Dr. Mahendra K Verma M. Tech, Ph.D.
Establishment Officer (Research and Development),
Centre of Excellence (CoE)
National Institute of Pharmaceutical Education and Research (NIPER) Raebareli,
Lucknow, Uttar Pradesh, India
Email mahendra.verma@niperrbl.ac.in
Email mahendraverma1980@gmail.com
Contact 9492901641, 9005551409

About me

- I am working as an Establishment Officer (Research and Development), Centre of Excellence (CoE), National Institute of Pharmaceutical Education and Research Raebareli (NIPER R), Lucknow, Uttar Pradesh. At NIPER Raebareli, CoE is being established in the Novel Drug Delivery Systems (NDDS) to bridge academia and industry for translation outcomes. CoE is being established with financial support from the Department of Pharmaceutics (DoP), Ministry of Chemicals and Fertilizers (MoC&F), Government of India (GoI). As EO (R&D), my role is to establish the Centre and connect industries (pharmaceutical, nutraceuticals, excipients and cosmetics) with ongoing NIPER Raebareli and CoE research to foster laboratory research into the market.
- Earlier, I worked as Chief Executive Officer (CEO) with R.V.R. & J.C. C.E. STP Foundation, Guntur, Andhra Pradesh. The foundation is funded by the Department of Science and Technology (DST), Government of India, under the National Initiative for Development and Harnessing Innovations (NIDHI) and is an inclusive Technology Business Incubator (iTBI). As CEO, my role is to ensure the establishment, finance and operation of the technology business incubator. As duties were defined (DST SOP), I worked to foster innovations and startups in the region for society.
- As a researcher, I have been working in protein biochemistry (enzyme therapeutics) and unravelling enzyme promiscuity for diverse catalytic reactions and the broad substrate affinity of enzymes. The role of the promiscuous nature of enzymes in therapeutic development remains a major goal of my doctoral and post-doctoral studies. I have a deep interest in bioinformatics and system biology. I have been working on Human Microbial Ecology: Biotics components, their derivatives for diagnostic and therapeutic applications.

Academic Profile

- Ph.D. (Biotech), Acharya Nagarjuna University, Guntur, India (2009-2015)
- M. Tech. (Biotech) West Bengal University of Technology, India, first division (2006-2008)
- B. Pharma. Uttar Pradesh Technical University, Lucknow, India, First Division (2001-2005)

Course work

- Medical Terminology from the University of California, San Diego (UCSD), completed in November 2018
- Drug Development Process, University of California, San Diego (UCSD), completed May 2019

Experience

- Chief Executive Officer (CEO), RVR & JC CE STP Foundation (DST NIDHI i-TBI), 2024-2025
- Director, Research and Development, MetaBioGenX Pvt. Ltd., India 2023- till date
- Assistant Professor, American University School of Medicine, Aruba, 2020-2022.

- Scientist, Centre for Molecular Biology Research (CMBR), Bhopal, India (2019- 2020).
- Scientific Consultant and Research associate for Rejuvenation Therapeutics Corp, 2018-2019.
- Post-Doctoral Fellow, Indian Institute of Science Education and Research, Bhopal 2016-2018
- Assistant Professor, Biotech, R.V.R.&J.C. College of Engineering, Guntur, India 2008-2015
- Assistant Production Engineer, ASA Biotech Pvt. Ltd., Baddi, Himachal Pradesh 2005-2006

Selected publications

- Chavhan AB, Hemamalini K, Babitha B, Verma YK and **Verma MK**, In-Silico study and in-vitro validations for an affinity of mangiferin with *Aldose Reductase: investigating potential in* tackling Diabetic retinopathy. Computational Biology and Chemistry 114 (2025) 108281
- Thukral SK, Singh H and **Verma MK,** Nanotechnology-based materials and inventions to fight against COVID-19: Recent progress in the development of robust diagnostics, surveillance tools, therapeutics and vaccines, **Health and Technology**, 2024.
- Maan, H. S., Patil, V., Chowdhary, R., Kanwar, J. R., Mahendra, K. V., Bhargava, S., Chaurasia, D., Dave, L., Kapoor, G., Biswas, D., Bamkale, A. and Thakur, S. Whole genome characterization of SARS-CoV-2 identified in stool samples from COVID-19 patient, Central India. 2024 https://www.ncbi.nlm.nih.gov/nuccore/2692781023
- Hemamalini K, Chavhan AB, Babitha B, Madhavi J and **Verma MK**, Human Gut Microbial Ecology and association with Post Biotics; Prophylactic and diagnostic application, Nutrition Clinic Metabolism, 2024;38 (2): 71-81 https://doi.org/10.1016/j.nupar.2023.12.003
- Shakya S, Ambati A and **Verma MK**, Nicotine biodegradation and trafficking of its metabolites for the production of industrially significant compounds, Research Journal of Biotechnology, 17 (8) 2022. **(IF 0.454).**
- Tiwari M, **Verma MK**, Singh PK, and Bharti D. Role of Fok I VDR polymorphism in TB risk assessment; A Study in Central India population, Meta Gene 2021; 29 (100896). 10.1016/j.mgene.2021.100896 IF 0.532
- Siddiqa, M.A., Rao, D.S., Suvarna, G. **Verma MK** and Rao MVR. In-Silico Drug Designing of Spike Receptor with Its ACE2 Receptor and Nsp10/Nsp16 MTase Complex against SARS-CoV-2. *Int J Pept Res Ther* (2021). https://doi.org/10.1007/s10989-021-10196-x (**IF 2.19**)
- Verma MK., Shakya, S., Kumar, P. *et al.* Trends in packaging material for food products: historical background, current scenario, and future prospects. *J Food Sci. Technol.* **58,** 4069–4082 (2021). https://doi.org/10.1007/s13197-021-04964-2 **(IF 3.11)**
- Babele PK, **Verma MK** and Bhatiya R, Carbon Nanotubes: A review on risks assessment, mechanism of toxicity and future directives to prevent health implication**, Bio-Cell**; 2021; 42 (2) 267-279. doi:10.32604/biocell.2021.013409 (**IF 1.5)**
- **Verma MK**. Shakya S, Madhavi J, Kumar P and Rao MVR. *In Silico* approach for therapeutic profiling and physiochemical findings of Serratiopeptidase a anti-inflammatory enzyme. **Research Journal of Biotechnology**. 2021; 16 (1); 149-158 **(IF 0.454)**
- **Verma, M.K.,** Shakya, S. LRP-1 Mediated Endocytosis of EFE across the Blood–Brain Barrier; Protein–Protein Interaction and Molecular Dynamics Analysis. ***Int. J. Pept. Res. Ther.*** 27**,** 71–81 (2021). https://doi.org/10.1007/s10989-020-10065-z (**IF 2.19**)
- **Verma MK and** Shakya S. Genetic variation in Chemokines receptor 5 gene and course of HIV infection; Review on genetics and immunological aspect. **Gene and Disease 2020**, S2352-3042(20)30059-3 https://doi.org/10.1016/j.gendis.2020.04.007 **(IF 7.24)**
- Kumar A, Kumar A, Ingle H, Kumar S, Mishra R, **Verma MK**, Biswas, D, Sharma M, Kumar NS, Raut A, Kumar H, The microRNA-324-5p targets viral PB1 and host CUEDC2-3'UTR, suppressed by influenza virus for antiviral innate immune evasion. **Journal of Virology** 92(19) e01057-18 doi:10.1128/JVI.01057-18 **IF 4.5**
- Halade GV, Black M, **Verma MK**, Paradigm Shift-Metabolic Transformation of Docosahexaenoic and Eicosapentaenoic Acids to Bio-actives Exemplify the Promise of Fatty Acid Drug Discovery, **Biotechnology Advances**, 36 (4), 935-953; 2018. **(IF 17.68)**

- Sobha K, Pradeep D, Kumari AR, **Verma MK** and Surendranath K, Evaluation of the biological activity of the silver nanoparticles synthesized with the aqueous leaf extract of *Rumex acetosa,* **Scientific Reports**|*7:11566* | DOI:10.1038/s41598-017-11853-2 **(IF 4.99)**
- Sobha K, V Rao, Ratna K and **Verma MK**, An Investigation into phytochemical constituents, antioxidant, antibacterial and anti-cataract activity of *Alternanthera sessilis*, a predominant wild leafy vegetable of South India, **Bio-catalysis and Agricultural Biotechnology**, 2017; 10; 197-203
- **Verma MK** and Pulicherla KK, Broad substrate affinity and catalytic diversity of fibrinolytic enzyme from Pheretima posthumous—Purification and molecular characterization study, International Journal of Biological Macromolecules. 2017, 95:1011-1021 doi: 10.1016/j.ijbiomac.2016.10.090 (IF 8.025)
- **Verma MK** and Pulicherla KK, Enzyme promiscuity in Earthworm serine protease- Substrate versatility and therapeutic potential, **Amino Acid**. 2016; 48(4); 941-948 DOI 10.1007/s00726-015-2162-3. **(IF 3.789)**
- **Verma** MK and Sobha K, Understanding mechanism Genetic Risk Factors in the beginning and progression of Rheumatoid Arthritis- Current scenario and future prospect. **Inflammation Research**, 2015; 64 (9) 647-659**. (IF 6.986)**
- Pulicherla KK and **Verma MK**, Targeting therapeutics across the Blood-Brain Barrier (BBB), Prerequisite towards thrombolytic therapy for a cerebrovascular disorders-an overview and advancements **AAPS Pharm SciTech**, 2015; 16 (2); 223-233. **(IF 4.054)**
- **Verma MK**, Xavier F, Verma YK, Sobha K, Evaluation of the Cytotoxic and Antitumor activity of Serine Proteases isolated and Purified from the Indian Earthworm *Pheretmia posthuma*, **Asian Pac J. Trop. Biomed**. 2013; 3 (11): 896-901.
- Verma YK and **Verma MK**, CT gene modulates differential expression of chitinase gene under variant habitats in Vibrio's**. Asian Pac J Trop Dis** 2013; 3(1): 20-25.

Books and Chapters

- **Verma MK,** Chowdhary R**,** Advantages of Advanced Carbon-Based Nano-Materials in Medical and Pharmaceutical; Advanced Nanocarbon Materials Applications for Health Care *Edited By Sarika Verma, Raju Khan, Avanish Kumar Srivastava*; 9781003110781; Accepted; Release in May 2022 https://www.taylorfrancis.com/books/edit/10.1201/9781003110781/advanced-nanocarbon-materials-sarika-verma-raju-khan-avanish-kumar-srivastava
- **Verma MK**, Verma YK, Rao MVR; 2022; SARS, MERS and COVID-19: Emerging threats to public health, Nano-technological applications in virology edited by Mahendra Rai, Alka Yadav ISBN: 9780323995962 (Accepted under production release on Aug 15, 2022) https://www.elsevier.com/books/nanotechnological-applications-in-virology/rai/978-0-323-99596-2
- **Verma MK**, Verma YK, Mann HS, Briese T, Chowdhary R., Lessons learnt from Coronavirus (SARS-CoV, MERS-CoV and nSARS-CoV-2) and socioeconomic impact of nSARS-CoV-2 Pandemic. Advanced Biosensor for virus detection. Advanced Biosensors for Virus Detection Smart Diagnostics to Combat SARS-CoV-2; 2022, Pages 19-36 https://doi.org/10.1016/B978-0-12-824494-4.00019-9

Abstract and article in conferences

- **Verma MK** and Sobha K; An *in silico* approach to resolve synovial inflammation by inhibiting Wnt signalling via post-translational modifications: phosphorylation and S-nitrosation" accepted for the **International Conference on "Scenario of Biotechnology in the 21st Century**, Biotechnology, Devi Ahilya University (DAVV) Indore 10-12 March 2016.
- **Verma MK**, Mitra J and Pulicherla KK, Habitat and Environment Triggers Emergence of New and Potent Strains of Vibrio cholerae," Karunya University, Kerala, Dec 7-9, 2011, Innovations in Free Radicals Research and Experimental Therapeutics IFRRET 2011.

- **Verma MK**, Pulicherla KK "PAD Gene and its polymorphs; Possible Bio-Marker for Rheumatoid Arthritis (RA)"Andhra Pradesh Academic of Sciences Young Scientist Convention 2011.
- Madhavi J, Srilakshmi J, Praveena N and **Verma** MK; Optimization study of medium for enhancing nicotine degradation by *Pseudomonas putida*, UGC sponsored National Conference, Impact of Biotechnology on the World Economy and Society Jan 24,25 2012.
- Kumar DK, Babu GS, **Verma MK**, Thermostable Protease – New Generation, Eco-friendly Detergent-Isolation, Purification and Characterisation, UGC Sponsored 3 Day National Conference – Impact of Biotechnology on the World Economy and Society, Jan 24,25, 2012.

Awards/Fellowships

- I received an offer for a Post-Doctoral Position at Molecular Oncology, Moffitt Cancer Research Institute, Tampa, Florida, USA in November 2018 (Did not accept).
- Received **National Post-Doctoral Fellowship from Science, Engineering, and Research Board (SERB), Department of Science and Technology, Government of India, for two years, 2016-2018,** at Indian Institute of Science Education and Research, Bhopal (IISERB), Bhopal, Madhya Pradesh, India.
- Received an offer for a post-doctoral Position from Ben Gurion University (BGU), of Negev, Israel, in 2015 for one year, 2015-2016. (Did not avail).
- Qualified national level exam **Combined Entrance Examination in Biotechnology CEEB 2006** and recipient of a fellowship from the **Ministry of Science and Technology, Department of Biotechnology, Government of India**, for two years during M. Tech Biotechnology at School of Biological Sciences and Biotechnology, West Bengal University of Technology, Kolkata, India.

Professional training

- **Training series on the Whole-cell (Prokaryotic) Transmission Electron Microscopy** at School of Biological Sciences and Biotechnology, West Bengal University of Technology, Kolkata, India, from 25 Jan to Feb 2008.
- Three weeks of hands-on training from 09–30 April 2008 on **Commercial Plant Tissue Culture (Micro-propagation)** at West Bengal State Council of Science & Technology, Kolkata, India.

Additional information

- Google Scholar https://scholar.google.co.in/citations?user=zTaft-QAAAAJ&hl=en
- Orcid id http://orcid.org/0000-0002-9322-1421
- PubMed https://www.ncbi.nlm.nih.gov/pubmed?cmd=search&term=Mahendra%20Kumar%20Verma

References

Dr. Rashmi Chowdhary
Professor, Department of Biochemistry,
All India Institute of Medical Sciences (AIIMS) Bhopal
Madhya Pradesh, India
Email ID rashmi.biochemistry@aiimsbhopal.edu.in
Contact No +91-8225802440

Dr. Ganesh V Halade
Professor, Heat Institute, Morsani College of Medicine,
Division of Cardiovascular Science, University of South Florida (USF),
Tempa, Florida, United States
Email id: ghalade@usf.edu Contact No: 8133960104

Prof. M.V. Raghavendra Rao
Scientist Emeritus, Director of Research, Central Laboratory
Apollo Institute of Medical Sciences and Research Institute,
Jubilee Hills, Hyderabad, Telangana, India
Email id reachdrmvrrao@gmail.com, dr.rao_m@apolloimsr.edu.in
Contact No: 040 23285133, 9959817484

DECLARATION

I hereby declare that the information given above is true to the best of my knowledge and belief and can be supported by reliable documents when needed.

Place: Lucknow, India **(MAHENDRA K. VERMA)**

Date; 9/3/2025