



Shivaji College Faculty Details Proforma

Title		First Name		Last Name		Photograph
Designation	ASSOCIATE PROFESSOR					
Official Address	Department of Biochemistry, Shivaji College					
Office Phone No.	011-25116644, 011-25155551					
Residence	-					
Mobile	-					
Email	renubaweja@shivaji.du.ac.in					
Web-Page	NA					
Educational Qualifications	B.Sc., M.Sc., PhD.					
Degree	University/Institute				Year	
Ph.D.	University of Delhi				2007	
M.Phil./M.Tech.	NA					
PG	M.Sc. Biochemistry, University of Delhi				2000	
UG	B.Sc. (H) Biochemistry University of Delhi				1998	
Any Other Qualification	NA					
Career Profile						

• December 2022-till date, Associate Professor, Department of Biochemistry, Shivaji College, University of Delhi • December 2014-December 2022, Assistant Professor, Department of Biochemistry, Shivaji College, University of Delhi • July 2007–December 2014, Assistant Professor, Department of Biomedical Science, Bhaskaracharya College of Applied Sciences, University of Delhi • June 2006-July 2007, Lecturer, Amity Institute of Biotechnology, Amity University, Noida. 4. • July 2005-March 2006 Guest Lecturer, Department of Biochemistry, Daulat Ram College, Delhi University of Delhi • July 2004-March 2005, Guest Lecturer, Department of Biochemistry, Daulat Ram College, Delhi university
Major Administrative Assignments
Seving as: Convener, Academic Audit and NEP Implementation Committee Coordinator, DBT-Star College Scheme Teachers Representatives, Internal Quality Assurance Cell (IQAC) Also Served as: Teacher-In-Charge, Department of Biochemistry, 2015-16 and 2022-23 respectively Convener, Department of Biochemistry, DBT-Star College Scheme, 2019-2022 Election Monitoring Committee Member, Student Advisory Committee, 2023-2025 Member, Cultural Committee, 2023-25 Member, Laboratory Physical Verification Committee 2023-24 Convener, Implementation of NEP 2020, 2021-2023 Co-convener, Admission Committee, 2016-18, 2020-21 Coordinator, Criteria 3, NAAC Committee, 2020-2023 Member, Editorial Board, Annual report, University of Delhi Member, Center For Promotion of Inclusivity, 2021-2023 Member, Website Committee, 2021-2023 Member, Purchase Committee, 2017-19 Member, College Laboratory Audit committee, 2015-2017, 2020-21 Member, Discipline Committee, 2019-20 Member, Fee Concession Committee, 2015-17 Member, Eco Club, 2015-17 Member, Screening Committee, Appointment of teachers in Biochemistry department of colleges of University of Delhi, 2017-18 Member, Screening Committee, Appointment of teachers in Biochemistry department of colleges of University of Delhi, 2019-20
Areas of Interest/Specialisation
BIOCHEMISTRY MICROBIOLOGY ANTIMICROBIAL RESISTANCE INFECTIOUS DISEASES
Subjects Taught

BIOMOLECULES
PROTEINS
CELL BIOLOGY
MOLECULAR BASIS OF INFECTIOUS DISEASES
HUMAN PHYSIOLOGY
HORMONE BIOCHEMISTRY AND FUNCTIONS
MICROBIOLOGY
LIPID METABOLISM

Innovation Project/Research Projects (Major Grants/Research Collaboration)

- Principal Investigator of Minor Research Intramural Project, Shivaji College, entitled “Disseminating Antimicrobial Resistance in Food Chain using Blended Learning Approach” since March 2022-March 2023
- Project Investigator of DBT-Star College Scheme sponsored minor project entitled “Study of variation in Hematological parameters and its correlation with diseases among youth” since May 2020-May 2022
- Co-investigator of the project titled “Assessment of Brominated Flame Retardants in Mobile phones/Electronic Gadgets, their consumption Pattern in North India Region and Carbon Foot Prints from Electronic Waste” funded by University of Delhi under DU Innovation Project (2013-14).
- Co-investigator of the project titled “Industrial Waste Utilization for Microbial Fuel Production” funded by University of Delhi under DU Innovation Project (2015-16)

Publications Profile (Research Papers/Books)

- Sangwan N, Bothra A, Pomerantsev AP, Gangwal A, Fattah R, Moayeri M, Ma Q, Ganesan S, Keshavam CC, **Baweja R**, Dhawan U, Leppla SH, Singh Y. 2026. A novel AAA+ ATPase required for sporulation and stress response in *Bacillus anthracis*. *J Bacteriol* 208:e00518-25. <https://doi.org/10.1128/jb.00518-25> (Indexed in Scopus)
- **Baweja, R.**, Singh, M., Shukla, S., Ravi, R., Ahmad, R., & Mishra, A. (2025). Antimicrobial resistance: Mechanism, causes, prevention and societal impact. *The Microbe*, 9, 100617. <https://doi.org/10.1016/j.microb.2025.100617>
- **Renu Baweja**, Hema Rajput, Prateek Bhardwaj, Aakriti Gangwal, B.S. Balaji, Yogendra Singh, Role of post-translational modifications in virulence of *Bacillus anthracis*: A narrative review, *Research in Microbiology*, 2025, 104344, ISSN 0923-2508, <https://doi.org/10.1016/j.resmic.2025.104344>. (Indexed in Scopus) (Corresponding Author)
- Misra, R., Gupta, R., Nayyar, N., Baweja, R., Sharma, V., Singh, Y., & **Baweja, R.** (2025). Bacterial Protein Toxins as Anticancer Agents: Clinical Potential of *Pseudomonas* and Anthrax Toxins. *Toxins*, 17(9), 459. <https://doi.org/10.3390/toxins17090459> (Indexed in Scopus) (Corresponding Author)
- **Baweja, R.**, Ravi, R., Baweja, R., Gupta, S., Sachan, A., Pratyusha, V., Warsi, M. K., Purohit, S. D., Mishra, A., & Ahmad, R. (2025). A comprehensive review of hydrogels as potential drug carriers for anticancer therapies: Properties, development and future prospects. *Next Materials*, 8, 100913. <https://doi.org/10.1016/j.nxmte.2025.100913> (Online ISSN: 2949-8228) (Indexed in Scopus)

- Sangwan, N., Gangwal, A., Jain, P., Langtso, C., Srivastava, S., Dhawan, U., **Baweja, R.**, & Singh, Y. (2025). Anthrax: Transmission, Pathogenesis, Prevention and Treatment. *Toxins*, 17(2), 56. <https://doi.org/10.3390/toxins17020056>. (Indexed in Scopus (Corresponding Author))
- Kumar R, Gupta S, Adhana S, Khanna A, Sahoo S, Faiza M, **Baweja R**, Pandey A, Mittal A, Chaudhry U. Screening and Identification of Natural Compounds as Potential Inhibitors of Glutamate Racemase, an Emerging Drug Target of Food Pathogen *E. coli* O157:H7: An In-silico Approach to Combat Increasing Drug Resistance. *Infect Disord Drug Targets*. 2024 Aug 16. doi: 10.2174/0118715265306131240809095241. (Indexed in Scopus)
- Kumar S, Ravi R, Sahu T, Kumar Jha V, **Baweja R**, Jha AK. Metal-Catalyzed Oxidative C-H Bond Functionalization of 1, 4-Benzoxazinones. *Asian Journal of Organic Chemistry*. Volume 13, issue: 05, May 2024 <https://doi.org/10.1002/ajoc.202400028> (Indexed in Scopus)
- Rajnish Kumar, Swati Varshney, Sujata Adhana, Archana Pandey, Avneesh Mittal, **Renu Baweja**, Anoushka Khanna, Uma Chaudhry. Bacterial contamination and associated antibiotic resistance in Fresh Produce: A comparative study between retail outlets and local markets. *Journal of Advanced Zoology*. ISSN: 0253-7214. Volume 44 Issue 5 Year 2023 Page 1351-1361 (Indexed in Scopus) <https://doi.org/10.53555/jaz.v44i5.3970>. (Indexed in Scopus)
- Sharma M, Vavilala P, Singh A, **Baweja R**. Effect of milk and mustard oil consumption: A case study on youth in Delhi-NCR. *Nutrition and Health*. 2023 Mar; 29 (1):25-9. 10.1177/02601060221116198. (Indexed in Scopus) (Corresponding author)
- Ravi R, Zeyaulah M, Ghosh S, Khan Warsi M, **Baweja R**, AlShahrani AM, Mishra A, Ahmad R. Use of gold nanoparticle-silibinin conjugates: A novel approach against lung cancer cells. *Frontiers in Chemistry*. 2022 Oct 13;10.
- Sharma M, Vavilala P, Singh A, **Baweja R**. Effect of milk and mustard oil consumption: A case study on youth in Delhi-NCR. *Nutrition and Health*. 2023 Mar;29 (1):25-9. (Indexed in Scopus)
- **Baweja RB**, Zaman MS, Mattoo AR, Sharma K, Tripathi V, Aggarwal A, Dubey GP, Kurupati RK, Ganguli M, Chaudhury NK, Sen S. Properties of *Bacillus anthracis* spores prepared under various environmental conditions. *Archives of Microbiology*. 2008 Jan;189:71-9. (Indexed in Scopus)
- Dubey GP, Narayan A, Mattoo AR, Singh GP, Kurupati RK, Zaman MS, Aggarwal A, **Baweja RB**, Basu-Modak S, Singh Y. Comparative genomic study of spo0E family genes and elucidation of the role of Spo0E in *Bacillus anthracis*. *Archives of microbiology*. 2009 Mar;191:241-53. (Indexed in Scopus)
- Sharma K, Gupta M, Pathak M, Gupta N, Koul A, Sarangi S, **Baweja R**, Singh Y. Transcriptional control of the mycobacterial embCAB operon by PknH through a regulatory protein, EmbR, in vivo. *Journal of Bacteriology*. 2006 Apr 15;188 (8):2936-44. (Indexed in Scopus)
- **Renu Baweja**. Covid 19 Vaccination and Challenges: An Indian Perspective. *India Calling*. (Atriennial newsletter in Thai and English). Centre for Bharat Studies, Research Institute for Languages and Cultures of Asia, Mahidol University. Vol. XII (Special Issue) 2022. pp 45-47. ISSN 1906-9758
- **Baweja et.al**. Analysis of food industrial effluent for the production of microbial fuel cell. *Proceedings of the National Seminar on water and air quality in urban ecosystem*. 2016. Pp 18-20.
- **Baweja R** and Kapoor A. Dairy Effluent: A source for Production of Bioenergy. *Journal of Energy Research and Environmental Technology (JERET)*. p-ISSN: 2394-1561; e-ISSN: 2394-157X; Volume 3, Issue 2; April-June, 2016; pp. 88-90

- **Renu Baweja**. Impact of diet on fertility: Reproductive Health in India: Concern and Awareness. Baweja V; Mishra R. 2017. ISBN: 978-8-19346-343-7. Enriched Publication Pvt.Ltd.
- Geeta Bhatt, Manoj Knanna, BalramPani and **Renu Baweja**. Awareness and sensitivity of mobile phone consumers on Electronic Wastes in Delhi-NCR region. Book: Sustainable smartcities in India: Challenges and Future Perspective. Sharma P; Rajput S. 2017. ISBN: 978-3- 319-47144-0. Springer International Publishing AG
- **Renu Baweja**, Shashi Nijhawan and Darshan Malik. Fighting for survival: Greater one-horned Indian Rhinoceros, Book: Wildlife Management: Concept, Analysis and Conservation. Dr. Amita Saxena. Daya Publishing House. ISBN 978-93-5124-792-0 (Hardbound). ISBN 978-93-86071-33-0 (International Edition), January 2017
- Ajeet Prajapati, Praveen, Nikena Khwairakpam, Manoj Khanna, BalramPani, **Baweja R.** Mobile Phones: Contributors Towards Global warming. *Proceeding of National Conference on Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning*. October 16-17, 2014. ISSN: 978-81-7273-958-4.
- Author of lesson Nucleic Acid, Paper IV, Fundamentals of Plant Biochemistry, Semester- 2, DC-I, B.Sc. (H) Botany (FYUP) under the Open Educational Resource by University of Delhi.

Conferences/Symposium/Workshop/FDPs attended**(5 only)**

- 12th workshop on Bioinformatics and Drug Design: Artificial Intelligence and Machine Learning-Based Methods (BIF-DD-2024), organised by Dr. B. R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi on December 18-20, 2024
- 2nd Undergraduate teachers' workshop on "Understanding Public Health from an Interdisciplinary Perspective" organized by Delhi Effective Education Pedagogy Cluster (DEEP-C)-DRIIV held on virtual platform from October 07-12, 2021
- National Workshop on Recombinant Proteins: Expression, Purification, Characterization organized by Centre for Innovation in Infectious Disease and Research, Education and Training (CIIDRET), University of Delhi South Campus, New Delhi from July 2-16, 2019
- Faculty Development Program cum Workshop on Climate Across the Curriculum: Resources for Integrating Climate Topics in Discipline-Specific Teaching organised by IQAC, Sri Venkateswara College, University of Delhi, in collaboration with TROPICSU, a climate education project funded by the Indian Council for Science (ICSU) & IISER, Pune on October 13-14, 2018
- Awareness Programme on Intellectual Property Rights organized by Shivaji College, University of Delhi in collaboration with DIPP IPR CHAIR & Centre for Science Education and Communication on September 26, 2017

Participation in Orientation/Refresher course/Workshop (Latest 5 only)

- One week faculty development programme on "Skill Augmentation in Teaching & Research through AI" organized by TLC Ramanujan College in collaboration with Department of Commerce, Shivaji College, University of Delhi under MHRD-PMNMNMTT from October 17-22, 2025
- One week Faculty Development Program on "Indian Knowledge System: focusing on Philosophy, Science, Technology, and Traditional Medicine" organized by Shivaji College, University of Delhi under MHRD-

PMMMNMTT from August 18-23, 2025 12th workshop on Bioinformatics and Drug Design: Artificial Intelligence and Machine Learning-Based Methods (BIF-DD-2024) organized by Dr. B. R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi from 18-20 December, 2026 - Online Training Program on NEP Orientation and Sensitization Programme” organized by MM-TTP, UGC MH-MMTTC in collaboration with Shivaji College, University of Delhi from 18-28 September, 2026 - Participated in Two-day workshop on “Establishment of modalities of Skill Enhancement Courses”, organized by SEC Committee, University of Delhi from 4-5 March, 2026.
Coordinator/Resource person/Member (Latest since July 2025 onwards) Coordinator, Four-Week Inter-College Summer Training Program on “Research Methodology 5.0” Resource Person during the National Summer Training Program (NSTP) on Practical exposure to Biochemical Methods organized by Department of Biochemistry, Shivaji College, University of Delhi from June 29-July 06, 2026 Resource Person, Workshop on “Implementing UGCF” on the topic “Disseminating guidelines of fourth year research tracks” on 16th and 17th October, 2025 at Shyama Prasad Mukherjee College and Shivaji College, University of Delhi - Member, National Ranking Committee - Member, Internal Assessment Monitoring and Moderation Committee - Member, College Research and Innovation Committee - Member, Skill Development Centre Committee - Member, Editorial Board, DU 103rd Annual Report
Presentation in conferences/symposium/workshop (5 only) - Presented paper on “Empowering Indian Youth against Antimicrobial Resistance” in an International Conference on Resurgent Bharat on the Global Canvas organized by Saikshik Foundation in collaboration with NCPSAL, Shivaji College, University of Delhi on 25-26 February, 2024 - Oral Presentation on “Microbes in sustainable development” during 6th International Conference of Indian Network for Soil Contamination Research held from November 15-18, 2021 - Poster Presentation on “ Women in STEM” The struggle beyond the statistics” in ISW-2020 International Summit on Women in STEM-“Visualizing the Future: New Skylines” on January 23-24, 2020 held at India Habitat Centre, Lodhi Road, Delhi - Poster Presentation on “ E-Waste: A threat to environment” in National Symposium on Recent Advances in Biological Sciences organised by Department of Biochemistry, Shivaji College, University of Delhi on 10th April 2019 - Oral presentation on “E Waste: Composition, Awareness and Management” in Two Days National Workshop On “Skill Development to Build a Clean India” in Deshbandhu College, University of Delhi on June 7-8, 2018
Conferences/Symposium/Workshop attended (5 only) 12th workshop on Bioinformatics and Drug Design: Artificial Intelligence and Machine Learning-Based Methods (BIF-DD-2024), organised by Dr. B. R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi on December 18-20, 2024 2nd Undergraduate teachers’ workshop on “Understanding Public Health from an Interdisciplinary Perspective” organized by Delhi Effective Education Pedagogy

Cluster(DEEP-C)-DRIIV held on virtual platform from October 07-12, 2021 • National Workshop on Recombinant Proteins: Expression, Purification, Characterization organized by Centre for Innovation in Infectious Disease and Research, Education and Training(CIIDRET), University of Delhi South Campus, New Delhi from July 2-16, 2019 • Faculty Development Program cum Workshop on Climate Across the Curriculum: Resources for Integrating Climate Topics in Discipline-Specific Teaching organised by IQAC, Sri Venkateswara College, University of Delhi, in collaboration with TROPICUSU, a climate education project funded by the Indian Council for Science (ICSU) & IISER, Pune on October 13-14, 2018 • Awareness Programme on Intellectual Property Rights organized by Shivaji College, University of Delhi in collaboration with DIPP IPR CHAIR & Centre for Science Education and Communication on September 26, 2017
Awards and Distinctions • Best Oral Presentation award for presenting the paper entitled “Antimicrobial Resistance Awareness among youth in India: a brief report” at the 2nd International Conference on Clinical Nutrition and Dietary Lifestyle organized by the Universal Society of Food and Nutrition on 22nd & 23rd February, 2024 through virtual mode • Secured 2nd position in Poster Presentation titled “ E-Waste: A threat to environment” in National Symposium on Recent Advances in Biological Sciences organised by Department of Biochemistry, Shivaji College, University of Delhi on 10th April 2019. • Certificate of Appreciation for Best Display award under the theme: Health Concern during Antardhwani 2015, Innovation Plaza, Academic and Cultural festival, organized by University of Delhi from February 20-22, 2015 • Best Poster Award in 4th annual symposium on frontiers in biomedical research organized by Dr. B. R. Ambedkar Center for Biomedical Research, University of Delhi, Delhi- 110007, India on April 14-16,2007 • Qualified CSIR-UGC National Eligibility Test for lectureship and Junior Research Fellowship.University Merit scholarship M.Sc. (Biochemistry) from Delhi University.
Memberships Lifetime Member: Proteomics Society (Hyderabad, India). Life Member: Indian Network For Soil Contamination Research

Renu

Signature of Faculty Member