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**Dr. Manish Kumar Gupta** *M.Sc., M.Tech., Ph.D.*

Associate Professor

Department of Biotechnology, Faculty of Science

Veer Bahadur Singh Purvanchal University, Jaunpur -222003, UP, India

Contact No: +91 9307267812

E-mail: [manish.kumar.gupta@gmail.com](mailto:manish.kumar.gupta@gmail.com)Website: <http://www.vbspu.ac.in/home/>

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**Education:**

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| • <b>Ph.D. (Bioinformatics)</b>  | 2015 |
| Dr. APJ Abdul Kalam Technical University, Lucknow, India.                              |      |
| • <b>Master of Technology (Bioinformatics)</b>   | 2005 |
| Indian Institute of Information Technology-Allahabad, India                            |      |
| • <b>Master of Science (Biotechnology)</b>   | 2003 |
| University of Hyderabad, Telangana, India, (University with 'Institution of Eminence') |      |
| • <b>Bachelor of Science (Chemistry, Zoology, Botany)</b>                              | 1999 |
| DDU Gorakhpur University, Gorakhpur, Uttar Pradesh, India                              |      |

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**Research Interest:**

our main concern is the understanding of underlying molecular complexity for Bcl-2 family proteins involvement in several non-apoptotic pathways along with apoptotic for identification of topological, functional and disease modules and the molecular interactions among various discrete phenotypes which regulate the cell death mechanism via non-apoptotic ways. Unravel the new disease genes, biomarkers and novel drugs targets would be further advances in this direction. To investigate those, we combine computational analysis with biological tools & databases with large scale data sets generated using state-of-the-art high-throughput sequencing and investigation protocols. Our focus in this regard is non-communicable diseases such as cancer, thyroid disorder, diabetes etc.

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**Research Areas:**

Bioinformatics, Network Biology, Systems Biology, Computer Aided Drug Design, QSAR, Molecular Dynamics Simulation

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**Research Project**

- Title:** Development of lead like molecules targeting ESKAPE pathogen essential proteins.  
**Funding Agency:** Department of Higher Education, Govt of Uttar Pradesh under Establishment of "Centre of Excellence" Scheme on Research Subject: Rational Drug Designing (Health – Genomics and Pharmaceuticals)  
**Total cost:** 20 Lakh      **Duration:** 2024-2027      **Status:** Ongoing      **Capacity:** PI
- Title:** Bacteria-based aerobic biodegradation and toxicity assessments of carpet industry azo dyes for sustainable agriculture (Project ID: 4059)  
**Funding Agency:** Council of Science and Technology, Govt of Uttar Pradesh  
**Total cost:** 14.36 Lakh      **Duration:** 2024-2027      **Status:** Ongoing      **Capacity:** Co-PI
- Title:** Insilico identification and molecular interaction study of repurposed drugs against concurrent infection of SARS-CoV-2 and Tuberculosis

**Funding Agency:** Department of Higher Education, Govt of Uttar Pradesh under “Research and Development” Scheme

**Total cost:** 5 Lakh

**Duration:** 2023-2026

**Status:** Ongoing **Capacity:** PI

4. **Title:** Identification of pathways involving Bcl-2 family of proteins: A network biology approach

**Funding Agency:** SERB, DST Govt of India under TARE Scheme

**Total cost:** 18.3 Lakh (11.75) **Duration:** 2019-2022 **Status:** Completed **Capacity:** PI

5. **Title:** DST INSPIRE INTERNSHIP

**Funding Agency:** DST, Govt of India

**Total Cost:** 13 Lakh **Duration:** 27-31 January 2020 **Status:** Completed **Capacity:** PI

**Outcome:** The objective of the Objective of the INSPIRE to build the required critical human resource pool for strengthening and expanding the Science & Technology system and R & D base. Thus 201 Students of Intermediate Level were benefitted with 5 days residential INSPIRE Internship science camp and learned Science experiment and were interacted with well renown academician/scientist.

### **Patent:**

**Title of the Invention:** Aptamer for *Pasteurella multocida* detection

**Inventors Name:** Subodh Soni, Dr. Hari Mohan, Dr. Krishna Kant Sharma, Dr. Manish Kumar Gupta, Sanjay Kumar, Dr. Rajesh Kumar and Dr. Sachin Kumar

**Publication No:** 19/2024 **Publication Date:** 10/05/2024 **Application No:** 202411018924

**Application Filing Date:** 15/03/2024 **Field of Invention:** Biotechnology

**Application Status:** Awaiting request for examination

### **Publications:** ([http://scholar.google.co.in/citations?user=d4\\_y4AAAAAJ](http://scholar.google.co.in/citations?user=d4_y4AAAAAJ))

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1. Rohit Sahu, **Manish Kumar Gupta**, Satendra Singh, Budhayash Gautam, Pramod Kumar Yadav (2024). In silico structural, functional and virtual screening study against proteasome subunit alpha of *Mycobacterium abscessus* subsp. *bolletii* as a drug target. African Journal of Biomedical Research, 27 (3S) (September2024); 755-769. DOI <https://doi.org/10.53555/AJBR.v27i3S.2113> (ISSN 1119-5096)
2. Divya Malviya, **Manish Kumar Gupta**, Rajesh Sharma (2024). Extraction, Characterization and Optimization of Alginate Biopolymer Produced by *Azotobacter Bryophylli* PU-RSD03 Isolated from Wheat Rhizospheric Soil. African Journal of Biomedical Research, 27 (3S), 1689-1703  
**DOI:** <https://doi.org/10.53555/AJBR.v27i3S.2395> (ISSN 1119-5096)
3. **Manish Kumar Gupta**, Anurag Mishra, Praveen Katiyar, Sanjay Kumar, Pramod Kumar Singh, Rakesh Kumar Dixit, Ajay Kumar Gupta, Indrajeet Singh (2023). The Role of Polyherbal Drugs as Neuroprotective Agents. European Chemical Bulletin, 2023, 12(10), 8092-8181
4. Sanjay Kumar, **Manish Kumar Gupta**, Sunil Kumar Gupta & Pramod Katara (2022) Investigation of molecular interaction and conformational stability of disease concomitant to HLA-DR $\beta$ 3, Journal of Biomolecular Structure and Dynamics, DOI: [10.1080/07391102.2022.2134211](https://doi.org/10.1080/07391102.2022.2134211) (IF 5.235) Print ISSN: 0739-1102 Online ISSN: 1538-0254 (<https://www.tandfonline.com/journals/tbsd20>)
5. **Gupta MK**, Misra K, (2016) A holistic approach for integration of biological systems and usage in drug discovery. Journal of Network Modeling Analysis in Health Informatics and Bioinformatics 5(1): Article 4. (DOI: 10.1007/s13721-015-0111-4) (ISSN: 2192-6662; Online ISSN: 2192-6670) (IF 2.0)

6. Singh DB, **Gupta MK**, Kesharwani A, Kumar R, Sagar M, Dwivedi S, Misra K (2014) Molecular drug targets and therapies for Alzheimer's disease. *Translational Neuroscience* 5(3): 203-17 (Print ISSN:2081-3856 Online ISSN:2081-6936) (**IF 1.8**)
7. Sagar M, Pathak RK, Pandey RK, Singh DB, Pandey N, **Gupta MK** (2014) Binding affinity analysis and ADMET prediction of epigallocatechine gallate (EGCG) derivatives for AP-1 protein: a drug target for liver cancer. *Network Modeling Analysis in Health Informatics and Bioinformatics* 3:66 (ISSN: 2192-6662; Online ISSN: 2192-6670) (**IF 2.0**)
8. **Gupta MK**, Misra K (2014) Atom based 3D-QSAR, molecular docking and molecular dynamics simulation assessment of inhibitors for thyroid hormone receptor  $\alpha$  and  $\beta$ . *Journal of Molecular Modeling* 20:2286 (Print ISSN:1610-2940; Online ISSN:0948-5023) (**IF 2.1**)
9. **Gupta MK**, Singh DB, Shukla R, Misra K (2013) Comprehensive metabolic modeling of thyroid pathway.in relation to thyroid pathophysiology and therapeutics. *OMICS: A Journal of Integrative Biology*. 17(11):584-593 (Print ISSN: 1536-2310 Online ISSN: 1557-8100) (**IF 2.2**)
10. Singh DB, **Gupta MK**, Singh DV, Singh SK, Misra K (2013) Docking and In silico ADMET studies of noraristeromycin, curcumin and their derivatives with *Plasmodium falciparum* SAH hydrolase: A molecular drug target against malaria. *Interdisciplinary Sciences: Computational Life Sciences*. 5:1-12 (ISSN: 1913-2751; Online ISSN 1867-1462) (**IF 3.9**)
11. Singh DB, **Gupta MK**, Misra K (2013) Comparative Docking and ADMET Study of Some Curcumin Derivatives and Herbal Congeners Targeting beta-Amyloid. *Journal of Network Modeling Analysis in Health Informatics and Bioinformatics*. 2(1):13-27 (ISSN: 2192-6662; Online ISSN: 2192-6670) (**IF 2.0**)
12. **Gupta MK**, Misra K, (2013) Modeling and Simulation Analysis of Propylthiouracil (PTU), an Anti-thyroid drug on Thyroid Peroxidase (TPO), Thyroid Stimulating Hormone Receptor (TSHR) and Sodium Iodide Symporter (NIS) based on Systems Biology Approach. *Journal of Network Modeling Analysis in Health Informatics and Bioinformatics*. 2(1): 45-27 (ISSN: 2192-6662; Online ISSN: 2192-6670) (**IF 2.0**)
13. **Gupta MK**, Agarwal K, Prakash N, Singh DV, Misra K (2012) Prediction of miRNA in HIV-1 genome and its targets through artificial neural network: a bioinformatics approach. *Journal of Network Modeling Analysis in Health Informatics and Bioinformatics*. 1(4):141-151 (ISSN: 2192-6662; Online ISSN: 2192-6670)
14. **Gupta MK**, Singh DB, Misra K (2012) Metabolic Modeling and Simulation Analysis of Thyroid Disorder Pathways. *J Comput Sci Syst Biol*. 5(2):52-61 doi:10.4172/jcsb.1000090 (ISSN: 0974 - 7230)
15. Gupta SK, Singh S, **Gupta MK**, Pant KK, Seth PK (2010) Definition of Potential Targets in *Mycoplasma Pneumoniae* Through Subtractive Genome Analysis. *J Antivir & Antiretrovir* 2: 038-041 (ISSN: 1948-5964)
16. Singh S, Gupta SK, Sabir G, **Gupta MK**, Seth PK (2009) A database for anti-diabetic plants with clinical / experimental trials. *Bioinformation*. 31;4(6):263-268 (Online ISSN 0973-2063; Print ISSN 0973-8894) (**IF 0.50**)

## Patent

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**Title of invention:** Aptamer for *Pasteurella multocida* detection

**Inventor(s):** Subodh Soni, Hari Mohan, Krishna Kant Sharma, **Manish Kumar Gupta**, Sanjay Kumar, Rajesh Kumar, Sachin Kumar

**Publication No:** 19/2024

**Publication Type:** INA

**Application Number:** 202411018924

**Application Filing Date:** 15/032024

**Field of Invention:** BIOTECHNOLOGY

**Status:** Awaiting Request for Examination

## Book / Book Chapters

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### Edited Book

1. **Manish Kumar Gupta**, Pramod Katara, Sukanta Mondal, Ram Lakhan Singh (1<sup>st</sup> Edition - May, 2024) Integrative Omics: Concept, Methodology and Application, Elsevier Paperback ISBN: 9780443160929 eBook ISBN: 9780443160936 (375 page)  
<https://www.sciencedirect.com/book/9780443160929/integrative-omics>
2. Mishra Giridhar, Dhawan Punit Kumar, **Gupta Manish Kumar**, Singh Devraj (2019) "Ultrasonics and Materials Science for Advanced Technology" The Proceedings of the International Conference on Ultrasonics and Materials Science for Advanced Technology (ICUMSAT-2019), November, 16-18,2019 , Narosa Publishing House Pvt. Ltd. (ISBN 978-81-8487-703-8) [http://www.narosa.com/books\\_display.asp?catgcode=978-81-8487-703-8](http://www.narosa.com/books_display.asp?catgcode=978-81-8487-703-8)

### Book Chapters

1. Rajeev Kumar Kapoor, Atifa Hafeez, Sanjay Kumar, Dhirender Mishra and **Manish Kumar Gupta**, Chapter 15 - Intellectual property rights of medicinal products. Editor(s): Dev Bukhsh Singh and Santosh Kumar Upadhyay. Medicinal Biotechnology: Methods and Application. Academic Press, 2024, Page No 327-341, ISBN: 978-0-443-22264-1  
<https://doi.org/10.1016/B978-0-443-22264-1.00015-3>
2. Upasna Srivastava, Swarna Kanchan, Minu Kesheri, **Manish Kumar Gupta**, Satendra Singh, Chapter 2 - Types of omics data: Genomics, metagenomics, epigenomics, transcriptomics, proteomics, metabolomics, and phenomics. Editor(s): Manish Kumar Gupta, Pramod Katara, Sukanta Mondal, Ram Lakhan Singh. Integrative Omics: Concept, Methodology and Application, Academic Press, 2024, Pages 13-34, ISBN 9780443160929, <https://doi.org/10.1016/B978-0-443-16092-9.00002-3>.
3. Atifa Hafeez, Archana Gupta, **Manish Kumar Gupta**, Chapter 3 - Biological omics databases and tools, Editor(s): Manish Kumar Gupta, Pramod Katara, Sukanta Mondal, Ram Lakhan Singh, Integrative Omics: Concept, Methodology and Application, Academic Press, 2024, Pages 35-53, ISBN 9780443160929, <https://doi.org/10.1016/B978-0-443-16092-9.00003-5>
4. Sanjay Kumar, Manjusa Singh, Rajesh Sharma, **Manish Kumar Gupta**, Chapter 4 - Systematic benchmarking of omics computational tools, Editor(s): Manish Kumar Gupta, Pramod Katara, Sukanta Mondal, Ram Lakhan Singh, Integrative Omics: Concept, Methodology and Application, Academic Press, 2024, Pages 55-83, ISBN 9780443160929, <https://doi.org/10.1016/B978-0-443-16092-9.00004-7>
5. Upasna Srivastava, Swarna Kanchan, Minu Kesheri, **Manish Kumar Gupta**, Satendra Singh, Chapter 10 - Integrative omics approaches for identification of biomarkers, Editor(s): Manish Kumar Gupta, Pramod Katara, Sukanta Mondal, Ram Lakhan Singh, Integrative Omics: Concept, Methodology and Application, Academic Press,2024, Pages 157-173,ISBN 9780443160929, <https://doi.org/10.1016/B978-0-443-16092-9.00010-2>
6. Sanjay Kumar, **Manish Kumar Gupta**, Chapter 13 - Data management in cross-omics, Editor(s): Manish Kumar Gupta, Pramod Katara, Sukanta Mondal, Ram Lakhan Singh, Integrative Omics: Concept, Methodology and Application, Academic Press, 2024, Pages 201-223, ISBN 9780443160929, <https://doi.org/10.1016/B978-0-443-16092-9.00013-8>
7. Sanjay Kumar, **Manish Kumar Gupta**, Chapter 16 - Data science and analytics, modeling, simulation, and issues of omics dataset, Editor(s): Manish Kumar Gupta, Pramod Katara,

- Sukanta Mondal, Ram Lakhan Singh, Integrative Omics: Concept, Methodology and Application, Academic Press, 2024, Pages 257-278, ISBN 9780443160929, <https://doi.org/10.1016/B978-0-443-16092-9.00016-3>
8. Shiv Kumar Yadav, Atifa Hafeez, Raj Kumar, **Manish Kumar Gupta**, Ravi Kumar Gutti, Chapter 21 - Biomolecular networks, Editor(s): Manish Kumar Gupta, Pramod Katara, Sukanta Mondal, Ram Lakhan Singh, Integrative Omics: Concept, Methodology and Application, Academic Press, 2024, Pages 351-367, ISBN 9780443160929, <https://doi.org/10.1016/B978-0-443-16092-9.00021-7>
  9. Manjusa Singh, Athaven Sukunathan, Swati Jain, Sunil Kumar Gupta, Ram Lakhan Singh, **Manish Kumar Gupta**, Chapter 23 - Omics technology policy and society research, Editor(s): Manish Kumar Gupta, Pramod Katara, Sukanta Mondal, Ram Lakhan Singh, Integrative Omics: Concept, Methodology and Application, Academic Press, 2024, Pages 379-400, ISBN 9780443160929, <https://doi.org/10.1016/B978-0-443-16092-9.00023-0>
  10. Pramod Kumar Singh, **Manish Kumar Gupta**, Rajendra Nath (2023) Chapter 16 - Omega-3 fatty acid as a protectant in lead-induced neurotoxicity. Treatments, Nutraceuticals, Supplements, and Herbal Medicine in Neurological Disorders. Colin R. Martin, Vinood B. Patel and Victor R. Preedy (Eds.). Page No 285-301, Academic Press (ISBN 978-0-323-90052-20) <https://doi.org/10.1016/B978-0-323-90052-2.00002-0>
  11. Pramod Katara, Shivani Tyagi, and **Manish Kumar Gupta (2023)** Chapter 1- Integrative Omics Trends and Scope for Agriculture. A Mani, A., & Kushwaha, S. (Eds.) (2023). Genomics of Plant–Pathogen Interaction and the Stress Response (1st ed.) Page 1-16. CRC Press. (eBook ISBN 9781003153481) <https://doi.org/10.1201/9781003153481>
  12. Singh P.K., Nath R., Naraian R., **Gupta M.K. (2020)** Structural and Functional Aspects of Muscarinic Receptors in Correlation with Anticholinergic Drugs. In: Singh D., Tripathi T. (eds) Frontiers in Protein Structure, Function, and Dynamics. Page No 317-338. Springer, Singapore. [https://doi.org/10.1007/978-981-15-5530-5\\_13](https://doi.org/10.1007/978-981-15-5530-5_13) (Online ISBN 978-981-15-5530-5, print 978-981-15-5529-9)
  13. Singh Dev Bukhsh, **Gupta Manish Kumar**, Pathak Rajesh Kumar (2020) Natural Products in Cancer Chemoprevention and Chemotherapy. Frontiers in Natural Product Chemistry. Vol 6 Pp. 3-34 (32) Bentham Science (ISBN: 978-981-14-4846-1 (Online) ISBN: 978-981-14-4844-7 (Print) [Natural Products in Cancer Chemoprevention and Chemotherapy | Bentham Science](#)
  14. Roshan Lal Gautam, Shweta Singh, **Manish Kumar Gupta** and Ram Naraian (2020) Effect of Four Different Oil Seed Cakes on Yield and Lignocellulolytic Enzymes During Cultivation of Oyster Mushroom *Pleurotus florida*. Page No 195-200. Ultrasonics and Materials Science for Advanced Technology, Narosa Publishing House New Delhi (ISBN 978-81-8487-703-8)
  15. Abhishek K. Bhardwaj, K. N. Uttam, **Manish Kumar Gupta**, Ram Naraian, and Ram Gopal (2020) Synthesis of Copper Nanostructure Using Sonochemical Assisted Co-Precipitation Method and Their Antibacterial Study. Page No 201-206. Ultrasonics and Materials Science for Advanced Technology, Narosa Publishing House New Delhi (ISBN 978-81-8487-703-8)
  16. Abhishek K. Bhardwaj, **Manish Kumar Gupta**, and R. Naraian (2019) Chapter 12 - Myco-Nanotechnological Approach for Improved Degradation of Lignocellulosic Waste: Its Future Aspect. Page 227-245. *Mycodegradation of Lignocelluloses*, Fungal Biology, Springer Nature Switzerland AG 2019 (ISBN 978-3-030-23833-9) ISBN 978-3-030-23834-6 (eBook) [https://doi.org/10.1007/978-3-030-23834-6\\_12](https://doi.org/10.1007/978-3-030-23834-6_12)
  17. Ram Naraian, Roshan Lal Gautam, Siya Ram, and **Manish Kumar Gupta (2019)** Chapter 8 Rhizoremediation of Polyaromatic Hydrocarbons (PAHs): A Task Force of Plants and Microbes. Pages 193-211. Phyto and Rhizo Remediation, Microorganisms for Sustainability Volume 9, Springer Nature Singapore, ISBN : 978-981-32-9663-3 [https://doi.org/10.1007/978-981-32-9664-0\\_8](https://doi.org/10.1007/978-981-32-9664-0_8)

## **Conference Proceeding /Abstract/Poster/Oral Presentation:**

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1. **Manish Kumar Gupta** (2023) Oral Presentation on “Multi-omics network-based approach for investigation of key regulators and complexity involved in the deviant pathway” 63<sup>rd</sup> Annual International Conference of AMI on theme “Microbial Technologies for Sustainable Biosphere” during 2- 4 February 2023.
2. Manish Kumar Gupta (2019) Oral Presentation on “Molecular Interaction and Confirmational Stability Analysis of Disease Concomitant to HLA-DRβ3” in 6<sup>th</sup> World Congress on Nanomedical Sciences, Chemistry Biology Interface : Synergistic New Frontiers & Science and Technology for the Future of Mankind during 7<sup>th</sup>-9<sup>th</sup> January 2019.
3. Naraian R, Goshwami S, Yadav KL, **Gupta MK** (2010) “Color removal of Textiles dyes By Crude Enzyme Extract, From Spent Substrate of Oyster Mushroom *Pleurotus florida* PF05” at 51st annual conference association of microbiologists of India (AMI) **December 14-17, 2010**, “International Symposium on Recent Advances in Cross-Disciplinary Microbiology: Avenue & Challenges & International Workshop on rRNA Sequencing , Phylogeny & Next Generation Genome Sequencing” Birla Institute of Technology, Mesra, Ranchi, India, Central University of Jharkhand, Ranchi , India, Birsa Agricultural University, Ranchi India.
4. Agnihotri S, Parihar SS, **Gupta MK**, Lalwani M (2012) “Metabolic Modeling of Autoimmune Skin Disorder Targeting Psoriasis Through Systems Biology Approach” poster presentation, 2<sup>nd</sup> International Conference on Open Source for Computer – Aided Translational medicine from **22<sup>nd</sup> to 25<sup>th</sup> February 2012** Organized by Institute of Microbial Technology (CSIR), Chandigarh, India.
5. Singh S, Gupta SK, **Gupta MK**, Seth PK. (2007) “Insilico: Protein Structure Prediction of Mannose binding lectin protein in *Convolvulus arvensis* Through Homology modeling” in international conference on Bioinformatics 2007(INCOB2007) presented by Asia Pacific Bioinformatics Network. New Delhi, India.
6. Singh S, Gupta SK , **Gupta MK** , Seth PK, (2007) “Phylogenetic analysis of HIV-1 envelope glycoprotein (gp160) in Asian countries”. Proceedings of International Conference on Applied Bioengineering (iCAB 07), Satyabhama University, Jeppiaar Nagar, Chennai, India. 5-7 December 2007 (Page n0 200 -204)



## **Editor member and Reviewer of Journal:**

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1. Associate Editor: Journal of Environmental Sustainability (Springer Nature publisher) ISSN 2523-8922, J.No. 42398 Impact Factor 3.0, Q2 Journal (<https://www.springer.com/environment/sustainable+development/journal/42398?detailsPage=editorialBoard>)
2. Associate Editor: International Journal of Wellness ([http://www.ijw.co.in/editorial\\_board.php](http://www.ijw.co.in/editorial_board.php))
3. Reviewer Network Modeling Analysis in Health Informatics and Bioinformatics (Springer)
4. Reviewer Journal of Computational Life Science (Springer)
5. Reviewer Journal of Biomedical informatics (Elsevier)
6. Reviewer Scientific Report (Nature)
7. Reviewer PLOS
8. Reviewer Biomedical Informatics

## **Membership of Professional Bodies:**

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-  Life Member: Federation of Asian Biotech Association (FABA) India (No.: 034)
-  Life Member: Indian Science Congress Association (Membership No. L16550)

- ✚ Life Member: Society for Environmental Sustainability (Membership No. 006)  
✚ Life Member: Association of Microbiologist of India (Membership No. 4778-2018)

### **Supervisor/Mentoring experience:**

1. Under Supervision Ph.D. Scholar: 03 (Ongoing)
2. Post-Doctoral Fellow: 01
3. PG students M.Sc.-Bioinformatics Project dissertation work: 60
4. PG Students M.Sc.- Biotechnology Project dissertation work: 05

### **Workshops / Symposium/Seminar/Conferences participated:**

1. National webinar on **“COVID 19: Health Aspects and Lifestyle”** on **27<sup>th</sup> July, 2020** jointly organized by UIHS, CSJM University, Kanpur and Field Outreach Bureau Ministry of Information & Broadcasting Govt. of India, Banda.
2. National Webinar on **“Self-Reliant Bharat: Problems & Challenges”** during **14-15 July 2020** organized by the Innovation Club, IGNTU, Amarkantak in Collaboration of National Institute of Women, Child & Youth Development (NIWCYD) Nagpur
3. Indo-Iranian international webinar **“Evolving Perspectives of COVID-19: Health and Global Landscape”** on **30<sup>th</sup> May 2020** organized by UIHS, CSJM University Kanpur, India in Association with Swami Vivekanand Cultural Centre, Embassy of India, Tehran Iran.
4. **Session Chair in International Conference** on Bioinformatics and Systems Biology -2018, during October 26<sup>th</sup> – 28<sup>th</sup>, 2018 at Indian Institute of Information Technology -Allahabad, UP
5. 16<sup>th</sup> Annual Conference of Uttar Pradesh Diabetes Association UPDAICON 2017 during 14-15 October 2017, Faizabad UP.
6. **“National Seminar on e-Learning and MOOCs in Higher Education”** organised by the Guru Angad Dev Teaching Learning Centre of MHRD under PMMMNTT and Centre for e-Learning, SGTB Khalsa College, University of Delhi on **29<sup>th</sup> March 2017**.
7. National Workshop on **“Basic ICT Skills, e-Learning and MOOCs for Educators”** Guru Angad Dev, Teaching Learning Centre, Under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, MHRD, Govt. Of India, Sri Guru Tegh Bahadur Khalsa College, University of Delhi, on **25-26 February 2017**.
8. Seminar on **“Abhiyaan AIDS Se Bachaw”** Organized by University Institute of Paramedical Sciences, CSJM University Kanpur and Swasth Kanpur Pariyojana on **29<sup>th</sup> November 2011**.
9. Workshop On **“Computational Methods in Physical, Geological Modelling and Drug Designing”** **29<sup>th</sup> September to 1<sup>st</sup> October 2011** Organized by National Centre of **Experimental Mineralogy and Petrology**, University of Allahabad & The National Academy of Sciences India, **(Allahabad Chapter), Allahabad**.
10. A national conference on **“Scope and Application of Microbes in Agriculture & Environment”** held on **19-21 February 2007** at Institute of Biosciences and Biotechnology, CSJM University, Kanpur, India.
11. Workshop on **“Medicinal Plants and Environment ”**Organized by Environmental Protection Society, Gorakhpur, U.P India, held in March 1997.

### **FDP/Short Term Training/ Refresher Courses**

1. Five Days **“Continuous Professional Development (CPD) of Faculty for Evidenced-Based**

- Teaching Strategies in STEM” 10<sup>th</sup> to 14<sup>th</sup> **October 2023** organised by Inter University Centre for Teacher Education, BHU, Varanasi UP India.
2. One week Training programme on **Academic Leadership** during **23-29 April 2019** at VBS Purvanchal University, Jaunpur Under the scheme of PMMMNMTT, MHRD, Govt. of India, by Centre of Academic Leadership and Education Management, AMU Aligarh.
  3. One-week short term In-house training programme on **“Pedagogy for 21<sup>st</sup> Century Learners”** organised by National Institute of Technical Teachers’ Training and Research, Kolkata, during **04 December 2017 to 08 December 2017** at CSJM University Kanpur.
  4. AICTE sponsored One-week QIP - Faculty Development Program on **“Biomedical Data Analytics (BioMeDics - 2017)”** organised by **Indian Institute of Technology, Kharagpur, Bengal, India** during 11 September to **17 September 2017**.
  5. One Week Short Term Training Program on **“Wireless Network”** organised by NITTTR Chandigarh, through Information communication technology at remote centre Department of Computer Application, University Institute of Engineering and Technology, CSJM University, Kanpur during **22 May to 26 May 2017**.
  6. **Two-week Faculty Development program** sponsored by Dept. of Science & Technology, Govt of India, New Delhi on **“Entrepreneurship Development”** organized by Centre for Industrial and Management Consultants, Kanpur at Institute of Hotel and Tourism Management, CSJM University Kanpur during **28<sup>th</sup> March 2015 to 10<sup>th</sup> April 2015**.
  7. UGC Sponsored four-week **16<sup>th</sup> Refresher course** in **Biotechnology** organised during **28 July to 22 August 2014** (26 Days) at academic college staff, **Jawaharlal Nehru University, New Delhi**.
  8. One-week short term courses titled Faculty Development Program on **“Intellectual Property Rights”** organized by **IIT-Delhi**, during **6-10 July 2009** under the sponsorship of Quality Improvement Programme, AICTE, Govt of India.
  9. National Level One-week short term courses on **“IPRs for Pharmaceutical Sector and Patent System in India”** at **National Institute of Technical Teachers' Training and Research, Chandigarh 26-30 July 2010**.
  10. Eight Week (2 month) Certificate course in **“Office Automation”** from Swami Vivekanand Institute of Information Technology, Gorakhpur during 6th May to 6th July, 2002.

**Seminar/Conferences organized/Science Camp/worked as Convener/member:**

1. Organized one day programme of Culture , language, attire and Food exhibition of India on 26 September 2022 on theme of **“ Unity in Diversity”** as Nodal Officer on the instruction of UP Govt.
2. Organized one day **IPR Awareness workshop** on **27<sup>th</sup> May 2022** in collaboration with the Office of the Controller General of Patents, Designs & Trademarks (CGPDTM), Govt. of India under the initiative of the Government's "Azadi ka Amrit Mahotsav” and National Intellectual Property Awareness Mission (NIPAM) as Program Coordinator at Veer Bahadur Singh Purvanchal University, Jaunpur, UP
3. Organized Two Days National Workshop on title **“Innovation and Intellectual Property Management in India”** during **8-9 October 2021 as Convener** at Veer Bahadur Singh Purvanchal University, Jaunpur, UP



4. Organized a webinar lecture series in Biological Sciences during **15<sup>th</sup> – 30<sup>th</sup> June 2020** as Coordinator of **Ashok Singhal Institute of Traditional Science and Technology (ASITST), Veer Bahadur Singh Purvanchal University, Jaunpur, UP India**
5. Organized Two Days National Workshop on title “Innovation and Intellectual Property Management in India” during **22-23 May 2020 as Convener** at Veer Bahadur Singh Purvanchal University, Jaunpur, UP
6. Worked as **Program Coordinator, INSPIRE Science Camp-2020** at Veer Bahadur Singh Purvanchal University Jaunpur, UP during 27-31 January 2020 sponsored by DST, Govt. of India.
7. Worked as **Convener** of Souvenir & Abstract Book Committee in “**FAC – 2017**” **International Conference on Fight against cancer**, held at Chhatrapati Shahu Ji Maharaj University, Kanpur, UP on **5-7 October 2017**.
8. Worked as member of the organizing committee of the Symposium “Trends in Biosciences: Recent Developments and Future Prospects’ (TRENDSBIO -2017) held on **19<sup>th</sup> August 2017** at Institute of Biosciences and Biotechnology, CSJM University, Kanpur.
9. Organised a seminar as **Convener** entitled “**Many Dimensions of Indian Atomic Energy Programme**” and Exhibition on “**BARC Technologies**” in association with **Bhabha Atomic Research Centre, Mumbai** on **25<sup>th</sup> February 2015**, at University Institute of Engineering and Technology, Chhatrapati Shahu Ji Maharaj University, Kanpur, UP.
10. Worked as **Convener** of Souvenir & Abstract Book Committee in “**Wellness Con – 2014**” **National Conference on Wellness**, held at Chhatrapati Shahu Ji Maharaj University, Kanpur, UP on 14<sup>th</sup> & 15<sup>th</sup> November 2014.
11. Organised a Seminar entitled “**Sustainable Science and Technology for Society**” as **Convener** on National Education Day, **11<sup>th</sup> November 2014**, at University Institute of Engineering and Technology, Chhatrapati Shahu Ji Maharaj University, Kanpur, UP.
12. Worked as Executive committee member **2<sup>nd</sup> National conference** of Society for promotion of Libraries on “Libraries Towards Digital Paradigm” **19-20 April 2014** organised by Department of Library and Information Science, Chhatrapati Shahu Ji Maharaj University Kanpur
13. Worked as active of member “**Youth Conclave (Success Mantra) and Job fair**” organised by University Placement Cell on 17-18 Mar 2012, at Chhatrapati Shahu Ji Maharaj University Kanpur.
14. Organised Seminar on “**Recent Trends in Biosciences and Biotechnology**” on National Education Day, 11<sup>th</sup> November 2011, University Institute of Engineering and Technology, CSJM University, Kanpur as an **Organizing Secretary**.
15. Worked as **Executive member** in the National Workshop on “**Current Trends in Computing and Bioinformatics**” Held on 23 and 24th Feb 2007 jointly organised by Department of Bioinformatics and Computer Science and Engineering at University Institute of Engineering and Technology, CSJM University Kanpur.
16. Organised Seminar on “**Education System in India: Introspection**” to celebrate National Education Day, 11<sup>th</sup> November, 2009 at University Institute of Engineering and Technology, CSJM University Kanpur.

### **Fellowship/Scholarship/Awards/Recognition:**

1. Fellowship under scheme Teacher Associateship Research Excellence-SERB, DST (2019-2022)

2. Qualified joint **CSIR-UGC** Junior Research fellowship (**JRF**) in Life Sciences and eligibility for lectureship – National Eligibility Test (**NET**) held on June 2003.
3. Qualified Graduate Aptitude Test in Engineering (**GATE**) in Life Sciences, MHRD with 97.42 percentile in 2003.
4. **Fellowship** by Department of Biotechnology, Govt. of India (2001-2003) to support M.Sc.- Biotechnology programme and master thesis project at University of Hyderabad.
5. **Scholarship** by Ministry of Human Resource and Development (2003-2005) , Govt. of India to support M.Tech. –Bioinformatics and thesis work.

### **Invited speakers/Chairperson in Workshop/Seminars/Conferences:**

| <b>S.No.</b> | <b>Name of the programme Workshop/Seminar/Conference</b>  | <b>Title of Talk</b>  | <b>Date</b>                     | <b>Place</b>  |
|--------------|---|---|---------------------------------|---|
| 1.           | International Conference on Advancements in Diagnostic Technologies: Global Healthcare Monitoring – 2024 (ADT-2024) (November 15-17, 2024)                                      | Omics and Integrative Biology Based Approach for Investigation of Key Regulators, Drug Targets and Complexity Involved in The Disease Pathway | 17 November 2024                | Department of Biotechnology, Motilal Nehru National Institute of Technology, Allahabad, Prayagraj, UP, India                                |
| 2.           | National Conference on Advanced Biotechnology & Biosystem (NC-ABB 2024)   | Integrative Network Biology Approach for Identification of Potential Drug Targets: Thyroid Pathways a Case Study                              | 11 November 2024                | Department of Biotechnology, Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, UP   |
| 3.           | Invited talk at Central University of South Bihar,  | Bioinformatics Approach for Multi-omics Data Integration and Analysis   | 22 December 2023                | Central University of South Bihar, Gaya, Bihar  |
| 4.           | National Conference on Emerging Trends in Biological Sciences (ETBS 2023) January 27-28, 2023   | Multi-omics data integration and analysis: An emerging trend in Bioinformatics  | 28 <sup>th</sup> January 2023   | Department of Biochemistry Dr. Rammanohar Lohia Avadh University Ayodhya – 224001   |
| 5.           | Faculty Development Program “Workshop on Molecular Docking, Virtual Screening and Computational Biology” 28 <sup>th</sup> March to 8 <sup>th</sup> April – 2022                 | Integrated network based approach to identify potential drug targets  | 8 <sup>th</sup> April – 2022    | NIPER-Hyderabad, Telangana  |
| 6.           | International Webinar on "Intellectual Property"  | Intellectual Property Rights Policy: Promoting Technological Innovation in India  | 23 <sup>rd</sup> December, 2020 | organized by CSJM University Kanpur, UP   |
| 7.           | TEQIP-III Sponsored ONE WEEK Faculty Development Program on “Bioinformatics, Big Data and Drug Discovery – Prospects & Challenges”  | Role is Systems Biology in Drug Discovery   | September 14 -18, 2020,         | Department of Computer Sc. & Engineering and Biotechnology, G. B. Pant Institute of Engineering and Technology, Pauri-Garhwal, Uttarakhand. |
| 8.           | Integrated Workshop on "Publication Ethics and Patenting" and International Conference on "Environmental Sustainability: Innovations, Translational Dimensions and Way Forward" | Intellectual Property Right Policy: Roadmap for the future of Innovation in India   | 10 February 2020                | Babasaheb Bhimrao Ambedkar University (A Central University) NAAC 'A' Accredited Vidya Vihar, Raebareli Road Lucknow-226025                 |

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|-----|---|---|---|---|
| 9.  | International Conference on Ultrasonics and Materials Science for Advanced Technology (ICUMSAT-2019)                      | “Integrative biology approach for investigation of key regulatory molecules involved in metabolic pathways”                                   | 18 November 2019                                | Prof. Rajendra Singh (Rajju Bhaiya) Institute of Physical Sciences for Study and Research, Veer Bahadur Singh Purvanchal University, Jaunpur, UP-222003   |
| 10. | International Conference on “Bioinformatics and Systems Biology” WBSB2018   | Chaired a Scientific session  | 26 <sup>th</sup> -28 <sup>th</sup> October 2018 | Indian Institute of Information Technology, Allahabad, UP, India  |
| 11. | International Conference on Fight Against Cancer, FAC-Con 2017  | Chairperson of the scientific session,  | 5-7 October 2017                                | University Institute of Health Sciences, Chhatrapati Shahu Ji Maharaj University, Kanpur  |
| 12. | International Conference on “Nanoscience and Nanotechnology ICNN - 2017”  | “Holistic approach from pathways modeling to molecular docking, QSAR and molecular dynamics simulation studies of biological molecules”       | 23 September 2017                               | Babasaheb Bhimrao Ambedkar University, Lucknow, UP, India   |
| 13. | National workshop on “Protein Structure Prediction and Function Analysis”   | Structure Prediction Pharmacophore modeling and Molecular Dynamics Simulation Analysis of Biological Molecules: Thyroid Receptor a case Study | March 02 – 04, 2017                             | Department of Bioscience and Biotechnology at Banasthali University, under the aegis of Department of Biotechnology, Government of India  |
| 14. | National Symposium cum Workshop on “Bioinformatics for Medical Research”  | A holistic Approach for Integration of Biological Systems Pathways  | January 20 - 21, 2017                           | Biomedical Informatics Centre, PGIMER, Chandigarh   |
| 15. | National workshop on “Advances in Bioinformatics and Computer Aided Drug Designing”                                       | Integration of Biological Systems Network for Drug Discovery  | February, 21 <sup>st</sup> , 2017               | Institute of Advanced Science & Technology, NIMS University Rajasthan, Jaipur   |
| 16. | Workshop on "Emerging Trends in Bioinformatics: Big Data Analysis and Drug Discovery"                                     | Systems Biology in perspective of Big Data  | December 21-23, 2016                            | Biotech Park Lucknow, U.P India   |
| 17. | National Workshop on “In-Silico Strategies for Disease Pathway Analysis & Biomarker Discovery”                            | Systems Biology: A holistic Approach for Integration of Biological Systems  | March 29 – 31, 2016                             | Biotech Park Lucknow, U.P India   |
| 18. | National Training Programme on "Bioinformatics and System Biology Approaches for Agriculture and Veterinary Applications" | Pathway modeling and simulation analysis through systems biology approach" Thyroid Pathways modeling a case study                             | September 13-15, 2014                           | Bioinformatics Sub DIC, Department of Molecular Biology & Genetic Engineering, College of Basic Sciences & Humanities, G. B. Pant University of Agriculture & Technology, Pantnagar-263145, Uttarakhand |
| 19. | National Conference on “Biomedical Science and Technology”  | Role of systems biology and biochemical modelling for drug discovery  | November 21-22 , 2013                           | CSIR-National Physical Laboratory, New Delhi  |
| 20. | National Workshop on “Basic Concepts of Bioinformatics and Bioinformatics Softwares”                                      | Rational designing of non-coding miRNA and siRNA  | Feb 9, 2013                                     | National Bioinformatics Infrastructure Facility Centre of DBT, D.G.(P.G.) College, Kanpur, Affiliated to CSJM University Kanpur   |
| 21. | National Seminar on “Science for shaping the future of India”   | Bioinformatics Opportunity and Challenges   | October 1-2, 2012                               | Dr. Harisingh Gour University (Central University), Sagar, M.P., India organised by Indian Science Congress   |

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|     |  |  |                        | Association Sagar chapter, Sagar  |
| 22. | National Workshop “Drug Discovery, Design Methods & Applications”  |  | September 11-13, 2012  | Biotech Park, Lucknow, U.P. India (promoted by Deptt. Of Biotechnology, Govt. Of India, and Deptt. Of Science and Technology, Govt. Of U.P. |
| 23. | National Workshop on “Chemoinformatics and Computational Drug Design”  | Structural Analysis of Non coding RNA for gene silencing                                     | February 27 – 29, 2012 | Biotech Park Lucknow, U.P India   |
| 24. | National Workshop on “Recent Advances in Structure-based Rational Drug Designing”                                | Role of Systems Biology for Drug Discovery   | October 12 – 14, 2011  | Biotech Park, Lucknow, U.P. India (promoted by Deptt. Of Biotechnology, Govt. Of India, and Deptt. Of Science and Technology, Govt. Of U.P. |
| 25. | National Workshop on “Bioinformatics: Tools in Sequencing & Drug Targeting”                                      | Omics to Drug Discovery through Systems Biology  | October 3-5, 2011      | National Bioinformatics Infrastructure Facility Centre of DBT, D.G.(P.G.) College, Kanpur, Affiliated to CSJM University Kanpur             |
| 26. | National Workshop on “Bioinformatics: In-Silico aspects of Drug Designing  | Systems Biology for Drug Discovery   | June 23-25, 2011       | Biotech Park, Lucknow, U.P. India   |
| 27. | National Workshop on “Structural Biology and Bioinformatics in Drug Design”                                      | Structural Analysis of Secondary Structure Prediction of RNA involved in Gene Silencing      | October 6 – 8, 2010    | Biotech Park Lucknow, U.P India   |
| 28. | National Workshop on “Bioinformatics and Molecular Modeling in Drug Design”                                      | In silico Secondary Structure Prediction and Analysis of miRNA in Virus for RNA interference | June 23 – 25, 2010     | Biotech Park Lucknow, U.P India   |
| 29. | National Workshop on “Drug Design Approaches: Molecular Modeling, Computational Chemistry and RNAi applications” | Rnomics: Rational Designing of non-coding RNA  | February 23-25, 2010   | Biotech Park Lucknow, U.P India   |
| 30. | National Workshop on “Role of Chemoinformatics, Pharmacoinformatics & Bioinformatics in Rational Drug Designing” | Role of Bioinformatics for Rational Designing of siRNA                                       | October 8-10, 2009     | Biotech Park, Lucknow, U.P India  |
| 31. | National Workshop on “Bioinformatics: Application and Current Approaches”  | Role of Systems Biology in Drug Discovery  | June 10-12, 2009       | Biotech Park, Lucknow, U.P India  |
| 32. | National Workshop on “Bioinformatics and its Application in RNAi”  | Study of miRNA gene network through systems biology  | February 17-19,2009    | Biotech Park, Lucknow, U.P India  |
| 33. | Training program on “Introduction to bioinformatics with hands on internet browsing and data searching”          | Structural database and molecular visualization of Protein through biological tools.         | January 9-10, 2009     | N.D University of Agriculture & Technology, Kumarganj, Faizabad, U.P., India  |
| 34. | National Workshop on “Bioinformatics in Molecular Modeling, Data Analysis and System Biology”                    | Systems Biology: From “omics” to Drug Discovery  | August 8-9, 2008       | Biotech Park, Lucknow, U.P India  |
| 35. | National Workshop on “Computational Tools and  | Phylogenetic Analysis: Method and Application in Bioinformatics                              | May 27-29,2008         | Biotech Park, Lucknow, U.P India  |

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|     | Databases for Genomics & Proteomics”   |   |                        |                                  |
| 36. | National Workshop on “Principle and Applications of Bioinformatics in Biotechnology”   |   | December 10-11, 2007   | Biotech Park, Lucknow, U.P India |
| 37. | National Workshop on “Bioinformatics Applications in Genomics and Proteomics”          | System Biology- A Bioinformatics Approach for biological system Network | September 13 -15, 2007 | Biotech Park, Lucknow, U.P India |
| 38. | National Workshop on “Structural Bioinformatics”                                       | RNA Structure Prediction and Visualization                              | June 8-9, 2007         | Biotech Park, Lucknow, U.P India |
| 39. | National Workshop on “Bioinformatics Tools & their Application in Biological Research” |   | February 15-17,2007    | Biotech Park, Lucknow, U.P India |

### **Teaching and Research Experience: 19+ Years**

1. 23<sup>rd</sup> December 2019 to till date: Associate Professor, Department of Biotechnology, Veer Bahadur Singh Purvanchal University, Jaunpur, UP
2. 30<sup>th</sup> May 2018 to 22<sup>nd</sup> December 2019: Assistant Professor, Department of Biotechnology, Veer Bahadur Singh Purvanchal University, Jaunpur, UP
3. 6<sup>th</sup> August 2005 to 29<sup>th</sup> May 2018: Assistant Professor, Department of Bioinformatics, UIET, CSJM University, Kanpur

**Research Experience:** 19 Years

**Supervisor:** 03 Ph.D. (Ongoing), 01 PDF (Completed) , 68 (PG dissertation Awarded)

**Teaching Experience: UG:** 10 Years **PG:** 19 Years

1. Pre-Ph.D. Course work
2. M.Sc. - Biotechnology
3. M.Sc. - Bioinformatics & Advanced P.G. Diploma in Bioinformatics
4. M.Sc. - Life Sciences, M.Sc. - Microbiology & M.Sc.- Nutrition Science
5. B.Tech. - Computer Science and Engineering, Mechanical Engineering, Chemical Engineering
6. Bachelor in Computer Application
7. B.Sc. (Hon). Biotechnology/ZBC

### **Administrative/Other Experiences:**

1. Head, Department of Biochemistry, Veer Bahadur Singh Purvanchal University, Jaunpur Since October 2024.
2. Convener, Board of Studies - Department of Biotechnology, Veer Bahadur Singh Purvanchal University, Jaunpur (2024-26)
3. Member, Sport Council of Veer Bahadur Singh Purvanchal University, Jaunpur (2024-2025)
4. Member Academic Council, Veer Bahadur Singh Purvanchal University, Jaunpur (2024-2025)
5. Member, Executive Council, Veer Bahadur Singh Purvanchal University, Jaunpur (2024-2025)
6. Coordinator – Ashok Singhal Institute of Traditional Science and Technology, VBSPU, Jaunpur Since June 2020
7. Convener – Data Processing/Vigilance and Result Declaration Committee 2021
8. Nodal Officer – Intellectual Property Rights Cell, Veer Bahadur Singh Purvanchal University, Jaunpur, UP since 2019
9. Member Secretary – Institutional Ethics Committee, Veer Bahadur Singh Purvanchal University, Jaunpur, UP (2020-2021)
10. Member: Academic Council, Veer Bahadur Singh Purvanchal University, Jaunpur (2019-2022)

11. Worked as Head Incharge – Department of Bioinformatics, UIET, Chhatrapati Shahu Ji Maharaj University Kanpur, UP
12. Worked as Program Officer of National Service Scheme (NSS) Unit - 4<sup>th</sup> of CSJM University, Kanpur, UP
13. Member Secretary of Institutional Ethics Committee, Chhatrapati Shahu Ji Maharaj University, Kanpur, UP
14. Worked as Centre Observer in JEE- B.Ed.-2017 conducted by Lucknow University, Lucknow
15. Worked as Member of Proctorial Board, Chhatrapati Shahu Ji Maharaj University, Kanpur.
16. In charge - Placement Cell, University Institute of Engineering and Technology, CSJM University, Kanpur during July 2014 – June 2016
17. Worked as Counselling Centre Representative of Joint Entrance Examination - B.Ed.-2012 conducted by DRMLA University, Faizabad, U.P
18. Worked as Centre Observer in JEE- B.Ed.-2012 conducted by DRMLA University, Faizabad
19. Worked as Member of University Placement Cell, CSJM University, Kanpur February- 2012
20. Member of Board of Studies, Department of Bioinformatics, C.S.J.M. University, Kanpur.
21. Worked as Assistant Centre Superintendent in University Entrance Examination conducted by CSJM University, Kanpur in 2011
22. Worked as Centre Observer in JEE- B.Ed.-2011 conducted by MJPR University Bareilly, U.P
23. Worked as Counselling Centre Representative in JEE-B.Ed.-, 2007, 2008, 2010, 2014 conducted by CSJM University Kanpur, Bheem Rao Ambedkar University, Agra and Lucknow University, Bundelkhand University, U.P., Respectively
24. Worked as Centre Representative in Entrance Examination of JEE-B.Ed.-2010 conducted by Lucknow University, U.P
25. Worked as Internal Centre observer in Combined Pre Medical Test 2010 conducted by CSJM University Kanpur, U.P
26. Worked as CSJM University Representative for exploration of University courses in “Hindustan Education Fair”, 16-17 May 2009 in Kanpur.
27. Worked as centre in charge for Conducting MBA/BBA Entrance Examination 2008
28. Worked as Member of Advisory Committee of “TECHMART 2008” a technical event organised by UIET, CSJM University Kanpur
29. Worked as Member of Placement committee, cultural committee, and anti-ragging committee at UIET, CSJM University, Kanpur, India (2008-09, 09-10).
30. Establishment of Bioinformatics Laboratory in 2006 at Department of Bioinformatics, University Institute of Engineering and Technology, CSJM University Kanpur

### **Supervision of Students**

#### **1. Ph.D. Supervision (Ongoing)**

- (i). Atifa Hafeez
- (ii). Manjusa Singh
- (iii). Shiv Kumar

#### **2. Purvanchal University Post Doctoral Fellow (Completed) PUPDF**

Dr. Pramod Kumar Singh (Placed In Hetero Biopharma Laboratory, Telangana India as Execute in Quality Control)

#### **3. PG Students (M.Sc.- Biotechnology)**

**2024 (Awarded)**

1. Molecular docking study of VanA of *Enterococcus faecium* (Sharmistha Chaurasiya)
2. Differential gene expression analysis (Zainab Fatima)
3. Differential gene expression analysis (Suraj Mishra)

**2023 (Awarded)**

4. Differential gene expression of cell death by non-apoptotic pathways via necrosis (Ishwari Sahu)
5. Lumpy skin disease virus (Anchal Maurya)

**2021 (Awarded)**

6. Pathway enrichment analysis of proteins involved in non-apoptotic pathways (Mrs. Atifa Hafeez)
7. In silico study of potential drug with targets for repurposing against SARS-corona Virus 2019 (Mrs Vishkha Singh)

**2020 (Awarded)**

8. Protein- Protein interaction of p53 protein involved in disease pathways (Mr. Manoj Kumar)

**PG Students (M.Sc.- Bioinformatics)**

**2017 (Awarded)**

9. Pathway Modelling network analysis of Diabetes Type 2 (Ms. Pratibha Diwedi)
10. Pathway Modelling analysis of Lung cancer (Ms. Anjali Katiyar)
11. Pathway Modelling analysis of Asthma (Ms. Simmi Zakkaurab)

**2015 (Awarded)**

12. Metabolic pathways modelling of cationic antimicrobial peptides (Aishwarya Tiwari)

**2013 (Awarded)**

13. Protein Modelling, docking and molecular dynamics simulation of HLA-DR $\beta$ 3 (**Sanjay Kumar**)
14. Docking study of simulators for stem cell proliferation (**Shubhra Dubey**)

**2012 (Awarded)**

15. Metabolic Modeling and Topological Analysis of Hypothalamus Pituitary Thyroid axis (**Rohit Shukla**)
16. Biochemical and Homology Modeling of HLADRB3 through Systems Biology Approach (**Shivangi Singh Parihar**)
17. Docking studies of Inhibitors for Thyroid Hormone Receptors (**Shikha Agnihotri**)
18. Computational Analysis of hormones Related to Thyroid Function (**Namrata Nigam**)
19. A novel proposed algorithm for prediction of immunostimulatory RNA ( **Durgesh Upadhay**)
20. Database Development for Human Hormones (**Swati Srivastva**)
21. In Silico vaccine Designing for Autoimmune thyroid disorder (**Krati Srivastava**)

22. Biological Network analysis of Homo Sapiens miRNA through Systems Biology approach (**Swati Srivastva**)
23. Computational modelling and simulation analysis for thyroid cancer progression pathways (**Chandramani**)

#### **2011(Awarded)**

24. Biochemical modeling and Simulation Analysis for Thyroid Disorder (**Anupam Chakraborty**)
25. InSilico Vaccine designing for autoimmune Hyperthyroidism (**Anupama Singh**)
26. Phylogenetic Analysis of Thyroid Stimulating Hormone receptor and Autoantibody (**Apoorv Tiwari**)
27. High throughput Docking study for Thyroid Disorder (**Preetilekha Bharti**)
28. Homology Modeling and Docking analysis for New Delhi Metallo Beta Lactomase 1 protein (**Shakti Kumar**)

#### **2010 (Awarded)**

29. Virtual screening and docking analysis for thyroid stimulating hormones receptor (**Anand Katiyar**)
30. Virtual screening and docking analysis with Autoantibody for thyroid disorder (**Neetesh**)
31. Biochemical Modeling and Thyroid Simulation Analysis for Thyroid Disorder (**Neha Rajora**)
32. Ligand based drug designing for Thyroid disease (**Hina Khan**)

#### **2009 (Awarded)**

33. Computational Analysis of Toll Like Receptor in Human and Their Interaction With isRNA (**Aditi Gupta**)
34. Database development of diseases due to protein misfolding in *Homo sapiens* (**Deepak Singh**)
35. Insilico modelling of metabolic pathway of Autoimmune skin disease targeting Psoriasis through System biology Approach (**Manisha Lalwani**)
36. miRNA –mRNA interaction network of KSHV and *Homo sapiens* for identification of miRNA target bases on Systems Biology Approach (**Meenakshi Verma**)
37. Computational analysis of SNP in 10 Kb region of Human Chromosomes 1 (**Pragya Chaturvedi**)
38. Computational designing of siRNA for Chikungunya virus (**Sukhdeep Kaur**)
39. Computational modeling of the interaction of metabolites in *Homo sapiens* for non-communicable disease targeting breast cancer (**Swati Shukla**)
40. Phylogenetic analysis of mammal's miRNA and protein involved in translation repression (**Upendra Singh**)
41. Construction of metabolic pathway of autoimmune thyroid disease through metabolic modelling (**Varsha Srivastva**)
42. Ligand based drug designing for thyroid stimulating hormone receptor of *Homo sapiens* (**Yashwant Vishwakarma**)



### **2008 (Awarded)**

43. On-siRNA: A Tool For Designing Effective siRNA (**Abhishek Shukla**)
44. Comparative Genome Analysis of *E.coli* k12 and *E coli* O157:H7 Using Biological Tools (**Abdul Lateef**)
45. Functional Genomic Approach to Predict The Gene Of *C. elegans* (**Anurag Kumar Jaiswal**)
46. Identification of miRNA Gene Interaction Network In Viruses Through System Biology Approach (**Ashutosh Pathak**)
47. Phylogenetic Analysis of Proteins Involved in Gene Silencing (**Gyandeep Yadav**)
48. Identification and Prediction Of miRNA In Viruses Using Artificial Neural Networks (**Kavita Agarwal**)
49. Database on retrovirus information resource (**Sakshi Issar**)
50. Database of Infectious Proteins of Micro-Organism for Human (**Sanjay Kumar Singh**)
51. Database of Immunological Factor and Structure Resource (**Devendar Singh Bhadauria**)
52. Structure Prediction and Phylogenetic Analysis of E2 Glycoprotein of Hepatitis C Virus of Indian Isolate for the development of an effective vaccine (**Kritika**)

### **2007 (Awarded)**

53. In- Silico design of siRNA for Chikungunya virus (**Rasika Thaker**)
54. Computational Analysis of HIV -1 Reverse Transcriptase Inhibitors and Homology Modeling of HIV –p1 sequence (**Saurabh Shukla**)
55. Phylogenetic Analysis of Polyprotein of Japanese encephalitis virus in Asian country (**Chandan Kumar**)
56. Phylogenetic Analysis of Den-2 protein of Dengue virus (**Rajeev Rav**)
57. Comparative Analysis of Human & Mouse Chromosome-7 Using Biological Tools (**Priyanka Sachan**)
58. Computational Analysis of Topoisomerase-II Inhibitors (**Sanjeev Kumar**)
59. Computational Identification and Prediction of micro-RNA in Hepatitis D Virus (**Abhishek Gupta**)
60. Rational design of siRNA for Duck Hepatitis B Virus (**Chetna Udainia**)
61. Microarray Data Analysis of Lung Cancer using Principal Component Analysis (**Mohammad Fareed**)
62. Database Development of Coding and Non-Coding RNA of Viruses (**Priyanka Bajpai**)

### **2006 (Awarded)**

63. Computational Analysis of Diauxic shift in Yeast from cDNA Microarray Data (**Ankur Srivastva**)
64. Computational Analysis of “alpha –synuclein” protein through protein drug interaction of Parkinson’s disease (**Akansha Srivastva**)
65. Database on protein misfolding disease caused in human body (**Sunil Kumar Gupta**)
66. Phylogenetic analysis of glycoprotein of HIV-1 in Asian countries (**Sarita Singh**)

67. A Biological Database Development for Fishes Using Active Server Page (**Uday Bhan Sharma**)
68. A database Development of Bt Toxins Using Active Server Page (**Deshdeepak Tripathi**)

***Dr. Manish Kumar Gupta***