Curriculum Vitae

Dr. Budhayash Gautam

Associate Professor

Bioinformatics Section, College of Biotechnology, SVPUAT, Meerut, U. P. India.

E-Mail:budhayash.gautam@shiats.edu.in, budhayashgautam@gmail.com
Ph. No.: +91-9451427316, +91-9621940781

Academic Qualification

Course / Degree	Board/University	Year
Ph. D. (Bioinformatics)	Sam Higginbottom Institute of Agriculture, Technology & Sciences – Deemed University, (SHIATS) Allahabad, U. P. India	2013
M. Tech. (Bioinformatics)	Indian Institute of Information Technology-Allahabad (IIIT-A), Allahabad, U.P. India.	2005
M. Sc. (Biotechnology)	Chaudhary. Charan Singh University, Meerut, U.P. India.	2002
B. Sc. (ZBC)	D.N. Degree College, Chaudhary. Charan Singh University, Meerut, U.P. India.	2000
Intermediate (Biology)	U.P Board, U.P., India.	1997
High School (Science)	U.P Board, U.P., India.	1994
Graduate Aptitude Test in Engineering (GATE)	Department of Education, MHRD, Government of India	2003

Teaching / Research Experience

Employment Record & Experience Details:

S. No.	Designation	Employer/Institution	Duration
1.	**Associate Professor**	Bioinformatics Section, College of Biotechnology, SVPUAT, Meerut, U. P. India.	**Since 2025-03-07** to Till Date
2.	**Associate Professor** **(AGP 9000)**	Department of Computational Biology & Bioinformatics (CBBI), Jacob Institute of Biotechnology and Bio-engineering (JIBB), Sam Higginbottom University of Agriculture, Technology & Sciences, (SHUATS) formerly known as Allahabad Agriculture Institute-Deemed University (AAI-DU), Allahabad, U. P. India.	**Since 2022-06-19** to **2025-03-06**
3.	**Assistant Professor (Selection Grade)** **(AGP 8000)**	Department of Computational Biology & Bioinformatics (CBBI), Jacob Institute of Biotechnology and Bio-engineering (JIBB), Sam Higginbottom University of Agriculture, Technology & Sciences, (SHUATS) formerly known as Allahabad Agriculture Institute-Deemed University (AAI-DU), Allahabad, U. P. India.	**Since 2019-06-19** to 2022-06-19
4.	**Assistant Professor (Sr. Scale)**	Department of Computational Biology & Bioinformatics (CBBI), Jacob Institute of Biotechnology and Bio-engineering (JIBB), Sam Higginbottom University of	**Since 2014-06-18** to 2019-06-18

	(AGP 7000)	Agriculture, Technology & Sciences, (SHUATS) formerly known as Allahabad Agriculture Institute-Deemed University (AAI-DU), Allahabad, U. P. India.	
5.	**Assistant Professor** **(AGP 6000)**	Department of Computational Biology & Bioinformatics (CBBI), Jacob School of Biotechnology and Bio-engineering (JSBB), Sam Higginbottom Institute of Agriculture, Technology & Sciences – Deemed University, (SHIATS) Allahabad, U. P. India	**Since 2007-11-21** to 2014-06-17
6.	**Lecturer (Bioinformatics)**	Department of Bioinformatics, University Institute of Engineering and Technology (U.I.E.T.), Chattrapati Sahu Ji Mahaaraj University (C.S.J.M.U.), Kanpur, U.P, India.	**Since 2007-02-19** to 2007-11-20
7.	**Honorary Lecturer (Bioinformatics)**	Department of Bioinformatics, University Institute of Engineering and Technology (U.I.E.T.), Chattrapati Sahu Ji Mahaaraj University (C.S.J.M.U.), Kanpur, U.P, India.	**Since 2006-01-16** to 2007-02-18

Having more than 18 years teaching and research experience and taught several courses to M. Sc-Bioinformatics / Advanced P.G Diploma in Bioinformatics, B. Tech. Biotechnology, B. Sc. Biotechnology / Microbiology/ Biochemistry, Integrated M. Sc. Biotechnology / Microbiology / Biochemistry, M. Sc. Biotechnology / Microbiology / Biochemistry, M. Tech. Biotechnology and Bioinformatics students. Moreover, **More than 55 UG / PG students** had already worked on different areas for example Database Development using My-SQL, Visual Basic, Microsoft access, Perl Modules Development for RCSB-PDB, Microarray Data Analysis, Protein drug interaction, Molecular modelling, Molecular Dynamics, Docking & Screening, Phylogenetics, Protein Interaction, using biological tools etc. in relevance to Bioinformatics as a project student under my supervision.

At doctoral (Ph. D.) level Total 05 Scholars have been supervised as Advisor and 04 as Co-Supervisor. They have been successfully awarded degree. Presently, **01** scholar is working under my supervision.

Areas of Interest

Bioinformatics, Microarray Data Analysis, Molecular Modelling, Molecular Dynamics Simulation Studies, Docking & Screening, Computer Aided Drug Designing, Genome Analysis, miRNA identification, Systems Biology, Comparative genomics, Tool Development, Database creation etc.

Publications

Refereed journal articles:

1. Das, V.A., **Gautam, B.**, Yadav, P.K. *et al.* Computational approach to identify novel genomic features conferring high fitness in *Bacillus atrophaeus* CNY01 and *Bacillus velezensis* AK-0 associated with plant growth promotion (PGP) in apple. *BMC Plant Biol* 24, 1127 (2024). **[IF = 4.3]**

2. Das, Vandana Apurva, **Budhayash Gautam**, Pramod Kumar Yadav, and Satendra Singh. (2024). "Identification of Conserved Pathways in *Bacillus* Strains Known for Plant Growth-Promoting Behavior Using a Multifaceted Computational Approach"*Agriculture* 14, no. 6: 838. **[IF = 3.6]**

3. Hari Om Sharn, Dev Bukhsh Singh, Pramod Kumar Yadav, **Budhayash Gautam**, Vipin Kumar, Satendra Singh. "Genome annotation and comparative functional analysis of genomic islands in Bordetella pertussis Tohama I, Bordetella parapertussis 12822, and Bordetella bronchiseptica RB50 genomes".(2023) *Network Modeling Analysis in Health Informatics and Bioinformatics* 12 (1), 23.**[IF: 2.3]**

4. Sapna Pandey, Neha Maurya, Himanshu Avashthi, Pramod Katara, Satendra Singh, **Budhayash Gautam**, Dev Bukhsh Singh. "Comprehensive analysis of non-synonymous SNPs related to Parkinson's disease and molecular dynamics simulation of PRKN mutants". *Results in Chemistry* (2023), Volume 5, 100817, ISSN 2211-7156. **[IF: 2.3]**

5. Kavita Goswami, Deepti Mittal, Anita Tripathi, **Budhayash Gautam,** Sudhir K. Sopory, Neeti Sanan-Mishra. "miRNA regulatory networks underlying the root-shoot synergism in salt tolerant Pokkali rice". *Journal of Plant Growth Regulation* (2022), https://doi.org/10.1007/s00344-022-10801-3 **[IF: 4.8]**

6. Hari Om Sharn, Dev Bukhsh Singh, Pramod Kumar Yadav, **Budhayash Gautam**, Vipin Kumar, Satendra Singh. "Prediction and Comparative analysis of genomic islands in B. pertussis Tohama I, B. parapertussis 12822 and B. bronchiseptica RB50". *International Journal Of Life Sciences and Applied Sciences* (2022), 3 (2), 54-54.

7. Arvind Kumar Yadav, Deepti Nigam, **Budhayash Gautam**, A.K. Mishra. "Computational approaches to decipher miRNA-target association in Mango (*Mangifera indica L.*)". *Plant Gene – Elsevier* (2021), Volume 27:100292. **[Cite Score 5.2]**

8. Shikha Agnihotry, Ajeet Kumar Srivastav, Pradeep Kumar Shukla and **Budhayash Gautam**. "Biochemical Approach to Investigate Cause of Wilson Disease via Functional Expression of Genes in Human Hepatoma Cells". *Journal of Pharmaceutics and Drug Research (JPDR)* (2020), 3(4): 444-453. **[IF: 0.54]**

9. Kavita Goswami, Deepti Mittal, **Budhayash Gautam**, Sudhir K. Sopory and Neeti Sanan-Mishra. "Mapping the Salt Stress-Induced Changes in the Root miRNome in Pokkali Rice". *Biomolecules*(2020), 10, 498. (doi:10.3390/biom10040498). **[IF: 4.879]**

10. Nivedita Yadav, Kavita Goswami, **Budhayash Gautam** and Pramod Kumar Yadav. "In-silico prediction of microRNA targets and finding genes suggesting significant involvement in the development of Glycine max seed". *Vegetos* (2019). Springer. (https://doi.org/10.1007/s42535-019-00075-8).

11. Sapna Pandey, Kalyani Dhusia, Pramod Katara, Satendra Singh &**Budhayash Gautam**. "An in-silico analysis of deleterious single nucleotide polymorphisms and molecular dynamics simulation of disease linked mutations in genes responsible for neurodegenerative disorder". *Journal of Biomolecular Structure and Dynamics*, (2019), Taylor and Francis Group. **[IF: 3.310]**

12. Shikha Agnihotry, Kalyani Dhusia, Ajeet Kumar Srivastav, Jaya Upadhyay, Vinod Verma, Pradeep Kumar Shukla, Pramod W. Ramteke and **Budhayash Gautam**. "Biochemical regulation and structural analysis of copper-transporting ATPase in a human hepatoma cell line for Wilson disease". *Journal of Cellular Biochemistry*. (2019); 20:18826-18844. Wiley Periodicals, Inc. **[IF: 3.448]**

13. Nivedita Yadav, **Budhayash Gautam**& Pramod Kumar Yadav. "Computational analysis of microarraybased gene expression profiling and unveiling the functional traits in the developmental phases of Glycine max seed". *Vegetos* (2019) 32:64–77. Springer.

14. Rutash Kumar, Ankush Bansal, Rohit Shukla, Tiratha Raj Singh, Pramod Wasudeo Ramteke, Satendra Singh &**Budhayash Gautam**. "In silico screening of deleterious single nucleotide polymorphisms (SNPs) and molecular dynamics simulation of disease associated mutations in gene responsible for Oculocutaneous Albinism type 6 (OCA 6) disorder". *Journal of Biomolecular Structure and Dynamics*, (2019), VOL. 37, NO. 13, 3513–3523. Taylor and Francis Group. **[IF: 3.310]**

15. Shachi Gahoi, Satendra Singh, **Budhayash Gautam**. "Genome-wide identification and comprehensive analysis of Excretory/ Secretory proteins in nematodes provide potential drug targets for parasite control". *Genomics*, (2018), Elsevier Inc. **[IF: 3.160]**

16. Upasna Srivastava, Satendra Singh, **Budhyash Gautam**, Pramod Yadav, Madhu Yadav, George Thomas, Gurmit Singh. "Linear epitope prediction in HPV type 16 E7 antigen and their docked interaction with human TMEM 50A structural model". *Bioinformation* (2017), 13(5): 122-130.

17. Shachi Gahoi and **Budhayash Gautam**. "Genome-wide analysis of Excretory/Secretory proteins in root-knot nematode, Meloidogyne incognita provides potential targets for parasite control". *Computational Biology and Chemistry* (2017), (67) 225–233.**[IF: 1.380]**

18. Shachi Gahoi and **Budhayash Gautam**. "Identification and analysis of insulin like peptides in nematode secretomes provide targets for parasite control". *Bioinformation* (2016), 12(12): 412-415**.**

19. Satendra Singh, Dev Bukhsh Singh, Anamika Singh, **Budhayash Gautam**, Gurudayal Ram, Seema Dwivedi, Pramod W. Ramteke. An approach for identification of novel drug targets and paralogous enzymes in Streptococcus pyogenes SF370 through pathway analysis. *Interdisciplinary Sciences: Computational Life Sciences, Springer*, (2015), ISSN: 1867-1462. **[IF: 1.119]**

20. Satendra Singh, Atul Kumar Singh, Gulshan Wadhwa, Dev Bukhsh Singh, **Budhayash Gautam**, Pramod W. Ramteke, Seema Dwivedi. "A Quantitative Measure of Conformational Changes in Apo, Holo and Ligand bound form of Enzymes". *Interdisciplinary Sciences: Computational Life Sciences, Springer,* (2015) 7: 1–14. **[IF: 1.119]**

21. Nivedita, Pramod Kumar Yadav, **Budhayash Gautam**. "Gene Expression Profiling of Transcription Factors of Arabidopsis Thaliana using Microarray Data Analysis". *International Journal of Advanced Research in Computer Science and Software Engineering*, (2015), 5(4), pp. 783-793.

22. Anshika Nikita Singh, Satendra Singh, Pramod Wasudev Ramteke, **Budhayash Gautam**. "In-silico Epigenetic Profiling Of Hypermethylated Multigenes in Non-Small Cell Lung Cancer". *Network Modeling Analysis in Health Informatics and Bioinformatics, Springer*, (2014), 3:71.

23. Himanshu Avashthi, **Budhayash Gautam**, Prashant Ankur Jain , Apoorv Tiwari, Rajesh Kumar Pathak, Ambuj Srivastava, Gohar Taj and Anil Kumar. "In silico identification of MAPK3/6 substrates in WRKY, bZIP, MYB, MYB- related, NAC and AP-2 transcription factor family in Arabidopsis thaliana". *International Journal of Computational Bioinformatics and In Silico Modeling*, (2014) Vol. 3, No. 4: 454-459.

24. Satendra Singh, Gaurav Sablok, Rohit Farmer, Atul Kumar Singh, **Budhayash Gautam** and Sunil Kumar. "Molecular Dynamic Simulation and Inhibitor Prediction of Cysteine Synthase Structured Model as a Potential Drug Target for Trichomoniasis". *BioMed Research International*:Volume 2013, Article ID 390920, 15 pages. **[IF: 2.40]**

25. **Budhayash Gautam**, Pramod Katara, Anshu Choudhary, Gulshan Wadhwa and Satendra Singh. "Prediction of miRNA targets affected proteins and their homologs in Mouse gammaherpesvirus68". *International Journal of Bioinformatics and Biological Science*: v.1 n.1 p.9-17. Jan, 2013.

26. Neetu Singh, Himanshi Kanojia, Satendra Singh, Deepak Kumar Verma, **Budhayash Gautam** and Gulshan Wadhwa. "Structure prediction of drug target identified by metabolic pathway analysis of Streptococcus pyogenes". *International Journal of Bioinformatics and Biological Science*: v.1 n.1 p.79-85. Jan, 2013.

27. Anshika Singh, Neetu Singh, Satendra Singh, **Budhayash Gautam** and Gulshan Wadhwa. "Annotation of a hypothetical Protein (A2E4V9_TRIVA) in Trichomonas vaginalis".*International Journal of Bioinformatics and Biological Science:* v.1 n.1 p.87-93. Jan, 2013.

28. Pramod Kumar Yadav, Gurmit Singh, **Budhayash Gautam**, Satendra Singh, Madhu Yadav, Upasana Srivastav & Brijendra Singh. "Molecular modeling, dynamics studies and virtual screening of Fructose 1, 6 biphosphate aldolase-II in community acquired- methicillin resistant Staphylococcus aureus (CA-MRSA)". "*Bioinformation*" 9(3): 158-164 (2013).

29. Pramod Kumar Yadav, Gurmit Singh, Satendra Singh, **Budhayash Gautam**& Esmaiel IF Saad. "Potential therapeutic drug target identification in Community Acquired-Methicillin Resistant Staphylococcus aureus (CA-MRSA) using computational analysis". "*Bioinformation*" 8(14): 664-672 (2012).

30. **Budhayash Gautam**, Gurmit Singh, Atul Kumar Singh, Gulshan Wadhwa. "Analyzing time course microarray data of Toxoplasma gondii & Study the impact on host transcript levels using Bioconductor". "*Indian Journal of Biotechnology*". (2012), Vol 12, January 2013, pp 46-51. **[IF: 0.40]**

31. Satendra Singh, **Budhayash Gautam**, Gulshan Wadhwa, Gurmit Singh. "Analysis of hypothetical protein in Trichomonas vaginalis proteome". "I*ndian Journal of Biotechnology*". (2012). **[IF: 0.40]**

32. **Budhayash Gautam**, Gurmit Singh and Satendra Singh. "Analyzing Time Course Microarray Data Of Toxoplasma gondii Asexual Development And Identification Of Developmentally Regulated Genes Using Bioconductor". "*Elixir Appl. Biology*". 48 (2012) 9542-9545.

33. **Budhayash Gautam**, Gurmit Singh and Satendra Singh. "Virtual screening of Threonine synthase as a target for antimicrobial resistance in Toxoplasma gondii". "*Elixir Appl. Biology*". 48 (2012) 9546-9550.

34. Budhayash Gautam, Gurmit Singh, Gulshan Wadhwa, Rohit Farmer, Satendra Singh, Atul Kumar Singh, Prashant Ankur Jain, Pramod Kumar Yadav. "Metabolic pathway analysis and molecular docking analysis for identification of putative drug targets in Toxoplasma gondii: novel approach". "*Bioinformation*" 8(3): 134-141 (2012).

35. Satendra Singh, Gurmit Singh, Nitin Sagar, Pramod Kumar Yadav, Prashant A Jain, **Budhayash Gautam**, Gulshan Wadhwa. "Insight into Trichomonas vaginalis genome evolution through metabolic pathways comparision"."*Bioinformation*" 8(4): 189-195 (2012).

36. **Budhayash Gautam** and Satendra Singh. "Virtual screening of Threonine synthase as a target for antimicrobial resistance in Trichomonas vaginalis". Presented in National Conference on "Antimicrobial Resistance: A Cause for Global Concern" from 6 – 8th February, NCAR-2012. Organized by the Department of Microbiology & Fermentation Technology, Sam Higginbottom Institute of Agriculture, Technology & Sciences, Deemed-to-be-University. Allahabad-211007. India.

37. Singh. S, Singh. G, **Gautam. B,** Jain P.A. and Yadav.P.K. In silico metabolic pathway analysis of trichomonas vaginalis for potential drug targets". "*Elixir Bio. Phy*." 32 (2011) 1991-1994.

38. Satendra Singh, Gurmit Singh, Atul Kumar Singh, **Budhayash Gautam**, Rohit Farmer, Sharad S. Lodhi, Gulshan Wadhwa. "Prediction and Analysis of Paralogous Proteins in Trichomonas vaginalis Genome"."*Bioinformation*" 6(1): 31-34 (2011).

39. Pramod K. Yadav, Raghuvir Shingh, Prashant A. Jain, Satendra Singh, **B. Gautam** and R. Farmer. "In Silico Epitope prediction for Glycoprotein D in Human Herpese Simplex Virus-1". "*International Journal of Pharmaceutical Sciences Review and Research*",Volume (7), Issue (02) 027, (2011).

40. Pramod K. Yadav, Raghavendra Sachan, Shruti Tondon, Satendra Singh, **B. Gautam**, R. Farmer and P. A. Jain. "In Silico study of hetero-dimerization of TLR2 and TLR6". "*International Journal of Pharmaceutical Sciences Review and Research*" Volume (7), Issue (01) 023, (2011).

41. Singh, S., **Gautam, B**., Jain, P. A., Yadav, P.K. and Farmer, R. "Neuropeptide predicted in Emberiza bruniceps using computational tools". "I*nternational Journal of Pharmaceutical Sciences Review and Research*" Volume (7), Issue (01) 006, (2011).

42. Pramod Katara, **Budhayash Gautam**, Himani Kuntal, Vinay Sharma. "Prediction of miRNA targets, affected proteins and their homologs in Glycine max". "Bioinformation" 5(4): 162-165 (2010).

43. **Budhayash Gautam**, Pramod Katara, Satendra Singh and Rohit Farmer. "Drug target identification using gene expression microarray data of Toxoplasma gondii". "*International Journal of Biometrics & Bioinformatics (IJBB)*", Volume (4): Issue (3), (2010).

44. **Gautam Budhayash**, Singh Gurmit, Varadwaj Pritish, Singh Satendra , Farmer Rohit. "The use and impact of DNA-Microarrays in Toxoplasma gondii research - a review", "*International Journal of Pharmaceutical Sciences Review and Research*", Volume 4, Issue (02) 08, (2010).

45. **Budhayash Gautam**, Shashi Rani, Satendra Singh and Rohit Farmer."In Silico comparative genome analysis of Hepatitis B and Hepatitis C virus", "*International Journal of Pharmaceutical Sciences Review and Research*", Volume 4, Issue (03) 023, (2010).

46. **Budhayash Gautam** and Satendra Singh. "Comparative modeling of GTP cyclohydrolase I in Toxoplasma gondii", "*International Journal of Pharmaceutical Sciences Review and Research*", Volume 4, Issue (03) 024, (2010).

47. Singh Satendra, Singh Gurmit, **Gautam Budhayash**, Varadwaj Pritish, Farmer Rohit, "Trichomonas vaginalis genome analysis using bioinformatics approaches", "*International Journal of Pharmaceutical Sciences Review and Research*", (03) 018,(2010).

48. Singh Satendra, **Gautam B**., Yadav P.K., Jain P.A., Farmer R. And Ram G.D., "In Silico analysis of DNA profile used in Forensic Science", "*International Journal of Pharma and Bio-Sciences*", V1 (2) (2010).

49. Singh Satendra, Mecarty S.D., Jain P.A., **Gautam B.**, Farmer R., Yadav P.K. And Ram G.D. "In silico pharmacogenic analysis of alchohol dehydrogenase involved in alchoholism", "*International Journal of Pharma and Bio-Sciences*",V1(2) (2010).

50. R. Farmer, **B. Gautam**, S. Singh, P. K. Yadav, P. A. Jain, " Virtual screening of AmpC / β – lactamase for antimicrobial resistance in Pseudomonas aeruginosa", "*Bioinformation*", (2010) 4(7) 290-294.

51. R. Farmer, **B. Gautam** and S. Srivastava, "In silico modeling of AmpC gene product in Pseudomonas aeruginosa". Presented in National Conference on "Antimicrobial Resistance: From Emerging Threat to Reality" organized by Department of Microbiology and Microbial Technology, C.B.A.S., Allahabad Agricultural Institute-Deemed university, Allahabad in 23rd-25th March,(2009).

Books Published:

1. **Bioinformatics: Concepts and Applications.** (2021). ***International Books & Periodical Supply Service (IBPSS), Delhi, India.*** ISBN : 978-93-90425-31-0, E-ISBN : 978-93-90425-32-7,(Ed. *Dr. Satendra Singh,* ***Dr. Budhayash Gautam****, Dr. Dhirendra Kumar, Dr. Gurudayal Ram Guru, Dr. Pramod Kumar Yadav and Vibha Raj Shanti*).

Chapters in books:

1. Satendra Singh, Dev Bukhsh Singh, **Budhayash Gautam**, Anamika Singh, Namrata Yadav, Chapter 19 - Pharmacokinetics and pharmacodynamics analysis of drug candidates, Editor(s): Dev Bukhsh Singh, Rajesh Kumar Pathak, **Bioinformatics-methods and applications**, ***Academic Press, Elsevier Inc.***2022, Pages 305-316, ISBN 9780323897754, https://doi.org/10.1016/B978-0-323-89775-4.00001-8.

2. Pramod Katara, Neelam Krishna, Anamika Yadav, Vibha Raj Shanti and **Budhyash Gautam** (2021). "Recent Trends in 'Computational Transcriptomics", **Bioinformatics: Concepts and Applications.*International Books & Periodical Supply Service (IBPSS), Delhi, India.***(Ed. *Satendra Singh et al.*).

3. Nivedita Yadav, **Budhayash Gautam**, Pramod Kumar Yadav and Dhirendra Kumar. (2021). "Microarray Data Analysis in Agri-Informatics", **Bioinformatics: Concepts and Applications.*International Books & Periodical Supply Service (IBPSS), Delhi, India.***(Ed. *Satendra Singh et al.*).

4. Kavita Goswami, Neeti Sanan Mishra, **Budhayash Gautam** and Vibha Raj Shanti (2021). "Next Generation Sequencing: An *In silco* Approach for Genomic and Proteomics Data Analysis", **Bioinformatics: Concepts and Applications.*International Books & Periodical Supply Service (IBPSS), Delhi, India.***(Ed. *Satendra Singh et al.*).

5. Anamika Yadav, Rohini Kumari, **Budhyash Gautam** and Pramod Katara. (2021). "Pharmacogenomics: current trends and future possibilities", **Recent A Dvances In Computer Aided Drug Designing.** ***Nova Science Publishers, Inc. NEW YORK.***(Ed. *Ashutosh Mani And Akhil Varshney*).

6. Budhayash Gautam (2021). "Energy Minimization", **Homology Molecular Modeling - Perspectives and Applications.** (Edited by Rafael Trindade Maia) **IntechOpen**, DOI: 10.5772/intechopen.94809. DOI: http://dx.doi.org/10.5772/intechopen.94809.

7. Budhayash Gautam (2020). "Algorithms in Bioinformatics". **Recent trends in 'computational omics: concepts and methodology'.** ***Nova Science Publishers, Inc. NEW YORK.***(Ed. *Pramod Katara*).

8. Agnihotry S., Pathak R.K., Srivastav A., Shukla P.K., **Gautam B. (2020) Molecular Docking and Structure-Based Drug Design.** In: Singh D.B. *et al.* (Eds.)***Computer-Aided Drug Design. Springer, Singapore.***https://doi.org/10.1007/978-981-15-6815-2_6

9. Kavita Goswami,Anita Tripathi, **Budhayash Gautam**, Neeti Sanan-Mishra. **"Impact of Next-generation Sequencing in Elucidating the Role of microRNA Related to Multiple Abiotic Stresses".** ***Molecular Plant Abiotic Stress: Biology and Biotechnology***(2019)**. Wiley Publications. (Ed. Dr Aryadeep Roychoudhury and Dr Durgesh Tripathi)**

10. **Budhayash Gautam,** Kavita Goswami,Satendra Singh, Gulshan Wadhwa. **"Genome Wide Essential Gene Identification In Pathogens"**. ***Current Trends in Bioinformatics- An Insight. Springer IN.*** (Ed. Wadhwa *et al.*)(2018).

11. **Budhayash Gautam,** Kavita Goswami, Neeti Sanan Mishra, Gulshan Wadhwa, Satendra Singh. **"Role of Bioinformatics in Epigenetics"**. ***Current Trends in Bioinformatics- An Insight. Springer IN.*** (Ed. Wadhwa *et al.*)(2018).

12. Satendra Singh, **Budhayash Gautam**, Anjali Rao, Gitanjali Tandon, Sukhdeep Kaur. **"Bioinformatics Approaches For Animal Breeding And Genetics".** ***Current Trends In Bioinformatics- An Insight. Springer In.*** (Ed. Wadhwa *et al.*) (2018).

13. Satendra Singh, Prashant Ankur Jain, **Budhayash Gautam**, Atul Kumar Singh, Chandrabhan Seniya, G.J.Khan. **"Genome Analysis Using Computational Approach".*Advances in Biotechnology-A Practical Approach*, NOVA SCIENCE PUBLISHERS, INC. NEW YORK.** (Ed. Dhingra *et al*.) (2013).

14. Satendra Singh, Gulshan Wadhwa , Prashant A. Jain, **Budhayash Gautam**, Atul Kumar Singh. **"Insight into Genomics of *Trichomonas vaginalis".Comparative genomics in human neglected parasites,* NOVA SCIENCE PUBLISHERS, INC. NEW YORK.** (2013)

Organized below mentioned programs as Co-ordinator/Co-chairman/Convener/Co- convener/Secretary/Joint secretary/Treasurer etc.:

- World congress on **"Green Nanotechnology and its role in sustainable agriculture"** Organized by Department of Molecular and Cellular Engineering, J.S.B.B., Sam Higginbottom Institute of Agriculture, Technology and Sciences-Deemed university, Allahabad on 26th - 27th March, 2015.

- Co-Convener: National Conference on **"Bioinformatics Panorama in Agriculture and Health (NCBPAH 2015)"**, Organized by Department of Computational Biology and Bioinformatics (CBBI), J.I.B.B., Sam Higginbottom Institute of Agriculture, Technology and Sciences-Deemed university, Allahabad on 05 – 06 October 2015.

- Co-Convener: International Conference On **"Advancing Frontiers In Biotechnology For Sustainable Agriculture And Health (AFBSAH-2016)"** organized by Department of Molecular and Cellular Engineering, JSBB in Collaboration with Society of Biotechnology, Sam Higginbottom Institute of Agriculture, Technology and Sciences-Deemed university, Allahabad on 25-26th February, 2016.

- Co-Convener: International Conference on Advances and Innovations in Biotechnology for Sustainable Development", 5-7 April, 2019, organized by Department of Biotechnology, AKS University, Satna (M. P.) 485001, India.
- Co-Convener: International E-Conference on "Agricultural & Biological Sciences I-E-CABS 2020" (18th-19th December, 2020) Organized by the Society for Bioinformatics & Biological Sciences and Applied Research and Development Organization.

- Co-Convener: ANNUAL CONVENTION & NATIONAL E-CONFERENCE ON "EMERGING TRENDS IN AGRICULTURAL & BIOLOGICAL SCIENCES (ETABS 2022), Organized by the Society for Bioinformatics & Biological Sciences and Applied Research and Development Organization held on 14-15 JANUARY 2022.

- Co-Convener: National Conference on **"Emerging trends in Bioinformatics for Agriculture, Food and Health (ETBAFH)"** Organized by Department of Computational Biology and Bioinformatics (CBBI), J.I.B.B., Sam Higginbottom Institute of Agriculture, Technology and Sciences-Deemed university, Allahabad on 15 – 16 March, 2023.

Reviewer for various Peer Reviewed Journals:

1. Scientific Reports, Springer Nature
2. Journal of Biomolecular Structure and Dynamics, (2019), Taylor and Francis Group.
3. Journal of Proteins and Proteomics, Springer Nature
4. Cellular Oncology, Springer Nature
5. Clinical and Experimental Medicine, Springer Nature
6. Archives of Microbiology, Springer Nature
7. Discover Applied Sciences, Springer Nature
8. In Silico Pharmacology, Springer Nature
9. Qeios Ltd. London (UK).
10. Interdisciplinary Sciences- Computational Life Sciences, Springer
11. Network Modeling Analysis in Health Informatics and Bioinformatics, Springer
12. Protoplast, Springer
13. Bioinformatics and Biology Insights, Libertas Academica
14. Evolutionary Bioinformatics, Libertas Academica
15. Bioinformation, Biomedical Informatics
16. International Journal of Bioinformatics and Biological Sciences.

Etc.

Awards and Professional / Academic Achievements

- **"Bharat Ratna Dr. M. S. Swaminathan Award"** for outstanding contribution in the field of Bioinformatics by Hindustan Agricultural Research Welfare Society (HARWS), Moradabad, U.P. 244102on the occasion of **"2nd International Agriculture Conference" on "Natural Farming Innovations: Enhancing Soil Health and Seed Quality with AI and Drones for a Greener Agricultural Future"**, November 3-5, 2024, Jointly organized by **ICAR**-New Delhi, **BHU**-Varanasi, **Hansaraj College, Delhi University**, New Delhi, **Southern Federal University, Russia**, **Indian Society of Genetics and Plant Breeding, New Delhi, Hindustan Agricultural Research Welfare Society (HARWS)**,etc.

- **"Young Scientist Award"** by Society For Bioinformatics and Biological Sciences, Allahabad in year 2015.

- **"Best Research Paper Award-2014"** by Sam Higginbottom Institute of Agriculture, Technology and Sciences (SHIATS), Naini, Allahabad, U.P. 211007 on October-27th, 2015.

- Qualified Graduate Aptitude Test in Engineering **(GATE) - 2003** with 81.46 Percentile. National level Test Conducted by Ministry of Human Resource and Development (MHRD), Govt of India.

- **Scholarship** through Ministry of Human Resource and Development (MHRD), Govt of India During M. Tech course (2003-2005).

- **Joint-Secretary** of "Society for Bioinformatics and Biological sciences" – 631/2014-2015 (A Registered society under Indian society registration act 1860). It is a Professional Society for emerging Bioinformatics and Biological Sciences.

- **Associate Chief Editor** of "International Journal of Bioinformatics and Biological Sciences" (Print ISSN 2319-5169), NEW DELHI PUBLISHERS, 90, Sainik Vihar, Mohan Garden, New Delhi – 110059 (India).

- **External Examiner** in various institutes:

  (a) Chhatrapati Shahu Ji Maharaj University, formerly Kanpur University, Kanpur, U.P., India
  (b) Shobhit University, Meerut, U.P., India
  (c) Banasthali Vidyapeeth, Banasthali, Rajasthan, India
  (d) Central University of Allahabad, Allahabad, India

Life time Professional membership

- I**talo-Latinamerican, Asian, African Society of Ethnomedicine (SILAE), Italy**.
- **Applied Research and Development Organization (ARDO), India**
- Society of Bioinformatics, SHIATS, Allahabad, India
- **International Society of Bioinformatics, Biological Sciences & Rural Development, Allahabad, India.**

(Dr. Budhayash Gautam)