




INSTITUTE OF HOME ECONOMICS
UNIVERSITY OF DELHI



Name	Dr. Manish	Photograph
Designation	Assistant Professor	
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Educational Qualifications:

2007: M.Sc. (Biotechnology), School of Biotechnology, Jawaharlal Nehru University, New Delhi, India
2013: Ph.D. Title of thesis: Development of subunit-based vaccine against anthrax, School of Biotechnology, Jawaharlal Nehru University, New Delhi, India. Supervisor: Prof. Rakesh Bhatnagar

Teaching Experience:

- 14th August 2014 to 9th June 2015 (on study leave till 4th January 2017): Assistant Professor, Manipal University Jaipur, Rajasthan, India.
- 16th Nov 2021 to 11th May 2022: Visiting faculty at the Centre of Excellence in Pharmaceutical Sciences, Guru Gobind Singh Indraprastha University, New Delhi.
- From 20th November 2023 to now: Assistant Professor, Department of Microbiology, Institute of Home Economics, University of Delhi

Subjects/Papers Taught:

- Biochemistry, Microbial Biotechnology, Applied Food Microbiology, Food Microbiology and Food Safety at the Institute of Home Economics, University of Delhi.
- Concepts in Drug Design: Subject code PC-711: M. Sc Third Semester, Computational Drug Design Practical: Subject Code PC-751: M. Sc Third Semester, Computation: Unit IV: M. Sc First Semester as visiting faculty at the Centre of Excellence in Pharmaceutical Sciences, Guru Gobind Singh Indraprastha University, New Delhi.
- Genetics, Bioinformatics, Molecular Genetics, Analytical Techniques, Bioprocess Engineering, Downstream Processing, Immunology, and Animal cell culture, along with practicals as an assistant professor at Manipal University Jaipur.

Awards received

- ISIRV Travel Grant, 2022, from The International Society for Influenza and other Respiratory Virus Diseases.
- Senior Research associate fellowship under Scientist's Pool Scheme, 2020, CSIR
- INDVAC travel grant, 2017, from INDVAC, Christian Medical College, Vellore
- Fellowship, 2016, Young Scientist Scheme, SERB-DST
- Bacillus-act Travel Grant, 2015, from American Society of Microbiology.

- Research Associate Fellowship, 2014, Indian Council of Medical Research.
- SBRI India GID fellowship, 2011, funded by NIH- Fogarty International Center.
- Fulbright Fellowship, 2010, from J. William Fulbright Foreign Scholarship Board, Funded by the US Department of State.
- Short-term stay fellowship, 2009, Utrecht University (UU), The Netherlands
- CSIR-Junior Research Fellowship+ UGC National eligibility test, 2007, CSIR
- Junior Research Fellowship, 2007, Department of Biotechnology in Category A merit list (Top 100 successful candidates are included in Category A merit list)
- Graduate Aptitude Test in Engineering (GATE), 2006, (All India Rank 102 out of 9993 students)
- Scholarship for M.Sc., 2005, Department of Biotechnology

Research Interest/Specialization: Multidisciplinary Approaches for Vaccine, Drug, and Mosquito Surveillance System

ORCID No.: NA

Research Projects:

Title	Funding agency/organization	Duration of Project
Development of conformationally intact immunogen against malaria	SERB-DST, File no: YSS/2015/000031, Total Sanctioned amount: 37,57,500 INR	3 Years 3 Months

Research papers since 2010

(First/Corresponding Author only)

Theme: Multidisciplinary Approaches for Vaccines and Drugs in Indian academic settings.

- Manish Manish, Monika Pahuja, Andrew M. Lynn, Smriti Mishra. 2023 RNA-binding domain of SARS-CoV2 nucleocapsid: MD simulation study of the effect of the proline substitutions P67S and P80R on the structure of the protein, *Journal of Biomolecular Structure and Dynamics*, DOI: 10.1080/07391102.2023.2240904, Print ISSN: 0739-1102 Online ISSN: 1538-0254 PubMed ID: 37526269
- Manish Manish, Smriti Mishra, Monika Pahuja, Ayush Anand, Naidu Subbarao and Ram Samudrala. 2023. Computational grafting of the epitope, *Methods in Molecular Biology*, PUBMED ID: 37258909, DOI: 10.1007/978-1-0716-3239-0_7, 2673:111-122, ISSN:1064-3745 ISBN: 978-1-4939-3388-4
- Manish Manish, Smriti Mishra, Ayush Anand and Naidu Subbarao. 2022. Computational molecular interaction between SARS-CoV-2 main protease and theaflavin digallate using free energy perturbation and molecular dynamics. *Computers in Biology and Medicine*, 150, PMID: 36240593, ISSN: 0010-4825, DOI: 10.1016/j.combiomed.2022.106125
- Manish, Manish, Shashikala Verma, Divya Kandari, Parul Kulshreshtha, Samer Singh, and Rakesh Bhatnagar. 2020. Anthrax Prevention through Vaccine and Post-Exposure Therapy. *Expert Opinion on Biological Therapy*. [ISSN 1471-2598]; [e-ISSN 1744-7682] PMID 32729741 <https://doi.org/10.1080/14712598.2020.1801626>.

- Manish Manish, Andrew M Lynn, Smriti Mishra. 2019. Cytochrome P450 2C9 Polymorphism: Effect of amino acid substitutions on protein flexibility in the presence of Tamoxifen. *Computational Biology and Chemistry*, ISSN: 1476-9271. DOI: 10.1016/j.compbiolchem.2019.107166
- Smriti Mishra and Manish Manish. 2018. Studies on computational grafting of malarial epitopes in serum albumin. *Computers in Biology and Medicine*, 102, 126–131. ISSN: 0010-4825 <https://doi.org/10.1016/J.COMPBIOMED.2018.09.018>

(1,545,392 epitopes reported in approximately 23,343 research articles, this article developed a model for the use of these epitopes as a vaccine candidate)

- Manish Manish and Smriti Mishra. 2018 Do we need Controlled Human Infection Models in India? *Indian Academy of Sciences-Confluence*, <http://confluence.ias.ac.in/do-we-need-controlled-human-infection-models-in-india/>
- Manish, Manish and Rakesh Bhatnagar. 2017. Antibody Response is Differentially Influenced by PLGA-PAD4 Particle Characteristics. *International Journal of Infection* 4(4):e15594E-ISSN: 2383-1421 P-ISSN:2383-1413 DOI: 10.5812/iji.15594
- Manish, Manish, Rakesh Bhatnagar, Samer Singh. 2016. Preparation and Characterization of PLGA Encapsulated Protective Antigen Domain 4 Nanoformulation. *Methods in Molecular Biology (Clifton, N.J.)*, 1404, 669–81. http://doi.org/10.1007/978-1-4939-3389-1_43 ISSN:1064-3745 ISBN: 978-1-4939-3388-4
- Smriti Mishra & Manish Manish. 2016. Breast Cancer: Role Of Pharmacogenetics in Tamoxifen Therapy. *International Journal of Molecular & ImmunoOncology*, 1(1), 10–23.ISSN:24563994, <http://dx.doi.org/10.18203/issn.24563994.IntJMolImmunoOncol20164384>
- Manish Manish, Amit Rahi, Manpreet Kaur, Rakesh Bhatnagar, and Samer Singh. 2013. A Single-Dose PLGA Encapsulated Protective Antigen Domain 4 Nanoformulation Protects Mice against Bacillus anthracis Spore Challenge. *PloS one* 8(4): e61885. ISSN · 1932-6203

Any Other

Research Experience after PhD:

- 10th June 2015 to 19th Oct 2016: ICMR-Research Associate, School of Computational and Integrative Sciences, JNU, New Delhi-110067
- 20th October 2016 to 20th December 2019: Principal Investigator under SERB-DST-Young Scientist Scheme at Indian Council of Medical Research-National Institute of Malaria Research, New Delhi-110077
- 29 January 2020 to 28 January 2023: Senior Research Associate under CSIR-Scientist's pool scheme at the School of Computational and Integrative Sciences, JNU