed.ncbi.nlm.nih.gov/23754559/]

- 52. **Chakraborty C***, George Priya Doss C,Bandyopadhyay S, Sarkar BK,Syed Haneef SA (2013)Mapping the structural topology of IRS family cascades through computational biology. <u>Cell Biochemistry and Biophysics</u> 67(3):1319-31.(*First and Corresponding Author) **IF:1.8** [https://pubmed.ncbi.nlm.nih.gov/23733669/]
- 51. **Chakraborty C***, Bandyopadhyay S, Maulik U, Agoramoorthy G.(2013)Topology mapping of insulin-regulated glucose transporter GLUT4 using computational biology. <u>Cell Biochemistry and Biophysics</u> 67(3):1261-74. **IF:1.8** (*First and Corresponding Author) [https://pubmed.ncbi.nlm.nih.gov/23700164/]
- 50. Doss CGP, **Chakraborty** C, Rajith. B, Nagasundaram. N. (2013) In silico discrimination of nsSNPs in hTERT gene by means of local DNA sequence context and regularity. <u>Journal of Molecular Modeling</u> 19(9):3517-27. **IF: 2.1**

[https://pubmed.ncbi.nlm.nih.gov/23716176/]

49. **Chakraborty C***, Doss CGP (2013) Sirtuins family- recent development as a drug target for aging, metabolism, and age related diseases. <u>Current Drug Targets</u> 14(6):666-75.(*First and Corresponding Author)(*Invited article) **IF: 3.0**

[https://pubmed.ncbi.nlm.nih.gov/23614693/]

48. **Chakraborty** C*, Agrawal A (2013) Computational analysis of C-reactive protein for assessment of molecular dynamics and interaction properties. <u>Cell Biochemistry and Biophysics</u> 67:645-656(*First and Corresponding Author) **IF: 1.8**

[https://pubmed.ncbi.nlm.nih.gov/23494263/]

- 47. Agoramoorthy G, **Chakraborty C** (2013) Is India open to scientific criticism? <u>Current Science</u> 104(4) 406.(*Correspondence piece*)**IF:1.1** [https://www.currentscience.ac.in/Volumes/104/0406.pdf]
- 46. Doss CGP, Nagasundaram N, **Chakraborty** C, Chen L, Zhu H (2013) Extrapolating the effect of deleterious nsSNPs in the binding adaptability of flavopiridol with CDK7 protein: A Molecular dynamics approach. <u>Human Genomics</u> 7(1):10 **IF: 3.8** [https://pubmed.ncbi.nlm.nih.gov/23561625/]
- 45. **Chakraborty C*,**Doss CGP,Sharma R, Sahana S, Nair TS (2013) Does computational biology help us to understand the molecular phylogenetics and evolution of cluster of differentiation (CD) proteins? Protein Journal 32(2):143-54.(*First and Corresponding Author)(*Highlighted in NewsRx*) **IF: 1.9** [https://pubmed.ncbi.nlm.nih.gov/23344551/]
- 44. **Chakraborty C*,** Pal S, Doss CGP, Wen ZH, Lin CS (2013) Nanoparticles as 'smart' pharmaceutical delivery. <u>Frontiers in Bioscience-Landmark</u> 18, 1030-1050.(*First and Corresponding Author)(*Invited article) IF: 3.3 [https://pubmed.ncbi.nlm.nih.gov/23747865/]
- 43. Tomar J, Gera VK, **Chakraborty C***(2013) Detection of damaging nsSNPs on human caspase-cascades related to apoptotic signalling pathway. <u>Protein and Peptide Letters</u>. 20(9): 982 997 (*Corresponding Author) **IF: 1.0**

[2012]

42. **Chakraborty** C, Banerjee S, Banerjee K, Hsu MJ, Agoramoorthy G (2012) Inhibition of leptin receptors through plant-derived ligands for liver fibrosis drug development. <u>Asian Biomedicine</u> 6 (4): 519 – 526. **IF: 0.4**

[https://sciendo.com/article/10.5372/1905-7415.0604.085]

- 41. Doss CGP, Nagasundar M, Jain S, **Chakraborty** C (2012) LSHGD: a database for human leprosy susceptible genes. <u>Genomics</u> 100 (3): 162-166 **IF: 3.4** [https://pubmed.ncbi.nlm.nih.gov/22750101/]
- 40. **Chakraborty C**, Sarkar BK, Patel P, Agoramoorthy G (2012) Information processing in network architecture of genome controlled signal transduction circuit A proposed theoretical explanation. Theoretical biology forum 105 (1): 67-75(Highlighted as newspaper in HighBeam Research; as Health Article in NewsRx) IF: 0.8
- 39. **Chakraborty C***, Pal S, Doss CGP, Wen ZH, Lin CS (2012) *InSilico* analyses of COMT, an important signaling cascade of Dopaminergic neurotransmission pathway, for drug development of Parkinson's disease. <u>Applied Biochemistry and Biotechnology</u> 167(4):845-60.(*First and Corresponding Author) **IF:3.1**

[https://pubmed.ncbi.nlm.nih.gov/22622642/]

- 38. **Chakraborty C**, Roy SS, Hsu MJ, Agoramoorthy G (2012) Can computational biology improve the phylogenetic analysis of insulin? <u>Computer Methods and Programs in Biomedicine</u> 108(2):860-72. **IF:4.9**(*Highlighted in NewsRx*)
 [https://pubmed.ncbi.nlm.nih.gov/22622642/]
- 37. Agoramoorthy G, **Chakraborty C.** (2012) Environment: Control electronic waste in India. <u>Nature</u> 485(7398):309. (Correspondence piece) **IF:50.5** [https://pubmed.ncbi.nlm.nih.gov/22596147/]
- 36. Chen WF, **Chakraborty C**, Sung CS, Feng CW, Jean YH, Lin YY, Huang HC, Huang TY, Huang SY, Su TM, Sung PJ, Sheu JH, Wen ZH. (2012) Neuroprotection by marine-derived compound, 11-dehydrosinulariolide in an in vitro Parkinson's model: A promising candidate for the treatment of Parkinson's disease. Naunyn-Schmiedeberg Archives of Pharmacology 385(3):265-75. IF: 3.1 [https://pubmed.ncbi.nlm.nih.gov/22119889/]
- 35. Chakraborty C, Agoramoorthy G (2012) Stem cells in the light of evolution. <u>Indian Journal Medical Research</u> 135:813-819 **IF: 2.7**

(Highlighted in NewsRx)

[https://pubmed.ncbi.nlm.nih.gov/22825600/]

- 34. **Chakraborty C*,** Tomar J, Gera VK (2012) Conserved domains, residues, WebLogo and active sites of caspase-cascades related to apoptotic signaling pathway. <u>Current Bioinformatics</u> 7(4): 392-401(*First and Corresponding Author) (**Invited article*) **IF:2.4** [https://www.eurekaselect.com/104637]
- 33. Tomar J, Gera VK, **Chakraborty C*** (2012) Can bioinformatic methods inform us about the molecular evolution of different human caspases? <u>Current Bioinformatics</u> 7(4):402-410(*Corresponding Author)(*Invited article) **IF:2.4**

[https://www.eurekaselect.com/104638/article]

32. Lee HY, Magotra M, Wong TY, **Chakraborty C**, Liu JK (2012) ATP-dependent fructose uptake system in *Deinococcus radiodurans*. <u>Applied Microbiology and Biotechnology</u> 93(3):1241-8. **IF:3.9** [https://pubmed.ncbi.nlm.nih.gov/21822900/]

[2011]

31. Lin YC, Huang SY, Jean YH, Chen WF, Sung CS, Kao ES, Wang HM, **Chakraborty C**, Duh CY, Wen ZH (2011) Intrathecal lemnalol, a natural marine compound obtained from Formosan soft coral, attenuates nociceptive responses and the activity of spinal glial cells in neuropathic rats. <u>Behavioural Pharmacology</u> 22:739–750.**IF: 1.6**

[https://pubmed.ncbi.nlm.nih.gov/22067479/]

- 30. Kumar SV, Ravunny RK, **Chakraborty C*** (2011) Conserve domains, conserve residues and surface cavities of C-reactive protein (CRP). <u>Applied Biochemistry and Biotechnology</u> 165:497–505.(*Corresponding Author) **IF:3.1**
- [https://pubmed.ncbi.nlm.nih.gov/21541851]
- 29. **Chakraborty C**, Agoramoorthy G, Hsu MJ (2011) Exploring the evolutionary relationship of insulin receptor substrate family using computational biology. <u>PLoS ONE</u> 6(2): e16580 **IF:2.9** [https://pubmed.ncbi.nlm.nih.gov/21364910/]
- 28. Wu GJ, Chen WF, Hung HC, Jean YH, Sung CS, **Chakraborty C**, Lee HP, Chen NF, Wen ZH (2011) Effects of propofol on proliferation and anti-apoptosis of neuroblastoma SH-SY5Y cell line: New insights into neuroprotection. <u>Brain Research</u> 1384: 42–50.(*Highlighted in NewsRx*) **IF:2.7** [https://pubmed.ncbi.nlm.nih.gov/21315692/]
- 27. Chakraborty C, Roy SS, Hsu MJ, Agoramoorthy G (2011) Landscape mapping of functional transduction proteins in insulin signal and insulin protein-protein resistance: network interaction analysis. based PLoS ONE 6(1): e16388. **IF: 2.9** (Highlighted in NewsRx) [https://pubmed.ncbi.nlm.nih.gov/21305025/]
- 26. Roy SS*, Hsu CH, Wen ZH, Lin CS, **Chakraborty C**** (2011) A hypothetical relationship between the nuclear reprogramming factors for induced pluripotent stem (iPS) cells generation-bioinformatics and algorithmic approach. Medical hypotheses 76(4):507–511.(*Co-first and Corresponding Author) (Highlighted in NewsRx) IF: 2.1

[https://pubmed.ncbi.nlm.nih.gov/21195557/]

25. Purushotham D[#], Ganguly C, **Chakraborty** C*[#] (2011)Targeting catechol-o-methyl transferase (COMT) inhibitors for schizophrenia: an approach to target validation and rational drug design. <u>Letters in Drug Design & Discovery</u> 8(2): 246-252.(*Co-first and Corresponding Author)(**Invited article*)**IF:** 1.2

[https://www.eurekaselect.com/87433/article/targeting-catechol-o-methyl-transferase-comt-inhibitors-schizophreniaan-approach]

24. **Chakraborty C**, Hsu CH, Wen ZH, Lin CS, Agoramoorthy G (2011) Effect of caffeine, norfloxacin and nimesulide on heartbeat and VEGF expression of zebrafish larvae. <u>Journal of Environmental Biology</u> 32(2): 179-183. (*Highlighted in NewsRx*) **IF: 0.6** [https://pubmed.ncbi.nlm.nih.gov/21882652/]

[2010]

- 23. Roy SS, Hsu CH, Wen ZH, Lin CS, **Chakraborty C*** (2010) Understanding hematopoietic stem cell mobility pattern through mathematics. <u>Rivista Di Biologia / Theoretical Biology Forum</u> 103(2) 172-180.(*Corresponding Author) **IF: 0.8** [https://pubmed.ncbi.nlm.nih.gov/21449201/]
- 22. **Chakraborty C***, Roy SS, Hsu CH, Wen ZH, Lin CS (2010) Network building of proteins in a biochemical pathway: a computational biology related model for target discovery and drug-design. Current Bioinformatics 5(4):290-295(*First and Corresponding Author) **IF: 2.4** [https://www.eurekaselect.com/87254/article/network-building-proteins-biochemical-pathway-computational-biology-related-model?tracking-code=3]
- 21. **Chakraborty C***, Shah KD, Cao WG, Hsu CH, Wen ZH, Lin CS* (2010) Potentialities of induced pluripotent stem (ips) cells for treatment of diseases. <u>Current Molecular Medicine</u> 10(8):756-62 (*First and Corresponding Author) (*Highlighted in NewsRx*) **IF: 2.2** [https://pubmed.ncbi.nlm.nih.gov/20937020/]
- 20. **Chakraborty C*,** Agoramoorthy G* (2010) Why zebrafish? <u>Rivista Di Biologia / Theoretical Biology Forum</u>103(1) 25-28.(*First and Corresponding Author) **IF: 0.8** [https://pubmed.ncbi.nlm.nih.gov/21110461/]
- 19. Agoramoorthy G, **Chakraborty C**, Hsu MJ. (2010) Big nation, nano dream-the prospects of India's nanotech revolution. <u>Drug Discovery Today</u> 15(13/14): 495-498 **IF: 6.5** [https://pubmed.ncbi.nlm.nih.gov/20363360/]
- 18. **Chakraborty C,** Agoramoorthy G (2010) A special report on India's biotech scenario: Advancement in biopharmaceutical and health care sectors. <u>Biotechnology Advances</u> 28: 1–6. **IF: 16.0** [https://pubmed.ncbi.nlm.nih.gov/19931371/]

[2009]

17. **Chakraborty** C*, Hsu CH, Wen ZH, Lin CS (2009) Anticancer drugs discovery and development from marine organisms. <u>Current Topics in Medicinal Chemistry</u> 9(16):1536-45.(*First and Corresponding Author) **IF: 2.9**

[https://pubmed.ncbi.nlm.nih.gov/19903164/]

16. Chakraborty C*, Hsu CH, Wen ZH, Duh CY, Lin CS. (2009) Drug discovery from marine resources. <u>Current Science</u> 97(3) 292-293.(*First and Corresponding Author) (*Correspondence piece*) **IF: 1.1**

[https://www.currentscience.ac.in/Downloads/article id 097 03 0292 0293 0.pdf]

15. **Chakraborty C***, Hsu CH, Wen ZH, Lin CS (2009) Recent advances of fluorescent technologies for drug discovery and development. <u>Current Pharmaceutical Design</u> 15(30): 3552-3570. (*First and Corresponding Author) **IF**: **2.6**

[https://pubmed.ncbi.nlm.nih.gov/19860700/]

- 14. **Chakraborty C**, Shieh P, Agoramoorthy G (2009) India's stem cell research and development perspectives. <u>International Journal of Hematology</u> 89(3):406-8. **IF: 1.7** [https://pubmed.ncbi.nlm.nih.gov/19288172/]
- 13. **Chakraborty C***, Hsu CH, Wen ZH, Lin CS, Agoramoorthy G (2009) Zebrafish: A complete animal model for *in vitro*drug discovery and development. <u>Current Drug Metabolism</u> 10(2):116-24(*First and Corresponding Author) **IF: 2.1** (More than 301 citations) [https://pubmed.ncbi.nlm.nih.gov/19275547/]
- 12. **Chakraborty C**,B. Sarkar, C.H. Hsu, Z.H. Wen, C.S. Lin, P. C. Shieh(2009) Future prospects of nanoparticles on brain targeted drug delivery. <u>Journal of Neuro-oncology</u> 93(2):285-6. **IF: 3.2** [https://pubmed.ncbi.nlm.nih.gov/19048187/]

[2008-2003]

11. Agoramoorthy G, **Chakraborty** C(2007) Re: introduction to nanotechnology: potential applications in physical medicine and rehabilitation. <u>American Journal of Physical Medicine & Rehabilitation</u> 86(12):1031-2. **IF: 2.2**

[https://pubmed.ncbi.nlm.nih.gov/18090446/]

- 10. **Chakraborty C*** (2007) Potentiality of small interfering RNAs (siRNA) as recent therapeutic targets for gene-silencing. <u>Current Drug Targets</u> 8: 479-482. (*Corresponding Author) **IF: 3.0** [https://pubmed.ncbi.nlm.nih.gov/17348839/]
- 9. Hsu CH, Wen ZH, Lin CS, **Chakraborty** C * (2007) Zebrafish model: use in studying cellular mechanisms for a spectrum of clinical disease entities. <u>Current Neurovascular Research</u> 4:111-120. (*Corresponding Author)(*Invited article) **IF: 2.0** [https://pubmed.ncbi.nlm.nih.gov/17504209/]
- 8. **Chakraborty** C* (2006) Biochemical and molecular basis of insulin resistance. <u>Current Protein and Peptide Science</u>7(2): 113-121(*Corresponding Author) **IF: 1.9** [https://pubmed.ncbi.nlm.nih.gov/16611137/]

- 7. **Chakraborty C***, Nandi SS, Sarkar B, Sinha S. (2005) Over-expression and purification of recombinant eel calcitonin and its phylogenetic analysis. <u>Protein and Peptide Letters</u> 12(3) 263-269. (*First and Corresponding Author) **IF: 1.0** [https://pubmed.ncbi.nlm.nih.gov/15777276/]
- 6. **Chakraborty** C*, Jana S, Nandi SS. (2005) Prion disease: A deadly disease for protein misfolding. Current Pharmaceutical Biotechnology 6(2) 263-269. (*First and Corresponding Author) **IF: 2.2** [https://pubmed.ncbi.nlm.nih.gov/15853695/]
- 5. **Chakraborty C*.** (2004) Overexpression for commercial production of recombinant human insulin as A- chain and B-chain fusion protein in *Escherichia coli* through genetic engineered plasmid. <u>Indian Journal of pathology and Microbiology</u>47(4) 569-573. **IF: 0.8** [https://pubmed.ncbi.nlm.nih.gov/16295400/]
- 4. **Chakraborty C***, Nandi S, Sinha S (2004) Overexpression, purification and characterization of recombinant salmon calcitonin, a therapeutic protein, in *Streptomyces avermitilis*. Protein and Peptide Letters 11(2) 165-173. (*First and Corresponding Author) **IF: 1.0** [https://pubmed.ncbi.nlm.nih.gov/15078205/]
- 3. Jana S, **Chakraborty C***, Nandi S, Deb JK(2004) RNA interface: potential therapeutic targets. <u>Applied Microbiology and Biotechnology</u> 65(6) 649-657. (*Corresponding Author)(**Invited article*) **IF: 3.9**

[https://pubmed.ncbi.nlm.nih.gov/15372214/]

- 2. Jana S, Chakraborty C*, Nandi S (2004) Mechanism and role of the RNA- based gene silencing. <u>Electronic Journal of Biotechnology</u> 7(3)189-200. (*Corresponding Author) **IF: 2.7** [http://www.bioline.org.br/pdf?ej04037]
- 1. **Chakraborty C***, Mungantiawar A (2003) Human insulin genome sequence map, biochemical structure of insulin for recombinant DNA insulin. <u>Mini-Reviews in Medicinal Chemistry</u> 3(4) 181-291.(*First and Corresponding Author) **IF: 3.3** [https://pubmed.ncbi.nlm.nih.gov/12769691/]

SELECTED NON-SCI PUBLICATIONS (PEER REVIEWED)

- **15.** Lin C S., Shih, Jhen Ru, Hsu CH, Wen ZH, **Chakraborty C** (2008) Expression of Green Fluorescence Protein (GFP) in Zebrafish Muscle through Injection: A Gene Therapy Model. Nature Precedings.https://doi.org/10.1038/npre.2008.2718.1
- [http://dx.doi.org/10.1038/npre.2008.2718.1]
- **14.** Sarkar, Bimal Kumar, Zen, Wu, Ding, Shangwu, Hsu, C. H., Wen, Z.H., Lin, C. S., and **Chakraborty, C**. (2008) Micro-magnetic resonance imaging (micro-MRI) study on the sepsis effected eyeball of zebrafish. Nature Precedings. https://doi.org/10.1038/npre.2008.2694.1 [https://doi.org/10.1038/npre.2008.2694.1]
- 13. Chattopadhyay A and Chakraborty C (1997) Bacterial diseases of African catfish, Clariasgariepinus (Burchell). Fishing Chimes17(6)14.

- 12. Chakraborty C and Chatterjee T. K. (1998) Assessment of sex ration in the brood stock development pond for optimum production of berried female: A critical factor for continuous seed production in freshwater prawn, *Macrobrachium rosenbergii* (de Man 13(1)34-36.
- 11. Chakraborty C and Chattopadhyay A (1998) Turmeric (Curcuma longa) and neem (Azadirachtaindica) in the management of bacterial infection of African catfish, *Clarias gariepinus* (Burchell). Fishing Chimes18(8)17-18.
- 10. Chakraborty C and Chattopadhyay A (1997) Ulcerative diseases of fish in southern West Bengal. Trans. Zool Soc. India,1(2)163-164.
- **9. C. Chakraborty** and A. Bhatcharyya(2002) Two-step chromatographic: a unique procedure for purification of granulocyte colony stimulating factor (G-CSF) from recombinant *E. coli*. <u>Journal</u> *Ecophysiology and Occupation Health*, (The Academy of Envrionmental Biology, India) (2) 135-142.
- **8.** C. Chakraborty* and S.Haque (2000): Edible vaccine from transgenic fish. <u>Fishing Chimes</u>, 20(1): 104-105.(*Corresponding Author)
- **7. C. Chakraborty*** and S. Haque (1999) Immune system and immunization of shrimps. <u>Fishing Chimes</u>, 19(12):21-22.(*Corresponding Author)
- **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). <u>Environment and Ecology</u>, 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). <u>Environment</u> 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) <u>Trans. Zool Soc.</u> India.
- 2. C **Chakraborty**, TK Chatterjee. (1998) Studies on feeding pattern of fresh water prawn larvae Macrobrachiumrosenbergii(deMan) in hatchery system. <u>Trans. Zool Soc. India.</u> 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. <u>Environment & Ecology</u>, 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, *Macrobrachiumrosenbergii* (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

8. Phalke S, Sawant SA, Samudra P, Yadav P, Chakraborty C, Jadhav A, Nandi SS. (2024) Viral Genome Sequencing and Its Significance in Latest Clinical and Research Findings. In Microbial Diversity in the Genomic Era. (**Academic Press**) pp.517-539 (Chapter 5.1)(ISBN: 9780443133206 eBook ISBN: 9780443133213)

- **7.** Nandi SS, Paul P, Lambe UP, Phalke S, Sawant SA, Moghe A, Ghosh S, Kumar N, **Chakraborty** C.(2023) Herbal Drugs Against Polio Infections: Ethnopharmacology, Chemistry, and Clinical and Preclinical Studies. In Anti-Viral Metabolites from Medicinal Plant (Chapter 14)(Springer; 1st ed. 2024 edition (1 Nov. 2023)(ISBN : 978-3031121982)
- 6. M Bhattacharya, AR Sharma, C Chakraborty (2022) Challenges of Long Non Coding RNAs in Human Disease Diagnosis and Therapies: Bio-Computational Approaches. In Handbook of Machine Learning Applications for Genomics. (Springer) 121-131 (ISBN: 978-981-16-9158-4)
- 5. Bhattacharya M, Kar A, Malick RC, **Chakraborty C**, Das BK, and Patra BC (2020) Application of Internet Assistance Computation for Disease Prediction and Bio-modeling: Modern Trends in Medical Science. <u>In Principles of Internet of Things (IoT) Ecosystem: Insight Paradigm</u> (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]
- 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: 5.447**) [PMID:30635085] (Elsevier)(1876-1623 ISSN) [https://pubmed.ncbi.nlm.nih.gov/30635085/]
- 3. George Priya Doss C, **Chakraboty** C, Vaishnavi Narayan, Thirumal Kumar. D (2014) Computational approaches and resources in single amino acid substitution analysis towards clinical research. <u>Advances inProtein Chemistry and Structural Biology (APCSB)</u> 94:365-423. (**Impact Factor: 5.447**) [PMID:24629192](CHAPTER TEN) (Elsevier) (1876-1623 ISSN) [https://pubmed.ncbi.nlm.nih.gov/24629192/]
- 2.George Priya Doss C, **Chakraboty** 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: 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, **Chakraboty** 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. <u>Advances inProtein Chemistry and Structural Biology (APCSB)</u>94:177-267.(<u>Impact Factor: 5.447</u>) [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.&GothalwalR(2005)Human granulocyte colony stimulating factor: a therapeutic protein. Advances in biochemistry and biotechnology (Vol.1) (ISBN81-7035-362-9) 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) (ISBN81-7035-362-9) Daya Publishing House, Delhi. India;p.1-9.

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

1. **C. Chakraborty**, T.K. Chatterjee and S.K. Chakraborty (2000) Development of indigenous larvae rearing method for the seed production of freshwater prawn *Macrobrachiumrosenbergii*(de Man). <u>Waste Recycling and Resource Management in the Developing World</u> (Edited by B.B. Jana, R.D. Banerjee, B. Guterstam, I. Heeb),(Proceeding,International Ecological Engineering Society,Swizerland) 149-155. (Kalyani University Pulication)

 $[https://scholar.google.com/scholar?hl=en\&as_sdt=0\%2C5\&q=Development+of+indigenous+larvae+rearing+method+for+the+seed+production+of+freshwater+prawn+Macrobrachium+rosenbergii+\%28de+Man\%29.+Waste+Recycling+and+Resource+Management+in+the+Developing+World+\&btnG=]$

BOOKs

Edited books

• Sarkar B and ChakrabortyC. (2014) Advances in biochemistry and biotechnology (Vol.II) (ISBN978-93-5124-312-0) 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) (ISBN81-7035-362-9) 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 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 have been taught more than 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 OR ACCEPTED:

Sr	Title of the Invention	Inventors	Patent number	Date of	Applicant	Patent
No.			and Patent	Patent		Granted
			application	Application		Country
			number	and Patent		
				Grant		
1	Development method	Lee Sang Soo,	Patent no	Application	Hallym University	South
	of epitope-based	Chiranjib	10-2425 492	Date: 27.	Industry-University	Korea

	peptide vaccine against SARS-COV-2 virus	Chakravartty, Ashish Ranjan Sharma, Garima Sharma, Manojit Bhattacharya	Patent application no. 10-2020- 0050552	04. 2020. Grant Date: 21. 07. 2022	Cooperation Foundation (2-2007- 019517-5)	
2	A cloud computing system for extended battery life and enhanced performance	Santanu Koley, Rajrupa Metia,Rajesh Mukherjee, Bidesh Chakraborty, Deepa Naik, Sonal Sameer Bawankule, Chiranjib Chakravartty, Durga Prasad Sharma, Manojit Bhattacharya, Patrali Pradhan	PATENT APPLICATION NO 2024/02361	Grant Date: 30. 10. 2024	Santanu Koley et al.	South Africa
3	Wall Mountable Mini - Integrated Computer for Robotic Machine Learning (Design Patent)	Santanu Koley, Chiranjib Chakravartty, Manojit Bhattacharya, Udayasri Kompalli, Nabanita Das, Dhrubajyoti Ghosh, Susmita Biswas, Samuel Biswas, Sarmistha Basu, Subarna Roy, Debam Sah	Patent no. 6391086	Grant date: 24 September 2024 Registration date: 13 September 2024	Santanu Koley et al.	UK
4	A method and system for formulating a multi- epitope peptide vaccine against monkeypox virus	.Chiranjib Chakravartty, Manojit Bhattacharya, Santanu Koley, Srijan Chatterjee, Sagnik Nag	PATENT APPLICATION NO 2024/02360	Accepted on 2024/09/27	Chiranjib Chakravartty et al.	South Africa
5	Fan-Less Box Computer (Design Patent)	Dr. Sultan Ahmad, Dr. SubroSantiranjan Thakur, Priti Ashok Jain, Dr. Chiranjib Chakravartty, Monojit Manna, Dr. Ujjal Sur, Dr. Soma Bandyopadhyay, Dr. Utpal Nandi, Sudan Jha, Dr. Santanu Koley	PATENT NO 6402762	Grant Date: 20. 11. 2024	Santanu Koley et al.	UK

PATENTS APPLIED:

Sr	Claim	Inventors	Patent application	Application	Applicant	Country of
No.			number	Date:		Application
1.	Epitope-based gene	Lee Sang Soo,	Patent application	03.09.2022.	Applicant Name:	South
	constructs and vaccine	Chiranjib	no . 1020220038780		Hallym University	Korea
	compositions against	Chakravartty,			Industry-	
	coronavirus	Manojit			University	
		Bhattacharya			Cooperation	

					Foundation	
2.	Vaccine Composition Based on Multiple Epitope Peptides Against Mycobacterium leprae	Lee Sang Soo, Chiranjib Chakravartty, Manojit Bhattacharya	Patent application no. 1020220071991	14.06.22	Applicant Name: Hallym University Industry- University Cooperation Foundation	South Korea
3.	Method for Developing a Multi- epitope Peptide-based Vaccine Composition	Lee Sang Soo, Chiranjib Chakravartty, Manojit Bhattacharya	Patent application no. 1020220071992	14.06.22	Applicant Name: Hallym University Industry- University Cooperation Foundation	South Korea
4.	Vaccine composition against Bunyamwera orthobuniavirus and method for preparing the same	Lee Sang Soo, Chiranjib Chakravartty, Manojit Bhattacharya, Ashish Ranjan Sharma	Patent application no. Application No.: 1020220136148	21.10.22	Applicant Name: Hallym University Industry- University Cooperation Foundation	South Korea
5.	An integrated sentiment analysis system on social media platforms using machine learning methods [Field of Invention: Computer Science]	Santanu Koley, Seema P. Nehete, Shimba Chatterjee, Chiranjib Chakravartty, Sucheta Das Maji, Manojit Bhattacharya, Sudip Das, Debashish Ghosh, Bhupinder Singh, Sonal Sameer Bawankule	Patent Application no. 202331089650	29/12/2023	Applicant Name: Santanu Koley et al.	India
6.	Self-sustainable energy harvesting integrated circuit for autonomous internet of things (IOT) devices [Field of Invention: Bio-Medical Engineering]	Laxmi, G. Suchitha Reddy, W. Sarada, Nilanjan Mukhopadhyay, Archana Mahesh kumar Chougule, Sangita Roy, Debnarayan Khatua, Chiranjib Chakravartty, Manojit Bhattacharya	Patent Application no. 202441002962	09/02/2024	Applicant Name: K. Aruna Sri et al.	India
7.	System and Method for Preserving Privacy through Context Aware Personalized Recommendation System using Federated Learning	T. Vamshi Mohana, Santanu Koley, B. Vijitha Malini, Shweta Sinha, W. Sarada, Seema P. Nehete, Chiranjib Chakravartty,	Patent Application no. 202441004831	24/01/2024	Applicant Name: T. Vamshi Mohana et al.	India

		M ''' D1 1		<u> </u>	<u> </u>	
		Manojit Bhattacharya,				
		Utpal Nandi, Soumik				
	[Field of Invention:	Podder				
	Computer Science]					
8.	An Artificially	W. Sarada, Santanu	Patent Application no.	03/02/2024	Applicant Name:	India
	Intelligent Transparent	Koley, M. K. Vijay	202441007432		W. Sarada et al.	
	Framework for	Kumar, D. Swetha,				
	Enhancing Trust in	Chiranjib				
	Automated Systems	Chakravartty,				
	through Explainable	Debnarayan Khatua,				
	Decision-Making	Manojit				
		Bhattacharya,.				
	[Field of Invention:	Tanusree Chatterjee,.				
	Computer Science]	Tapas Si,				
		Subhalaxmi				
		Chakraborty,				
	A Mothod and Control	Aniruddha Ghosh	D-44 AP 4'	27/02/2024	Applicant Name	T., 11.
9.	A Method and System for Formulating A	Chiranjib Chakravartty,	Patent Application no.	27/02/2024	Applicant Name: Chiranjib	India
	Multi-Epitope Peptide	Manojit Bhattacharya,	202431013916		Chakravartty et al.	
	Vaccine Against	Santanu Koley, Srijan			Chakravartiy et al.	
	Monkeypox Virus	Chatterjee, Sagnik				
	Workeypox virus	Nag				
	[Field of Invention:	Tiug				
	Biotechnologye]					
10.	A System for Dynamic	Santanu Koley, Saikat	Patent Application no.	27/02/2024	Applicant Name:	India
	Optimization of	Adhikari, Chiranjib	202431013918		Santanu Koley et al.	
	Precision Agriculture	Chakravartty,				
	Integrating Machine	Abhijit Sarkar, Ranit				
	Learning and	Baram, Manojit				
	Mathematical Models	Bhattacharya, Swapnil				
		Ganesh Jaiswal,				
		Debashis Ghosh, Raja				
		Rawat, Aparajita				
	[Field of Invention:	Mukherjee, Pankaj				
11	Computer Science]	Singh Rana	Dodoná A 12 41	24/05/2024	Ampline of NI	To die
11.	A Machine Learning, Block Chain and Data	Santanu Koley,	Patent Application no. 202431037551	24/05/2024	Applicant Name: Santanu Koley et al.	India
	Warehousing Integrated	Chiranjib Chakravartty,	40431037331		Samanu Koley et al.	
	Secure Data	Manojit Bhattacharya,				
	Management System	Santanu Modak,				
	manugement bystem	Pranabes				
		Gangopadhyay, Brijit				
		Bhattacharjee, Soma				
		Banerjee, Shibakali				
		Gupta				
		Chatterjee, Sohini Paul, Indradip Banerjee, Shibakali				

12	An Efficient Framework for Environmental Sustainability with Integrated Cloud Computing and IoT Technologies	Santanu Koley, Chiranjib Chakravartty, Biswarup Mukherjee, Soham Nandi, Lamneithem Hangshing, Ukil Singh, Tage Tapang, Pallav Dutta, Lovely Srivastava, Sayak Sarkar, Satyabrata	Patent Application no. 202431055542	09/08/2024	Applicant Name: Santanu Koley et al.	India
		Singha				
13	Genetically Tailored 3-D Organotypic Model of Human Intestine for Study of Enteroviruses and Methods Thereof	Alpana Subodh	Patent Application no. 202311003845	19/01/2023	1.Indian Council of Medical Research 2. Rajiv Gandhi Institute of IT & Biotechnology, 3.Bharati Vidyapeeth Deemed to be University	India

TECHNOLOGY DEVELOPED

Sr No.	Name of the technology	Technology development and status	Technology transferred to the Industry	Technologies commercialized
1	Development method of epitope-based peptide vaccine against SARS- COV-2 virus	Technology was Developed and Patent Granted (Patent no.10-2425 492; Patent Granted Country: South Korea)	Not Available	Not Available
2	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.	Not Available	Not Available
3	System and method for development characterization, and simulation of the epitope- base peptide therapeutic vaccine against colorectal cancer using neoantigen	Technology was Developed and Patent application started.	Not Available	Not Available
4	Composition for preventing or treating	Technology was Developed and Patent applied	Not Available	Not Available

	coronavirus infection	(Patent Application no.		
	through RdRp gene	1020210122155; Patent Applied		
	offset	Country: South Korea)		
5.	Epitope-based gene	Technology was Developed and	Not Available	Not Available
	constructs and vaccine	Patent applied		
	compositions against	(Patent Application no.		
	coronavirus	1020220038780; Patent Applied		
		Country: South Korea)		
6.	Vaccine Composition	Technology was Developed and Patent	Not Available	Not Available
	Based on Multiple	applied		
	Epitope Peptides Against	(Patent Application no.		
	Mycobacterium leprae	1020220071991 ; Patent Applied		
		Country: South Korea)		
7.	Method for Developing a	Technology was Developed and Patent	Not Available	Not Available
	Multi-epitope Peptide-	applied (Petant Application no		
	based Vaccine	(Patent Application no. 1020220071992 ; Patent Applied		
	Composition	Country: South Korea)		
8	An integrated sentiment	Technology was Developed and Patent	Not Available	Not Available
U	analysis system on social	applied	TYOU AVAILABLE	TYOU AVAILABLE
	media platforms using	(Patent Application no.		
	machine learning	202331089650 ; Patent Applied		
	methods [Field of	Country: India)		
	Invention: Computer			
	Science]			
9.	Self-sustainable energy	Technology was Developed and Patent	Not Available	Not Available
	harvesting integrated	applied		
	circuit for autonomous	(Patent Application no.		
	internet of things (IOT)	202441002962 ; Patent Applied		
	devices [Field of	Country: India)		
	Invention: Bio-Medical			
	Engineering]			
10.	System and Method for	Technology was Developed and Patent	Not Available	Not Available
	Preserving Privacy	applied		
	through Context Aware	(Patent Application no.		
	Personalized	202441004831 ; Patent Applied		
	Recommendation System	Country: India)		
	using Federated			
	Learning [Field of			
	Invention: Computer			
	Science]			
11	A - A - A - A - A - A - A - A - A - A -	Tankan da assassa Davids and Laud Davids	NT . A . 11.11	NT-4 A11 1 1
11.	An Artificially Intelligent	Technology was Developed and Patent applied	Not Available	Not Available
	Transparent Framework	(Patent Application no. 202441007432 ;		
	for Enhancing Trust in Automated Systems	Patent Applied Country: India)		
	•	1 mont rippined Country, maia)		
	through Explainable			
	Decision-Making [Field of Invention: Computer			
	of Invention: Computer			
12.	Science] A Method and System	Technology was Developed and Patent	Not Available	Not Available
14.	for Formulating A Multi-	applied	Not Available	Not Available
	101 FOI III MAURING A MICHIE	approu		

13.	Epitope Peptide Vaccine Against Monkeypox Virus [Field of Invention: Biotechnologye] A System for Dynamic Optimization of Precision Agriculture Integrating Machine Learning and Mathematical Models [Field of Invention: Computer Science]	(Patent Application no. 202431013916; Patent Applied Country: India) Technology was Developed and Patent applied (Patent Application no. 202431013918; Patent Applied Country: India)	Not Available	Not Available
14.	A novel non-replicating mRNA (NRM) vaccine and self-amplifying mRNA (SAM) vaccine candidates against SARS-COV-2 virus	Technology developed and Patent application started. [Research work reference: PMID: 34981440; PMCID: PMC8723807]	Not Available	Not Available
15.	Multi-epitopic peptide vaccine candidate against <i>Helicobacter pylori</i>	Technology developed and Patent application started. [Research work reference: PMID: 33495694; PMCID: PMC7816556]	Not Available	Not Available
16.	An antigenic epitopes selection from the outer membrane protein sequences of Aeromonas hydrophila and its analyses with a vaccine construct.	Technology developed and Patent application started. [Research work reference: PMID: 32298854]	Not Available	Not Available
17	A next-generation vaccine candidate using alternative epitopes to protect against Wuhan and all significant mutant variants of SARS-CoV-2	Technology developed and Patent application started. [Research work reference: PMID: 34881093 and PMCID: PMC8612605]	Not Available	Not Available
18	Multi epitopes bases peptide vaccine candidate against prostate cancer.	Technology developed and Patent application started.	Not Available	Not Available
19.	An assessment of indigenous hatchery technology of freshwater giant prawn, Macrobrachium rosenbergii (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- 2. 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- 1 and Technology- 5. 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). Technology- 1 patent was granted (Patent no.10-2425 492; Patent Granted Country: South Korea).

We have applied for another Korean patent for 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- 14. 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: 2.4**). 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- 17. 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: 7.0).

Publication link is incorporated below.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8612605/

Technology- 19. 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

PhD guided:04 (3 Degree awarded and one current student) Degree awarded

Sl. No	Name of the Student	Thesis Title	Year of PhD Award/co mpletion	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. 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.	Name of the research grant	Grant	Duration	Granting Agency
No		amount		
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	45 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)
	antigen processing through immunoinformatics and Artificial Intelligent-Machine Learning- Deep learning (AI-ML-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	1.2 lacks	2003	Glenmark Laboratories, Mumbai

recombinant epidermal growth	factor		
(rEGF) with silver sulfadiazine a			

EDITOR/EDITORIAL EXPERIENCES:

- I have more than more than twelve years of editorial experience. I joined as an associate editor in Frontiers in Pharmacology in 2011/2012. Previously served as an academic editor of 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= 11.5)
- Presently, I am an editor of Editor: Infection, Genetics and Evolution (IF=2.6); Associate Editor: Frontiers in Bioengineering and Biotechnology (IF= 4.3); Associate Editor: Frontiers in Pharmacology (IF= 4.4). I am an editorial Board Member of more than 10 SCI/SCIE journals such as Scientific Reports (IF: 3.8) (Nature Group); Interdisciplinary Sciences: Computational Life Sciences (Springer) (IF: 3.9); Biocell (IF: 0.8) (2020-till date) and several others.
- I edited over 250 high-quality papers with my editorial experience and extensive skill sets. I am associated as an editor presently or previously with the following journals:
- Editor, Infection, Genetics, and Evolution (Elsevier journal) (IF=2.6)(2020-till date)
- Associate Editor, iScience(Cell press Journal)(IF= 4.6)(2020-2022)
- Associate Editor, Frontiers in Bioengineering and Biotechnology(IF=4.3)(specialty section: Preclinical Cell and Gene Therapy) (2020-till date)
- Associate Editor, Frontiers in Pharmacology (IF= 4.4)(specialty section: Experimental Pharmacology and Drug Discovery)(2010-till date)
- Editor, Current Microbiology' (IF= 2.3) (2021-2022)

EDITORIAL BOARD MEMBER

- Scientific Reports (Nature group) (2015-till date)(IF= 3.8)
- BIOCELL (Impact Factor =2.82) (2020-till date) (**IF= 0.8**)
- Interdisciplinary Sciences: Computational Life Sciences(Springer)(2011-till date) (http://www.springer.com/life+sciences/bioinformatics/journal/12539)(**IF= 3.9**)
- Genomics, Proteomics & Bioinformatics (Elsevier) (2011-2015)(IF= 11.5)
- 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.wignet.com) (2011-2018) (http://www.wignet.com)

GUEST EDITOR FOR SPECIAL ISSUES

• **Special issue**: Non-coding RNA's: human health and diseases (2022) (Current Research in Pharmacology and Drug Discovery): Edited by Chiranjib Chakraborty

- (https://www.sciencedirect.com/journal/current-research-in-pharmacology-and-drug-discovery/special-issue/10DS4HCM75V)
- Special issue:SARS-CoV-2 Variant and Vaccines Development (Vaccines IF= 5.2): 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= 4.4**): 2021: Edited by: Letizia Polito, Wawaimuli Arozal, Yuhei Nishimura, Aprilita Rina Yanti Eff, and Chiranjib Chakraborty (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: 4.0**): Edited by Elijah Ohimain, Chiranjib Chakraborty (https://www.sciencedirect.com/journal/current-opinion-in-pharmacology/special-issue/10Q1MQ8956P)

REVIEWER ASSIGNMENT

ADHOC reviewer more than 25 SCI and Scopus indexedjournals

- Reviewer, Lancet (IF: 98.4)
 [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:36.4)
- Reviewer, Nature Biotechnology (IF:33.1)
- Reviewer, Molecular Cancer (IF:27.7)
- Reviewer, Aging and diseases (IF:7.0)
- Reviewer, Frontiers in Immunology (IF:5.7)
- Reviewer, Reviewer, Frontiers in Pharmacology (IF:4.4)
- Reviewer, Frontiers in Oncology (**IF:3.5**)
- Reviewer, Advanced Science (Wiley-VCH) (IF:14.3)
- Reviewer, PLoS ONE
- Reviewer, Cell Biochemistry and Biophysics (Springer)
- Reviewer. Applied Biochemistry and Biotechnology (Springer)
- Reviewer, Process Biochemistry (Elsevier)
- Reviewer, Biotechnique (**IF:2.2**)
- 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), Galgotias University (2015-2018)
- Member, School Research Committee (SRC)Galgotias University (2017-2018)

Keynote Speech

- **2024:** Title of the Keynote talk: "Artificial intelligence (AI) to Deep Learning (DL) drug discovery to clinical trial" at Molecular Biology and Bioinformatics, Tripura University Invited by Dr. Surajit Bhattacharjee. Hear of Department of Molecular Biology and Bioinformatics, Tripura University, (Date of presentation: September 28, 2024) A Handson cum interactive session.
- 2024: Title of the Keynote talk: "Artificial intelligence (AI) enabled drug discovery and development: recent advances" In AI in biomedical research: IUBMB Trainee Initiative webinar on April 27th, 2024. by International Union of Biochemistry and Molecular Biology (IUBMB). (Date of presentation: April 27th, 2024. (at 1pm GMT). (https://network.febs.org/posts/ai-in-biomedical-research-iubmb-ti-webinar)
- 2024: Title of the Keynote talk: "Technology revolution and carbon footprint: Challenges and management strategies" In a workshop titled "Urban Sustainability in West Bengal: Carbon Footprint Management" on March 21st, 2024. by The Neotia University. Sarisha, Diamond Harbor Road, West Bengal India. (Date of presentation: March 21, 2024(2:00 to 4:00 pm IST)
- 2022: Title of the Keynote talk: "Recent advances of artificial intelligence /machine learning/ deep learning (AI/ML/DL) in drug discovery to clinical trial" in 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 and Artificial Intelligence Healthcare (CAIH) through zoom meeting. (http://www.icaih.org/speaker)

Invited Lectures

- 2024: Title of the lead talk: "Artificial Intelligence (AI) to Large Language Model (LLM):

 Mutation to Drug Resistance Screening and Drug Discovery" In Virocon 2024 (jointly organized by Defense Research and Development Establishment (DRDE), Gwalior, India, and the Indian Virological Society (IVS) at DRDE, Gwalior, India, from 11th to 13th November 2024. (Presentation date: November 12th, 2024 (3:00 to 3:25 pm IST).
- **2024:** Title of the lead talk: "Artificial intelligence (AI) enabled drug discovery and development: Ongoing revolution, challenges and success stories." In a training cum workshop on "Laboratory Animal Handling and Advancement of Different Characterization Techniques in Biomedical Research," organized by Professor Dr. Samit K. Nandi, Ph. D., at West Bengal University of Animal & Fishery Sciences (WBUAFS). It was organized under the ICAR National Professor Project. (Date of presentation: July 12, 2024).
- **2024:** Title of the talk: "Editor and Reviewer's perspective of Research Publication" In the faculty skill development program (FDP)' organized jointly by the E-YUVA Centre, Adamas University (Supported by BIRAC) (Date of presentation: May 12, 2024; 12:00 noon to 1:00pm pm IST). **Delivered lecture as a resource person**.
- **2023:** Title of the lead talk: "The landscape of mutation: From the evolution of virus variants to vaccine development and drug resistance" In Virocon 2023 (jointly organized by ICAR-National Research Centre for Banana, Tiruchirappalli, Tamil Nadu, India, and the Indian Virological Society (IVS) at Hotel Courtyard by Marriot, Tiruchirappalli, from 1st to 3rd December, 2023. (Date of presentation: December 2nd, 2023 (9:00 to 9:25 am IST).
- 2023: Title of the talk: "India's research and development perspective" In the FDP on "Quality research and teaching Methodology" from 11th to 24th September, 2023. The conference coorganized by UGC-HRDC, JNV University, Jodhpur and Galgotias college of Engineering and Technology, Greater Noida. (Date of presentation: September 19, 2023(10:00 to 11:30 am IST through zoom meeting). Delivered lecture as a resource person.
- **2023:** Title of the talk: "From Editors desk". In the faculty skill development program' organized jointly by the E-YUVA Centre, Adamas University (Supported by BIRAC) and Vedanta College (Affiliated to University of Calcutta) at Vedanta College, Kolkata. (Date of presentation: 22nd March 2023; 3:00 pm IST). **Delivered lecture as a resource person.**
- 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 Sciences through 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 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) (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 Unit, 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

- Affiliate Member, Royal Society of Chemistry (Membership number: 745230)
- Member, American Society for Microbiology (Membership number: 200311023)
- Member, Sigma Xi, USA (Membership number: 7877146)
- Member, Royal Netherlands Society for Microbiology (KNVM)
- Senior member, Hong Kong Chemical, Biological& Environmental Engineering Society (HKCBES) (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/)
- Indian Virological Society (IVS), India (Life member; Life Membership No LM-357/IVS/2023) (https://www.ivs.net.in/)
- Academy for Advancement of Agricultural Sciences (Life member; Life Membership No AAAS/LM-2024/242)

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 Welcome Trust/DBT India Alliance Fellowship, 2021
- The Qatar National Research Fund (QNRF), 2021,2021,2022, 2023,2024,

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 (<u>Current Molecular Medicine</u>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 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 Biology 32(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 <u>journal "The Lancet Infectious Diseases"</u> 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. Govindasamy Agoramoorthy Distinguished Research Processor

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