



RAM LAL ANAND COLLEGE (University of Delhi)
Benito Juarez Road, New Delhi-110021



TITLE	DR	FIRST NAME	PRERNA	LAST NAME	DIWAN (NEE AHUJA)	PHOTOGRAPH
DESIGNATION		ASSOCIATE PROFESSOR, DEPARTMENT OF MICROBIOLOGY, RAM LAL ANAND COLLEGE, UNIVERSITY OF DELHI				
RESIDENTIAL ADDRESS		606, NEW RASHTRIYA APARTMENTS PLOT 15, SECTOR 18A DWARKA NEW DELHI 110078				
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EMAIL/		dr.pdiwan@gmail.com prernadiwan.mic@rla.du.ac.in				
WEBPAGE		https://rlacollege.edu.in/pdf-profile/microbiology/prerna-microbiology.pdf				
EDUCATIONAL QUALIFICATIONS						
DEGREE		INSTITUTION				YEAR
POST-DOCTORAL RESEARCH FELLOW		Faculty of Medicine, University of Alberta, Canada (2001-2004).				2001-2004
POST-DOCTORAL RESEARCH FELLOW		Microbial and Bioprocess Unit, Korea Research Institute of Biosciences and Biotechnology, South Korea (KRIBB).				2000-2001
PhD IN MICROBIOLOGY		Title: “Zinc tolerance in <i>Oscillatoria angustissima</i> and its biosorptive potential for removal of heavy metals from aqueous solutions”. Department of Microbiology, University of Delhi, South Campus				1998
MASTERS IN LIFE SCIENCES (M.Sc)		School of Life Sciences, Jawahar Lal Nehru University, New Delhi				1992
CAREER PROFILE						
<ul style="list-style-type: none">• Associate Professor since 2009 Department of Microbiology, Ram Lal Anand College, University of Delhi• Reader from 2006-2009 at Department of Microbiology, Ram Lal Anand College, University of Delhi• Lecturer in Senior scale – 2000-2005 at Department of Microbiology, Ram Lal Anand College, University of Delhi• Lecturer – 1996-2000 at Department of Microbiology, Ram Lal Anand College, University of Delhi						
RESEARCH AREAS OF INTEREST						
Antimicrobial Resistance, Metagenomics, Human oral Microbiome						
RESEARCH GRANTS AND COLLABORATIONS						
<ul style="list-style-type: none">• ICMR proposal Technically approved (2020) for 3 years project entitled “Resistome metagenomic profiling of bioaerosols in metro network in Delhi- NCR” as Co- Investigator.						

- **ICMR project** Technically approved (2020) "Targeting biofilm formation by inhibiting Cysteine biosynthesis pathway enzymes in ESKAPE pathogens with natural products" as **Co-Investigator**
- **ICMR project** approved for funding 3 years project entitled "Alterations in oral microbiome of Betel nut chewing population of North Eastern India and its Correlation with Oral Cancers: Prospecting Microbial Consortium for Therapeutic Effects as **Principal Investigator**, for 30.2 lacs, 2019
- **ICSSR-IMPRESS** approved funding for Proposal entitled "Communicating the Science behind the phenomenon of Antibiotic Resistance to promote social awareness" as **Principal Investigator** for 5 lacs, 2019-20.
- **DBT sponsored project** entitled "Betel Nut Chewing Induced Genotoxic Changes–Evaluation and Awareness Study in Young Population of North Eastern State of India" for the year 2018-19 as **Principal Investigator**, Grant received Rs 8.00 Lacs.
- **University of Delhi Innovation project** for Colleges entitled "Prospecting biologically active antibacterial compounds from plant extracts against Multi- drug resistant strains" for the year 2015-16 as **Principal Investigator** Grant received Rs 5.5 Lacs.
- **University of Delhi Innovation project** for Colleges entitled "To study the level of antibiotic resistance in bacterial strains obtained from waste-water, treated water, ground water, surface water and drinking water" for the year 2013-15. as **Principal Investigator** Grant received Rs 5 Lacs.

Research collaborations:

- Dr. Kaushik Biswas, Senior Scientist, CSIR-Central Glass and Ceramic Research Institute, Kolkata
- Dr. James Wahlang, St Edmund College, Shillong, Meghalaya

ADMINISTRATIVE ASSIGNMENTS (RECENT)

Current:

- Bursar
- Coordinator, Internal Quality Assurance Cell (IQAC)
- Coordinator, "DBT Star College Scheme" awarded to College.
- Coordinator, Centre for Entrepreneurship and Technology Development (E-cell)
- Convener, Internal Assessment Monitoring Committee
- Convener Prospectus & Annual Report Committee (2018-20)
- Co-Convener, Functions Committee

Previous:

- Teacher Incharge, Department of Microbiology (2019-2020)
- Co-Coordinator, NAAC Steering Committee (2017-18)
- Convener, Website Development Committee (2016-18)
- NSS Program Officer (2016-18)
- Coordinator, Centralized Trials of students for UG admission in all colleges of University of Delhi under quota for Extra-curricular activities in NSS (2017)
- Member, Election Grievance Committee (2018-20)
- Member, Admission Grievance Committee (2016-2017)
- Convenor, Admission committee (2015-16)
- Convenor, Library Committee (2015-16).
- Convenor, Sangosthi (2015-16)
- Co-Convener, Fee Concession and Student Aid Fund Committee (2019-20)
- Member of team for "e-Pathshala" UGC scheme of e content development for Post Graduation course in Microbiology

- Member of Faculty of Interdisciplinary and Applied Sciences from 2010-2013
- Consultant for Development of Practical Microbiology course material for Indira Gandhi National Open University (2006-2007)

COURSES TAUGHT AT COLLEGE

- Recombinant DNA Technology, Advances in Microbiology, Microbial Biotechnology, Cell Biology, Inheritance Biology, Genetics and Genomics

RESEARCH GUIDANCE

- Guided a JRF under ongoing ICMR Funded project
- Research Assistant under ongoing IMPRESS ICSSR funded project.
- Guided a research team of 6 Research Interns under DBT Funded project 2018-19
- Guided a research team of 10 students under University of Delhi Innovation Research Grant RLA-302, 2015-2016.
- Guidance to 10 students under University of Delhi Innovation Research Grant RLA-203, 2013-2015

PUBLICATIONS PROFILE

Research Publications

1. Prasad S, Sakthi; Ratha, Itishree; Adarsh, Tarun; Anand, Akriti; Sinha, P. Diwan, P; Annapurna, K.; Biswas, K In vitro Bioactivity and Antibacterial Properties of Bismuth Oxide Modified Bioactive Glasses Journal of Materials Research 2018, 33 (2): 178-190.
2. Prasad S, Datta, S Adarsh, T, Diwan,P, Annapurna, K, Kundu,B and Biswas,K J. Effect of boron oxide addition on structural, thermal, in vitro bioactivity and antibacterial properties of bioactive glasses in the base S53P4 composition,. Non-Crystalline Solids, 498 (2018) 204-215
3. Nain.VK, Khurana. GS., Singh.S.,Vashitha. A., Kumari .S., Singh. A., Aggarwal. N., Arora. A., Khan. A., Thareja. G., Gupta. K, Jain. R. and **Diwan. P** (2015). Antibiotic resistance pattern in bacterial isolates obtained from different water samples of Delhi region. DU Journal of Undergraduate Research and Innovation, 1 (3), 219-227.
4. **Diwan P**, Lacasse J and Schang LM (2004). Roscovitine inhibits activation of promoters in HSV-1 genomes independently of promoter-specific factors. Journal of Virology, 78(17): 9352–9365.
5. Geun J K, Lee E G, Boyapati G, Hahm MS, **Diwan P**, Gi Sub Choi, Ryu YW, Ro HS, Chung BH (2003). Identification, molecular cloning and expression of a new esterase from *Pseudomonas sp.*KCTC 10122BP with enantio selectivity towards racemic ketoprofen ethyl ester. Journal of Molecular Catalysis B: Enzymatic 22: 29–35.
6. Gupta, R, Saxena, R K, Mohapatra, H and **Ahuja, P** (2002). Microbial variables for bioremediation of heavy metals from industrial effluents. Progress in Industrial Microbiology, 36: 189-229.
7. **Ahuja P**, Mohapatra H, Saxena RK, Gupta R (2001). Reduced uptake as a mechanism of zinc tolerance in *Oscillatoria angustissima*. Current Microbiology, 43(5): 305-310.
8. Gupta R, **Ahuja P**, Khan S, Saxena RK and Mahopatra H (2000). Microbial biosorbents: Meeting challenges of heavy metal pollution in aqueous solutions. Current Science, 78 (8): 967-973.
9. **Ahuja P**, Gupta R and Saxena RK (1999). Sorption and desorption of cobalt by *Oscillatoria angustissima*. Current Microbiology, 39, 49-52.
10. **Ahuja P**, Gupta R and Saxena RK (1998) Zn²⁺ biosorption by *Oscillatoria angustissima*. Process Biochemistry, 34, 77-85.

11. **Ahuja P**, Gupta R and Saxena RK (1997). *Oscillatoria angustissima*: A promising Cu²⁺ biosorbent. *Current Microbiology*, 35, 151-154.

Book Chapters/E-chapters

1. Mohan, L., Goyal, K. , Anand, S., Mittal, M., Snigdha, S., Bajwa, T., Gupta, K. R., Gupta, R. K. and **Diwan, P.** (2020). Foldscope: A New Age Exploratory Educational Tool. In A. D. Sharma (Ed.). *Foldscope and its Applications* (pp. 188-193). New Delhi: National Press Associates. ISBN 978-93-85835-68-1.
2. Gupta V., Aggarwal S., **Diwan. P.**, Gupta, S. (2015). *Bacteria and their Cell Organization* ISSN 2349-154X. Virtual Learning Environment, ILLU University of Delhi
3. Aggarwal S., **Diwan P.**, Anand P., Negi A., (2015). *Archaeobacteria*. ISSN 2349-154X. Virtual Learning Environment, ILLU University of Delhi
4. Aggarwal S., Gupta V., **Diwan P.** (2015). *Bacterial and their cell Organization-Cell Envelope*. ISSN 2349-154X. Virtual Learning Environment, ILLU University of Delhi
5. Negi A., **Diwan P.**, Aggarwal S., Anand P. (2015). *Eubacteria: Gram Positive bacteria*. ISSN 2349-154X. Virtual Learning Environment, ILLU University of Delhi

CONFERENCE/SYMPOSIUM: ORGANIZATION/ PRESENTATIONS

International:

1. Gandhi P, Sahu S, Lohia GK, Dwivedi V, Pratibha, Kaur K, Rajat, Niladari, Godhara SK, **Diwan P**, Gupta RK, Gupta S, Gupta V (2019) Structure based virtual screening of novel inhibitors against non-structural protein NS5B of Hepatitis C virus at International conference on Biosciences and Biotechnology held at Jaypee Institute of Information Technology, Noida from 31st – 2nd February , 2019.
2. Organising Secretary for one day International Seminar, “Infectious Diseases: Current Strategies for Diagnosis and Therapy” at Ram Lal Anand College, New Delhi, 2 February 2018.
3. Nain.VK, Khurana. GS., Singh.S.,Vashitha. A., Kumari .S., Singh. A., Aggarwal. N., Arora. A., Khan. A., Thareja. G., Gupta. K, Jain. R. and **Diwan. P.**(2015)“Antibiotic resistance pattern in bacterial strains obtained from different water samples from Delhi region” presentation at International Conference on “Antimicrobial resistance, Novel Drug Discovery and Development: Challenges and Opportunities” jointly organised by SRM University Haryana, and IAMPV held on March 2-3, 2015 at India Habitat Centre, Lodhi Road, New Delhi-110003.
4. Attended International Conference on “Microbial Biodiversity: Current perspectives and potential Applications, organized by Department of Microbiology, University of Delhi South Campus, Benito Juarez Road, New Delhi. April 2005
5. **Diwan-Ahuja P**, Schang LM. Differential requirements for cyclin- dependent kinaases in transcription driven by HSV-1 IE promoters depending on promoter location to viral or cellular genomes presentation at 28th International Herpes workshop, Madison, Wisconsin, USA, July 26-31, 2003.
6. **Diwan-Ahuja P**, Schang LM.Genomic Effects on Regulation of Transcription of Herpes Simplex Virus-1 Immediate Early Genes by Cyclin Dependent Kinases for IUBMB , Toronto, July 20-24, 2003.
7. Anand P, **Ahuja, P**, Gupta, R and Saxena R.K Metal accumulation by microorganisms: a new perspective for biotechnology presented at 16th International Union of Biochemists and Molecular Biologists (IUBMB), New Delhi India (Sept 1994).

National:

1. Organised Webinar series “**Next Generation Sequencing & Metagenome Analysis**” on 15th -16th May, 2020, under DBT STAR- COLLEGE SCHEME, hosted by Ram Lal Anand College, University of Delhi
2. Organised Webinar entitled “**Benefits of Digital Administration in Lockdown**” held on 1st May 2020 jointly hosted by jointly hosted by Internal Quality Assurance cell Sri Guru Nanak Dev Khalsa College and Ram Lal Anand College
3. Organised Webinar entitled “**Role of Youth in National Development Post COVID-19**” held on 16th May 2020 Internal Quality Assurance cell and NCC Unit, Ram Lal Anand College.
4. Organised Webinar entitled “**Plagiarism Issues, Policies And Detection Tools**” in association with Institutional Academic Integrity Panel and Information and library Network on 25th June 2020.
5. Organising Secretary for National Seminar entitled “**Probiotics: Ameliorating the burden of Life style diseases**” in association with Probiotic Association of India at Ram Lal Anand College, New Delhi, 1 February 2019.
6. Organising Secretary for Two Days Training Program on “**ICT Tools for beginners**” held from 18-19th January 2019.
7. Attended National Conference, “**Restructuring of NSS: Concept Paper**” as NSS Program Officer. Hon’ble MoS, Youth Affairs & Sports Sh. Vijay Goel presided over the event at India Habitat Centre, 10 July 2017.
8. Resource Person in Faculty Development Program, **1st ICT Workshop on Microsoft Excel and PowerPoint** in Ral Lal Anand College, University of Delhi, 9-27 October, 2017.
9. Invited to participate in the conference entitled “**Restructuring of NSS**” as NSS Programme officer which involved discussion with Honorable Minister of Youth Affairs and Sports, Shri Vijay Goel, on various aspects of NSS held at Vigyan Bhawan, New Delhi on 31st March 2017.
10. Chadha J, Gupta M, Nagpal N, Adarsh T, Sharma M, Mittal T, Joshi V, Tiku V, Nain VK, Singh A, Snigdha SK, Chandra NS, John S, Gupta KR, and **Diwan P**, “**Prospecting plant extracts for antibacterial activities against multi-drug resistant bacterial strains isolated from Delhi region**” presented at 57th Annual Conference and International Symposium of Association of Microbiologists of India, Guwahati, 24-27 November 2016.
11. Makhija S, Sharma S, Nath S, Sharma S, Fatima M, Parashar C, Sharma V, Singh D, Sandeep Nain VK, Singh A, Choudhary V, John S, **Diwan P** and Gupta KR. “**Antimicrobial effect of silver nanoparticles on multi-drug resistant strains isolated from Delhi region**” presented at 57th Annual Conference and international symposium of Association of Microbiologists of India, Guwahati, 24-27 November 2016.
12. Nain.V K, Khurana. G S., Singh.S., Vashitha. A., Kumari .S., Singh. A., Aggarwal. N., Arora. A., Khan. A., Thareja. G., Gupta. K, Jain. R. and **Diwan. P.** and Diwan M. (2015). “**Multidrug resistance in bacterial isolates obtained from different water samples obtained from Delhi Region**”. symposium on "Antibiotic Resistance: A Major Global Threat" organized by Microbiology Department, Bhaskaracharya College of Applied Sciences: March 2016
13. Sahu S, Gandhi P, **Diwan P**, Gupta RK, Gupta S , Gupta V (2015).Drug Repurposing: Virtual Screening of Inhibitors for NS2 Protease of HCV presented at 56Annual Conference of Association of Microbiologists of India (AMI-2015) & International Symposium on “Emerging Discoveries in Microbiology” held from 8-10 December 2015 at Jawahar Lal Nehru University.
14. Presented poster during the Annual event of University of Delhi “Antardhwani” entitled “Antibiotic resistance pattern in bacterial isolates obtained from different water samples of Delhi region” (February 20-22, 2015).
15. Presentation entitled “Antibiotic resistance pattern in bacterial isolates obtained from different water samples of Delhi Region” in symposium “Recent Trends in Biology” at Maitreyi College, University of Delhi, February 25th, 2015.
16. Attended 49th Annual conference of Association of Microbiologists of India (AMI) held at Dept of Zoology,

University of Delhi 2008.

17. Ahuja, P, Gupta, R and Saxena R.K. National Symposium on Microbes in Plant Improvement and Environmental Protection held at Delhi, India (1997).
18. Ahuja, P, Gupta, R and Saxena R.K Zinc biosorption by *O. angustissima*. Symposium on Algal Biology and Biotechnology held at Banaras (1997).
19. Ahuja, P, Gupta, R and Saxena R.K Removal of copper through biosorption by *Oscillatoria* sp. 36th Annual Conference of Association of Microbiologists of India, Hissar (1995).
20. Ahuja, P, Gupta, R and Saxena R.K Zinc uptake by *Oscillatoria* sp: Effect of modifying factors and ultrastructural study. 35th Annual Conference of Association of Microbiologists of India, Mysore (1994).
21. Participated in DAE international symposium on stress and adaptive responses in biological systems", Baroda, India (1994).
22. Ahuja, P, Gupta, R and Saxena R.K Removal and selective recovery of zinc, copper and cobalt by biomass of *Oscillatoria angustissima*. 38th Annual Conference of Association of Microbiologists of India held at New Delhi (1997). Tolerance and accumulation of heavy metals by cyanobacteria. 34th Annual Conference of Association of Microbiologists of India, Ludhiana, India (1994).

AWARDS AND DISTINCTIONS

1. Biotechnology Short term overseas Associateship sponsored by DBT, Ministry of Science and Technology, India (2006-2007) for visiting Scientist Program at University of Alberta, Canada for four months.
2. Post- Doctoral Research fellowship awarded for working at Faculty of Medicine, University of Alberta, Canada (2001-2004).
3. Post- Doctoral Research fellowship awarded for working at the Microbial and Bioprocess Unit, Korea Research Institute of Biosciences and Biotechnology, South Korea (2000-2001).
4. Won Golden Jubilee Award for Best Presentation by a Young Scientist in National Symposium on Microbes in Plant Improvement and Environmental Protection, held at New Delhi (1997)
5. Fellowship from the University Grant Commission for the doctoral studies (NET Qualified).

ASSOCIATION WITH PROFESSIONAL BODIES

- Association of Microbiologists of India, AMI – Life Member
- Probiotic Association of India, PAI – Life Member

COURSES/TRAINING PROGRAMS/FDP/WORKSHOPS: ORGANIZED/ATTENDED

1. Organised 4 weeks (July-August 2020) Certificate course “ Scientific Writing and Research Ethics” for students under DBT Star College Scheme.
2. Completed two weeks online workshop “Comprehensive e-learning to e-training guide for administrative work” from May 25-June 05, 2020 organised by Teaching Learning Centre, Ramanujan College, University of Delhi, Sponsored by MHRD.
3. Attended Webinar Series entitled "Quality Assurance in Higher Education: Practices and Issues” held on 4th– 8th May, 2020. organized jointly with IQAC, HANSRAJ COLLEGE. Under PARAMARSH, a UGC scheme for mentoring NAAC accreditation aspirant institutions to promote quality assurance in higher education
4. Organised Two days Interactive webinar series in association with Department of Physical Education covering lifestyle, weight management, Nutrition and Immunity on 23rd and 24th June 2020
5. Attended Webinar on “CRITERIA V: Student support and progression under revised accreditation framework of NAAC” organized by IQAC, Bharati College in collaboration with Sri Aurobindo College (Evening), University of Delhi on April 27, 2020.
6. Attended webinar “ Referencing and Citation” on 20th April 2020 organised by Sri Aurobindo College (Evening) and Ram Lal Anand College.
7. Organised Workshop entitled “Intellectual Property Rights(IPR) and Entrepreneurship : How to kick start your start-up” on 30th March 2019 at Ram Lal Anand College
8. Organising secretary for FDP “Quality assurance in HEIs: Reorienting Teaching-Learning Paradigm” from 15-19 March 2019 at Ram Lal Anand College
9. Attended faculty development program entitled “Writing Research Proposals and Addressing IPR Related Issues” from 29-30 March 2019 at Ram Lal Anand College.
10. Attended faculty development program entitled “Emotional Intelligence” at Ram Lal Anand College from

4-5th January 2019.

11. Attended Faculty Development Program “Shifted Goalposts in New NAAC: A Challenge for today’s IQAC” held on 10th September 2018 at SGND Khalsa College, University of Delhi.
12. Attended Foldscope Orientation Workshop organized by DBT at ICGEB on 16th April 2018
13. Workshop entitled Quality Assurance in Higher Education at India International Centre, New Delhi organized by Ramanujan college IQAC, 26th February 2018.
14. Two days Indo-Portuguese Workshop on “Emerging Trends of Nanotechnology in Chemistry and Biology” at University of Delhi, jointly organized by Hansraj College and Deshbandhu College, University of Delhi, Delhi. (March 12th – 13th, 2016).
15. Participated in training programme in Science Communication organized by Centre for Science Education and Communication (CSEC), University of Delhi, December 20-22, 2016.
16. Faculty Training Programme in “Research Project Management: Proposal to Publication and Beyond” at the Centre for Science Education and Communication, University of Delhi, July 2016.
17. Three days Workshop on “Bioinformatics Workshop for Life Sciences Facility” organized by Sri Venkateswara College, University of Delhi, Delhi. (July 27th – 30th, 2011).
18. A Five days Workshop on “RNAomics Isolation to Interference” at Shivaji College, organized by Department of Biochemistry, University of Delhi, New Delhi. (October 25th – 29th, 2010).
19. Developments of Bacterial Diversity and Systematics” sponsored by Ministry of Environment and Forests at Department of Microbiology, University of Delhi.
20. Workshop on bio-informatics titled: Coping with the pace. Department of Biotechnology - Distributed Information Sub-centre, University of Delhi (1996)
21. Three weeks Refresher Course in life sciences organized by CPDHE, University of Delhi Jan 2009- Feb 2010.
22. Three weeks Refresher Course in life sciences organized by Academic Staff College, Jawahar Lal Nehru University, Delhi (Jan-Feb 2008)
23. 4 weeks Orientation Course, organized by CPDHE, University of Delhi (Dec 2005- 2006)
24. Course on “Biosafety and WHIMS” at University of Alberta, Canada.
25. Course on “Radiation Safety” at University of Alberta, Canada.
26. Course on “Effective Writing Resources for Publication” at University of Alberta.
27. Training course for “Confocal Laser Scanning microscopy” at Cross Cancer Institute, University of Alberta, Canada.

CITATIONS: 792, H INDEX 9 as on August 2020