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| Title | Dr | First Name | Urmi | Last Name | Bajpai |  |
| Designation | Professor | | | | | |
| Address | Department of Biomedical Science, Acharya Narendra Dev College (University of Delhi), Govindpuri, New Delhi-110019. | | | | | |
| Phone No Office | 011-26412547 | | | | | |
| Email | urmibajpai@andc.du.ac.in | | | | | |
| Educational Qualifications | | | | | | |
| Degree | | Institution | | | Year | |
| M.Sc. (Biosciences) | | Jamia Millia Islamia University, Delhi. | | | 1992 | |
| PhD (Microbiology) | | University of Delhi | | | 1998 | |
| Career Profile | | | | | | |
| <ul style="list-style-type: none"> Teaching in Acharya Narendra Dev College since July 1998 Associate Professor since July 2010 Professor since July 2018 | | | | | | |
| Awards and Distinctions | | | | | | |
| <ul style="list-style-type: none"> Indian National Science Academy (INSA) Teacher Award, 2018. 'Excellence Award for Teacher in Service in College', for rendering exemplary service to the University of Delhi, 2017. "Meritorious Teacher Award" by Govt. of NCT of Delhi, 2014. | | | | | | |
| Subjects taught (Last 5 years) | | | | | | |
| <ul style="list-style-type: none"> Biochemistry Medical Biotechnology Medical Biochemistry Medical Microbiology (Lab classes) | | | | | | |
| Areas of Interest / Specialization | | | | | | |
| <ul style="list-style-type: none"> Exploring anti-mycobacterial potential of mycobacteriophages and encoded lytic enzymes (Endolysins). Mur enzymes of the cell wall biosynthesis pathway of <i>Mycobacterium tuberculosis</i> as the target proteins for Drug Discovery & Repurposing. | | | | | | |
| Administrative Assignments (Last five years) | | | | | | |
| <ul style="list-style-type: none"> Department Teacher-in-Charge 2000-2002, 2008-2010, 2019-2021. Teacher Representative, Governing Body, Acharya Narendra Dev College 2020-2021. Member, Board of Research Studies (BRS), University of Delhi 2020-till date Member, NEP Implementation Committee, University of Delhi 2020- Member, Department Research Committee, Dr B.R. Ambedkar Research Centre 2008-2016; 2019- Member, Curriculum Revision (FYUP, CBCS, LCOF) for B.Sc. (H) Biomedical Science. Member, Board of Studies (BoS), meeting, Deen Dayal Upadhyay Kaushal Kendra, Central | | | | | | |

University of Haryana, Central University of Haryana 2015-2020.

- Observer, IQAC, Central University of Haryana. August 2020.
- Member Secretary, Institutional Biosafety Committee (IBSC) 2019.
- Convener, Admission Committee, Acharya Narendra Dev College 2019 and 2020.
- Deputy Dean, Research, Research Council, University of Delhi. July 2017-2018 (on additional basis).
- Member, Editorial Committee, 94th Annual Report, University of Delhi. 2017-2018.
- Member, Internal Quality Assurance Cell (IQAC, ANDC), Acharya Narendra Dev College. 2016-2018
- Convener, Rejuvenation of Research and Innovation Committee, ANDC. 2016-2018.
- Coordinator, Science Setu (between ANDC and THSTI) 2016-
- National Coordinator of TATA CSIR-OSDD Fellowship (TCOF & TCOWF, 2013-2016).
- Managing Editor, DU Journal of Undergraduate Research and Innovation, University of Delhi 2017-2018.
- Member, UGC Expert Committee, Development of curriculum for UG courses under the CBCS. 2015.

Research Guidance

- PhD. Scholars: 04
- M.Sc. & B. Tech. Dissertation, Projects with research fellows: 20
- Undergraduate students: 175+

Publications

- Diksha Raina, Harshita Tiwari, Smriti Sharma, Deepika Kashyap, Amit Nargotra, Kandasamy Eniyan, **Urmi Bajpai**, Ram A Vishwakarma, Farrah Gul Khan, Saurabh Saran, Inshad Ali Khan (2021) Screening of compound library identifies novel inhibitors against the MurA enzyme of Escherichia coli. *Applied Microbiology and Biotechnology*, 105, 3611-3623. **IF: 3.530**
- Das, R., Eniyan, K., & **Bajpai, U.** (2021). Computational identification and characterization of antigenic properties of Rv3899c of *Mycobacterium tuberculosis* and its interaction with Human leukocyte antigen (HLA). *Immunogenetics*, <https://doi.org/10.1007/s00251-021-01220-x>. **IF: 2.621**
- Das, R., & **Bajpai, U.** (2021). Functional characterization of a DNA-dependent AAA ATPase in SimranZ1, a F cluster mycobacteriophage. *Biorxiv*, doi.org/10.1101/2021.03.11.434926.
- Vincent Hervin, Ritu Arora, Jyoti Rani, Srinivasan Ramchandra, **Urmi Bajpai**, Luigo Agrofoglio, Vincent Roy (2020) “Design and synthesis of various 5’-Deoxy-5’-(4-Substituted-1,2,3-Triazol-1-yl)-uridine analogues as inhibitors of *Mycobacterium tuberculosis* Mur ligases”. *Molecules*, 25(21), 4953. **IF: 4.411**
- Eniyan, K., Sinha A., Ahmad, S & **Bajpai, U.** (2020). “Functional characterization of the endolysins derived from mycobacteriophage PDRPxv”. *World Journal of Microbiology and Biotechnology*. 36, 83. **IF: 2.477**

- Sinha, A., Eniyan, K., Manohar, P., Ramesh, N., & **Bajpai, U.** (2020). “Characterization and genome analysis of B1 sub-cluster mycobacteriophage PDRPxv”. *Virus Research*, 279, 197884. **IF: 3.303**
- Kandasamy Eniyan, Jyoti Rani, Srinivasan Ramachandran, Rahul Bhat, Inshad Ali Khan and **Urmi Bajpai (2019)**. “Screening of Antitubercular Compound Library Identifies Inhibitors of Mur Enzymes in *Mycobacterium tuberculosis*” *SLAS Discovery*; Page no. 1-9. **IF: 2.62**
- Jyoti Rani, Yumnam Silla, Kasmika Borah, Srinivasan Ramachandran, **Urmi Bajpai (2019)**. “Re-purposing of the FDA-approved drugs to target MurB and MurE enzymes in *Mycobacterium tuberculosis*”. *Journal of Biomolecular Structure and Dynamics*. PP 1-12. **IF: 3.549**
- **Urmi Bajpai**, Abhishek Kumar Mehta, Kandasamy Eniyan, Avni Sinha, Ankita Ray, Simran Viridi, Shazeb Ahmad, Aridni Shah, Deepanksha Arora, Devyani Marwaha, Gunjan Chauhan, Prarthna Saraswat, Punita Bathla, Ruchi Singh (2018) Isolation and characterization of bacteriophages from India, with lytic activity against *Mycobacterium tuberculosis*. *Can J Microbiol.* 2018:64:1-9 **IF: 1.793**
- Kandasamy Eniyan, Sudhaker Dharavath, Ramachandran Vijayan, **Urmi Bajpai***, Samudrala Gourinath* (2018). Structure of UDP-N-acetylglucosamine-enolpyruvate reductase (MurB) from *Mycobacterium tuberculosis*: *Biochemica et Biophysica Acta (BBA)- Protein and Proteomics*, 1866 (3), 397-406. **IF 3.036**
- Kandasamy Eniyan* and **Urmi Bajpai**. “Mur Ligases as Potential Drug Targets in *Mycobacterium tuberculosis*. A review” (2017). *DU Journal of Undergraduate Research and Innovation* Volume 3, Issue 1, pp 97-115.
- Kandasamy Eniyan, Anuradha Kumar, Geetha Vani Rayasam, Andrej Perdih and **Urmi Bajpai (2016)**. Development of a one-pot assay for screening and identification of Mur pathway inhibitors in *Mycobacterium tuberculosis*. *Scientific Reports*. 6: 35134. **IF 4.379**
- Shahzaib Ahamad, Faez Iqbal Khan, **Urmi Bajpai**, Shahnawaz Ali, Neerja Dwivedi and Md. Imtaiyaz Hassan (2015). A comparative molecular dynamics study of MurA enzymes from *E. coli* and *M. tuberculosis*. *Innovation in Pharmaceuticals and Pharmacotherapy*. Vol 03, Issue 03, Pages:673-682.
- Avni Sinha, Kandasamy Eniyan, Swati Sinha, Andrew M Lynn, **Urmi Bajpai (2015)**. Functional analysis of TPM domain-containing Rv2345 of *M.tuberculosis* identifies its phosphatase activity. *Protein Expression and Purification Issue.111* pages 23-27. **IF: 1.513**
- Aamod Utpal + 31 coauthors and **Urmi Bajpai (2015)**. Building a repository of potential drug targets in *Mycobacterium tuberculosis* by crowdsourcing. *DU Journal of Undergraduate Research and Innovation Vol 1. Issue 1: 1-13.*

- Shilipi Singh, **Urmi Bajpai**, and Andrew Michael Lynn (2015). Structure-based virtual screening to identify inhibitors against MurE Enzyme of *Mycobacterium tuberculosis* using AutoDock Vina. *Bioinformatics*. Vol 10 issue 11. Pages 697-702.
- Kandasamy Eniyan and **Urmi Bajpai** (2015). Cloning, Expression, Purification and Bioinformatic analysis of 2-Methylcitrate Synthase from *Mycobacterium tuberculosis*. *Asian Pacific Journal of Tropical Medicine*. Vol. 8 issue.1:19-23. **IF: 1.940**
- **Urmi Bajpai**, Rinu Sharma, Siddharth Dutta Gupta, Ranju Ralhan. (2008) Clinical significance of 14-3-3 zeta in human esophageal cancer. *International Journal of Biological Markers* 23(4):231-7. **IF: 1.793**

Book Chapter

Jyoti Rani, **Urmi Bajpai** and Srinivasan Ramachandran (2021). Translational Bioinformatics Methods for Drug Repurposing. *Translational Bioinformatics Applications in Healthcare*. CRC Press, Taylor & Francis Group. Chapter 4, Pages 67-86.

Other Research Output

- Mycobacteriophage isolates: >100
- Whole-genome sequences of mycobacteriophage: 14; Submitted to Genebank: 08
- Recombinant proteins from *Mycobacterium tuberculosis* and mycobacteriophage: 30
- PDB structure: 1 (MurB) from *Mycobacterium tuberculosis*. PDB ID: 5JZX

Research Projects

| S.No | Title | Funding agency | Amount sanctioned in Rs. (Lakhs) | Period | Status |
|------|---|----------------|----------------------------------|-----------|-----------|
| 1 | A Multi-Institution Project: An investigational study on Mycobacteriophages and their enzymes as new drug (IND) for treating tuberculosis | ICMR | 22,16,000 | 2019-2022 | Ongoing |
| 2. | Recombinant endolysins from mycobacteriophages: exploring their anti-Mycobacterial potential | DST-SERB | 46,70,200 | 2018-2021 | Ongoing |
| 3. | Development of alternative anti-bacterials through Bacteriophage-derived proteins, | DST-IEDC | 01 | 2015-2016 | Completed |

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| 4. | <p>isolated from India (UG Project)</p> <p>TATA CSIR OSDD FELLOWSHIP (TCOF) Projects:</p> <p>TCOF 13 Virtual Screening and in-vitro assays for inhibitors of Mur Enzymes.</p> <p>TCOWF Investigating the diversity of Mycobacteriophages in India- A Pilot study.</p> <p>TCOF 21 Computational identification, purification and functional analysis of proteins from Mycobacteriophages and to explore their antimycobacterial potential.</p> | TATA CSIR-OSDD Fellowships - 6 | 4.71 (Total Fellowship amount) | 2014 – 2016 | Completed |
| 5. | Mtb Mur pathway enzymes: Potential targets for Multi-targeted therapy” (Screening of chemical libraries using one-pot assay developed for Mur enzymes of <i>Mycobacterium tuberculosis</i>) | CSIR-OSDD | 7.184 | October 2015- March 2016 | Completed |
| 5 | Mtb Mur pathway enzymes: Potential targets for Multi-targeted therapy | CSIR-OSDD | 30.38 | 2013-2015 | Completed |
| 6 | Mobile healthcare: The future of health management in India- A Feasibility Study (UG Project) | DU Innovation project | 5 | 2013-2014 | Completed |
| 7 | Cloning and Expression of <i>Mycobacterium tuberculosis</i> genes (UG Project) | CSIR-OSDD | 16.85 | 2010-2012 | Completed |
| 8 | A Virtual Centre of Excellence in coordinated research on tuberculosis: Development of alternate strategies (UG Project) | DBT | 24.85 | 2006 -2009 | Completed |

Conference/ Presentations/Workshops (*Last 5 years*)

International

Oral Presentations

- “Anti-mycobacterial drug discovery” research at ANDC (2019) Open Source Pharma Meet, Paris, France, 3rd Global Open Source Pharma Conference Science, License, Community, Paris March 21-23, 2019. Organized by the Centre for Research and Interdisciplinarity (CRI), an affiliate of the Paris Descartes University
- “Finding Anti-mycobacterial Solutions in Repurposed Drugs, Bacteriophages and Endolysins” (2019). Department Biotechnology, Research Group Laboratory of Applied Biotechnology, Faculty of Bioscience Engineering, Ghent University Belgium 2019.
- “Functional characterization of Lysin A&B from mycobacteriophage PDRPxv (2018). European Molecular Biology Organization (EMBO) Workshop “Viruses of Microbes”. University of Wroclaw, Poland. 9-13 July 2018
- “Crowdsourcing in wet labs and with undergraduates”. Open Source Pharma Meet, Rockefeller Foundation, Bellagio, Italy, July 2014.

Poster Presentations

- Eniyan K, P Manohar¹, **U Bajpai** and N Ramesh (2019) Transcriptional Analysis of *dew* Operon Genes of *Mycobacterium smegmatis*. Presented at ASM Microbe 2019, in San Francisco, USA.
- Synthèse d’inhibiteurs de Mur-Ligases à visée anti-bactérienne. V. Hervin, C. Hoarau, D. Warsycki, A. Bojarski, **U. Bajpai**, V. Roy, L. Agrofoglio. French symposium (Biotechnocentre, 11 and 12 October 2018, Seillac France.
- Eniyan K, Kumar A, Rayasam G V, Perdih A and **Bajpai U***. (2016). Development of a one-pot assay for screening novel inhibitors targeting Mur enzymes of peptidoglycan biosynthesis. Presented at the 7th EMBO meeting 2016, at Mannheim, Germany.

National

- Ritam Das and **Urmi Bajpai***. Functional characterization of a DNA-dependent AAA ATPase from a F cluster mycobacteriophage. International e-Conference on Health and Research in Current Scenario: with Special Emphasis on COVID-19 ‘Virus Genomics and Pathogenicity’ by Venkateswara College, University of Delhi and PhiXgen Pvt. Ltd., India. 17 July 2020. Best Poster Award.
- Jyoti Rani, Srinivasan Ramachandran, and **Urmi Bajpai*** Repurposing existing drugs for treating drug-resistant tuberculosis with Mtb MurB & MurE as the target enzymes”, Pre-Conference

Workshop & International Conference on Multi-scale Simulation & Mathematical Modelling of Biological Complex Systems. 28 January - 01 February 2019, Jawaharlal Nehru University.

- Jyoti Rani, Kandasamy Eniyan, Srinivasan Ramachandran, **Urmi Bajpai***. Identification of inhibitors of Mycobacterium tuberculosis MurE enzyme by the screening of a library of anti-tubercular compounds at the Second International Conference on Antimicrobial Resistance, Novel Drug Discovery and Development: Challenges and Opportunities, organized by SRM University Delhi-NCR, Sonapat, Haryana in association with Royal Society of Tropical Medicine and Hygiene. March 17 - 19, 2019 at IIT Delhi Campus, RGEC, Sonapat, Haryana.
- Ritam Das, Ritu Arora and **Urmi Bajpai***. Bacteriophages to the rescue! A renewed hope for antimicrobial resistance (AMR). DBT- Biotechnology Popularization Programme, Miranda House, University of Delhi, 2 August 2019. First Prize
- Ritam Das, Ritu Arora and **Urmi Bajpai***. Isolation and characterization of Bacteriophages and encoded endolysins as promising alternatives to antibiotics. New Frontiers in science, under the aegis of DBT Star College Scheme, Acharya Narendra Dev College, University of Delhi, New Delhi, India. 22 October 2019. Consolation Prize
- Garima, Saroj and **Urmi Bajpai***. Isolation and Characterization of Novel Mycobacteriophages from the collected soil samples. New Frontiers in science, under the aegis of DBT Star College Scheme, Acharya Narendra Dev College, University of Delhi, New Delhi, India. 22 October 2019. Consolation Prize
- Ritam Das and **Urmi Bajpai***. Isolation and characterization of Bacteriophages and encoded endolysins as promising alternatives to antibiotics. Assessment of best practices in higher education institution under NAAC framework, Maitryei College, University of Delhi, New Delhi, India. 6 November 2019.
- Ritu Arora, Saroj and **Urmi Bajpai***. Morphological and genomic characterization of mycobacteriophages isolated from Delhi-NCR. 60th Annual Conference of The Association of Microbiologists of India (AMI- 2019), Central University of Haryana, Mahendragarh, Haryana, India. 15-18 November 2019.
- Saroj, Ritu Arora and **Urmi Bajpai***. Isolation & characterization of mycobacteriophages and assessment of their potential to inhibit/disrupt biofilm. International Conference on Bacteriophage Research and Antimicrobial Resistance Vellore Institute of Technology, Vellore, Tamil Nadu, India. 12-13 December 2019.
- Ritam Das and **Urmi Bajpai***. Experimental validation of a putative AAA+ ATPase encoded by a Mycobacteriophage belonging to F cluster. International Conference on Bacteriophage Research and Antimicrobial Resistance, Vellore Institute of Technology, Vellore, Tamil Nadu, India. 12-13 December 2019. Second Prize

- Eniyan K, S Dharavath, J Rani, S Ramachandran, S Gourinath and **U Bajpai** (2017) Crystal structure of MurB enzyme (UDP-N-acetylenolpyruvylglucosamine reductase) from Mycobacterium tuberculosis. Presented at Jawaharlal Nehru University, New Delhi.
- Ritu Arora, Eniyan Kandasamy and **Urmi Bajpai** (2018). LysinB endolysin from mycobacteriophages as novel antimycobacterial agent” International Symposium on Infectious Diseases, 12-14 November, 2018 at Regional Centre for Biotechnology and Jamia Hamdard (Delhi-NCR).
- Kandasamy, E; Rani, J; Ramachandran, S; Khan, I. A; and **Bajpai, U.** (2018) Screening of anti-tubercular compound library identifies Mur enzyme inhibitors of Mycobacterium tuberculosis. 59th Association of Microbiologists of India (AMI) conference, at University of Hyderabad.
- F Ahmad, Eniyan K, A Sinha and **U Bajpai** (2017) Purification and structural characterization of Lysin A from EniyanLRS mycobacteriophage isolated from New Delhi. Presented at Jamia Millia Islamia University, New Delhi, India.
- Eniyan K and **Bajpai U** (2014). Mur enzymes of Mycobacterium tuberculosis as potential drug targets. Presented at 10th Annual Symposium on Frontiers in Biomedical Research. Dr Ambedkar centre for Biomedical Research, University of Delhi North Campus, New Delhi, India.
- Shah A, Arora D, Marwaha D, Chauhan G, Singh H, Bhaskar M, Singh M, Saraswat P, Bathla P, Singh R, Ray A, Eniyan K, Mehta A K and **Bajpai U** (2014). Crowdsourcing undergraduates in investigating the diversity of Mycobacteriophages in India and exploring their potential as source for anti-mycobacterial active biomolecules. Presented in National conference on understanding the mechanism and challenges of complex diseases (UMCCD-2014) at Shaheed Rajguru College of Applied Sciences for Women, New Delhi, India.
- Eniyan K and **Bajpai U** (2014). Molecular Biology techniques used in cloning, expression and purification of recombinant proteins. Presented at National tuberculosis day, JNU Convention Centre, Jawaharlal Nehru University, New Delhi, India.

Invited talks:

- “Bacteriophages and Antimicrobial Resistance”. Weekend chat with researchers #2.2. A science outreach initiative by Aswin Lab at National Centre for Biological Science (NCBS). 21 March, 2021
- “Combatting Antimicrobial Resistance through Early career engagement in Bacteriophage Research” in a webinar series on World Phage Week, organized by Ibadan Bacteriophage Research Team (IBRT), University of Ibadan, Nigeria, under the Science Education Alliance-Phage Hunters Advancing Genomics and Evolutionary Science Program (SEA-PHAGES). 26 October, 2020.

- “How good viruses kill bad bacteria” in a series of online talks ‘Let’s Talk Science’ organized by Joy of Learning Foundation, sponsored by the NCSTC project of the Department of Science and technology. 29 September 2020.
- “Igniting Passion for Science Early On: A narrative”. Science Popularization Talks- organized by CSIR-NIEST, Summer Research Training Program. 6 August 2020.
- “Emerging role of bacteriophages and their enzymes in managing anti-microbial resistance” Online Faculty Development Program on Research Advances in Plant and Microbial Biotechnology organized by Biotechnology Department, Jaypee Institute of Information Technology, Noida. 13 July 2020.
- “Exploring the anti-mycobacterial potential of bacteriophages and endolysins” at the Virocon 2020 (International conference by Society of Virologists of India), 19 February, Indian National Science Academy (INSA), New Delhi. 18-20 February 2020.
- Panellist in the roundtable on “Mentoring women in science” at the Nature Mentoring Award ceremony on December 9, 2019 organized by the Nature research group at the India International Centre, New Delhi.
- “Road Map for Building a Bacteriophage Research Consortium” at Armed Forces Medical College (AFMC), Pune. January 9-10, 2018.
- Keynote speaker, “A Multipronged Quest for Anti-Mycobacterial Solution: Bacteriophages, Endolysins and Chemical Libraries. International Conference on Bacteriophage Research and Antimicrobial Resistance, ICBRAMR 2019. Vellore Institute of Technology, Vellore 12-13 December, 2019.
- Co-chair: Preclinical and Clinical Bacteriophage Therapy: Our Recent Experiences. International Conference on Bacteriophage Research and Antimicrobial Resistance, ICBRAMR 2019. Vellore Institute of Technology, Vellore 12-13 December, 2019.
- National Symposium on “Antimicrobial Drug Resistance: Complex Challenges and Future Alternative Strategies”, organized by Department of Microbiology, Panjab University, Chandigarh. July, 2019.
- “Potential role of phage-encoded LysinB as the emerging lytic agent against Mycobacterium spp.” at the Workshop on “Clinical and Translational Research on Bacteriophages as Promising Antimicrobial Alternatives for Therapeutics, Prophylaxis and Food Safety” is being organized at NCVTC, ICAR-National Research Centre on Equines, Hisar, Haryana from July 29-31, 2019.

- “Phage Therapy for drug-resistant infections” on the occasion of World Immunology Day at University College of Medical Sciences (UCMS), University of Delhi and GTB hospital, on May 2, 2018.
- “Bacteriophages as a credible alternative to antibiotics: the prospects and challenges” at Institute of Microbial Technology (IMTECH), Chandigarh on December 5, 2018.
- “Bacteriophages”. 20th Annual fest of Department of Biosciences and Bioengineering, IIT Bombay on January 12-13, 2019.
- “Antimicrobial Resistance & the Prospects and Challenges of Bacteriophage Therapy” Department of Biochemistry, South Campus, Delhi University. January 16, 2019.
- Delegate in the Women Scientists and Entrepreneurs Conclave (WSE) on October 7-8, 2018 as part of India International Science Festival (IISF), Lucknow. 2018.
- “Phages in medicine: Future is here”, Medizone Aesthetics Company. Hyatt Regency, Mumbai. March 3, 2019.
- Chaired a session on Phage Therapy at the International conference on Bacteriophages in River Ganga, organised by the Institute of Medical Science, BHU and ICMR at BHU, Varanasi. 22-23 August, 2017.

Talks/Workshop/Seminars Organized on Bacteriophages:

- Core committee member of 2nd International Conference on Bacteriophage Research, organised by Society for Bacteriophage Research and Therapy (SBRT), India. 22-24 July, 2021.
- With an aim to develop a community of bacteriophage researchers, ‘International Bacteriophage Research Consortium’ (IBRC) was established as a collaboration between Acharya Narendra Dev College (Dr Urmi Bajpai is the co-founder) with Open Source Health Laboratory (OHSL), USA in 2018. Webinars organized by IBRC are as follows:

IBRC Webinars/Symposium

- Symposium: “Phage Lysins: Promising alternatives to antibiotics” an online session with Prof Vincent A. Fischetti from Rockefeller University, USA; Dr TS Balganes, President, GangaGen Biotech Pvt Ltd (GBPL) and Mr Sukumar Hariharan, Head of Development, GBPL, India and Dr Joseph Campbell, Program officer and leader, Bacteriophage Research Interest Group, National Institute of Allergy and Infectious Diseases (NIAID), NIH, USA. 9 July, 2021 Prof Paul Turner, Rachel Carson Professor of Ecology & Evolutionary Biology & Microbiology, Yale University; Faculty member at Yale School of Medicine, the USA on “Challenges in commercially developing phage therapy to target drug-resistant bacteria.” 27 January, 2021.

- IBRC Webinar by Prof Yves Briers, Associate Professor, Department of Biotechnology at Ghent University, Belgium on “From discovery to high-throughput engineering of phage lysins targeting Gram-negative bacteria”. 9 July 2020.
- IBRC Webinar by Prof Graham Hatfull, Eberly Family Professor of Biotechnology and HHMI Professor in the Department of Biological Sciences, University of Pittsburgh, the USA on “Mycobacteriophages: Diversity, Dynamics and Therapy. 17 June, 2020.

IBRC-Phage Directory webinar series on ‘Phage Bioinformatics’

- IBRC series on ‘Phage Bioinformatics Webinars’ Dr. Deborah Jacobs-Sera, Department of Biological Sciences, University of Pittsburgh, the USA on “Genomic annotation and comparative bioinformatic analysis of Actinobacteriophages”. 16 February 2021.
- IBRC series on ‘Phage Bioinformatics Webinars’: Ms Katelyn McNair, University of California Irvine & San Diego State University, the USA on “Phage genome annotation: the right way and/or the easy way”. 16 February, 2021.
- Dr Justin Clark, Lead Data Scientist and Co-founder of TAILΦR, a Baylor College of Medicine bacteriophage initiative at Houston, Texas, USA. Topic: “Therapeutic use of bacteriophages and comparative genomics of ESKAPE pathogens”. 25 March, 2021
- Dr. Jason Gill, Associate Director of the Center for Phage Technology (CPT), Texas A&M University. Topic: “Phage genome annotation pipelines in CPT Galaxy and WebApollo”. April 7, 2021
- OHSL-IBRC colloquium, a public lecture delivered by Prof. Steffanie Strathdee, Associate Dean of Global Health Sciences and Harold Simon Professor of Medicine at the University of California San Diego at the India International Centre, New Delhi, India. November, 2019.
- Moderated the Panel Discussion ‘Charting a Path Towards Bacteriophage Therapy’. Reference for the first public lecture: Bajpai, U. (2019). A new phage consortium hosts its first public lecture. *Capsid & Tail*, (55). Retrieved from <https://phage.directory/capsid/first-ibrc-lecture>
- Society for Bacteriophage Research and Therapy (SBRT) Webinar Dr Tobi Nagel, Founder & President of Phages for Global Health, USA Dr Janet Nale, Research Associate, Department of Infection, Immunity and Inflammation, University of Leicester, UK on “Using phages to combat AMR: Scientific capacity building through laboratory training workshops”. 14 August 2020
- SBRT Webinar by Dr Jessica Sacher and Mr Jan Jhang, Co-Founders, Phage Directory USA on “Phage Directory: Making the world’s phages more accessible, manageable and shareable”. 3 September 2020.
- SBRT Webinar by Prof B.N.Tripathi, Deputy Director-General, Animal Science, ICAR HQ, New Delhi and Dr Juliannae H. Grose, Associate Professor, Brigham Young University, the USA on

“Knowing the unknown: Approaches to characterize the uncharacterized proteome of bacteriophages. 1 October, 2020.

- A session on bacteriophage therapy at the Virocon 2020 (International conference by Society of Virologists of India) on 19 February at the Indian National Science Academy (INSA), New Delhi. 18-20 February 2020.
- Organized and conducted workshop “Gene Editing and Phage Therapy” on Phage Discovery at the Department of Biochemistry, IARI on 22 February 2019.

Online Articles on Bacteriophages and Education

- Bacteriophages as therapeutics for managing drug-resistant tuberculosis? (2020) TB Info <http://tbinfo.org/> Volume:1; Page: 21-23.
- Bajpai, U. (2019). A new phage consortium hosts its first public lecture. *Capsid & Tail*, (55). Retrieved from <https://phage.directory/capsid/first-ibrc-lecture>
- When the drugs don't work, could bacteriophages? Longitude Prize Newsletter. <https://longitudeprize.org/blog-post/when-drugs-dont-work-could-bacteriophages> **January 2018**.
- “Bacteriophages as a credible option in treating drug-resistant infections”, a documentary-drama film <https://youtu.be/lhPPJZ6SUG> for creating awareness on Antimicrobial Resistance (AMR) and Phage Therapy. **May 2018**.
- <https://indiabioscience.org/columns/education/teachers-weigh-in-1>. **2017** An interview was given to IndiaBioScience
- <https://indiabioscience.org/columns/education/bacteriophages-beacon-of-hope-amidst-the-sea-of-superbugs> **2017** An article on bacteriophages.
- <https://indiabioscience.org/columns/education/a-practical-record-book-by-the-undergraduate-science-students> **2013** An article on practical record book by undergraduate science students.
- <https://indiabioscience.org/columns/education/research-experiences-for-college-students> **2010** An article on undergraduate research experience.

Other Activities

- Life member, Society for Bacteriophage Research and Therapy (SBRT), India
- Life Member, International Society for Virus Research (ISVR)
- Co-Founder, International Bacteriophage Research Consortium (IBRC) 2018-till date
- Member, American Society for Microbiology 2018-2019
- Project Advisor, Open Source Pharma Foundation (OSPF) 2018-till date.