


University Faculty Details

Title	Dr.	First Name	Sanjay	Middle Name	Kumar	Last Name	Dey	Photograph
Designation	Assistant Professor							
Department	Dr. B. R. Ambedkar Center for Biomedical Research (ACBR)							
Address (Campus)	Dr. B. R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, North Campus, Delhi – 110007, INDIA							
(Residence)	RZ-190, Shiv Block, Raghu Nagar, New Delhi -110045							
Phone No (Campus)	011-27666272, 011-27667151							
Mobile	On request only							
Email	sdev@acbr.du.ac.in							
Web-Page	http://acbrdu.edu/SanjayKumarDev.html							
Educational Qualifications								
Degree	Institution			Year		Details		
B.Sc. (Hons., Human Physiology)	University of Calcutta			2007		Ph.D. Thesis Title:		
M.Sc. (Molecular Bio. & Genetics)	University of Calcutta			2009		“Characterization of Dopamine β Hydroxylase and Cytochrome b5 Reductase3 and their Interactions with Small Molecule Inhibitors Identified by Structure-based Methods and their Validation in Animal Models of Hypertension and Cardiac Hypertrophy”		
Ph.D. (Biochemistry)	University of Delhi South Campus			2017				
CAREER PROFILE								
January, 2021- till date	Assistant Professor, ACBR, University of Delhi, India.							
July, 2019- January, 2021	Post-doctoral Associate, Rutgers University.							
December, 2017- June, 2019	Research Associate, University of Delhi South Campus.							
July, 2017– December, 2017	Assistant Professor, Department of Biochemistry, Central University of Rajasthan.							
February, 2017- July, 2017	Research Associate, University of Delhi South Campus.							
November, 2016	Guest Faculty, Department of Biochemistry, Central University of Rajasthan.							
January, 2016-August, 2016	DBT Project Fellow, University of Delhi South Campus.							
January, 2013-December, 2015	UGC Senior Research Fellow (Through CSIR-UGC NET), University of Delhi South Campus.							
August, 2011- December, 2012	UGC Junior Research Fellow (Through CSIR-UGC NET), University of Delhi South Campus.							
January, 2011- July, 2011	UGC Junior Research Fellow (Through CSIR-UGC NET), All India Institute of Medical Sciences.							
December, 2009- June, 2010	DBT Sponsored Trainee in Bioinformatics, Presidency College (now Presidency University), Kolkata.							
December, 2008 - June, 2009	DBT Sponsored Student in Bioinformatics, Presidency College (now Presidency University), Kolkata.							

PROFESSIONAL CAREER / MAJOR CONTRIBUTIONS

- Cryo-EM and Crystallographic Structure determination of proteins and polyproteins.
- Identified a few new anti-hypertensive, anti-cardiac hypertrophic, and anti-rheumatoid arthritis leads against non-traditional proteins.
- Evaluation of polytene chromosome organization in *Chironomus* and *Drosophila* to determine their molecular evolution.
- Investigation of amylase activity in silk moth gut.
- Characterization of SARS-CoV-2 ion-channels and their mutations.

RESEARCH EXPERIENCE IN VARIOUS INSTITUTIONS

1. Cryo-EM and crystallographic structure determination of SARS-CoV-2 and HIV proteins and polyproteins in the mentorship of Prof. Eddy Arnold, CABM, Rutgers University, New Brunswick, USA.
2. In my doctoral thesis work, I have identified a few new anti-hypertensive and anti-cardiac hypertrophic leads against non-traditional proteins as targets for which we have filed the Indian patents.
3. Worked as a “Boehringer Ingelheim Fonds Foundation for Basic Research in Medicine sponsored trainee” in the mentorship of Prof. Christian Betzel at the University of Hamburg & Deutsches Elektronene-Synchrotron (DESY), Hamburg, Germany to work on “Insect cell expression, purification & co-crystallization of proteins in presence of inhibitors and their structure determination by synchrotron & laser-radiation”, and deciphered the first co-crystal structure of inhibitor bound CYB5R3.
4. Awarded “American Heart Association’s Council on Hypertension Advisory and Mentoring Program (CHAMP) Mentee”; during September, 2015 to August, 2016. Mentor: Prof. David H. Ellison, Oregon Clinical and Translational Research Institute, Oregon Health and Science University, USA.
5. Worked on “Human Retinal Histopathology” in the mentorship of Prof. Tapas Chandra Nag in the Department of Anatomy, All India Institute of Medical Sciences, New Delhi (AIIMS, New Delhi), India.
6. Pursued research work on “Polytene chromosome organization in *Chironomus* & *Drosophila*” in the mentorship of Prof. Trilochan Midya, Mol. Biology and Genetics Lab, Presidency University, Kolkata, India.
7. Worked on “Human snurps” in the mentorship of Dr. Abhijeet Datta, at the DBT Centre for Bioinformatics, Presidency University, Kolkata, India.
8. Worked on “Amylase activity in silk moth gut” in the mentorships of Professors Nirmal K Sarkar and Tushar Kanti Mukherjee, Department of Molecular Biology and Genetics, Presidency University, Kolkata, India.

ONGOING PROJECTS

1. Biophysical, biochemical, and electrophysiological evaluation of therapeutically important Envelope, ORF3a, and ORF7a proteins of SARS-CoV-2. **Funding Agency:** Institute of Eminence (IoE), University of Delhi; **Grant Amount:** 3 lakhs
2. Structural-functional characterization of human ion-channel protein to decipher its role in atherosclerosis for therapeutic intervention. **Funding Agency:** Indian Council of Medical Research (ICMR), GoI; **Grant Amount:** 36.4 lakhs

TRAINING CUM SUPERVISING EXPERIENCE

PhD students:

1. **Sarika Bano** (ICAR-NET, GATE-XL): April, 2021 - till date, project: SARS-CoV-2 viroporins
2. **Diksha Rani** (CSIR-UGC NET LS, DBT JRF): January, 2022- till date, project: Atherosclerosis

MSc dissertation students (ongoing):

1. **Anushka Bhattacharyya**, M.Sc. Biomedical Sciences, Dr. B. R. Ambedkar Center of Biomedical Research (ACBR), University of Delhi, New Delhi
2. **Disha Singh**, M.Sc. Biomedical Sciences, ACBR, University of Delhi, New Delhi
3. **Surbhi Gupta**, M.Sc. Biomedical Sciences, ACBR, University of Delhi, New Delhi
4. **Shivani Panchal**, M.Sc. Biomedical Sciences, ACBR, University of Delhi, New Delhi
5. **Pinki Mishra**, M.Sc. Biomedical Sciences, ACBR, University of Delhi, New Delhi

Lab alumni:

1. **Shreeja Datta**, B. Tech Biotechnology, Department of Biotechnology, Delhi Technological University, Delhi
2. **Nishi Jain**, B. Tech Biotechnology, Amity Institute of Biotechnology, Amity University, Uttar Pradesh, Noida
3. **Srijon Sen**, M.Sc. Chemical and Molecular Biology, Department of Biosciences, IIT-Kharagpur, West Bengal
4. **Arisha Arora**, M. Tech, Motilal Nehru National Institute of Technology, Allahabad

5. **Sreyashi Nath**, M.Sc. Microbiology, Department of Microbiology, University of Delhi-South Campus
6. **Saptamita Paul Choudhury**, B. Tech and M. Tech integrated dual degree, KIIT School of Biotechnology, KIIT University, Bhubaneswar, Orissa
7. **Unmukta Raj**, BE- Biotechnology, Department of Biotechnology Engineering, Chandigarh University, Gharoun, Mohali, Punjab
8. **Swarnali Das**, B. Tech and M. Tech integrated dual degree, KIIT School of Biotechnology, KIIT University, Bhubaneswar, Orissa

VACANT RESEARCH POSITIONS

Hard working and interested candidates who have their own fellowship are encouraged to apply for Ph.D./JRF positions.

RESEARCH INTERESTS / SPECIALIZATION

Structural biology (Cryo-EM, X-ray crystallography, and SAXS); Ion-channels; Receptors; Membrane proteins; SARS-CoV-2; Molecular Medicine (SBDD); Antiviral development; Breast cancer; Electrophysiology; Biophysics; and Biochemistry

TEACHING EXPERIENCE (SUBJECTS / COURSES TAUGHT)

- January, 2021 onwards: Teaching (1) Molecular Oncology (special paper, MBSEC-401), (2) Molecular Biology (MBSCC-201), (3) Biochemistry of Macromolecules (MBSCC-103), courses to the students of MSc Biomedical Sciences.
- July, 2017– December, 2017: Taught, theory and practical courses (Clinical Biochemistry, Pharmaceutical Biochemistry, Proteomics and Genomics) to MSc students of the Department of Biochemistry, Central University of Rajasthan, Rajasthan.
- November, 2016: Taught, theory courses (Microbiology and Plant Physiology) to MSc classes of the Department of Biochemistry, Central University of Rajasthan, Rajasthan.

HONORS & AWARDS

ACHIEVEMENTS IN ACADEMICS

1. **CSIR-UGC NET JRF-SRF** (2011 to 2015).
2. **CSIR-UGC NET-LS**, 2010.
3. **DST INSPIRE Fellowship** for pursuing PhD, December, 2010.
4. **West Bengal Govt. Merit cum Means Scholarship** for pursuing M.Sc. during 2007-2009.
5. **Won International travel award** to attend “**The 2020 International School of Crystallography**” organized by **The University of Florence, Italy**.
6. **Won first prize/best poster award among ~220 posters** in the 7th Symposium on the “**Current trends in drug discovery research 2019**” organized by **CSIR-Central Drug Research Institute, Lucknow, India, February, 2019**.
7. **Won third best poster award** in the “**International Symposium on Structure Assisted Design on Novel Therapeutics 2019**” organized by the **Regional Center for Biotechnology (RCB), Faridabad, India during February, 2019**.
8. ‘**American Society for Biochemistry and Molecular Biology 2018 Graduate/Postdoctoral Travel Award 2018**’ by the **American Society for Biochemistry and Molecular Biology** for attending and presenting research work in the annual meeting of the **Experimental Biology Symposium, San Diego, USA**.
9. ‘**Council of Scientific and Industrial Research International Travel Award 2018**’, for attending the **EB Annual Meeting 2018** of the **ASBMB, USA** by **CSIR, Govt. of India**.
10. ‘**Best Poster Award 2018**’ in the **Indian Section of the International Society for Heart Research annual meeting** held at the **Post Graduate Institute of Medical Education and Research, Chandigarh**.
11. ‘**Prof. Devendra K. Agrawal Young Investigator Award 2018**’ by the **International Academy for Cardiovascular Research (Indian Section)** at **Madurai Kamaraj University, India**.
12. ‘**Best Poster Award 2017**’ in the **Indian Biophysical Society Meeting, Indian Institute of Science Education and Research, Mohali**.
13. Awarded “**travel grant to attend IBS Meeting 2017**” in **IISER, Mohali** by **IBS, India**.
14. Awarded “**travel grant to attend ISH2016**” meeting in **South Korea** by **ISH, UK**.
15. Awarded ‘**ISH Research Fellow**’ by the **International Society of Hypertension, UK, 2015**.
16. ‘**INSA-CSIR-DAE/BRNS-CICS International Travel Award**’, for attending the **Council on Hypertension Scientific Sessions 2015** of the **American Heart Association, USA** by **CICS, GOI**.
17. ‘**Indian Council of Medical Research International Travel Award**’, for attending the **Council on Hypertension Scientific Sessions 2015** of the **AHA, USA** by **ICMR, Govt. of India**.
18. ‘**DBT Travel Award**’ to attend the **Council on Hypertension Scientific Sessions 2015** of the **AHA, USA** by the **Dept. of Biotechnology, Govt. of India**.

19. **'Immunology Foundation Bursary Award'** to attend the Council on Hypertension Scientific Sessions 2015 of the American Heart Association, USA by the Immunology Foundation, India.
20. **'Boehringer Ingelheim Fonds travel award 2015 for basic research in medicine'** to pursue research at the Hamburg University, Germany, by the Boehringer Ingelheim Fonds, Germany.
21. **'Best Poster Award 2015'** in the **Cardiovascular Research Convergence-2**, All India Institute of Medical Sciences, New Delhi, India.
22. **'Science and Engineering Research Board Financial Award'**, for attending HBPR2014 and ISH New Investigator Symposium on Hypertension & Cardiovascular Disease 2014, USA by the Dept. of Science & Technology, Govt. of India.
23. **'DBT Travel award'** to attend HBPR2014, USA by the Dept. of Biotechnology, Govt. of India.
24. **'Professor Ratna Phadke Young Scientist Award 2013'** in the **37th Annual Meeting of Indian Biophysical Society**.
25. **'Best Poster Award 2013'** in the **Society for Young Scientists' Conference**, All India Institute of Medical Sciences, New Delhi.
26. **'3rd Best Poster Award 2013'** in the **National Conference on Recent Advances in Computational Drug Design**, Indian Institute of Science, Bangalore.
27. **'Professor Atul Chandra Biswas Memorial Award 2009'** as **Best All-round Academic Performer among the P.G. Students** of Presidency College, Kolkata.
28. **'Professor Sivotosh Mukherjee Memorial Award 2009'** for securing **highest marks in M.Sc.** in Molecular Biology and Genetics in Presidency College, Kolkata.
29. **'Govt. Eden Hindu Hostel Excellence Award 2008'** for securing **highest marks in M.Sc.** among all subjects in the Govt. Eden Hindu Hostel of Presidency College, Kolkata.
30. **'Professor Hemendra Nath Mukherjee Memorial Medal 2007'** for securing **highest marks in Bio-science** in Ananda Mohan College, Kolkata.

Awards in Extra Curricular Activities

31. Obtained B certificate in National Cadet Corps, India, (2009).
32. Won 2nd and 3rd prizes respectively in State Level Essay and Lecture Competitions on 'Scientists against superstitions', organized by Paschim Banga Vigyan Mancha, Kolkata on the occasion of celebrating International Year of Physics, (2005).
33. Won 1st prize in the District Level Essay Competition on 'National Integration and Communal Harmony' organized jointly by Ministry of Home Affairs, Govt. of India and Ministry of Information & Culture, Govt. of W.B., (2004).
34. Won 1st prize in State Level Essay Competition on 'Nature Needs Proper Feedback', (2004).

Student Awards

1. Ms. Sarika Bano Selected for a Poster Presentation in the PDB50 symposium 2021, organized by the Protein Data Bank, USA (2021).
2. Ms. Sarika Bano obtained a travel grant and participated for a DST-SERB sponsored training program on "Advanced Molecular Biology Techniques" (Bioscience for Human Health Mission)" Organized by the SAIF, Punjab University (2022).
3. Ms. Diksha Rani obtained a travel grant and participated for a DST-SERB sponsored training program on "Advanced Molecular Biology Techniques" (Bioscience for Human Health Mission)" Organized by the SAIF, Punjab University (2022).

PUBLICATIONS

[Sanjay Kumar Dey | researchgate.net](#)
[Sanjay Kumar Dey - Google Scholar](#)
[Sanjay Kumar Dey | Publons](#)
[Sanjay Kumar Dey | ORCID](#)
[Sanjay Kumar Dey | LinkedIn](#)
[Sanjay Kumar Dey | Loop Profile](#)

PATENTS

1. A Sensitive, Cost-Effective and Non-Hazardous Method of Chromosome Staining. (IN 202111036665)
2. Novel Anti-Hypertensive Cardioprotective composition comprising of DISPIRO [1H-PERIMIDINE-2(3H), 2" (3"H)-[1H] PERIMIDINE. (IN 202111026998)
3. A Furan-based anti-rheumatoid arthritis composition. (IN 202121026835)
4. Quinolone-based anti-hypertensive cardioprotective composition. (IN 202111026777)

5. An anti-hypertensive cardioprotective composition. (IN 201811005899)
6. Novel anti-hypertensive and anti-cardiac hypertrophic compounds. (IN 201711036983)

RESEARCH PAPERS

1. Dey SK, Saini M, Dhembala C, Bhatt S, Rajesh A S, Anand V, Das HK, and Kundu S. Suramin, Penciclovir and Anidulafungin exhibit potential in the treatment of COVID-19 via binding to nsp12 of SARS-CoV-2. **Journal of Biomolecular Structure and Dynamics**. November 2021. DOI: 10.1080/07391102.2021.2000498
2. Rizwan T, Kothidar A, Meghwani H, Sharma V, Shobhawat R, Saini R, Vaishnav HK, Singh V, Pratap M, Sihag H, Dey JK, and Dey SK. Comparative analysis of SARS-CoV-2 envelope viroporin mutations from COVID-19 deceased and surviving patients revealed implications on its ion-channel activities and correlation with patient mortality. **Journal of Biomolecular Structure and Dynamics**. 2021 Jun 21:1-6. <https://doi.org/10.1080/07391102.2021.1944319>
3. Courouble VV*, Dey SK*, Yadav R*, Timm J, Harrison JJ, Ruiz FX, Arnold E, Griffin PR. Revealing the Structural Plasticity of SARS-CoV-2 nsp7 and nsp8 Using Structural Proteomics. **Journal of the American Society for Mass Spectrometry**. 2021 Jun 14. *co-first author.
4. Dey SK, Bhaduri S, Midya T. An analysis on the divergence of Chironomid spp. based on the study of 18S rRNA and polytene chromosome organization in the species revealing the role of environment on speciation. **The Journal of Basic and Applied Zoology**. 2021 Dec; 82(1):1-2.
5. Pandey AK, Saxena A, Dey SK, Kanjilal M, Kumar U, Thelma BK. Correlation between an intronic SNP genotype and ARL15 level in rheumatoid arthritis. **Journal of Genetics**. 2021 Oct;100(2):1-6.
6. Dey JK, Dey SK. SARS-CoV-2 Pandemic, COVID-19 Case Fatality Rates and Deaths per Million Population in India. **Journal of Bioinformatics, Computational and Systems Biology**. 2020; 2(1):110.
7. Courouble VV, Dey SK, Yadav R, Timm J, Harrison JJ, Ruiz FX, Arnold E, Griffin PR. Resolving the dynamic motions of SARS-CoV-2 nsp7 and nsp8 proteins using structural proteomics. **bioRxiv**. 2021 Jan 1.
8. Dey SK, Saini M, Dhembala C, Bhatt S, Rajesh AS, Anand V, Das HK, Kundu S. Suramin, Penciclovir and Anidulafungin bind nsp12, which governs the RNA-dependent-RNA polymerase activity of SARS-CoV-2, with similar interaction energy as Remdesivir-triphosphate, indicating potential in the treatment of Covid-19 infection. **JBSD (2020)**, Preprint server DOI: [10.31219/osf.io/urxwh](https://doi.org/10.31219/osf.io/urxwh)
9. Dey JK*, Dey SK* and Sihag H. Current Insights into the Novel Coronavirus Disease 2019 (COVID-19) and Its Homoeopathic Management. **Homoeopathic Links**, 2020; 33(03):171–181. DOI: <https://doi.org/10.1055/s-0040-1715636>. *Equal contributions.
10. Dey JK, Dey SK and Pramanik A. A case of oligospermic male infertility successfully treated with personalized homoeopathic medicine *Phosphoricum acidum*. **Homoeopathic Links**, 2020 (Accepted article, in press).
11. Kumar P, Nag TC, Jha KA, Dey SK, Kathpalia P, Maurya M, Gupta CL, Bhatia J, Roy TS, Wadhwa S. Experimental oral iron administration: Histological investigations and expressions of iron handling proteins in rat retina with aging. **Toxicology**. 2017 Dec 1; 392:22-31.
12. Panchaichira TJ, Dey SK, Mukhopadhyay A, Kundu S, Thelma BK. Characterization of SNPs in the dopamine- β -hydroxylase gene providing new insights into its structure-function relationship. **Neurogenetics**. 2017 Jul 1;18(3):155-68. <https://doi.org/10.1007/s10048-017-0519-3>
13. Jangir DK, Dey SK, Kundu S, Mehrotra R. Assessment of amsacrine binding with DNA using UV-visible, circular dichroism and Raman spectroscopic techniques. **Journal of Photochemistry and Photobiology B: Biology**. 2012 Sep 3; 114:38-43. <https://doi.org/10.1016/j.jphotobiol.2012.05.005>
14. Dey SK, Ganguli S, Roy P, Basu P, Chakraborty HJ and Datta A. Pseudoknots in Human snRNPs. **Int. J. of Bioinformatics Research**, 3(1): 194-199, (2011).
15. Dey SK, Ganguli S, Basu P, Roy P, and Datta, A. (2010). Lysine richness in human snRNPs possible sites for electrophilic attacks. **Bioinformation**, 4(9): 409.
16. Ganguli S, Dey SK, Dhar P, Basu P, Roy P, and Datta A. Catalytic RNA world relics in Dicer RNAs. **International Journal of Genetics**. 2010 Jan 1; 2(1):8.
17. Dey SK, Sarkar NK and Mukherjee TK. "A study of amylase activity in silk moth gut". **Journal of Natural History (India)**, 5 (1): 41-45, (2009).

REVIEW ARTICLES

18. Choudhury, SP, Bano, S, Sen, S, and Dey SK. Altered Neural Cell Junctions and Ion-channels Leading to Disrupted Neuron Communication: Some Novel Perspectives in the Spread of Parkinson's Disease. **Nature Parkinson's Disease**. (Under revision: 2022).

19. Kumar, G.*, **Dey, S.K.*** and Kundu, S., 2021. Herbs and their bioactive ingredients in cardio-protection: underlying molecular mechanisms and evidences from clinical studies. **Phytomedicine**, p.153753.*equal contribution. <https://doi.org/10.1016/j.phymed.2021.153753>
20. **Dey SK**, Saini M, Prabhakar P, and Kundu S. Dopamine β hydroxylase as a potential drug target to combat hypertension. **Expert Opinion on Investigational Drugs**. 2020; 29(9):1043-1057. <https://doi.org/10.1080/13543784.2020.1795830>
21. Kumar G, **Dey SK**, Kundu S. Functional implications of vascular endothelium in regulation of endothelial nitric oxide synthesis to control blood pressure and cardiac functions. **Life Sciences**, Volume: 259, article number: 118377, DOI: <https://doi.org/10.1016/j.lfs.2020.118377> (2020).
22. Dey, JK, Mukherjee A, **Dey SK**, Pramanik A, Giri S, and Pratap M. "A systematic review on the efficacies and therapeutic interventions of homoeopathic medicines in combating viral disorders with implications in the currently undergoing homoeopathic treatment efforts of SARS-CoV-2 infection (COVID-19)." *International Journal of High Dilution Research*, 19 (3): 27-39 (2020).

BOOK CHAPTERS

23. Dey JK, Ahmedi, S, Jain, N, Bano, S, Manzoor N, and **Dey SK**. Effect of the Changing Climate and Urban Ecology on Spreading of Infectious Diseases Including SARS-CoV-2. In: Bhadouria, R, Upadhyay, S, Tripathi, S and Singh, P (eds.) Urban Ecology and Global Climate Change. **John Wiley & Sons Limited**, located at The Atrium, Southern Gate, West Sussex PO19 8SQ, United Kingdom. (2022) ISBN: 9781119807186, <https://doi.org/10.1002/9781119807216.ch12>.
24. Choudhury, SP, Arora, A, Jain, J and **Dey SK**. Climate change, urbanization and their impact on increased occurrence of cardiometabolic syndrome. In: Bhadouria, R, Upadhyay, S, Tripathi, S and Singh, P (eds.) Urban Ecology and Global Climate Change. **John Wiley & Sons Limited**, located at The Atrium, Southern Gate, West Sussex PO19 8SQ, United Kingdom. (2022) ISBN: 9781119807186, <https://doi.org/10.1002/9781119807216.ch2>.
25. **Dey SK**, Senapati S. (2021) Insulin and Insulin-Like Growth Factor-1 Associated Cancers. In: Kumar S., Gupta S. (eds) Obesity and Cancer. **Springer, Singapore**. https://doi.org/10.1007/978-981-16-1846-8_3
26. **Dey SK**, Senapati S. (2021) In Vivo Models for Obesity and Obesity Related Carcinogenesis. In: Kumar S., Gupta S. (eds) Obesity and Cancer. **Springer, Singapore**. https://doi.org/10.1007/978-981-16-1846-8_14
27. Kundu S, Saini M, **Dey SK**, Kundu S. Dopamine Beta Hydroxylase: An Enzyme with Therapeutic Potential to Combat Neural and Cardiovascular Diseases. In *Frontiers in Protein Structure, Function, and Dynamics 2020* (pp. 339-357). **Springer, Singapore**. https://doi.org/10.1007/978-981-15-5530-5_14
28. Kumar G*, **Dey SK***, and Kundu S. Nitric oxide and cardiovascular diseases: Cardio protection, Complications and Therapeutics. 2020. **Springer Nature, Singapore (Accepted) (2022)** *Equal contributions.

OTHER ARTICLES

29. **Dey SK**, and Kundu S. The Indian Wizard of Biophysics: Remembering GN Ramachandran in the International Year of Crystallography. *Journal of Proteins & Proteomics*. 2014 Apr 30; 5(1).

ABSTRACTS PUBLISHED IN INDEXED JOURNALS

1. **Dey SK**, Prabhakar P, Saini M, Joseph T, Thelma BK, Maulik SK, and Kundu S. Inhibitors of Dopamine-beta-hydroxylase obtained by structure-based methods exhibited anti-hypertensive effect in L-NAME induced rats. **Journal of hypertension** 34: e550. (2016).
2. **Dey SK**, Joseph T, Kumar S, Kamaladevi A, Sarkar N, Sarkar S, Balmurugan K, Thelma BK and Kundu S. Novel antagonists of dopamine- β -hydroxylase identified and validated through structure-based approach to combat hypertension. Council on Hypertension Research Scientific Sessions 2015 of the American Heart Association, Washington DC, USA: **Hypertension**, 66 (Suppl. 1): AP067, (2015).
3. **Dey SK**, Joseph T, Kumar S, Kamaladevi A, Sarkar N, Sarkar S, Balmurugan K, Thelma BK and Kundu S. Biophysical and Biochemical validation of new inhibitors identified through rational structure-based design against Dopamine- β -hydroxylase to combat cardiovascular diseases" National Symposium on Biophysics and Golden Jubilee Meeting of the Indian Biophysical Society (IBS) at Jamia Millia Islamia, New Delhi (2015) **J. Proteins and Proteomics: 6 (1): Suppl.: 51**, (2015).
4. **Dey SK**, Joseph T, Kumar S, Kamaladevi A, Sarkar N, Sarkar S, Balmurugan K, Thelma BK and Kundu S. Identification and Validation of New Inhibitors Based on Rational Design against Dopamine- β -hydroxylase To Combat Hypertension. Selected for presentation in the High Blood Pressure Research Scientific Sessions 2014 of the American Heart Association, San Francisco, USA: **Hypertension**, 64 (Supplementary): A267, (2014).
5. **Dey SK**, Kumar S, Thelma B.K. and Kundu S. Identification and validation of novel inhibitors against Dopamine- β -hydroxylase to combat cardiovascular diseases. National Conference on Recent Trends in Protein Structural Biology, Jamia Millia Islamia New Delhi, **J. Proteins and Proteomics: 4 (2): Supplementary**, (2013).

INVITED TALKS

- **Dey SK.** Multidimensional Implications of SARS-CoV-2 Proteins and Polyproteins. Presented in the BIOTIKOS-2022 organized by the TERI School of Advanced Studies (Deemed to be University), Vasant Kunj, New Delhi, India (16th April, 2022).
- **Dey SK.** Progress and challenges in COVID-19 research. Presented in the International Webinar on “Recent Trends in Scientific, Engineering and Industrial Research and Environmental Concern” organized by the Department of Chemistry, Bolpur College, Burdwan University, West Bengal, India (30th September, 2020).
- **Dey SK.** Biophysical and functional characterization of the SARS-CoV-2 nsp7-8 polyprotein expressed in and purified from bacteria. Presented in the International Webinar on “Integrated strategies to combat the pandemic COVID-19” organized by the Department of Biochemistry, Central University of Rajasthan, Ajmer, India (20-21 August, 2020).
- **Dey SK.** Lysine richness in human snurps– aspects and prospects– a 3D in silico analysis. Presented in the International Seminar on “Computational Chemistry, Drug Design and Drug Discovery” at Presidency College (now Presidency University), Kolkata, India (2009).

POSTER PRESENTATIONS

1. Bano S, Jain N, Choudhury SP, Arora A, Sen S, **Dey SK.** A comprehensive report exploring viroporins as targets for structure-based antiviral development with special emphasis on their electrophysiology and structure determination. Presented in the "PDB50: A Special Symposium Celebrating the 50th Anniversary of the Protein Data Bank" organized by the Protein Data Bank, Rutgers University, USA, during May 4-5, 2021 (Virtual).
2. Yadav R, **Dey SK,** Courouble V, Harrison JJ, Timm J, Ruiz FX, Griffin PR, and Arnold E. Biophysical characterization of SARS-CoV-2 proteins and polyproteins. Presented in the "PDB50: A Special Symposium Celebrating the 50th Anniversary of the Protein Data Bank" organized by the Protein Data Bank, Rutgers University, USA, during May 4-5, 2021 (Virtual).
3. Courouble VV; Yadav R; Narwal M; **Dey SK;** Ruiz FX; Murakami KS; Arnold E; Griffin PR. Structural proteomic guided modeling of apo- and Mpro-bound SARS-CoV-2 nsp7-11 polyprotein. Presented in the “69th American Society for Mass Spectrometry Conference”, October 31 - November 4, 2021, Philadelphia, PA, USA.

CONFERENCE/SYMPOSIUM ORGANIZED

Organized ACBR National Science Day Symposia 2022 sponsored by the Dr. B.R. Ambedkar Center for Biomedical Research, University of Delhi, India.

Organized ACBR seminar series 2021-2022 and celebration of centenary year of the University of Delhi sponsored by the Dr. B.R. Ambedkar Center for Biomedical Research, University of Delhi, India.

Organized ACBR alumina lecture series 2022-2023 on the occasion of celebrating the centenary year of the University of Delhi sponsored by the Dr. B.R. Ambedkar Center for Biomedical Research, University of Delhi, India.

Organized the 5th, 6th, 7th and 8th National Science Day Symposia (2015, 2016, 2017, and 2019, respectively) at the University of Delhi South Campus, jointly sponsored by the University of Delhi South Campus (2015-2019) and INSA-TWAS (2015-2017).

PUBLIC SERVICE / UNIVERSITY SERVICE / CONSULTING ACTIVITY

- Member, Committee of Courses of ACBR (2021-2023)
- Chemical Safety Officer, ACBR
- Examiner for the papers: Molecular Oncology (MBSEC-401), Molecular Biology (MBSCC-201), Biochemistry of Macromolecules (MBSCC-103)
- Library-in-charge for the ACBR Library
- Committee member, AMC for instruments
- Member, Purchase committee, ACBR
- Nodal Officer from the ACBR to organize centenary year celebration of the University of Delhi

JOURNAL EDITING & REVIEWING

Editorship:

1. Guest editor and topic editor for the research topic “Symmetry in Protein Architecture: Evolution, Design, Structure-function Relationship and Applications” for the journal *Frontiers in Molecular Biosciences* (Structural Biology Section), USA.
2. Editor of the “*Journal of Anatomy Forecast*”, USA.
3. Editorial board member for the “*Journal of Computational, bioinformatics and systems biology*”.

Reviewing:

1. Reviewer of articles from “*mSphere*”, an American Society for Microbiology Journal.
2. Reviewer of articles from “*Journal of Proteins and Proteomics*”, a Springer NPG Journal.
2. Reviewer of articles from “*Aging*”, published by the Impact Journals, LLC, USA
3. Reviewer of articles from “*Microbiology Spectrum*”, an American Society for Microbiology Journal.

4. Reviewer of articles from “Briefings in Bioinformatics”, an Oxford University Press Journal.
5. Reviewer of articles from “Cell Biochemistry and Biophysics (CBB)” Journal.
6. Reviewer of articles for the “Bioinformation” Journal.
7. Reviewer of articles from the Journal of “Current Research in Nutrition and Food Sciences”.
8. Reviewer of articles from “Homoeopathic Links”.

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

1. Life Member, Biophysical Society of India. Membership number 906.
2. Early Career Member of the American Society for Biochemistry and Molecular Biology, USA (Membership No: 57673)
3. Research Fellow Member of the International Society of Hypertension, UK. (New Membership Number: 2392)
4. Member of the Council for High Blood Pressure Research, American Heart Association, USA. (Membership No: 198106698)
5. Research Fellow Member of the Indian Section, International Society for Heart Research, USA.
6. Life Member of the Indian Section of the International Academy for Cardiovascular Sciences, USA. (Membership No: ACS0136)
7. Member, Protein Society, India.

COLLABORATIONS

International Collaborators:

1. Prof. Eddy Arnold, Center for Advanced Biotechnology and Medicine (CABM), Rutgers University, USA
2. Prof. Christian Betzel, Institute of Biochemistry and Molecular Biology, Hamburg University, and DESY, Hamburg, Germany
3. Dr. Ujjwal Neogi, Systems Virology Lab, Associate Professor of Virology, Karolinska Institute, Stockholm, Sweden; Adjunct Associate Professor, University of Missouri, Columbia, USA

National Collaborators:

1. Dr. Shailendra Mani, Translational Health Science and Technology Institute (THSTI), India
2. Dr. Shubbir Ahmed, Translational Health Science and Technology Institute (THSTI), India
3. Prof. Subhendu Ghosh, Biophysics, University of Delhi
4. Dr. Pragya Jain, UCMS, University of Delhi
5. Prof. Suman Kundu, Biochemistry, University of Delhi
6. Prof. Chandi C Mandal, Central University of Rajasthan, Rajasthan
7. Dr. Sabyasachi Senapati, Central University of Punjab, Punjab
8. Dr. Santosh K Verma, Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPI), Lucknow, Uttar Pradesh
9. Dr. Pankaj Prabhakar, Indira Gandhi Institute of Medical Sciences (IGIMS), Patna, Bihar

OTHER DETAILS

(Signature of Faculty Member)

(Signature & Stamp
of Head of the Department)