

Name :	Dr. Jitendraa Vashistt
Designation:	Associate Professor
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Education

Degree	University/Institute	Specialization	Year
Ph.D.	All India Institute of Medical Sciences, New Delhi, INDIA	Biochemistry	2009
M.Sc.	University Campus, C.C.S. University, Meerut, INDIA	Biotechnology	2001
B.Sc.	Zakir Hussain College, Delhi University	Botany (Hons.)	1999

Position and Employment (Starting with the most recent employment)

Position	Institution	Period
Associate Professor	Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology, H.P.,INDIA	1 st March 2021-till date
Assistant Professor (Senior Grade)	Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology, H.P.,INDIA	1 st Jan. 2016- 28 th Feb.2021
Assistant Professor (Grade-II)	Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology, H.P.,INDIA	1 st August 2013- 31 st Dec. 2015
Assistant Professor (Grade-I)	Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology, H.P.,INDIA	25 th July, 2011-30 th July 2013
Postdoctoral Fellow	Department of Biochemistry, AIIMS, New Delhi, India	Feb. 2009 – July 2011
Ph.D. Scholar	Department of Biochemistry, AIIMS, New Delhi, India	Jan. 2004 – Feb. 2009
CSIR-JRF	Department of Biochemistry, AIIMS, New Delhi, India	Apr. 2002 – Jan. 2004

Teaching:

- B.Tech.** (Biochemistry, Molecular Biology)
- M.Sc. & M.Tech.** (Biochemistry, Metabolic Engineering, Proteomic Technologies)
- Coordinator for Membrane Biophysics-e-portal generation UGC (MHRD, INDIA)***

*Online lectures and e-text delivered for Medical Sciences PG students; Biophysics (UGC – PG Pathshala) Paper12. Membrane Biophysics, Paper 9: techniques in Molecular Biophysics Details and online lectures are available on <http://epgp.inflibnet.ac.in> under Medical sciences

d) Content writer, presenter and Co-PI (UGC MOOCS course: Analytical Techniques)**

****Course Online lectures (part 1, 2 and 3; Week 6) and e-text for PG students of Biochemistry** Details and online lectures are available on http://ugcmoocs.inflibnet.ac.in/ugcmoocs/view_module_ug.php/141

🔗 Research interests & Specialization: Molecular diagnostics, bacterial resistance mechanisms, Clinical Proteomics

Research guidance:

Research Grants: 3: (approx. 52 lakhs)

1. Identification of biofilm associated proteins of multidrug resistant *Acinetobacter baumannii* as potential drug target and inhibitors thereof. Dept. of Science & technology, Govt. of India **Principal Investigator, (completed, 22.14 lakhs, 2015-2018)**
2. Project for grant titled "Identification, characterization of diarrhoeagenic pathogens in Himachal Pradesh"- Indian Council of Medical Research, Govt. of India, **Principal Investigator, (completed, 12.5 lakhs, 2013-2016)**
3. Project for grant entitled "Identification of Single Nucleotide Polymorphisms in the transcriptional regulatory region of autophagy gene, ULK1 and their role in susceptibility to chronic hepatitis B virus infection"-Dept. of Biotechnology, Govt. of India, **Co-Principal Investigator(completed, 17.8 lakhs, 2013-2016)**
4. **PhD Students: 06 (4 completed, 2 ongoing)**
5. **M.Tech., BT Dual Degree, & M.Sc. : 8 completed; 1 M.Sc. (ongoing)**
6. **B.Tech: 11 (completed); 2 (minor ongoing)**

RESEARCH PUBLICATIONS (citations)

1. Kaur S., **Vashist J.**, Sharma A., Parkash J., Kumar A., Duseja A. and Changotra H. (2024) Mutagenic primer-based novel multiplex PCR-RFLP technique to genotype BECN1 SNPs rs10512488 and rs11552192, **Molecular Biology Reports 51 (1), 384.**
2. Kaur S., **Vashist J.** and Changotra H. (2024) Computational investigation of regulatory region SNPs of autophagy gene BECN1, **Defence Life Science Journal, vol. 9, 10.14429/dlsj.7.19452.**
3. Kaur S., **Vashist J.** and Changotra H. (2023) Autophagy Gene BECN1 Intronic Variant rs9890617 Predisposes Individuals to Hepatitis B Virus Infection, **Biochemical Genetics, pp. 1–14.**

4. Kaur S., Vashist J. and Changotra H. (2023) Identification of molecular signatures and molecular dynamics simulation of highly deleterious missense variants of key autophagy regulator beclin 1: a computational based approach, *Journal of Biomolecular Structure and Dynamics*, pp.1-14.
5. Sharma A, Bansal S, Kumari N, Vashist J, Shrivastava R (2023) Comparative proteomic investigation unravels the pathobiology of *Mycobacterium fortuitum* biofilm, *Applied Microbiology and Biotechnology* 107 (19), 6029-6046.
6. Chowdhury A, Choudhary M, Sharma V, Kant A, Vashist J, Garlapati VK, Simal-Gandara J. (2023) Exploration of Indian traditional recipe "Tarvaani" from the drained rice gruel for nutritional and probiotic potential, *International Journal of Gastronomy and Food Science* 31, 100670.
7. Rani M, Mondal SM, Kundu P, Thakur A, Chaudhary A, Vashist J, Shankar J (2023) Edible mushroom: Occurrence, management and health benefits, *Food Materials Research* 3 (1)
8. Choudhary M, Shrivastava R, Vashist J. (2022). *Acinetobacter baumannii* Biofilm Formation: Association with Antimicrobial Resistance and Prolonged Survival under Desiccation. *Current Microbiology*, 79: 1-9.
9. Choudhary M, Shrivastava R, Vashist J. (2022). Eugenol and geraniol Impede Csu-pilus Assembly and Evades Multidrug-resistant *Acinetobacter baumannii* biofilms: In-vitro and In-silico evidence. *Biochemical and Biophysical Research Communications*. 636 (2): 10-17.
10. Choudhary M, Kaushik S, Kapil A, Shrivastava R, Vashist J (2022) Decoding *Acinetobacter baumannii* biofilm dynamics and associated protein markers: proteomic and bioinformatics approach. *Archives of Microbiology*, 204 (4):200
11. Sharma A, Vashist J, Shrivastava R (2022) Knockdown of the type-II fatty acid synthase gene hadC in *Mycobacterium fortuitum* does not affect its growth, biofilm formation, and survival under stress. *International Journal of Mycobacteriology*, 11 (2), 159-166
12. Sharma A, Vashist J, Shrivastava R (2022) *Mycobacterium fortuitum* fabG4 knockdown studies: Implication as pellicle and biofilm specific drug target. *Journal of Basic Microbiology* 62 (12), 1504-1513

13. Sharma A, Vashist J, Shrivastava R (2021) Response surface modeling integrated microtiter plate assay for *Mycobacterium fortuitum* biofilm quantification. *Biofouling*, 2021 Sep 9; 1-14. doi: 10.1080/08927014.2021.1974846
14. Kumari A , Thakur N , Vashist J , Singh RR, (2020) Structural, luminescent and antimicrobial properties of ZnS and CdSe/ ZnS quantum dot structures originated by precursors. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, 229, 117962.
15. Katoch P, Gupta K, Yennamalli R M, Vashist J, Bisht GS, Shrivastava R, (2020) Random insertion transposon mutagenesis of *Mycobacterium fortuitum* identified mutant defective in biofilm formation. *Biochemical and Biophysical Research Communications*, 521 (4), 991-996.
16. Sharma D, Choudhary M, Vashist J, Shrivastava R, Bisht GS, (2019) Cationic antimicrobial peptide and its poly-N-substituted glycine congener: Antibacterial and antibiofilm potential against *A. baumannii*. *Biochemical and Biophysical Research Communications*; 518 (3), 472-478.
17. Thakur N, Changotra H, Grover N, Vashist J, (2018). Elucidation of Bacterial Species during Childhood Diarrhea through 16S rRNA Illumina Miseq approach. *Meta Gene*, 16: 234-240.
18. Thakur N, Jain S, Changotra H, Shrivastava R, Kumar Y, Grover N, Vashist J, (2018) Molecular characterization of diarrheagenic *Escherichia coli* pathotypes: Association of virulent genes, serogroups, and antibiotic resistance among moderate-to-severe diarrhea patients. *Journal of Clinical Laboratory Analysis*, Jun; 32(5):e22388. Doi: 10.1002/jcla.22388.
19. Thakur N, Changotra H, Shrivastava R, Grover N, Vashist J, (2018) Estimation of *Vibrio* species incidences and antibiotic resistance in diarrhea patients. *Asian Journal of Pharmaceutical and Clinical Research*, 11 (1), 369-373
20. Sharma D, Thakur N, Vashist J, Bisht GS, (2018) Antibacterial Evaluation of Cuprous Oxide Nanoparticles Synthesized Using Leaf Extract of *Callistemon viminalis*. *Indian Journal of Pharmaceutical Education and Research*, 52 (3), 449-455
21. Jain S, Thakur N, Vashist J, Grover N, Krishnan T, Changotra H, (2016) Predominance of unusual rotavirus G1P [6] strain in North India: An evidence from hospitalized children and adult diarrheal patients. *Infection, Genetics and Evolution*; 46:65-70.

22. Jain S, **Vashist J**, Gupta K, Kumar A, Changotra H, **(2016)** Molecular Analysis of VP7 Gene of Rotavirus G1 Strains Isolated from North India. **Current Microbiology**; 73(6):781-9.
23. Nutan, Jain S, Tomar A, Changotra H, **Vashist J**, **(2016)** Computational Tools: Indispensable Armamentarium of Medical Biotechnology. *Indian Journal of Science and Technology*. 30; 9(32).
24. Jain S, Thakur N, Grover N, **Vashist J**, Changotra H, **(2016)** Prevalence of rotavirus, norovirus and enterovirus in diarrheal diseases in Himachal Pradesh, India. **Virus Disease** **27 (1), 77-83**.
25. Jain S, **Vashist J**, Changotra H, **(2014)** Rotaviruses: Is their surveillance needed? **Vaccine** **32 (27), 3367-3378**.
26. Tiwari V , **Vashist J**, Kapil A, Moganty RR, **(2012)** Comparative Proteomics of Inner Membrane Fraction from Carbapenem-Resistant *Acinetobacter baumannii* with a Reference Strain. **PLoS ONE 7(6): e39451. Doi:10.1371/journal.pone.0039451**
27. **Vashist J**, Tiwari V, Kapil A, Moganty RR, **(2011)** Differential expression of Outer membrane proteins in early stages of meropenem-resistance in *Acinetobacter baumannii*. **Journal of Integrated Omics, 1(2), 280-286**.
28. **Vashist J**, Das R, Tiwari V, Kapil A and Moganty RR,, Comparative Analysis Of Penicillin-Binding Proteins (PBPs) In Carbapenem Resistant Strains Of *Acinetobacter baumannii*. **Ind. J. Med. Res. 133, 332-338 (2011)**.
29. **Vashist J**, Tiwari V, Kapil A, Moganty RR, Quantitative Profiling and Identification of Outer Membrane Proteins of β -Lactam Resistant Strain of *Acinetobacter baumannii*. **Journal of Proteome Research, 9, 1121–1128 (2010)**.
30. **Vashist J**, Tiwari V, Renuka Kapoor, Arti Kapil, Ragothaman Yennamalli, N Subbarao and Moganty R Rajeswari, Interaction of nalidixic acid and ciprofloxacin with wild type and mutated quinolone-resistance-determining region of DNA gyrase A. **Ind. J. Biochem. Biophys. 46, 147-153 (2009)**.
31. **Vashist J**, and Moganty RR, Structural Investigations On Novel Porin, OmpAb From *Acinetobacter baumannii*. **Jour. Biomol. Str. Dyna., 24(3), 243-253 (2006)**.

Other published content:

32. Moganty RR and **Vashist J**, *Acinetobacter baumannii*: emerging nosocomial pathogen. **Envis Newsletter 9**, Jan-march issue page 4-7.

GenBank and Protein ID submissions:

1. ProteomeXchange platform via PRIDE repository, with identifier PXD023113 (2022).
2. Thakur N, Grover N, Changotra H and **Vashist J** (2017) *Escherichia coli* intimin gene, partial cds. [Accession Number: KX911252]
3. Thakur N, Grover N, Changotra H and **Vashist J** (2017) *Escherichia coli* bundle forming protein gene, partial cds. [Accession Number: KX911251]
4. Thakur N, Changotra H, Grover N and **Vashist J** (2017) *Vibrio sp.* strain cholera 16S ribosomal RNA gene, partial sequence. [Accession Number: KX891575]
5. Thakur N, Grover N, Changotra H and **Vashist J** (2017) *Escherichia coli* ATP binding cassette transporter gene, partial cds. [Accession Number: KX911253]
6. Thakur N, Grover N, Changotra H and **Vashist J** (2017) *Escherichia coli* heat-labile enterotoxin protein beta chain OS gene, partial cds. [Accession Number: KX911254]

Reviewer / Editorial:

- *Review Editor: Frontiers in Microbiology* (in Antimicrobials, Resistance and Chemotherapy section)
- Reviewer: **Meta Gene**
- Reviewer: **BMC microbiology**
- Reviewer: **Micro. Drug resistance**

FELLOWSHIPS & MEMBERSHIPS

- 🏠 **Research Associate**, Indian Council of Medical Research (Feb 2009- July 2011)
- 🏠 **Senior Research Fellowship**, Indian Council of Medical Research (ICMR), 2008 – Jan 2009).
- 🏠 **Senior Research Fellowship (AIIMS-SRF)**, All India Institute of Medical Sciences, India, 2007
- 🏠 **Senior Research Fellowship(CSIR-SRF)**, Council of Scientific and Industrial Research (CSIR), India, 2005- 2007
- 🏠 **Junior Research Fellowship (CSIR-JRF)**, Council of Scientific and Industrial Research (CSIR), India, 2002- 2005.
- 🏠 **Awarded CSIR (JRF NET 2002) & (Lectureship NET 2001)**, Council of Scientific and Industrial Research (CSIR), India,

2. MEMBERSHIP OF SOCIETIES:

- **Life member** of the, “The Indian Biophysical Society”, India. [**Membership No. 659**]
🏠 <http://indianbiophysicalsociety.org/members.html>
- **Life member** of the, “DNA society of India”, India.
🏠 [**Membership No. LM53**]<http://www.dsi.org.in/>