



Dr. Saubashya Sur

M.Sc /Ph.D

Designation: Assistant Professor Stage II

Department: Botany

Ramananda College, Bishnupur

Bankura, West Bengal, India

E-mail: - saubashya@gmail.com

ORCID: 0000-0001-7002-628X

Website: <https://saubashya-sur.my.canva.site/dr-saubashya-sur>



AREAS OF INTEREST/SPECIALISATION

- Bioinformatics
- Microbiology
- Disease Informatics

ACADEMIC ACHIEVEMENTS

- PhD in 2012, University of North Bengal, India
- MSc in 2001, University of North Bengal, India
- BSc (Honours) in 1999, University of North Bengal, India

RESEARCH EXPERIENCE

From	To	Name and Address of Company / Organization	Position held
2023	Till date	Ramananda College, Bankura University, India	Assistant Professor Stage II
2019	2023	Ramananda College, Bankura University, India	Assistant Professor Stage I
2015	2016	Linköping University, Sweden	Postdoctoral Fellow
2012	2014	Freie Universität, Germany	Postdoctoral Fellow
2011	2012	Umeå University, Sweden	Postdoctoral Fellow
2008	2010	University of North Bengal, India	Research Associate
2005	2010	University of North Bengal, India	PhD student

ACADEMIC EXPERIENCE

- 2023 – till date: **Assistant Professor Stage II**, Department of Botany, Ramananda College, Bankura University, Bishnupur, India. **Teaching** (MSc & BSc Honours level): Courses taught - Bioinformatics, Microbiology, Biostatistics, Biotechnology, Natural Resource Management, Research Methodology, Palaeobotany, Physiology, Biofertilizers; **Research & Development**: Bioinformatics
- 2019 – 2023: **Assistant Professor Stage I**, Department of Botany, Ramananda College, Bankura University, Bishnupur, India. **Teaching** (MSc & BSc Honours level): Courses taught - Bioinformatics, Microbiology, Biostatistics, Biotechnology, Natural Resource Management, Research Methodology, Palaeobotany, Physiology; **Research & Development**: Bioinformatics
- 2003-2005: Lecturer in Microbiology (Contractual), Raiganj University College, India
- 2002-2003: Lecturer in Botany (Part-Time), Siliguri College, India
- Provided training in bioinformatics to Faculty members/PhD/ Master Students through workshops in Germany & India
- Reviewer/Reviewed manuscripts for “European Journal of Medical Research”
- Reviewer/Reviewed manuscripts for “Molecular Genetics and Genomics”
- Reviewer/Reviewed manuscripts for “Microbial Genomics”
- Reviewer/Reviewed manuscripts for “Infection Genetics and Evolution”
- Reviewer/Reviewed manuscripts for “Scientific Reports”
- Reviewer/Reviewed manuscripts for “Archives of Microbiology”
- Reviewer/Reviewed manuscripts for “Microbiome”
- Reviewer/Reviewed manuscripts for “BMC Research Notes”
- Reviewer/Reviewed manuscripts for “BMC Infectious Diseases”
- Reviewer/Reviewed manuscripts for “Insilico Pharmacology”
- Reviewer/Reviewed manuscripts for “Frontiers in Medicine”
- Reviewed manuscript for “World Journal of Surgical Oncology”
- Reviewer/Reviewed manuscripts for “OMICS-A Journal of Integrative Biology”
- Reviewer/Reviewed manuscripts for “International Journal of Computational Microbiology & Medical Ecology”
- Reviewer/Reviewed manuscripts for “American Journal of Bioinformatics Research”
- Reviewer/Reviewed manuscripts for “Advances in Life Sciences”
- Reviewer/Reviewed manuscripts for “International Journal of Fundamental & Applied Sciences”
- Reviewer/Reviewed manuscripts for “Journal of Academic & Industrial Research”
- Wrote articles for ‘Bioinfoline’ the official News Letter of NBU Bioinformatics Facility, University of North Bengal, India (2008-2010)
- Examiner and paper setter of PG Botany, UG Botany and UG Microbiology for Bankura University since 2019.

ADMINISTRATIVE EXPERIENCE

- Head of the Department of Botany, Ramananda College (since July 2024).

- Member of the Board of Research Studies in Botany of Bankura University (since February 2024)
- Convener Postgraduate Board of Studies in Botany of Bankura University (July 2022 to June 2024)
- Member of the Research Advisory Committee in Botany of Bankura University (since 2021)
- Member of the Postgraduate Board of Studies in Botany of Bankura University (since September 2019)
- Serving/Served as a member of the IQAC (Research, Consultancy and Extension) sub-committee, Central Instrumentation Facility sub-committee, Leave sub-committee, Prospectus sub-committee, UGC sub-committee, Eco Club sub-committee, Digital Platform, website sub-committee and Career Advancement sub-committee at Ramananda College, India
- Served as Internal and External Examiners for Theoretical and Practical Examinations of MSc and BSc courses at Bankura University, Burdwan University and Raja Narendralal Khan College, Midnapore

PUBLICATIONS

(List of Journals/Books/Chapters in Books)

Year 2025

- M Karmakar & **S Sur*** (2025) *ADMET and in silico profiling: predicting lead compounds targeting Mycobacterium abscessus isocitrate lyase*. **Acta Biologica Szegediensis 69(1):1-18. * Corresponding author**
- A Banerjee & **S Sur*** (2025) *The genomes of Mycobacterium avium complex showcase the arsenal shaping pathogenesis*. **Biologia 80:3569-3584. *Corresponding author**
- M Karmakar & **S Sur*** (2025) *Unlocking the Mycobacteroides abscessus pan-genome using computational tools: Insights into evolutionary dynamics and lifestyle*. **Antonie van Leeuwenhoek 118:30. * Corresponding author**

Year 2024

- A Banerjee & **S Sur*** (2024) *Exploring the pangenome landscape of Mycobacterium avium complex: insights into phylogeny and lifestyle*. **Biologia 79: 3663-3676. * Corresponding author**
- A Banerjee, M Karmakar & **S Sur*** (2024) *Understanding the bacteria in Mycobacterium avium complex (MAC) from a bioinformatic perspective – a review*. **Acta Biologica Szegediensis 67(2): 203-220 * Corresponding author**

- A Mandal, S Chatterjee & **S Sur** (2024). *Practical Botany for Postgraduate students - Volume 1*. **Ramananda College, Bishnupur, India**. ISBN: 978-81-958027-0-8

Year 2023

- **S Sur***, M Ghosh, & R Rai (2023) *In silico immunoinformatics based prediction and designing of multi-epitope construct against human rhinovirus C*. **Acta Biologica Szegediensis** **67(1): 11-23**. * *Corresponding author*
- **S Sur***, T Patra, M Karmakar & A Banerjee (2023). *Mycobacterium abscessus: insights from a bioinformatic perspective*. **Critical Reviews in Microbiology** **49:499-514**. * *Corresponding author*

Year 2022

- **S Sur** (2022). *The pangenome structure of human pathogen Mycobacterium kansasii*. **Acta Biologica Szegediensis** **66(2):192-201**.

Year 2021

- O Kumpf, K Gürtler, **S Sur**, M Parvin, LK Zerbe, J Eckert, ANR Weber, DY Oh, L Lundvall, L Hamann & RR Schumann (2021). *A Genetic Variation of LPS Binding Protein (LBP) Affects the Inflammatory Response and is Associated with Improved Outcome during Sepsis*. **ImmunoHorizons** **5:972-982**.
- **S Sur*** & B Pal (2021). *Comprehensive review of Mycobacterium ulcerans and Buruli ulcer from a bioinformatics perspective – what have we learnt?* **Acta Biologica Szegediensis** **65(2):233-245**. * *Corresponding author*
- S Thada, G Horvath, MM Müller, N Dittrich, ML Conrad, **S Sur**, A Hussain, K Pelka, SL Gaddam, E Latze, H Slevogt, RR Schumann & S Burkert (2021). *Interaction of TLR4 and TLR8 in the innate immune response against Mycobacterium tuberculosis*. **International Journal of Molecular Sciences** **22:1560**.
- **S Sur** (2021). *Understanding the nature and dynamics of Mycobacterium ulcerans cytochrome P450 monooxygenases (CYPs) – a bioinformatics approach*. **Acta Biologica Szegediensis** **65(1):93-103**.

Year 2020

- **S Sur** (2020). *In-Silico analysis reveals interrelation of enriched pathways and genes in Type 1 diabetes*. **Immunogenetics** **72:399-412**.

- S Thada, S Burkert, R Sivangala, A Hussain, **S Sur**, N Dittrich, ML Conrad, H Slevogt, SL Gaddam & RR Schumann (2020). *A SNP upstream of the cyclic GMP-AMP synthase (cGAS) gene protects from relapse and extra-pulmonary TB and relates to BCG vaccination status in an Indian cohort.* **Genes and Immunity** 21: 13-26.

Year 2018

- M Ugolini, J Gerhard, S Burkert, KJ Jensen, P Georg, F Ebner, S Volkers, S Thada, K Dietert, L Bauer, A Schäfer, ET Helbig, B Opitz, F Kurth, **S Sur**, N Dittrich, S Gaddam, ML Conrad, CS Benn, U Blohm, AD Gruber, A Hutloff, S Hartmann, MV Boekschoten, M Müller, G Jungersen, RR Schumann, N Suttorp & LE Sander (2018). *Recognition of microbial viability via TLR8 drives TFH cell differentiation and vaccine responses.* **Nature Immunology** 19: 386-396

Year 2015

- T Horn, S Adel, RR Schumann, **S Sur**, KR Kakularam, A Polamarasetty, P Redanna, H Kuhn & D Heydeck (2015). *Evolutionary aspects and human diversity of leukotriene signaling.* **Progress in Lipid Research** 57: 13-39.
- N Dittrich, LC Berrocal-Almanza, S Goyal, S Thada, H Slevogt, S Gaddam, A Hussain, **S Sur**, S Burkert, V Valluri, DY Oh, RR Schumann & ML Conrad (2015). *Toll-like receptor 1 variations influence susceptibility and immune response to Mycobacterium tuberculosis.* **Tuberculosis** 95: 328-335.

Year 2014

- R Rai, P Bantawa & **S Sur** (2014). *Trends in biochemical and molecular characterization of rhizobia and their nitrogen fixing mechanism: a review.* In **Biology of Useful Plants and microbes**, Ed. A Sen, Narosa Publishing House, New Delhi India Chapter 5, 61-119.

Year 2013

- **S Sur**, S Saha, LS Tisa, AK Bothra & A Sen (2013). *Characterization of pseudogenes in members of the order Frankineae.* **Journal of Biosciences** 38(4): 727-732.
- L Hamann, A Koch, **S Sur**, N Hoefler, C Glaeser, S Schulz, M Gross, A Franke, U Nöthlings, K Zacharowski & RR Schumann (2013). *Association of a common TLR-6 Polymorphism with Coronary Artery Disease – Implications for healthy ageing?* **Immunity and Ageing** 10:43.
- JK Eckert, YJ Kim, JI Kim, K Gürtler, DY Oh, **S Sur**, L Lundvall, L Hamann, A van der Ploeg, P Pickkers, E Giamarellos-Bourboulis, AV Kubarenko, AN Weber, M Kabesch, O Kumpf, HJ An, JO Lee & RR Schumann (2013). *The Crystal Structure of*

Lipopolysaccharide Binding Protein reveals the Location of Frequent Mutation that Impairs Innate Immunity. Immunity 39: 647-660.

- LG Wall, N Beauchemin, MN Cantor, E Chaia, A Chen, JC Detter, T Furnholm, FG Gtari, L Goodwin, M Gtari, C Han, J Han, M Huntemann, SX Hua, N Ivanova, N Kyrpides, V Markowitz, K Mavrommatis, N Mikhailova, HP Nordberg, I Nouioui, G Ovchinnikova, I Pagani, A Pati, A Sen, **S Sur**, E Szeto, S Thakur, CL Wei, T Woyke & LS Tisa (2013). *Draft Genome sequence of Frankia sp. strain BCU110501, a nitrogen-fixing actinobacterium isolated from nodules of Discaria trinevis. Genome Announcements* 1(4): e00503-13.
- I Nouioui, N Beauchemin, MN Cantor, A Chen, JC Detter, T Furnholm, FG Gtari, L Goodwin, M Gtari, C Han, J Han, M Huntemann, SX Hua, N Ivanova, N Kyrpides, V Markowitz, K Mavrommatis, N Mikhailova, HP Nordberg, G Ovchinnikova, I Pagani, A Pati, A Sen, **S Sur**, E Szeto, S Thakur, L Wall, CL Wei, T Woyke & LS Tisa (2013). *Draft Genome sequence of Frankia sp. strain BMG5.12, a nitrogen-fixing actinobacterium isolated from Tunisian soils. Genome Announcements* 1(4): e00468-13.
- **S Sur**, AK Bothra & A Sen (2013). *Proteome analysis reveals the influence of isoelectric point and amino acid usages on the lifestyle of nitrogen fixing microorganisms. Indian Journal of Biotechnology* 12: 88-97.
- A Sen, N Beauchemin, D Bruce, P Chain, A Chen, KW Davenport, S Deshpande, C Detter, T Furnholm, F Ghodbhane-Gtari, L Goodwin, M Gtari, C Han, J Han, M Huntemann, N Ivanova, N Kyrpides, ML Land, V Markowitz, K Mavrommatis, M Nolan, I Nouioui, I Pagani, A Pati, S Pitluck, C Santos, **S Sur**, E Szeto, F Tavares, H Teshima, S Thakur, L Wall, J Wishart, T Woyke & LS Tisa (2013). *Draft Genome sequence of Frankia sp. strain QA3, a nitrogen-fixing actinobacterium isolated from the root nodule of Alnus nitida. Genome Announcements* 1(2): e00103-13.
- F Ghodbhane-Gtari, N Beauchemin, D Bruce, P Chain, A Chen, KW Davenport, S Deshpande, C Detter, T Furnholm, L Goodwin, M Gtari, C Han, J Han, M Huntemann, N Ivanova, N Kyrpides, ML Land, V Markowitz, K Mavrommatis, M Nolan, I Nouioui, I Pagani, A Pati, S Pitluck, C Santos, A Sen, **S Sur**, E Szeto, F Tavares, H Teshima, S Thakur, L Wall, T Woyke & LS Tisa (2013). *Draft Genome sequence of Frankia sp. strains CN3, an atypical, non-infective (Nod-) ineffective (Fix-) isolate from Coriaria nepalensis. Genome Announcements* 1(2): e00085-13.

Year 2012

- S Saha, **S Sur**, AK Bothra & A Sen (2012). *A homology model for 16SrRNA tertiary structure of Frankia. NBU Journal of Plant Sciences* 6: 89-94.
- A Sen, S Thakur, AK Bothra, **S Sur** & LS Tisa (2012). *Identification of TTA codon containing genes in Frankia and exploration of the role of tRNA in regulating these genes. Archives of Microbiology* 194: 35-45.

Year 2010

- **S Sur**, AK Bothra, TC Ghosh & A Sen (2010). *Investigation of the molecular evolution of nitrogen fixation using nucleotide triplet based condensed matrix method.* **International Journal of Integrative Biology** 10:59-65.
- AK Goyal, A Sen, **S Sur** & AK Bothra (2010). *Exploration of codon usage patterns in some Brucella genomes.* **International Journal of Pharma and Biosciences** 1 (4): B239-B252.
- **S Sur**, A Sen & AK Bothra (2010). *Symbiotic nitrogen fixation-a bioinformatics perspective.* **Biotechnology** 9: 257-273.
- S Thakur, AK Bothra, **S Sur** & A Sen (2010). *Modeling and molecular dynamics simulation of PR-1 protein an integral part of plant defense.* **International Journal of Biological and Chemical Sciences** 4:1251-1261.
- A Sen, **S Sur**, LS Tisa, AK Bothra, S Thakur & UK Mondal (2010). *Homology modelling of the Frankia nitrogenase iron protein.* **Symbiosis** 50:37-44.

Year 2009

- **S Sur**, G Sen, S Thakur, AK Bothra & A Sen (2009). *In silico analysis reveals that swine flu viruses evolved with promulgation and mutation by re-assortment of their genomes.* **Biotechnology** 8:434-441.
- S Thakur, **S Sur**, D Bose, AK Goyal, T Mishra, R Rai, M Bhattacharya, AK Bothra & A Sen (2009). *Molecular modelling of a pathogenesis related protein from Solanum tuberosum.* **NBU Journal of Plant Sciences** 3: 15-19.
- **S Sur**, B Bajwa, M Bajwa, B Bashistha, AK Bothra & A Sen (2009). *Investigation of codon and amino-acid usages in a Rhizobium phage.* **NBU Journal of Plant Sciences** 3: 49-51.

Year 2008

- **S Sur**, AK Bothra, M Bajwa, LS Tisa & A Sen (2008). *In Silico analyses of Chlorobium genomes divulge insights into the subsistence of the bacteria.* **Research Journal of Microbiology** 3 (10): 600-613.
- UK Mondal, **S Sur**, AK Bothra & A Sen (2008). *Comparative analysis of codon usage patterns and prediction of highly expressed genes in five Salmonella genomes.* **Indian Journal of Medical Microbiology** 26 (3): 217-221.

- **S Sur**, M Bhattacharya, AK Bothra, LS Tisa & A Sen (2008). *Bioinformatic analysis of codon usage patterns in a free living diazotroph, Azotobacter vinelandii*. **Biotechnology** 7:242-249.
- A Sen, **S Sur**, AK Bothra, DR Benson, P Normand & LS Tisa (2008). *The implication of life style of codon usage patterns and predicted highly expressed genes for three Frankia genomes*. **Antonie van Leeuwenhoek** 93: 335-346.
- B Bajwa, M Gill, **S Sur**, AK Bothra & A Sen (2008). *Molecular Systematics of Frankia-Actinorhizal Symbiosis*. In **Microbial Biotechnology**, Ed. R. Salkia, New India Publishing Agency, Chapter 15, 377-405.

Year 2007

- **S Sur**, A Sen & AK Bothra (2007). *Mutational drift prevails over translational efficiency in nif operons of Frankia*. **Indian Journal of Biotechnology** (6): 321-328.
- G Sen, **S Sur**, D Bose, U Mondol, T Furnholm, AK Bothra, LS Tisa & A Sen (2007). *Analysis of codon usage patterns and predicted highly expressed genes for six phytopathogenic Xanthomonas genomes shows a high degree of conservation*. **InSilico Biology** 7 (4, 5): 547-558.
- MK Ghosh, **S Sur** & A Sen (2007). *Nitrogen fixation in various microorganisms with special reference to Frankia*. In **Rhizosphere Biotechnology: Plant Growth-Retrospect and Prospect**, Ed. A.K. Roy, Scientific Publishers, Chapter 15, 167-182.
- D Bose, **S Sur**, AK Bothra & A Sen (2007). *Study of the diversity of the heavy metal resistance genes and their codon usage profiling*. **ICFAI Journal of Biotechnology** 1(3): 49-58.
- **S Sur**, A Sen & AK Bothra (2007). *Codon usage analysis of some archaeal (methanogenic) nitrogen fixing genes: relationship to gene expression and biasness*. **Bioinformatics Trends** 2: 47-60.
- UK Mondol, **S Sur**, A Sen & AK Bothra (2007). *Codon Volatility: An Efficient Tool to Detect the Purity of Genes*. **ICFAI Journal of Biotechnology** 1(2): 45-49.

Year 2006

- **S Sur**, A Sen & AK Bothra (2006). *Codon usage profiling and analysis of intergenic association of Frankia EuK1 nif genes*. **Indian Journal of Microbiology** 46 (4): 363-369.

Year 2005

- **S Sur**, A Pal, AK Bothra & A Sen (2005). *Moderate codon bias attributed to translational selection in nitrogen fixing genes of Bradyrhizobium japonicum USDA110*. **Bioinformatics India** 3(2): 59-64.

PRESENTATION AS RESOURCE PERSON/INVITED SPEAKER

Resource person in Seminar/Webinar

- Oral presentation “*Molecular informatics and its role in Biotechnology*” in a Webinar on “Molecular Informatics DNA Fingerprinting and Forensic palynology” (12th September 2020) organized by Gour Mohan Sachin Mandal Mahavidyalaya, India

Resource person in Refresher Course for Faculty members

- Oral presentation “SNPing gene polymorphisms” & provided training on “Protein Databank, Sequence Alignments & Phylogeny” in a DBT sponsored Refresher course “Application of Metagenomic & Proteomic Approaches in Crossroads of Biological Sciences” (31 October, 2017), organized by Department of Microbiology, **Vidyasagar University**, India.

Resource Person in Workshops

- Provided training in a Workshop on Bioinformatics (16-18, July 2013) in **Department of Veterinary Medicine, Freie University, Berlin, Germany**, under the program DFG-GRK 1673 "Functional Molecular Infection Epidemiology".
- Oral presentation “Perspectives of Bioinformatics in Drug Discovery” in a Workshop on Bioinformatics (23 March, 2009) organized by **Gyanjyoti College**, Siliguri, India.
- Oral presentation “Studying molecular evolution applying bioinformatics” & provided training in “National workshop on Bioinformatics” (12-14 February, 2009) organized by the NBU Bioinformatics Facility, Department of Botany, **University of North Bengal**, Siliguri, India.
- Oral presentation “Molecular phylogeny analysis of microorganisms using bioinformatics tools” & provided training in “National workshop on Bioinformatics” (7-9 November, 2008) organized by the NBU Bioinformatics Facility, Department of Botany, **University of North Bengal**, Siliguri, India.
- Oral presentation “Exploring bacterial genomes through codon usage strategy” & provided training in “National workshop on Bioinformatics” (7-9 March, 2008) organized by the NBU Bioinformatics Facility, Department of Botany, **University of North Bengal**, Siliguri, India.
- Oral presentation “Bioinformatics Databases” & provided training in “National workshop on Bioinformatics” (18-20 January, 2008) organized by the NBU Bioinformatics Facility, Department of Botany, **University of North Bengal**, Siliguri, India.
- Oral presentation “Bioinformatics Databases” & provided training in a workshop on “Introduction & Scope of Computational biology” (3-5 December, 2007) organized by the Bioinformatics Centre, **State Council of Sikkim Science & Technology**, Gangtok, India.

RESEARCH PAPER PRESENTATION/PARTICIPATION IN A CONFERENCE

- Oral Presentation “**Targeting MmpL in *Mycobacterium abscessus* with natural products: ADMET, AI, and molecular docking simulations**” in 66th AMI Annual International Conference & Research Conclave Next-Gen Microbiology Education, Innovation and Research for Economy, Energy & Environment (12th – 15th November 2025) at **Dev Bhoomi Uttarakhand University, Dehradun, India**
- Attended a Webinar “**ERC Grants: Grants Essential Tips and Guidance for Indian Researchers** (7th November 2025) – organized by **Euraxess India**.
- Poster Presentation “**ADMET profiling, molecular docking, and simulation analysis help identify appropriate natural products as inhibitors of isocitrate lyase in *Mycobacterium abscessus***” in “[BC]² Basel Computational Biology Conference 2025” (8th – 10th September, 2025) at **Basel, Switzerland, organized by SIB Swiss Institute of Bioinformatics**.
- Attended a Webinar “**European Research Council Essential tips and guidance for Indian researchers** (13th November 2024) – organized by **Euraxess India and European Research Council**.
- Participated in an International Seminar “**Recent Trends in Lifestyle Ailments and Management**” (20th September 2024) - organized by **Life Science Departments of Ramananda College, India**
- Poster Presentation “**Pathway and network analysis of genes linked to Type 1 diabetes - A Computational Approach**” in “**Genomics India Conference 2024**” (1st - 3rd February, 2024) organized by **Shiv Nadar Institute of Eminence, Delhi-NCR, India**.
- Poster Presentation “**In silico designing of multi-epitopes from structural proteins of human rhinovirus C using immunoinformatics approach**” in “**Symposium on Accelerating Biology Discovery to Delivery**” (February 28th – March 2nd, 2023) organized by **HPC-Medical and Bioinformatics Applications CDAC, Pune India**.
- Participated in a Webinar '**Recent Advances in Materials and Nanoscience'** (RAMAN'21) (12th November 2021) - organized by the **Department of Chemistry, Ramananda College, India**.
- Participated in a Webinar "**Recent Trends in Biological Sciences**” (10th-11th November 2021) organized by the **Department of Botany, Ramananda College, India**
- Participated in “**Prof. Asim Bothra memorial Webinar**” (30th September 2020) organized by **Bioinformatics Facility, University of North Bengal, India**
- Participated in National Webinar On “**Human- Virus interaction: present and future perspective**” (26th August 2020) organized by the **Department of Botany, Sonamukhi College, India**

- Participated in One Day National Level Webinar on “**The New Horizon: Omics in Microbial Research**” (22nd August 2020) organized by the **Department of Botany, Kalimpong College, India**
- Participated in a National Webinar on “**Plant Science in New Era, Part-I**” (19th August 2020) organized by Department of Botany, **Kabi Nazrul College, Murarai, West Bengal, India**
- Participated as Joint Secretary of One day “**International Webinar on Contemporary issues and Challenges of Covid-19**” (28th June 2020) organized by Postgraduate Department of Botany, **Ramananda College, Bishnupur, West Bengal, India**
- Oral Presentation “Genomic diversity in *Brucella* reveal significant features of its pathogenicity” in “One Day **National Seminar on Biodiversity and its Conservation**” sponsored by West Bengal Biodiversity Board, Dept. of Environment, Govt. of West Bengal (2nd March 2020) at **Ramananda College, Bishnupur, India.**
- Oral Presentation “Computational characterization of a TLR6 SNP (rs5743810) protecting elderly individuals against coronary artery disease” in “**International Research Conference on Recent Trends in Life Sciences**” (28-29 November 2019) at **Sidho Kanho Birsha University (SKBU), India.**
- Poster presentation “Molecular Modelling & In-silico Ligand Interaction Analysis: Implication of the Met1Val SNP associated with the course of Infectious diseases on TLR8 Protein Structure & Ligand Binding” in a Conference (22-25 April 2014) organized by **CCG UGM & Conference 2014 Europe in Strasbourg, France.**
- Attended “ECCB'12 - the **European Conference on Computational Biology**” (9-12 September, 2012) at Congress Center **Basel, Switzerland.**
- Oral presentation “Next generation sequence profiling reveals factors linked to thermostability in *Geobacillus thermoleovorans* & *Thermus. sp*” in “**BBCon2012 National Conference on Biology & Bioinformatics of Economically Important Plants & Microbes**” (17-19 February, 2012) organized by Department of Botany & Bioinformatics Facility, **University of North Bengal, Siliguri, India.**
- Oral presentation “Proteome analysis divulges the role of isoelectric point & amino acid usages in shaping the lifestyle of nitrogen fixing microorganisms” in “**MidiCon 2010 National Conference on Diversity & Prospects of Microbial Resources**” (26-28 February, 2010) at Department of Microbiology, **University of North Bengal, Siliguri, India.**
- Poster presentation “Molecular evolution of nitrogen fixation using nucleotide triplet based condensed matrix method” in the “**50th Annual AMI Conference**” (15-18 December, 2009) in **National Chemical Laboratory, Pune, India.**
- Oral presentation “Analysis of codon usage patterns & predicted highly expressed genes for six phytopathogenic *Xanthomonas* genomes shows a high degree of conservation” in the **Silver Jubilee National Symposium on “Sustainable Utilization of Plant & Microbial Resources**” (28 February -1 March, 2009) organized by Department of Botany, **University of North Bengal, Siliguri, India.**
- Oral presentation “Insilico analysis of *Azotobacter vinelandii* reveals insight into its way of life” & Poster presentation “Homology modelling of Nif H proteins from Frankia” in a **UGC sponsored National Seminar “Exploitation of Biological resources & application of eco-friendly cultural practices for sustainable crop**

production” (21-22 February, 2009) organized by **Department of Botany, Siliguri College & Siliguri Horticultural Society, India.**

- Poster presentation “Homology modelling of Nif H proteins from *Frankia*” in “**International Symposium on Microbial Biotechnology: Diversity, Genomics & Metagenomics**” (18-20 November, 2008) at the **University of Delhi, India.**
- Oral presentation “In Silico genome analysis of *Azotobacter vinelandii* divulge substantial insights into the subsistence of the bacterium” in a “**National Symposium on Diversity & Functionality of Plants & Microbes**” (24-25 January, 2008) organized by Department of Botany, **University of North Bengal, Siliguri, India.**
- Oral presentation “Codon patterns in *Frankia* CcI3 & *Frankia* EaNIpec” in a “**UGC sponsored National conference on Environment & Sustainable development**” (10-11 November, 2006) organized by Department of Botany, **Raiganj College (University College), Raiganj, India.**
- Participated in a National Symposium, “**Emerging Plant diseases, their diagnosis & management**”. (January 31-February 2, 2006) at Department of Botany, **University of North Bengal, Siliguri, India.**
- Poster presentation “Quantification of the relative usage of different codons including mutational response index from a nif operon of *Frankia* sp EuIK1” in the conference “**Health & Environment: Hazards & Remedies**” (24-25 September, 2004) organized by Department of Chemistry, **Raiganj College (University College), Raiganj, India.**

WORKSHOPS ATTENDED

- Attended a Two-day National workshop on “Identification and Nomenclature of Plants Including Lower Groups (Algae, Fungi and Bryophyte)” (5th-6th October 2023) in the **Department of Botany, Ramananda College, India,** organized by **EIACP PC-RP on Biodiversity (Flora) & Central National Herbarium, Botanical Survey of India.**
- Attended a Workshop “Designing Inhibitors with MOE Structure-Based Drug Design Tools Visualization / Pharmacophores / Docking / Combinatorial synthesis” (22 April, 2014) in Faculty of Chemistry, **University of Strasbourg, France** organized by **CCG UGM & Conference 2014 Europe.**
- Attended a Workshop “Analyzing & Rationalizing Protein-Protein Interactions Interface visualization / Surface property mapping / Interactive mutagenesis / Hot-spot detection” (23 April, 2014) in Faculty of Chemistry, **University of Strasbourg, France** organized by **CCG UGM & Conference 2014 Europe.**
- Attended a Workshop “Computer-Aided Biologics Design & Protein Engineering Antibody modeling / Virtual residue scanning / Building fusion proteins / Loop grafting & conformational searching” (23 April, 2014) in Faculty of Chemistry, **University of Strasbourg, France** organized by **CCG UGM & Conference 2014 Europe.**
- Attended a Workshop on Molecular Modelling: “**From Structural Biology to Drug Discovery & Virtual Screening**” (25 March, 2014) in **Freie University, Institute of Pharmacy, Berlin, Germany.**

- Attended a workshop “**Detecting Transcription Factor Binding Sites with ChIP-Seq Data & Predicting Damaging Cis-Regulatory Variations** in “**ECCB'12 - the European Conference on Computational Biology**”, (9 September, 2012) at the Congress Center **Basel, Switzerland**.
- Attended a National Workshop “**Application of Bioinformatics in Molecular Modeling, Data Analysis & System Biology**” (28-30 March, 2007) organized by Bioinformatics Infrastructure Facility, **Department of Biochemistry & Biophysics, University of Kalyani, India**.
- Attended a Workshop (25-26 March 2006) at **University of North Bengal, Siliguri, India**, organized by Department of Botany & Department of Adult & Continuing Education, Extension & Field Outreach under NMPB project on Medicinal Plants.
- Attended a workshop “**Bioinformatics in Genomics & Proteomics**” (23-24 September, 2005) at **IIT Kharagpur, India**.
- Attended a Workshop “**Cultivation of Medicinal Plants**” (24-25 June, 2005) at **University of North Bengal, Siliguri, India**, organized by Department of Botany & Department of Adult & Continuing Education, Extension & Field Outreach under NMPB project on Medicinal Plants.

SPONSORED RESEARCH PROJECTS

Name of the Project	Name of the Funding Agency/Organization	Amount Sanctioned (in Rs.)	Status
Characterizing genome pangenome and virulome of <i>Mycobacterium abscessus</i> designing multi-epitope vaccine candidates and screening of inhibitors against virulent proteins – an insilico approach	Department of Biotechnology (DBT), Government of India	Rs. 25,46,827	Ongoing
Information Driven Study of SNPs from Lipopolysaccharide Binding Protein (LBP) and Toll like Receptor-4 (TLR4) using bioinformatics tools	Ramananda College	Rs. 15000	Completed

M.Phil/Ph.D Supervision

Name of the Scholar	Title of the Thesis	Course (M.Phil/Ph.D)	Status
Anindita Banerjee	In Silico characterization of the <i>Mycobacterium avium</i> complex with a focus on designing appropriate inhibitors and multi-epitope vaccines	Ph.D	Ongoing
Mistu Karmakar	Comparative study of <i>Mycobacterium abscessus</i> strains and designing suitable pharmaceutical candidates against the pathogen – a bioinformatic approach	Ph.D	Ongoing

Master's Thesis Supervision:

- Priyadarshini De (Ongoing)
- Rupa Dhar (2024-2025)
- Anwasha Panja (2024-2025)
- Nirmalya Chakraborty (2023-2024)
- Riya Dhua (2023-2024)
- Tridib Das (2023-2024)
- Mrityunjoy Ghosh (2022-2023)
- Pabitra Atta (2022-2023)
- Akash Mondal (2021-2022)
- Sweta Mondal (2021-2022)
- Tanushree Patra (2020-2021)
- Biswajit Pal (2020-2021)
- Dipabali Roy (2019-2020)
- Monalisa Parvin (2019-2020)

Summer Intern mentored:

- Madhumanti Maji, NISER Bhubaneswar, India, 16/06/24 – 30/07/24

MEMBER OF PROFESSIONAL BODIES

- Computational Life Science Cluster (CLIC) Umea University, Sweden (2011-2012)
- Member of the International Society for Computational Biology (ISCB) (2008-09; 2015-2016)
- Member of the American Society of Microbiology (ASM) (2009-2010; 2015-2016)

PERSONAL DETAILS IN BRIEF

Date of Birth : 16.11.1976

Marital Status : Married

Nationality : India

Current Designation : Assistant Professor Stage II

Permanent Address : House No. B-6/142
Kalyani-741235, District: Nadia
West Bengal, India

Email : saubashya@gmail.com

Phone Number : +919903997351