Complete Research Profile:
Research Gate:
https://www.researchgate.net/profile/Ganguli_Sayak
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Sayak Ganguli MSc. Ph.D.

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CURRENT POSITION:

ASSISTANT PROFESSOR
DEPARTMENT OF BIOTECHNOLOGY,
ST. XAVIER'S COLLEGE (AUTONOMOUS).
30, MOTHER TERESA SARANI (PARK STREET)
KOLKATA - 700016

LAST POSITION:

RESEARCH SCIENTIST,
THEORETICAL AND COMPUTATIONAL BIOLOGY DIVISION
AMPLICON INSTITUTE OF INTERDISCIPLINARY SCIENCE AND TECHNOLOGY
ISO 9001 : 2008 Certified Institute; (AIIST) - PALTA 743122.
2016 - 2019

FELLOWSHIP:

Research Assistantship under the Department of Biotechnology, Government of India, funded BTIS - BTBI network at the DBT Centre for Bioinformatics, Presidency College Kolkata from December 2007 to June 2015

KEY RESEARCH AREAS:

- Gut Microbiome Analysis of Tribal population of West Bengal
- Rhizospheric Metagenomics to develop Ecological restoration measures focussing on Indian Sunderbans
- Waste water Metagenomics
- Transcriptome Sequencing and analysis, small RNA and lncRNA identification from datasets.
- Development of data repositories, BIG Data Analyses using Machine Learning Techniques.
- Computer Aided Drug Discovery

CAREER SUMMARY:

1. MSc in Botany with specialization in Plant Tissue Culture from University of Calcutta (2005)
2. Ph.D. from West Bengal State University(2011 - 2016)

Professional Training:

Post Graduate Diploma in Bioinformatics, [Grade A]
ECIL - ECIT (Government of India) and IISWBM, Kolkata
2003 - 2004

Industrial / Professional Consultation

1. Amplicon Biosciences Pvt Ltd (2016 - 2019) - for Research and Development
2. Apt Software Avenues Pvt. Ltd. [DBT - BIITP Trainees under the DBT - Biotechnology Industrial Training Program in collaboration with BIRAC, G.O.I. (2010 - 2012)]

Teaching Experience: (Before Current Position: UG&PG 2005 to 2020)

1. Visiting Faculty, Post Graduate Department Of Botany, Lady Brabourne College, Kolkata, January 2018 To January 2020
2. Guest Faculty, Department Of Microbiology, St. Xavier's College, Kolkata; January 2016 - August 2016
3. Guest Faculty, Barasat Government College, Post Graduate Department Of Botany, October 2005 - December 2014

CURRENT FUNDED PROJECTS:

- WBDST sponsored project entitled: "Development of Digital Key of Neuroptera (Insecta) associated with Aphids (Homoptera: Aphididae) of West Bengal: A Numerical Taxonomic Approach" PI: Dr. Santi Ranjan Dey, Rammohan College, Kolkata; Co - PI: Dr. Sayak Ganguli
- *WBDST sponsored project entitled:* "Identification of Major Pathogenic Microbes in Hospital Effluents Using Metagenomic Screening And Design of Potent Inhibitors using Virtual Screening of Medicinal plant library against them." PI: Dr. Mahashweta Mitra Ghosh, St. Xavier's College, Kolkata; Co - PI: Dr. Sayak Ganguli
- WBDST sponsored project entitled: "Exploring the gut microbiome of tribal population of West Bengal with reference to specific diet practices" PI: Dr. Subrata. S. Bagchi, Bangabasi College Kolkata; Co - PI: Dr. Sayak Ganguli
- West Bengal Biodiversity Board on "Mango Germplasm Conservation" (2017 - 2020); 3 years - 10 Lakhs. PI- Dr. S.R.Dey, CO - PI - Dr. Sayak Ganguli

Completed Projects:

- ICMR and Department of Biotechnology – Ministry of Science and Technology, Government of India (GOI)entitled: Identification of Regulatory elements in the HIV genome and designing of *in silico* designed aptamers against them (2013 – 2016); 3 Years - 30Lakhs. PI - Dr. Abhijit Datta, Co - PI - Dr. Sayak Ganguli

INVITED LECTURES and ORAL PRESENTATIONS

1. Invited talk at "Insights into Biotechnology" organised by Department of Botany, Bangabasi College, Kolkata on the 11th of July 2020 [Webinar during Pandemic Lockdown]
2. Invited Talk organised by Department of Botany, Government General Degree College, Singur, Hooghly on the 20th of July 2020 [Webinar during Pandemic Lockdown]
3. Invited Talk at "Current Insights on Global Pandemic"One Day International Webinar Organised by Department of Microbiology and IQAC Kulti College on 16th August 2020 [Webinar during Pandemic Lockdown]
4. Invited Talk at DBT Sponsored Workshop on Bioinformatics and Therapeutic Interventions held at PG Department of Botany, Lady Brabourne College, Kolkata on the 16th of January 2020
5. Invited Talk titled "Introduction to Bioinformatics" at Department of Physiology, West Bengal State University, PhD Coursework Program 2019
6. Invited Talk titled "Knowledge Discovery Through Bioinformatics Case Studies" " Interactive Session at Department of Genetics, Calcutta University" 7th April 2019
7. Invited Talk titled "Computing Biology" at " Advances in Biological Sciences" Bankim Sardar College (UGC - CPE) 2017
8. Invited Talk titled " Bioinformatics for Beginners" at " Workshop on Contemporary Field and Laboratory Techniques in Zoology" organized by A.P.C. Roy Government College, Siliguri, 29th November 2016
9. Invited Talk titled "Micro RNA Informatics – Regulating the Regulators" at Next Generation Sequencing Congress Asia Singapore 2012
10. Invited as a Panelist "Bioinformatics for Biologists – Bridging the gap" Panel Discussion Panelist, Next Generation Sequencing Congress Asia 2012 Singapore

Awards:

1. **BEST POSTER AWARD** for the poster titled: "Rhizospheric Metagenome Dataset of the terrestrial mangrove *Nypa fruticans* Wurmb from Indian Sunderbans" at the National Seminar on Water Conservation and Harvesting: Focusing Biodiversity Issues and Management held on 8th February 2020 at Jadavpur University, Kolkata.
2. 2012 DST – GOVERNMENT OF INDIA TRAVEL AWARD FOR INTERNATIONAL TRAVEL
3. 2003 – AUROBINDO GUHA LIFE SCIENCE ENDOWMENT FOR HIGHEST MARKS IN BSc. PART I EXAMINATION. (Gold Medalist).

Publications (2020 -2021):

1. S Mukhopadhyay, **S Ganguli**, S Chakrabarti Shigella pathogenesis: molecular and computational in- sights AIMS Molecular Science, 7 (2): 99–121. DOI: 10.3934/molsci. 2020007
2. Debanjana Sengupta , Siddhartha Chakraborty , Sudeshna Shyam Choudhury , **Sayak Ganguli** , Arup Kumar Mitra (2020). Isolation and Identification of Unique Arsenotolerant Exiguobacterium indicum DSAM62 from Arsenic Rich Environment. Advances in Zoology and Botany, 8(4), 298 - 325. DOI: 10.13189/azb.2020.080403.
3. S Guha, S Das, **S Ganguli** A Comparative Genomics Pipeline for In Silico Characterization and Func- tional Annotation of Short Hypothetical Proteins - Journal of Tropical Life Science, 2020 Volume 10 Issue 2 Pages 141-148
4. **S Ganguli**, PK Singh, A Pal - Plant Small RNA, 2020 Transcriptome-based identification of small RNA in plants: The need for robust prediction algorithms Plant Small RNA. Academic Press, 2020:65-97. https://doi.org/10.1016/B978-0-12-817112-7.00004-3
5. K Das, K Mukherjee, M Chanak, S Pal, **S Ganguli** Age Trends in Under-nutrition among Sabar Males of Purulia, West Bengal, India - J Hum Ecol, 2020 Volume 70 Issue 1-3 Pages 110-117
6. Kaustav Das, Koel Mukherjee, **Sayak Ganguli**, Somosree Pal, Subrata Sankar Bagchi Age-related Vari- ations in Anthropometry, Body Composition and Nutritional Status among the Adult Kheria Sabar Males of Purulia, West Bengal, India Collegium Antropologicum 2020;44(2):73–80
7. Debapriya Das, Dipu Samanta, Rajat Banerjee, Suchita Sinha, Bidisha Mallick, **Sayak Ganguli,** Debleena Roy Insights into the phytochemical potential of Lawsonia inermis L. for future small molecule based therapeutic applicationsVol. 11(1) pp. 1-7, June, 2020 DOI: http:/dx.doi.org/10.14303/irjps. 2020.006
8. Debmalya Sengupta, Gairika Bhattacharya, **Sayak Ganguli** and Mainak Sengupta "Structural insights and

evaluation of the potential impact of missense variants on the interactions of SLIT2 with ROBO1/4 in cancer progression" 2020 Nature Scientific Reports https://doi.org/10.1038/s41598-020-78882-2

9. "Exploration of Rhizospheric Microbial Diversity of the Indian Sundarbans: A World Heritage Site" in M. Nath et al. (eds.), Microbial Metatranscriptomics Belowground, https://doi.org/ 10.1007/978-981-15-9758-9_23; Springer Nature
10. "A Pipeline for Assessment of Pathogenic Load in the Environment Using Microbiome Analysis" in M. Nath et al. (eds.), Microbial Metatranscriptomics Belowground, https://doi.org/ 10.1007/978-981-15-9758-9_23; Springer Nature

PUBLICATIONS as First and Corresponding Author (Upto 2020):

1. **Sayak Ganguli**, Pankaj K. Singh, Amita Pal,Transcriptome-based identification of small RNA in plants: The need for robust prediction algorithms Chapter 4 ,Editor(s): Praveen Guleria, Vineet Kumar,Plant Small RNA,Academic Press,2020,Pages 65-97,ISBN 9780128171127

2. **Ganguli S**, Pal S, Das K, Banerjee R, Bagchi SS. Gut microbial dataset of a foraging tribe from rural West Bengal - insights into unadulterated and transitional microbial abundance. Data Brief. 2019 May 24;25:103963. doi: 10.1016/ j.dib.2019.103963. PubMed Central PMCID: PMC6546961.

3. **Sayak Ganguli.**, Rahaman, S., Bera, A. R., Vishal, V., Malik, S., Roopalakshmi, K., & Singh, P. K. (2017). Rhizospheric metagenome of the terrestrial mangrove fern *Acrostichum* from Indian Sunderbans. Genomics Data, 14, 53– 55. http://doi.org/10.1016/j.gdata.2017.09.001

4. **Sayak Ganguli**, Olivia Das, Abhisek Ranjan Bera, Pankaj K Singh, Protip Basu, Vineet Vishal, Sohini Gupta: *West Bengal Butterfly Biodiversity Database - A compendium of butterfly biodiversity with information regarding the habitat and status of individual identified species of butterflies of West Bengal;* Asian Journal of Conservation Biology, 5(2) 2016.

5. **Sayak Ganguli**, Avishek Dey, Rahul Banik, Anirban Kundu, Amita Pal: *Analyses of MYMIV-induced transcriptome in Vigna mungo as revealed by next generation sequencing*. Genomics Data 01/2016; 7(C)., DOI: 10.1016/j.gdata. 2016.01.005 **{Featured Article of Lab Resource Segment)**

6. **Sayak Ganguli,** Rahul Banik: *Genome Annotation - State of Art (A brief review)*. The Indian Journal of Physiology and Allied Sciences 2016

7. **Sayak Ganguli,** Abhijit Datta: *Residue Frequencies and Conserved Phylogenetic Signatures in Amino Acid Sequences of Plant Glutathione Peroxidases, Indicates Habitat Specific Adaptation and Dictates Interactions with Key Ligands*. DOI:10.5923/j.bioinformatics.20150501.02

8. **Sayak Ganguli**, Abhijit Datta: *IN SILICO MUTAGENESIS REVEALS KEY BINDING RESIDUES THAT REGULATE KSRP – MICRORNA INTERACTIONS IN HUMAN*. 02/2015; 4(1):143 – 153., DOI:10.9734/ARRB/ 2014/5745

9. **Sayak Ganguli,** Manoj Kumar Gupta, Protip Basu, Rahul Banik, Pankaj Kumar Singh, Vineet Vishal, Ranjan Abhisek, Bera, Jyoti Hirak, Chakraborty, Gopal Sasti, Das: *Intelligent Access to Sequence and Structure Databases (IASSD) – an interface for accessing information from major web databases*. Bioinformation 12/2014; 10(12): 760-762., DOI:10.6026/97320630010764

10. **Sayak Ganguli**, Anisha Polley, Abhijit Datta: *Characterization and Analyses of Hydrophobic Clusters, Acetylation and Myristoylation Sites in Plant Glutathione Peroxidase Sequences*. 11/2014; 28:27-33., DOI: 10.18052/ www.scipress.com/ILNS.28.27

11. **Sayak Ganguli**, Abhijit Datta: *Prediction of Indels and SNP's in Coding Regions of Glutathione Peroxidases – An Important Enzyme in Redox Homeostasis of Plants*. 02/2014; 2(1):49 - 62., DOI:10.18052/ www.scipress.com/ILNS. 7.49

12. **Sayak Ganguli**, Abhijit Datta: *Phylogenetic Trends of Plant Glutathione peroxidases Revealed by Kohonen Maps (SOM's)*. 02/2014; 4((24)):3810 – 3815., DOI:10.9734/ARRB/2014/10728

13. **Sayak Ganguli**, Sasti Gopal Das, Hirak Jyoti Chakraborty, Sohini Gupta, Abhijit Datta: *Identification of regulatory sequence signatures in microRNA precursors implicated in neurological disorders*. Advances in Bioscience and Biotechnology 2013; 4(05):26 - 33., DOI:10.4236/abb.2013.45A003

14. **Sayak Ganguli**, Pritha Mukhopadhyay, Sohini Gupta and Abhijit Datta *REGULATORY MOTIFS IN PRECURSORS OF MIR156 FAMILY IN PLANTS* Int J Comput Bioinfo In Silico Model (2013); 2(3): 123-127

15. **Sayak Ganguli**, Manoj Kumar Gupta, Sasti Gopal Das, Abhijit Datta: *Feature Extraction from Gene Expression Data Files*. IJEI, Vol 1 (2) 15 -16 2012

16. **Sayak Ganguli**, Rahul Banik, Aditi Gangopadhyay and Abhijit Datta; *COMPUTATIONAL SCREENING OF HERBAL LEAD COMPOUNDS AND ANALOGS AGAINST ATAXIN AND TAU* Journal of Pharmaceutical and Biomedical Sciences 2011 12(07) 1-4.

17. **Sayak Ganguli**, Sasti Gopal Das, Abhijit Datta: *Using SVM for Identifying Epigenetic Patterns in Microsatellites in Human Sex Determining Genes and its homologues*. J. Pharm. Sci. Res 4, 1692-1696

18. **Sayak Ganguli,** Debdoot Gupta, And Abhijit Datta "Structural Analyses Of Heparin- Binding Hemagglutinin (Hbha) Of **Mycobacterium Tuberculosis** Â€“ A Potential Vaccine." International Journal Of Computational Biology 2, No. 2 (2011):38-40.

19. **Sayak Ganguli,** Moumita De, Abhijit Datta: *"Analyses Of Argonaute- Microrna Interactions In Zea Mays." International Journal Of Computational Biology 2.1 (2011):32-34*

20. **Sayak Ganguli**, Sohini Gupta, Arijit Bhowmik, Md. Javed Ansari And Monojit Basu *Ricinus Communis L. Effectively Removes Lead From Contaminated Ecosystems*. "Indian Science Cruiser" November 2008 Page 38 – 45.

21. **Sayak Ganguli**, Subhodeep Chakraborty, Sohini Gupta, Monojit Basu And Anadi Kumar Kundu. *Potentiality Of Certain Medicinal Plant Extracts As Alternative Surfactants For The In Vitro Culture Of Arachis Hypogea L.* Journal Of The Botanical Society Of Bengal" 2006, 60(2) 92 -96.

22. **Sayak Ganguli**, Priyanka Dhar, Abhijit Datta: *Phylogenetic lineages of Gurmarin – An essential sugar mimic*. JPBMS, 2011, 6 (04) Pg 1 - 3.

23. **Sayak Ganguli**, Hirak J. Chakraborty, Sohini Gupta, Sasti G. Das, Manjita Majumder and Abhijit Datta *SERPINBASE – A DATABASE OF SERINE PROTEASE INHIBITORS;* Journal of Pharmaceutical and Biomedical Sciences JPBMS 2011 (2) 06

24. **Sayak Ganguli** And Abhijit Datta Interactions And Phylogenetic Occurrence Of Alpha Synuclein – An Essential Target Of Pyrroloquinoline Quinone (Pqq) – A Possible Inhibitor Of Lewy Body Formation; Journal Of Pharmaceutical And Biomedical Sciences, 2010 1 (12) Pg 1 – 5

24. **Sayak Ganguli**, Protip Basu, Hirak Jyoti Chakraborty, Paushali Roy, Abhijit Datta: *Phylogenetic signatures of functional conservedness in lantibiotics- an in-silico regulomics study*. International Journal of Microbiology 12/2010; 2(2):5-11., DOI:10.9735/0975-5276.2.2.5-11

25. **Sayak Ganguli**, S.K. Dey, Dhar Priyanka, Basu Protip, Roy Paushali, Datta Abhijit: *Catalytic RNA world relics in Dicer RNAs*. 06/2010; 2(1)., DOI:10.9735/0975-2862.2.1.8-17

Book Chapters:

1. **Ganguli S.**, Datta A. (2018) ***DISEASE INFORMATICS***. In: Wadhwa G., Shanmughavel P., Singh A., Bellare J. (eds) Current trends in Bioinformatics: An Insight. Springer, Singapore; https://doi.org/ 10.1007/978-981-10-7483- 7_14

2. **Sayak Ganguli; *"BIOINFORMATICS AS A DISCIPLINE: PERCEPTIONS AND PROMISES*"** In: "Con- temporary Laboratory and Field Experiments in Zoology"ISBN: 978-81-8211-128-8 Edited By: Santanu Chakrabarti et.al. PAGES PUBLICATION Chapter 5: 75 - 85, 2016

3. **Sayak Ganguli**, Abhijit Datta: ***WHISPERING DEATH – BIOINFORMATICS OF RNA INDUCED SILENCING.*** Advances in Life Sciences: Principles and Applications, Edited by K Tayung, BP Barik, UB Mohapatra, 10/2012: Chapter 1: pages 1 - 12; Studium Press., ISBN: 1-933699-69-8

4. **Sayak Ganguli,** Abhijit Datta: ***RNAi– INTERACTOMICS AND THERAPEUTICS***. RNAi Technology, Edited by R.K. Gaur, Yedidya Gafni, P. Sharma, V.K. Gupta, 10/2011: Chapter 19: pages 347 – 356; CRC Press (Taylor & Francis Group)., ISBN: 978-1-57808-716-7

Other Publications [2016 to 2020]

1. Sarmishta Mukhopadhyay, **Sayak Ganguli,** Santanu Chakrabarti. Shigella pathogenesis: molecular and computational insights. AIMS Molecular Science, 2020, 7(2): 99-121. doi: 10.3934/molsci.2020007

2. Guha S., Das S and Ganguli S. A Comparative Genomics Pipeline for In Silico Characterization and Functional Annotation of Short Hypothetical Proteins. Journal of Tropical Life Science, [S.l.], v. 10, n. 2, p. 141 - 148, apr. 2020. ISSN 2527-4376.

3. Kaustav Das, Koel Mukherjee, Mahua Chanak, Somosree Pal, **Sayak Ganguli**,Subrata Sankar Bagchi and Kaushik Bose Age Trends in Under-nutrition among Sabar Males of Purulia,West Bengal. J Hum Ecol,70(1-3): 110-117(2020), IndiaDOI: 10.31901/24566608.2020/70.1-3.2020

4. "Complex molecular mechanisms underlying MYMIV-resistance in Vigna mungo revealed by compara- tive transcriptome profiling" Anirban Kundu, Pankaj Kumar Singh, Avishek Dey**, Sayak Ganguli,** and Amita Pal, **Sci Rep 9, 8858 (2019). https://doi.org/10.1038/s41598-019-45383-w.**

5. Mukherjee C, Chowdhury R, Begam MM, **Ganguli S**, Basak R, Chaudhuri B and Ray K (2019) Effect of Varying Nitrate Concentrations on Denitrifying Phosphorus Uptake by DPAOs With a Molecular Insight Into Pho Regulon Gene Expression. Front. Microbiol. 10:2586. doi: 10.3389/fmicb.2019.02586

6. Mitu De, Manisha Bhattacharya, Animita C. Saha, Indrani Basu, **Sayak Ganguli** and Santi Ranjan Dey Influence of Oral Microbiome on Human Health: an Overview Int J Adv Life Sci Res. Volume 2(1) 16-21 2019; doi: 10.31632/ijalsr.2019 v02i01.003

7. PK Singh, **S Ganguli**, A Pal - Functions of long non-coding RNAs in plants: a riddle to explore; The Nu- cleus, Pg 1 - 12; 2018

8. Susmita Roy, Sujata Roy, Vineet Vishal, Sonia Bansal , **Sayak Ganguli** and Pratiti Ghosh. Comparative Study of Plant Derived Natural Compounds and Established inhibitors of P-Glycoprotein of Mouse and Human Using Molecular Docking. International Journal of Pharmacy and Biological Sciences. Vol 8. Is- sue 3, 228-233.

9. Das, K., Mukherjee, K., Chanak, M., Pal, S., Ganguli, S., Bagchi, S., & Bose, K. (2019). Co-existence of High Levels of Undernutrition and Hypertension among Sabar Males of Purulia, West Bengal, India: A Paradox. International Journal of Advancement in Life Sciences Research, 2(4), 38-47.

10. Upal Das Ghosh, Pankaj K Singh, **Sayak Ganguli**, Chinmay Saha, Ayan Chandra, Anindita Seal and Mahashweta Mitra Ghosh, Comparative profiling of the rhzospheric soil of *Typha augustifolia* L from heavy metal contaminated and free sites reveals the selective abundance of γ -Proteobacteria and β-Pro- teobacteria. Indian Journal of Experimental Biology, 2018, (In Press). **IF: 1.475**

11. Shruti Chakraborty, **Sayak Ganguli**, Aritra Chowdhury, Michael Ibba, Rajat Banerjee: Reversible inac- tivation of yeast mitochondrial phenylalanyl-tRNA synthetase under oxidative stress, Biochimica et Bio- physica Acta (BBA) - General Subjects, 1862(8),2018,Pages 1801-1809. **IF: 4.81**

12. Pankaj Kumar Singh, **Sayak Ganguli** and Amita Pal: Screening and Identification of putative long non coding RNAs from transcriptome data of a high yielding blackgram (Vigna mungo), Cv. T9, Data in Brief (Elsevier): 17, Pages 459–462 ; 2018; https://doi.org/10.1016/j.dib.2018.01.043 **IF: 0.287**

13. Mitu De, **Sayak Ganguli** and Santi Ranjan Dey: MICROBIOME, HUMAN HEALTH AND BIOMARK- ERS: A BRIEF REVIEW Harvest (Online),Microbiome, Health & Biomarkers Volume 3(2); 37 - 48 2018

14. S Rahaman, A R Bera, V Vishal, P K Singh,and **S Ganguli**: A PHYLOGENETIC INSIGHT INTO THE FERN RHIZOSPHERE OF *Acrostichum aureum* Linn IJPBS, 8 (2) 2018; 452-456.

15. Pankaj Kumar Singh, Anju Patel, Sayak Ganguli, Amita Pal: Molecular modeling and simulation of three important components of Plant Pathogen Interaction cascade in *Vigna mungo* Bioinformation 13(10): 323-326 (2017) IF: 1.37

16. Subhadipa Sengupta, Sayak Ganguli, Pankaj K Singh (2017): *Metagenome analysis of the root endophytic microbial community of Indian rice (O. sativa L.)*. Genomics Data 02/2017; 12., DOI: 10.1016/j.gdata. 2017.02.010 IF: 0.287

17. Joardar, S., Ghosh, S., Gupta, S., **Ganguli, S**., 2017. *In vitro* and computational assessment of genotoxic potential of active constituents present in three medicinally important plant extracts. Int.J.Curr.Res.Biosci.Plantbiol. 4(7): 119-128. doi: https://doi.org/10.20546/ijcrbp.2017.407.015

18. S Rahaman, AR Bera, V Vishal, PK Singh, P Basu, S Gupta, M Basu, **S Ganguli** ISOLATION AND COMPUTATIONAL CHARACTERIZATION OF GLUTATHIONE PEROXIDASE GENE FROM AZOLLA PINNATA 2017 RJLBPCS 3(2) 122 - 128.

19. Ankush Pal, Biplab Bandyopadhyay, Santi Ranjan Dey, **Sayak Ganguli**,Pankaj Kumar Singh and Mitu De Documentation and Diversity Analysis by DNA Fingerprinting of the indigenous Mango (*Mangifera indica* L.) Germplasm of West Bengal; Int. J. Exp. Res. Rev., Vol. 11: 21-34 (2017)

20. Anju Patel, Soumitra Maiti, Santosh Kumar, Sayak Ganguli, Amita Pal(2016): *An Integrated Approach to Comprehend MYMIV-Susceptibility of Blackgram Cv. T9 Possessing Allele of CYR1 , the Cognate R-Gene*. American Journal of Plant Sciences 01/2016; 07(02):267-278., DOI:10.4236/ajps. 2016.72026 IF: 1.33

21. Sayak Ganguli, Avishek Dey, Rahul Banik, Anirban Kundu, Amita Pal: *Analyses of MYMIV-induced*

transcriptome in Vigna mungo as revealed by next generation sequencing. Genomics Data 01/2016; 7(C)., DOI: 10.1016/j.gdata.2016.01.005 {Featured Article of Lab Resource Segment) IF: 0.287

22. Santi Ranjan Dey, Pankaj K Singh, **Sayak Ganguli,** Mitu De: *Seri - Bioinformatics : To Enhance Silken Touch*. Journal of Environment and Sociobiology Vol 13 (2) 2016.
23. Protip Basu, **Sayak Ganguli**, Hirak Jyoti Chakraborty, Abhijit Datta: *Intrinsically Unstructured regions in Argonaute sequences across various domains of life*. The Indian Journal of Physiology and Allied Sciences 2016
24. Aditi Gangopadhyay, **Sayak Ganguli**, Abhijit Datta: *Identification of HIV -1 protease inhibitors using Oleanolic acid as reference ligand*. The Indian Journal of Physiology and Allied Sciences 2016
25. Vineet Vishal, Pankaj K Singh, Abhisek Ranjan Bera, Protip Basu, **Sayak Ganguli,** Abhijit Datta: *piRNA diversity across model species and humans revealed through Kohonen Maps*. The Indian Journal of Physiology and Allied Sciences 2016
26. Damayanti Chakravarty, Pankaj K. Singh, Sabdar Rahaman, **Sayak Ganguli:** *Identification of Pseudoknot in the Intergenic Region between VP30 and VP24 Gene of Ebola Virus and Designing Aptamer against the Pseudoknot*. DOI:10.20546/ijcrbp.2016.305.008 2016
27. Sabdar Rahaman, Pankaj Kumar Singh, Protip Basu, Sohini Gupta, Monojit Basu, Sayak Ganguli: *Isolation and Computational Characterization of Glutathione Peroxidase Gene from an Aquatic Fern - Salvinia molesta*. 02/2016; 51:58-62., DOI:10.18052/www.scipress.com/ILNS.51.58 IF: 0.51

Journal Publications [2006 to 2015]:

28. Protip Basu, **Sayak Ganguli**, Sohini Gupta, Abhijit Datta: *Exploring Computational Protein Fishing (CPF) to Identify Argonaute Proteins from Sequenced Crop Genomes*. 01/2015; 33:27-36., DOI: 10.18052/ www.scipress.com/ILNS.33.27 **IF: 0.51**

29. Sohini Gupta, **Sayak Ganguli**, Protip Basu, Abhijit Datta: *Structural Analyses of AC4 Protein of Sri Lankan Cassava Mosaic Virus*. 01/2015; 33:37-42., DOI:10.18052/www.scipress.com/ILNS.33.37 **IF: 0.51**

30. Pankaj Kumar Singh, Rahul Banik, Hirak Jyoti Chakraborty, Sasti Gopal Das, **Sayak Ganguli**, Abhijit Datta: *Identifying Overlapping Phylogenetic and Geographic Roots of HIV – 1 Evolution through Computational Analyses*. 02/2014; 2(1):23 - 29., DOI:10.18052/www.scipress.com/ILNS.7.23 **IF: 0.51**

31. Santanu Chakrabarti, **Sayak Ganguli**: *Structural Analyses of Shigella Invasion Proteins Reveals Non-Conserved; Intrinsically Unstructured Regions*. 11/2013; 5:52-58., DOI:10.18052 www.scipress.com/ ILNS. 5.52 **IF: 0.51**

32. Moumita Adhikary, **Sayak Ganguli,** Sasti Gopal Das , And Abhijit Datta "Secondary Structural Analyses Of Micrornas And Precursors In Pan Troglodytes." International Journal of Computational Biology 2, no. 2 (2011): 35-37.

33. Sohini Gupta, **Sayak Ganguli**, Debisri Datta, Abhijit Datta: *Studies On Interactions Of Histone Proteins With Mitomycin And Chlordane Provides Insights Into Mechanisms Of Chemical Clastogenesis*. Natura 07/2013; (17)(5):2 - 9. **IF: 0.34**

34. Rudra Prassana Banerjee, **Sayak Ganguli,** Moumita Adhikary and Abhijit Datta. *Secondary Structural Analyses Of Micrornas And Their Precursors In A Group Of Mammals And Insects;* Research and Reviews: Journal of Zoological Sciences 2013 (1) 1: 1 - 3. **IF: 0.68**

35. Rahul Banik, **Sayak Ganguli** and Abhijit Datta; *HIV – 1 Genome Analyses Reveals Conserved Mushashi Binding Elements (Mbe) – Possible Roles In Glioblastoma Multiforme* Int J Comput Bioinfo In Silico Model (2013); 2(6): 293 - 296

36. Moumita Adhikary, Sasti Gopal Das, Hirak Jyoti Chakraborty, Pritha Mukhopadhyay, Vineet Vishal, Abhisek Ranjan Bera, Manoj Kumar Gupta, Protip Basu, **Sayak Ganguli**, Abhijit Dutta: *Identification of RNA Regulatory Motifs in mi-RNA Precursors of Pan troglodytes*. Advances in Bioscience and Biotechnology, 4, 26-33. doi: 10.4236/abb.2013.45A003.

37. Tanusri Nandi, Sohini Gupta, **Sayak Ganguli** And Abhijit Datta; Structural Analyses Of Argonaute And Its Homologues In *Oryza Sativa* And *Hordeum Vulgare* International Journal Of Biology, Pharmacy And Allied Sciences 2012, 1(9).

38. Paushali Roy, **Sayak Ganguli**, Pooja Sharma, Protip Basu, Abhijit Datta: *Structural Analysis Of Predicted Hiv-1 Secis Elements*. World Journal Of Aids 12/2011; 1:208-218., Doi:10.4236/Wja. 2011.14030 **If: 0.73**

39. Aditi Gangopadhyay, **Sayak Ganguli,** Abhijit Datta: *Inhibiting H5N1 Haemagglutinin With Small Molecule Ligands*. 06/2011; 3(1):185-189., Doi:10.9735/0975-3087.3.1.185-189

40. Hirak Jyoti Chakraborty, Protip Basu, **Sayak Ganguli**, Sasti Gopal Das, Paushali Roy, Sohini Gupta And Abhijit Datta; *Lantibase - A Lantibiotics Resource***;** Journal Of Pharmaceutical And Biomedical Sciences Jpbms 2011 (3) 13

41. Amit Kumar Das, **Sayak Ganguli**, Sohini Gupta, Abhijit Datta: *Secondary Structural Analysis Of Microrna And Their Precursors In Plants*. 06/2011; 3(1)., Doi: 10.9735/0975-3710.3.1.62-64

42. Sanjay Kumar Dey, **Sayak Ganguli**, Paushali Roy, Protip Basu, Hirak Jyoti Chakraborty, Abhijit Datta: P S E U D O K N O T S I N H U M A N S N R N P S . 0 4 / 2 0 1 1 ; 3 (1 - 3) : 0 9 7 5 - 9 1 1 5 . , D O I : 10.9735/0975-3087.3.1.194-199 **If: 1.37**

43. Sayani Mitra, **Sayak Ganguli** And Abhijit Datta; *An In Silico Analysis Of Telomerase And Telomere Binding Proteins;* International Journal Of Computational Biology, 2011 (2)1 14 – 23

44. Moumita Adhikary, **Sayak Ganguli**, Hirak Jyoti Chakraborty, Protip Basu, Sasti Gopal Das, Paushali Roy, Sohini Gupta And Abhijit Datta; *Computational Analyses Of Sag 13 Gene – Encoding An Alcohol DehydROgenase ; Journal Of PhARmaceutical And Biomedical Sciences Jpbms 2010 (2) 07*

40. Raja Chakraborty, **Sayak Ganguli**, Hirak Jyoti Chakraborty, Abhijit Datta: *Structural analysis and molecular modeling of Human dopamine receptor 5 (DRD5)*. 12/2010; 2(2)., DOI: 10.9735/0975-3087.2.2.96-102

41. Hirak Jyoti Chakraborty, **Sayak Ganguli**, Basu Protip, Roy Paushali, Datta Abhijit: *Structural analysis of Leucocine – an essential bacteriocin*. 12/2010; 2(2)., DOI:10.9735/0975-3087.2.2.1-6

42. Gupta Sohini, Saha Sabuj, Roy Paushali, Basu Protip, **Sayak Ganguli**: *Structural and Functional analysis of glutathione peroxidase from Ricinus communis L.– a computational approach.*. 06/2010; 2(1)., DOI: 10.9735/0975-3087.2.1.20-30

43. Sanjay Kumar Dey, **Sayak Ganguli,** Protip Basu, Paushali Roy, Abhijit Datta: *Lysine richness in human snurps possible sites for electrophilic attacks*. Bioinformation 03/2010; 4(9):409-11., DOI: 10.6026/97320630004409 **IF: 1.37**

44. Priyanka Dhar, **Sayak Ganguli** and Abhijit Datta, *IN SILICO IDENTIFICATION OF MULTIPLE CATALYTIC MOTIFS IN DICER mRNAS and TRANSCRIPTION BINDING SITES IN DICER*, Bioinformatics Trends 2009 (4)4, 63 – 70.

45. Roy Paushali, Basu Protip, **Sayak Ganguli**, Datta Abhijit: *Genome wide snRNP motifs and regulatory sequences in HIV1 isolates*. 12/2009; 1(2)., DOI:10.9735/0975-3087.1.2.14-26

Book Chapters [2011 - 2018]:

1. Datta A., **Ganguli S.** (2018) ***THE INTERACTOMICS OF THE RNA-INDUCED SILENCING COMPLEX.*** In: Wadhwa G., Shanmughavel P., Singh A., Bellare J. (eds) Current trends in Bioinformat- ics: An Insight. Springer, Singapore; https://doi.org/10.1007/978-981-10-7483-7_11
2. Sanga Mitra, **Sayak Ganguli** and Jayprokas Chakraborty: ***"INTRODUCTION TO NON CODING RNAS AND CANCER"*** Chapter 1 in Cancer and Noncoding RNAs; Elsevier. 2017. pg: 1 - 26.
3. Shakri Banerjee, Damayanti Chakravarty, **Sayak Ganguli** and Susanta Roychowdhury: ***"CANCER NON CODING RNA DISCOVERY THROUGH HIGH THROUGHPUT SEQUENCING"* ;** Chap- ter 25 in Cancer and Noncoding RNAs; Elsevier. 2017.Pg 463 - 478.
4. Sanga Mitra, Agnik Halder, Sohini Gupta, **Sayak Ganguli** and Jayprokas Chakraborty: ***A COMPARA- TIVE EVALUATION OF EMERGING DATABASES AND TOOLS FOR CANCER NONCODING RNAS;*** Chapter 27; Pg 497 - 508.
5. Aditi Gangopadhyay, Hirak Jyoti Chakraborty, **Sayak Ganguli** and Abhijit Datta,: ***"PROTEIN STRUCTURE PREDICTION"*** - in *Applying Big Data Analytics in Bioinformatics and Medicine,* edit- ed by: Miltiades D. Lytras and P. Papadopoulou, IGI GLOBAL Publications, USA, 2017 Chapter 8
6. Sohini Gupta, **Sayak Ganguli**, Abhijit Datta: ***THE SILENT ASSASSINS: INFORMATICS OF PLANT VIRAL SILENCING SUPPRESSORS***. Agricultural Bioinformatics, Edited by Kishor, P.B. Kavi,

Bandopadhyay, Rajib, Suravajhala, Prashanth, 09/2014: Chapter 4: pages 21 – 32; Springer., ISBN: 978-81-322-1880-7, DOI:10.1007/978-81-322-1880-7-2

7. Abhijit Datta, **Sayak Ganguli**: ***BIOINFORMATICS – SEQUENCE FUNCTION AND THERA- PIES.*** Advances in Life Sciences: Principles and Applications, Edited by K Tayung, BP Barik, UB Moha- patra, 10/2012: Chapter 11; Studium Press., ISBN: 1-933699-69-8

Accession Numbers

1. **SIX ACCESSION NUMBERS FOR GLUTATHIONE PEROXIDASE GENE**
   EF620778 – EF62083 available publicly at NCBI – GENBANK Collection since 2007.
2. **NGS BASED TRANSCRIPTOME LIBRARY ACCESSION:**
   A. BIOPROJECT ID: PRJNA288413; BIOSAMPLE: SAMN03799418; SRA ACCESSION: SRX1058325; SRX1058327. Study Title: Transcriptome Library of Mock Inoculated *Vigna mungo* cultivar T9; 1 LS454 (454 GS FLX+) run: 32.7M spots, 9.9G bases, 4.6Gb downloads. Study Title: Transcriptome Data of *Vigna mungo* Cv. T9 infected with MYMIV; 1 LS454 (454 GS FLX+) run: 30.6M spots, 9.2G bases, 4.3Gb downloads.
   B. BIOPROJECT ID: PRJNA283940; BIOSAMPLE: SAMN03658143; SRA ACCESSION: SRX1032950; SRX1082731 Study Title: Transcriptome Library of *Vigna mungo* RIL VM84 infected with MYMIV; 1 LS454 (454 GS FLX) run: 56.1M spots, 11.3G bases, 6.8Gb downloads. Study Title: Transcriptome Library of mock inoculated *Vigna mungo* RIL VM84; 1 LS454 (454 GS FLX) run: 39.7M spots, 8G bases, 4.8Gb downloads.
3. **NGS BASED METAGENOME LIBRARY ACCESSION:**
   A. Metagenome or environmental sample from FERN rhizosphere of Indian Sunderbans
      Identifiers: BioSample: SAMN06606462; Sample name: ISRAa16; SRA: SRS2062634
   B. Metagenome or environmental sample from root metagenome
      Identifiers:BioSample: SAMN06209718; Sample name: OS04; SRA: SRS1948687
   C. Metagenome or environmental sample from root metagenome
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I hereby declare that the above information is true to the best of my knowledge

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