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

Assistant Professor

Department of Biotechnology,

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Career Objetive

To make the best use of my biotechnology and bioinformatics skills to accept new challenges in a research and academic to augment the advancement and better understanding of science for the welfare of humanity.

Education:

- Ph.D.(Bioinformatics), 2015
 Faculty of Engineering and Technology, Dr. APJ Abdul Kalam Technical University, Lucknow, India.
- Master of Technology (Bioinformatics), 2005
 Indian Institute of Information Technology-Allahabad, India (Rated as Institute with 'centre for excellence')
- Master of Science (Biotechnology), 2003 University of Hyderabad, Telangana, India, (Rated as University with 'Potential for Excellence')
- Bachelor of Science (Chemistry, Zoology, Botany), 1999
 DDU Gorakhpur University, Gorakhpur, Uttar Pradesh, India

Research Experience:

Well-rounded Bioinformatics with a background in biotechnology. 12+ years of experience in Bioinformatics with expertise in systems biology, pathway modelling, docking, QSAR, molecular dynamics simulation and Rnomics. Our primary focus are the pathways modeling, simulation, data analysis of non-communicable disease such as thyroid disorder, diabetes, cancer etc. 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. Excellent communication skills with a strong commitment to scientific collaboration and innovation.

Research interests:

Network Biology, Metabolic pathway modelling and simulation analysis, Structure Prediction, 3DQSAR, Molecular Dynamics Simulation of Biomolecules.

Publications: (http://scholar.google.co.in/citations?user=d4__y4AAAAJ)

1. **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)

- 2. 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 1.012**)
- 3. 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)
- 4. **Gupta MK**, Misra K (2014) Atom based 3D-QSAR, molecular docking and molecular dynamics simulation assessment of inhibitors for thyroid hormone receptor α and β. Journal of Molecular Modeling 20:2286 (Print ISSN:1610-2940; Online ISSN:0948-5023) (**IF 1.867**)
- 5. **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 2.896**)
- 6. 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 0.753**)
- 7. 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)
- 8. **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)
- 9. **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)
- 10. **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)
- 11. 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)

12. 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**)

Conference Proceeding

- 1. 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), Sathyabama University, Jeppiaar Nagar, Chennai, India. 5-7 December, 2007 (Page n0 200 -204)
- Agnihotri S, Parihar SS, Gupta MK, Lalwani M (2012) "Metabolic Modeling of Autoimmune Skin Disorder Targeting Psoriasis Through Systems Biology Approach" poster presentation, 2nd International Conference on Open Source for Computer – Aided Translational medicine from 22nd to 25th February 2012 Organized by Institute of Microbial Technology (CSIR), Chandigarh, India.

Conference/Abstract/Poster:

- 1. 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.
- 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.

Extramural Research Programme:

2014-2017: Indian Council of Medical Research (ICMR), New Delhi has awarded Senior Research Fellowship grant for project titled "Molecular Modeling and in Vitro Evaluation Studies on Some Novel Active Plants Terpenoids and their Derivatives for Immunomodulatory and Anticancer Activities" for a period of three years under my supervision (Letter No BIC/11(37)2014) IRIS ID: 2014-26190 Under Extramural Research Programme.

Workshops / Symposium/Seminar/Conferences participated:

- 1. 16th Annual Conference of Uttar Pradesh Diabetes Association Accredited by UPMCI 8 Credit hours, UPDACON 2017 during 14-15 October 2017, Faizabad UP.
- **2.** "National Seminar on e-Learning and MOOCs in Higher Education" organised by the Guru Angad Dev Teaching Learning Centre of MHRD under PMMMNMTT and Centre for e-Learning, SGTB Khalsa College, University of Delhi on **29**th March **2017**.
- **3.** 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.**
- **4.** Seminar on "Abhiyaan AIDS Se Bachaw" Organized by University Institute of Paramedical Sciences, CSJM University Kanpur and Swasth Kanpur Pariyojana on **29**th **November 2011.**
- 5. Workshop On "Computational Methods in Physical, Geological Modelling and Drug Designing" **29**th **September to 1**st **October 2011** Organized by National Centre of **Experimental M**ineralogy and Petrology, University of Allahabad & The National Academy of Sciences India, (Allahabad Chapter), Allahabad.
- 6. A national conference on "Scope and Application of Microbes in Agriculture & Environment" held on 19-21 Feb-2007 at Institute of Biosciences and Biotechnology, CSJM University, Kanpur, India.
- **7.** 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. One week short term In-house training programme on "Pedagogy for 21st Century Learners" organised by National Institute of Technical Teachers' Training and Research, Kolkata, during 04 December 2017 to 08 December 2017.
- 2. 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.
- **3.** 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.**
- **4. 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**th **March 2015 to 10**th **April 2015.**
- 5. UGC Sponsored four-week 16th Refresher course in Biotechnology organised during 28 July to 22 August 2014 (26 Days) at academic college staff, Jawaharlal Nehru University, New Delhi.
- 6. 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.
- 7. 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.
- 8. 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/worked as member:

1. 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.

- 2. Worked as member of the organizing committee of the Symposium "Trends in Biosciences: Recent Developments and Future Prospects' (TRENDSBIO -2017) held on **19**th **August 2017** at Institute of Biosciences and Biotechnology, CSJM University, Kanpur.
- 3. 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 25th February 2015, at University Institute of Engineering and Technology, Chhatrapati Shahu Ji Maharaj University, Kanpur, UP.
- 4. 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 14th & 15th November 2014.
- 5. Organised a Seminar entitled "Sustainable Science and Technology for Society" as Convener on National Education Day, 11th November 2014, at University Institute of Engineering and Technology, Chhatrapati Shahu Ji Maharaj University, Kanpur, UP.
- 6. Worked as Executive committee member 2nd 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
- 7. 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.
- 8. Organised Seminar on "Recent Trends in Biosciences and Biotechnology" on National Education Day, 11th November 2011, University Institute of Engineering and Technology, CSJM University, Kanpur as an **Organizing Secretary**.
- 9. 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.
- 10. Organised Seminar on "**Education System in India: Introspection**" to celebrate National Education Day, 11th November, 2009 at University Institute of Engineering and Technology, CSJM University Kanpur.

NET/Fellowship/Scholarship:

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

Editor member and Reviewer of Journal:

Associate Editor: Journal of Environmental Sustainability (Springer Nature publisher)

ISSN 2523-8922, J.No. 42398

$(\underline{https://www.springer.com/environment/sustainable+development/journa})\\$

1/42398?detailsPage=editorialBoard)

Assoc. Editor: International Journal of Wellness (http://www.ijw.co.in/editorial_board.php)
Reviewer Network Modeling Analysis in Health Informatics and Bioinformatics (Springer)

Reviewer Journal of Computational Life Science (Springer)
Reviewer Journal of Biomedical informatics (Elsevier)

Invited speakers/Chairperson in Workshop/Seminars/Conferences:

S.No.	Name of the programme Workshop/Seminar/Conference	Date	Place
1.	Chairperson of the scientific session, International Conference on Fight Against Cancer, FAC-Con 2017	5-7 October 2017	Chhatrapati Sahu Ji Maharaj University, Kanpur
2.	International Conference on "Nanoscience and Nanotechnology ICNN -2017"	23 September 2017	Babasaheb Bhimrao Ambedkar University , Lucknow, UP, India
3.	National workshop on "Protein Structure Prediction and Function Analysis"	March 02 – 04, 2017	Department of Bioscience and Biotechnology at Banasthali University, Rajsthan, under the aegis of Department of Biotechnology, Government of India
4.	National workshop on "Advances in Bioinformatics and Computer Aided Drug Designing"	February, 21 st , 2017	Institute of Advanced Science & Technology, NIMS University Rajasthan, Jaipur
5.	National Symposium cum Workshop on "Bioinformatics for Medical Research"	January 20 - 21, 2017	Biomedical Informatics Centre, PGIMER, Chandigarh
6.	National Workshop on "Emerging Trends in Bioinformatics: Big Data Analysis and Drug Discovery"	December 21- 23, 2016	Biotech Park Lucknow ,U.P India
7.	National Workshop on "In-Silico Strategies for Disease Pathway Analysis & Biomarker Discovery"	March 29 – 31, 2016	Biotech Park Lucknow ,U.P India
8.	National Training Programme on "Bioinformatics and System Biology Approaches for Agriculture and Veterinary Applications"	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
9.	National Conference on "Biomedical Science and Technology"	November 21-22, 2013	CSIR-National Physical Laboratory, New Delhi
10.	National Workshop on "Basic Concepts of Bioinformatics and Bioinformatics Softwares"	Feb 9, 2013	National Bioinformatics Infrastructure Facility Centre of DBT ,D.G.(P.G.) College, Kanpur, Affiliated to CSJM University Kanpur
11.	National Seminar on "Science for shaping the future of India"	October 1-2, 2012	Dr. Harisingh Gour University (Central University), Sagar , M.P., India organised by Indian Science Congress Association Sagar chapter, Sagar
12.	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.
13.	National Workshop on "Chemoinformatics and Computational Drug Design"	February 27 – 29, 2012	Biotech Park Lucknow ,U.P India
14.	National Workshop on "Recent Advances in Structure-based Rational Drug Designing"	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.
15.	National Workshop on "Bioinformatics: Tools in Sequencing & Drug Targeting"	3rd-5th Oct, 2011	National Bioinformatics Infrastructure Facility Centre of DBT ,D.G.(P.G.) College, Kanpur, Affiliated to CSJM University Kanpur
16.	National Workshop on "Bioinformatics: In- Silico aspects of Drug Designing	June 23-25, 2011	Biotech Park , Lucknow , U.P. India
17.	National Workshop on "Structural Biology and Bioinformatics in Drug Design"	October 6 – 8, 2010	Biotech Park Lucknow ,U.P India
18.	National Workshop on "Bioinformatics and Molecular Modeling in Drug Design"	June 23 –25, 2010	Biotech Park Lucknow ,U.P India
19.	National Workshop on "Drug Design Approaches: Molecular Modeling, Computational Chemistry and RNAi applications"	February 23- 25, 2010	Biotech Park Lucknow ,U.P India
20.	National Workshop on "Role of Chemoinformatics, Pharmacoinformatics & Bioinformatics in Rational Drug Designing"	October 8-10, 2009	Biotech Park, Lucknow ,U.P India
21.	National Workshop on "Bioinformatics: Application and Current Approaches"	June 10-12, 2009	Biotech Park, Lucknow ,U.P India
22.	National Workshop on "Bioinformatics and its Application in RNAi"	February 17- 19,2009	Biotech Park, Lucknow ,U.P India
23.	Training program on "Introduction to bioinformatics with hands on internet browsing and data searching"	January 9-10, 2009	N.D University of Agriculture & Technology, Kumarganj, Faizabad, U.P., India
24.	National Workshop on "Bioinformatics in Molecular Modeling, Data Analysis and System Biology"	August 8-9, 2008	Biotech Park, Lucknow ,U.P India
25.	National Workshop on "Computational Tools and Databases for Genomics & Proteomics"	May 27- 29,2008	Biotech Park, Lucknow ,U.P India
26.	National Workshop on "Principle and Applications of Bioinformatics in Biotechnology"	December 10- 11, 2007	Biotech Park, Lucknow ,U.P India
27.	National Workshop on "Bioinformatics Applications in Genomics and Proteomics"	September 13 -15, 2007	Biotech Park, Lucknow ,U.P India
28.	National Workshop on "Structural Bioinformatics"	June 8-9, 2007	Biotech Park, Lucknow ,U.P India
29.	National Workshop on "Bioinformatics Tools & their Application in Biological Research"	February 15- 17,2007	Biotech Park, Lucknow ,U.P India

Teaching Experience: $12\frac{1}{2}$ + years

- 1. 30th May 2018 to till date, Department of Biotechnology, Veer Bahadur Singh Purvanchal University, Jaunpur, UP
- 2. 6th August 2005 to 29th May 2018 Department of Bioinformatics, UIET, CSJM University, Kanpur

Courses/ Taught:

- 1. Pre-Ph.D. course work
- 2. M.Sc.–Bioinformatics & Advanced P.G. Diploma in Bioinformatics
- 3. M.Sc.-Biotechnology, M.Sc. Life Sciences, M.Sc. Microbiology & M.Sc.- Nutrition Science
- 4. B.Tech.- Computer Science and Engineering, Mechanical Engineering, Chemical Engineering
- 5. BCA

Administrative Experiences:

- 1. Worked as Incharge Department of Bioinformatics, UIET, Chhatrapati Shahu Ji Maharaj University Kanpur
- 2. Working as Program Officer of National Service Scheme (NSS) Unit 4th of CSJM University, Kanpur
- 3. Member Secretary of Institutional Ethics Committee, Chhatrapati Shahu Ji Maharaj University, Kanpur
- 4. Worked as Centre Observer in JEE- B.Ed.-2017 conducted by Lucknow University, Lucknow
- 5. Member of Proctorial Board, CSJM University since 2015.
- 6. In charge Placement Cell, University Institute of Engineering and Technology, CSJM University, Kanpur July 2014 June 2016
- 7. Worked as Counselling Centre Representative of Joint Entrance Examination B.Ed.-2012 conducted by DRMLA University, Faizabad, U.P
- 8. Worked as Centre Observer in JEE- B.Ed.-2012 conducted by DRMLA University, Faizabad
- 9. Active Member of University Placement Cell, CSJM University, Kanpur since February- 2012
- 10. Member of Board of Studies, Department of Bioinformatics, C.S.J.M. University, Kanpur.
- 11. Worked as Assistant Centre Superintendent in University Entrance Examination conducted by CSJM University, Kanpur in 2011
- 12. Worked as Centre Observer in JEE- B.Ed.-2011 conducted by MJPR University Bareilly, U.P.
- 13. Worked as Counselling Centre Representative in JEE-B.Ed.-, 2007, 2008, 2010, 2014 conducted by CSJMU University Kanpur, Bheem Rao Ambedkar University, Agra and Lucknow University, Bundelkhand University, U.P., Respectively
- 14. Worked as Centre Representative in Entrance Examination of JEE-B.Ed.-2010 conducted by Lucknow University, U.P
- 15. Worked as Internal Centre observer in Combined Pre Medical Test 2010 conducted by CSJM University Kanpur, U.P
- 16. Worked as CSJM University Representative for exploration of University courses in "Hindustan Education Fair", 16-17 May 2009 in Kanpur.
- 17. Worked as centre in charge for Conducting MBA/BBA Entrance Examination 2008
- 18. Worked as Member of Advisory Committee of "TECHMART 2008" a technical event organised by UIET, CSJM University Kanpur
- 19. Member of Placement committee, cultural committee and anti-ragging committee at UIET, CSJM University, Kanpur, India (2008-09, 09-10).
- 20. Procurement and establishment of Bioinformatics Laboratory at Department of Bioinformatics, University Institute of Engineering and Technology, CSJM University Kanpur

Membership of Professional Bodies:

- Life member, Indian Science Congress Association (membership No. L16550)
- Life member, Society for Environmental Sustainability

Mentoring experience:

Supervised more than 60 students of M.Sc.-Bioinformatics for their Project work.