



INSTITUTE OF HOME ECONOMICS
UNIVERSITY OF DELHI



Name	Dr. Meenakshi Vachher	Photograph
Designation	Assistant Professor	
E-mail	meenakshi.vachher@ihe.du.ac.in , vachhermeenakshi@gmail.com	
Educational Qualifications: B.Sc (Hons) Microbiology from IHE, DU M.Biotechnology, PhD Biochemistry from AIIMS, New Delhi		
Teaching experience: 15 years		
Subjects/Papers Taught: Molecular biology, Recombinant DNA Technology, Genetic engineering and Biotechnology, Bioinformatics, Enzymes, Proteins, Intermediary Metabolism, Hormone Biochemistry, Membrane biochemistry and Bioenergetics, Nutritional Biochemistry		
Awards received CSIR-NET qualified ICMR-JRF qualified Special Appreciation Award for the Best Poster Presentation during the 24th Annual Convention of Indian association for Cancer Research and International Symposium on Human Papillomavirus and cervical Cancer, February, 2005. Shastri Conference & Lecture Series Grant (SCLSG) from the Shastri Indo Canadian Institute https://www.shastriinstitute.org/sites/default/files/Awards-SCLSG-2022-23.pdf .		
Research Interest/Specialization: Cancer Biology, Adipokines, Enzymes, Biopharmaceuticals, Nutritional Biochemistry		
ORCID No. 0000-0003-4039-1985		
Research papers since 2010 (APA format)		

1. **Vachher M**, Kaur K, Marothia M, Burman A, Deepanjana, Bansal S (2025). Deciphering the role of dietary modifications and gut dysbiosis in Non-Alcoholic Fatty Liver Disease. 40, 200305 ISSN: 2666-1497 (IF:1.9).
2. Bansal S, Burman A, Sen A, **Vachher M** (2024). Decoding Glycobiomarkers in Non-Alcoholic Steatohepatitis (NASH) and related hepatocellular carcinoma (HCC). *Current Proteomics*. 21 (6) p. 606-625 ISSN: 1875-6247 (IF:0.4).
3. A Sen, J Oswalia, S Yadav, **M Vachher**, A Nigam. (2024) Recent trends in nanozyme research and their potential therapeutic applications. *Current Research in Biotechnology*, 100205 (IF 5.6)
4. A Dev Jr, **M Vachher**, CP Prasad (2023). β -catenin inhibitors in cancer therapeutics: intricacies and way forward. *Bioengineered* 14 (1), 2251696 (IF 6.8)
5. S Bansal, **M Vachher**, T Arora, B Kumar, A Burman (2023) Visceral fat: A key mediator of NAFLD development and progression. *Human Nutrition & Metabolism*, 200210 (IF 1.9)
6. **Vachher M**, Bansal S, Kumar B, Yadav S, Burman A. (2022) Deciphering the role of aberrant DNA methylation in NAFLD and NASH. *Heliyon* 8 e11119. ISSN: 2405-8440 (IF 3.77).
7. **Vachher M**, Bansal S, Kumar B, Yadav S, Arora T, Wali NM, Burman A. (2022) Contribution of organokines in the development of NAFLD/NASH associated hepatocellular carcinoma. *J Cell Biochem*. 23(10); 1553-1584. (IF4.44)
8. **Vachher M**, Yadav S, Rastogi A, Tihara S, Kumar B, Arora T, Burman A. (2022) Consumption of natural products and Ayurvedic decoctions “kadha” as immunity-boosting measures during the spread of COVID-19 in Delhi. *Journal of drug research in Ayurvedic sciences* 7:192-9.
9. Sen, A., Nigam, A., **Vachher, M.** (2022) Role of Polypeptide Inflammatory Biomarkers in the Diagnosis and Monitoring of COVID-19. *International Journal of Peptide Research and Therapeutics* 28, 59 <https://doi.org/10.1007/s10989-022-10366-5> (IF-2.01)
10. M Ramesh, A Sen M, **Vachher**, A Nigam (2022) Delineating Bacteria Using DNA Barcoding. *Molecular Genetics, Microbiology and Virology* 36 (1), S65-S73 ISBN: 1934-841X (IF 0.496)
11. **Vachher, M.**, Yadav, S., Gopal, P., Chopra, S., Grover, N., Vanshika, Sharma, S., Burman, A., Trilok-Kumar, G. (2021) A Sustainable Option of Developing Kitchen Gardens Based on Air Pollution Tolerance Index (APTI) Method of Plants with Edible Leaves for Health and Well Being. *The Indian Journal of Nutrition and Dietetics*, 58; 54-67.DOI: 10.21048/IJND.2021.58.1.26122, ISSN 0022-3174
12. **Vachher, M.**, Sen, A., Kapila, R., Nigam, A. (2021) Microbial therapeutic enzymes: A promising area of biopharmaceuticals. *Current Research in Biotechnology (Elsevier)* Volume 3, 195-208. ISSN 2590-2628. (IF 5.6)
13. **Vachher, M.**, Sen, A., Burman, A., R., Nigam, A. (2021) Bacterial enzymes as diagnostic tools for various human pathogens. *Journal of Scientific Research, BHU*. Volume 65, Issue 5, pages 105-115. ISSN: 0447-9483.
14. **Vachher M**, Arora K, Burman A, Kumar B. (2020). NAMPT, GRN and SERPINE1 signature as predictor of disease progression and survival in gliomas. *Journal of Cellular Biochemistry*, 121(4) 3010-3023. ;ISSN 1097-4644 (Online IF-4.4)
15. Kumari, T., **Vachher, M.**, Bansal, S., Bamezai, RNK and Kumar, B. (2018) Meta-analysis of mitochondrial T16189C polymorphism for cancer and Type 2 diabetes risk. *Clinica Chimica Acta* Volume 482, Pages 136-143, ISSN 0009-8981 (Print IF-2.9)
16. **Sawhney M**, Kaur J, DattaGupta S, Shukla NK, Srivastava A, Walfish PG, Ralhan R. (2013) Clinical significance of altered expression of β -catenin and E-cadherin in oral dysplasia and cancer: potential link with ALCAM expression. *PLoS One* 8(6):e67361. doi: 10.1371/journal.pone.0067361.eISSN: 1932-6203 (IF: 3.73)
17. **Sawhney M**, Kaur J, Dattagupta S, Shukla NK, Srivastava A, Ralhan R. (2010) Clinical significance of Phosphatidyl Inositol Synthase overexpression in oral cancer. *BMC Cancer*. 2010 Apr 28; 10: 168. doi: 10.1186/1471-2407-10-168. ISSN: 1471-2407 (IF: 3.33)

Book chapters published/edited
1. Enzymes 2. Proteins 3. Role of plant biotechnology in environment 4. Role of plant biotechnology in industry Published online in the Virtual learning environment (VLE) for Institute of Lifelong learning (ILL), University of Delhi (ill.du.ac.in). (ISSN 2349-154X)
Any other Oral Presentations • Speaker in the online Workshop on “<i>In-silico</i> PCR and Primer designing” organized by IHE, University of Delhi, New Delhi on June 28, 2024, and delivered a talk on “<i>In-silico</i> Polymerase Chain Reaction”. • Resource person in the online Lecture on “What next: Biotechnology and Biology” organized by Salwan Public School, New Delhi on March 26, 2024, and delivered a talk on “Career prospects in Biotechnology”. • Speaker and resource person in online National symposium on Pre-diabetes on 9th February 2024 jointly organised by IHE and Zirtiri Residential Science College, Aizawl, on the topic “Management and prevention of Pre-diabetes”. • Invited speaker and resource person in Student Seminar "Carbohydrate Biochemistry - A Brief Perspective" on the topic "Carbohydrates - Introduction and Structure of monosaccharides, dissacharides and polysaccharides" organized by Vivekanand college, University of Delhi on 26th August 2022. • Invited speaker and Resource person in Student Seminar " Understanding Biochemical Pathways of Carbohydrate Metabolism" on the topic " ATP Synthesis and Gluconeogenesis " organized by Vivekanand college, University of Delhi on 09th September 2022. • Speaker and Organizer in an outreach program on “Basic understanding of Biosciences” organised by department of Biochemistry and Anveeshan, Biochemistry society of Institute of Home Economics on January 20, 2021 • Speaker and resource person in a lecture series on “Understanding lifestyle disorders: A biochemical perspective” held at the Institute of Home Economics, University of Delhi, New Delhi on Jan 12, 2020. • Invited speaker and Resource person in PETA INDIA sponsored one day workshop on “Replacing Regulatory Experiments on Animals: An Introduction to in silico Models and in vitro test methods” on the topic “Genotoxicity and carcinogenicity” at SVKM’s Dr. Bhanuben Nanavati College of Pharmacy, Mumbai on 3rd November, 2018. • “Pollution resistance assessment of few edible plants based on Air pollution tolerance index (APTI) method”. Oral presentation at the National Conference on “Emerging Environmental Challenges and Sustainable Development”, March 21-23, 2018. • Participated as resource person in the 4th two-day national technical workshop on “Introduction to Clinical Biochemistry” held at the Institute of Home Economics, University of Delhi, New Delhi Jan 24-25, 2019 • Participated as a resource person in a two-day national workshop “Introduction to Clinical Biochemistry” held at the Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on Aug 27-28, 2018 • Participated as a resource person in a two-day symposium “Replacing Regulatory Experiments on Animals: A introduction to In Silico Models and In Vitro Test Methods” organized by the

Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi and PETA India on Oct 26-27, 2017

- Participated as a resource person in a two-day national workshop “Introduction to Clinical Biochemistry” held at the Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on Sept 12-13, 2017.
- Participated as a resource person in a technical workshop “PCR & ELISA” held at the Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on April 7, 2017.
- Participated as a speaker in a national workshop “Introduction to Clinical Biochemistry” held at the Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on Sept 1-2, 2016.

Poster Presentations

- E-poster entitled “In-vitro effects of smokeless tobacco Extract on cell proliferation and cyclin D1 Expression in oral cell systems” during virtual International 9th Annual American Society for Cellular and Computational Toxicology (ASCCT) Meeting held on October 20-23rd October, 2020
- Best Poster Award : Air Pollution Tolerance Index of few edible plants Shruti Chopra, Sapna Sharma, Nikita Grover, Geeta Trilok Kumar, Sandeep Yadav, Meenakshi Vachher in National Conference On “Clean & Green Energy: The Chemical and Environmental Aspects” February 16-17, 2017 organized by Department Of Chemistry, Bhaskarcharya College Of Applied Sciences (University of Delhi).
- Biochemical estimation of Chlorophyll as a remedy for pollution Purna Gopal, Vanshika, Geeta Trilok Kumar, Sandeep Yadav, Meenakshi Vachher in National Conference On “Clean & Green Energy: The Chemical and Environmental Aspects” February 16-17, 2017 organized by Department Of Chemistry, Bhaskarcharya College Of Applied Sciences (University of Delhi).
- Assessment of Air Pollution Tolerance Index (APTI) of four common plants species collected from Delhi region Chiranjeev Kaur Gill, Disha Kapila, Reshu Thakur, Surbhi Bhati, Geeta Trilok Kumar, Sandeep Yadav, Meenakshi Vachher in National Conference On “Clean & Green Energy: The Chemical and Environmental Aspects” February 16-17, 2017 organized by Department Of Chemistry, Bhaskarcharya College Of Applied Sciences (University of Delhi).
- Altered expression of cell adhesion molecule in oral carcinogenesis. Meenakshi Sawhney, Ajay Matta, Nidhi Rohatgi, Jatinder Kaur, Siddhartha Datta Gupta, Nootan K. Shukla, Suryanarayana V.S.Deo and Ranju Ralhan. Poster presented at Indian Association of Cancer Research-2007.
- Smokeless tobacco extract modulates the expression of Nuclear Factor kappa B and Cyclooxygenase-2. Meenakshi Sawhney, Nidhi Rohatgi, Jatinder Kaur, Siddhartha Datta Gupta, Nootan K. Shukla, Suryanarayana V. S.Deo and Ranju Ralhan. Poster presented at International Symposium on Translational Research: Apoptosis and Cancer-2005.

Symposiums, Workshops and Conferences organized/participated

- Organised an online National Symposium on “Pre-diabetes” on 9th February, 2024.
- Organised an online talk on “The role of indigenous technologies in the fight against COVID-19 pandemic” on 11th March, 2024.
- Organised a faculty development program on “Research ethics and plagiarism” on 31 October 2022.
- Organised a hands-on-workshop on “Quantitative analysis of carbohydrates” for undergraduate students on 21 October 2022.
- Organised a seminar on “Career perspectives in bioinformatics” on 20 October 2022.
- Organised a National hands on workshop on “Qualitative analysis of carbohydrates” for undergraduate students on 8 September 2022.
- Completed an online Short term course for teachers on “Graphic Design” organised by St Mary’s College (Autonomous) with the Department of Biotechnology, Government of India from 31st May-5th June, 2021.

- Participated in the four days Online Hands-on Workshop organized by Deshbandhu College under the aegis of IQAC and DBT Star College Scheme, on “Research Methodology” from April 1- 5, 2021.
- Organised and participated as a resource person in one day outreach Program on “Introduction to Biosciences” on 17th January’ 2021.
- Organized a National webinar on “Scientific manuscript writing” on 5th March 2021.
- Organised a two days International webinar on “Bioinformatics (concepts and applications)” from 18 to 19 September 2020.
- Attended “Summer school in innovative approaches in Science”, June 22-26, 2020 held virtually by John Hopkins Centre for Alternatives to animal testing and Physicians committee for responsible medicine.
- Participated and organised a five day online national hands-on workshop on “Moodle: An Online Learning Management System” from July 01-05, 2020 organized by Department of Biochemistry, Institute of Home Economics, University of Delhi.
- Organised and participated as a resource person in one day technical workshop on “PCR and ELISA: Techniques in molecular Biology and Immunology” on 7th February’ 2019.
- Organized and participated as resource person in 4th technical two day national workshop on “Introduction to Clinical Biochemistry” on 24th-25th January’ 2019.
- Organized and participated as resource person in 3rd technical two day national workshop “Introduction to Clinical Biochemistry” on 27th-28th August 2018.
- Organized and participated as resource person in a two day symposium “Replacing Regulatory experiments on animals: Introduction to In Silico Models and In Vitro Test Methods” on 26-27 October 2017.
- Organized and participated as resource person in a two day national workshop “Introduction to Clinical Biochemistry” on 12-13 September 2017.
- Organized and participated as resource person in a technical workshop “PCR & ELISA” held at Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on 7th April 2017.
- Organized and participated as speaker in a national workshop “Introduction to Clinical Biochemistry” held at Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on 1-2 September 2016.
- Organized a national workshop “Protein Visualization and Autodocking” held at Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on 29th February 2016.
- Organized a national workshop cum plenary lecturer held at Department of Biochemistry, Institute of Home Economics, University of Delhi, New Delhi on 29th January 2016.
- In the organizing committee of International workshop on ‘Emerging role of vitamin D in human health’ held on 4-5 October, 2011 organised by Institute of Home Economics, University of Delhi
- Actively involved in organization of oration day lecture being presented by Dr Abdul Kalam Azad as a part of golden jubilee celebration of Institute of Home Economics, University of Delhi held on November 2, 2011.
- Participated in National workshop on RNAomics organised by Department of Biochemistry, Shivaji college, University of Delhi from October 25-29, 2010
- Participated in National conference on “Sustainable development- A collective vision” held on 31st Oct-1st Nov, 2011 organised by Institute of Home Economics, University of Delhi.

