




**RAM LAL ANAND COLLEGE (University of
Delhi)**
Faculty Details



Title	Dr.	First Name	Nidhi	Last Name	Verma	Photograph
Designation		Assistant Professor				
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Educational Qualifications						
Degree		Institution			Year	
PhD		Jawaharlal Nehru University, New Delhi India			2020	
MSc		H.N.B. Garhwal University, Uttarakhand, India			2013	
BSc		B.R. Ambedkar Agra University, Uttar Pradesh			2011	
Career Profile						
<ol style="list-style-type: none">1. Postdoctoral Research Fellow at Department of Microbiology and Molecular Genetics, McGovern Medical School, UTHealth, Houston, Texas, USA.2. Research Associate at International Center for genetic Engineering and Biotechnology (2021-2022)3. Postdoctoral Research Fellow at Transcription Regulation Group, International Center for Genetic Engineering and Biotechnology. (DST-SERB-National Post-Doctoral Fellow-2022).4. DBT-MK Bhan Young Research Fellow-2023						
Administrative Assignments						
<ol style="list-style-type: none">1. Elected Student Representative in JNUSU, Jawaharlal Nehru University-20152. Student Faculty Committee (SFC) Member at School of Life Sciences, Jawaharlal Nehru University-20163. Student Faculty Committee (SFC) Member at School of Life Sciences, Jawaharlal Nehru University-20174. Member in Function Committee at Ram Lal Anand College, University of Delhi-20235. Member in North East Students Welfare Committee at Ram Lal Anand College, University of Delhi-2023						

6. Member in Sangoshthi Committee at Ram Lal Anand College, University of Delhi-2023
Areas of Interest / Specialization
Plant-microbe interaction, RNA biology, Mycology, Fungal genetics, Biochemistry, Molecular Microbiology.
Subjects Taught
Basic Microbiology Techniques, Biochemistry of Nucleic Acids and Proteins, Bacterial Diversity and Systematics.
Research Guidance
Co-supervised MSc. Dissertation on “Cloning and heterologous expression of a Gene of Interest (GoI) in E. coli” towards the partial fulfilment for the award of the degree of M.Sc. Biotechnology Submitted at Shri Mata Vaishno Devi University, Jammu. Student Name: Aakash Kumar (21MBT034).
Publications Profile (Books/Chapters/Research articles, etc.) (Last 10 publications)
<ol style="list-style-type: none"> 1. Jogawat, A., Vadassery, J., Verma, N., Oelmüller, R., Dua, M., Nevo, E. and Johri, A.K., 2016. PiHOG1, a stress regulator MAP kinase from the root endophyte fungus Piriformospora indica, confers salinity stress tolerance in rice plants. <i>Scientific reports</i>, 6(1), p.36765. 2. Tayal, P., Raj, S., Sharma, E., Kumar, M., Dayaman, V., Verma, N., Jogawat, A., Dua, M., Kapoor, R. and Johri, A.K., 2017. A Botrytis cinerea KLP-7 kinesin acts as a virulence determinant during plant infection. <i>Scientific Reports</i>, 7(1), p.10664. 3. Narayan, O.P., Verma, N., Singh, A.K., Oelmüller, R., Kumar, M., Prasad, D., Kapoor, R., Dua, M. and Johri, A.K., 2017. Antioxidant enzymes in chickpea colonized by Piriformospora indica participate in defense against the pathogen Botrytis cinerea. <i>Scientific reports</i>, 7(1), p.13553. 4. Jogawat, A., Bisht, D., Verma, N., Dua, M. and Johri, A.K., 2019. The Root Endomutualist Piriformospora indica: A Promising Bio-tool for Improving Crops under Salinity Stress. <i>Molecular Plant Abiotic Stress: Biology and Biotechnology</i>, pp.269-281. 5. Prasad, D., Verma, N., Bakshi, M., Narayan, O.P., Singh, A.K., Dua, M. and Johri, A.K., 2019. Functional characterization of a magnesium transporter of root endophytic fungus Piriformospora indica. <i>Frontiers in Microbiology</i>, 9, p.3231. 6. Narayan, O.P., Verma, N., Jogawat, A., Dua, M. and Johri, A.K., 2021. Sulfur transfer from the endophytic fungus Serendipita indica improves maize growth and requires the sulfate transporter SiSulT. <i>The Plant Cell</i>, 33(4), pp.1268-1285. 7. Liu, Y., Li, C., Gupta, M., Verma, N., Johri, A.K., Stroud, R.M. and Voth, G.A., 2021. Key computational findings reveal proton transfer as driving the functional cycle in the phosphate transporter PiPT. <i>Proceedings of the National Academy of Sciences</i>, 118(25), p.e2101932118. 8. Verma, N., Narayan, O.P., Prasad, D., Jogawat, A., Panwar, S.L., Dua, M. and Johri, A.K., 2022. Functional characterization of a high-affinity iron transporter (PiFTR) from the endophytic fungus Piriformospora indica and its role in plant growth and development. <i>Environmental Microbiology</i>, 24(2), pp.689-706. 9. Verma, N., Singh, Y., Patra, A. and Singh, T., 2022. Role of Non-Coding RNAs in Plant Nutrition Through Mycorrhizal Interactions.

10. Haque, M.M.U., Anwar, M.S., Malik, M.Z., Singh, R.B., Verma, N. and Sharma, S.K., 2022. A systems biology approach to understand the role of TDP-43 in amyotrophic lateral sclerosis. In *TDP-43 and Neurodegeneration* (pp. 135-151). Academic Press.

Conference Organization/ Presentations (in the last three years)

Association of Microbiologists of India (AMI)-2015
Society of Biological Chemists (SBC)-2017
Science Technology Research and Entrepreneurship Enhancement (STREE 2020)

Research Projects (Major Grants/Research Collaboration)

1. **M. Sc. Dissertation:** "Microbial assay of vitamin B12 by using *E. coli* mutant in finished nutraceutical" from Zeon Life Sciences, Paonta sahib, Himachal Pradesh, India (2013).
2. **B. Sc. Dissertation:** "Identification and culture of methanogens" from Central Institute of Research on Goats (ICAR), Farah, Mathura, Uttar Pradesh, India (2011).
3. **One week hands-on training** "Microbial Techniques and Applications in Pharma Industry, organized by Dolphin (PG) Institute of Biomedical and Natural Sciences in association with Drug Manufacturer Association of Uttarakhand, India (2-8 Nov., 2012).
4. **15 days training** in Tuberculosis and Leprosy Microbiology from National JALMA Institute for Leprosy & Other Mycobacterial Diseases (ICMR), Agra, Uttar Pradesh, India (28 July-13 Aug., 2010).
5. **15 days Hands-on training** in "Techniques in Molecular Biology" from Institute of Biotechnology & Research Center (IBRC), Agra, Uttar Pradesh, India (15-29 July, 2009).
6. **One week training** "Radioactive isotope handling and safety measures certification course", From Jawaharlal Nehru University, New Delhi, India. (November, 2016).
7. **Initial Laboratory and Blood-borne Pathogen Safety Training** conducted by University of Texas Health Science Center at Houston, Texas, USA. (October, 2020).
8. **SERB-NPDF project entitled** "High-throughput Screening and Characterization of Small Molecule Inhibitors of Micro RNAs (miR-21 and miR-155) and their Use in Cancer Therapeutics."(2022-23)
9. **DBT-MK Bhan Project** (2023) on DEAD Box Helicase

Awards and Distinctions

1. Academic Excellence Scholarship 2011-2012
2. Academic Excellence Scholarship 2012-2013
3. Qualified GATE (Biotechnology)-2013
4. Qualified GATE (Biotechnology)-2014
5. 86th Society of Biological Chemists (SBC-2017) **Women Young Scientist** (PhD. Scholar) Award-2017.
6. **Outstanding Abstract Award** (OAA) in ASM-Microbe 2019, Organized by American Society for Microbiology, USA
7. **International Travel Award** (2019) from Council of Scientific and Industrial Research (CSIR), Govt. of India.
8. **International Travel Award** (2019) from DBT, Govt. of India.

9. Organizer's Best Poster Award (Agricultural Microbial Technology) (2019) from Association of Microbiologists of India (AMI), Organized by Central University of Haryana (CUH), Mahendragarh, Haryana, India.

Association With Professional Bodies

American Society of Microbiology: Membership
Guest Reviewer in Ecology and Evolution
Certified Radioactive material handler by University RSO

Other Activities

1. Second position in school level poster presentation in “Biotechnology Awareness Week” December 7-11, 2010, organized by GLA group of institution, Mathura, Uttar Pradesh, India.
2. Second position in school level Quiz Competition in “Science Awareness Week” February 22-28, 2009, organized by GLA group of institution, Mathura, Uttar Pradesh, India.
3. Student representative in JNUSU (2015-16) from School of Life Sciences, Jawaharlal Nehru University, New Delhi, India.
4. Organized National seminar “BIOSPARKS ‘2017” at School of Life Sciences, Jawaharlal Nehru University, New Delhi, India.
5. Winner of “Agar art competition” 2020 organized by McGovern Medical School, UThealth, Houston, Texas, USA.
6. Winner of “Logo design competition for MMG/MID virtual retreat-2021” organized by McGovern Medical School, UThealth, Houston, Texas, USA.
7. Winner of Lawa Race organized at International Center for Genetic Engineering and Biotechnology-2023