Frontiers in Animal Biotechnology (FiAB) 2026

Theme: Mastitis – Diagnosis, Therapy and Beyond

Day 1: 5th Nov 2026

8:00 - 9:00	**Conference Registration**
Inaugural Session	
9:00 - 9:30	Welcome address: Dr. Ravi Kumar Gandham, Director, BRIC-NIAB Chief Guest: Dr. B. Gopi, IAS (Director, FAC, Directorate of Veterinary & Animal Husbandry, Telangana) Guests of Honor: Dr. Pradeep K Gupta (Vice President, R&D, Indian Immunologicals Ltd.) & Prof. Ullas Kolthur-Seetharam (Director, CDFD)
9:30 - 10:10	Inaugural Lecture: Dr. Suresh Kuchipudi (University of Pittsburgh School of Public Health, USA) *Emerging Viral Mastitis: Molecular Mechanisms of H5N1 Mammary Tropism and Novel Therapeutic Approaches*
Session 1: Setting the scene Chair: Dr. T.K. Mohanty (ICAR-NDRI) Co-chair: Dr. Sanjay Singh (BRIC-NIAB)	
10:10 – 10:30	Dr. G. Dhinakar Raj (Retd., TANUVAS) *Mastitis interventions - the translational conundrum*
10:30 -10:50	Prof. Punniamoorthy (Trans-Disciplinary University) *Ethnoveterinary Approaches to Mastitis Control: A One Health Perspective*
10:50-11:10	Mr. Anirudha Rajurkar, *CEO, ZenexAH* *A brief on industry requirements and expectations from research*
11.10 -11.30	*Tea break*
11.30-11.50	Dr. Rahul Modak (KIIT) *Beyond the Genome: Epigenetic Regulation of Immune Responses During Mastitis*

Session 2: Mastitis diagnosis Chair: Dr. G. Dhinakar Raj (Retd. TANUVAS) Co-chair: Dr. Bappaditya Dey (BRIC-NIAB)	
11:50 - 12:10	Dr. Dhiraj Kumar Gupta (GADVASU) *Present and Future Scenario in Bovine Mastitis Diagnosis and Therapy*
12:10 - 12:30	Dr Srinivas Kiran Ambatipudi (IIT Roorkee) *Milk Speaks: Decoding the Hidden Peptide Signatures of Mastitis through Mass Spectrometry for Early Diagnosis*
12:30 - 12:50	Dr. T.K. Mohanty (ICAR-NDRI) *Non-invasive tools for early subclinical mastitis diagnosis using artificial intelligence in Dairy cattle and buffaloes*
12:50 - 14:00	*Lunch & Poster presentations*
Session 3: Mastitis treatment and prophylaxis Chair: Prof N. Punniamoorthy (TDU) Co-chair: Dr. K. Lakshmi (PVNRTVU)	
14:00 - 14:20	Dr. Deepak B. Rawool (ICAR-NMRI) *Green Nano-antibacterial to Address Subclinical and Clinical Bovine Mastitis Cases*
14:20 - 14:40	Dr. S.Manoharan (TANUVAS) *Challenges in Bovine Mastitis Vaccine Development and Its Control Measures*
14:40 - 15:00	Dr. Neelesh Sharma (SKUAST) – online *Ethnoveterinary Medicine and Phytotherapeutics: Validating Herbal Alternatives for Udder Health in Dairy Cattle*
15:00 - 15:20	Dr. Ujjwal Kumar De (ICAR-IVRI) *Development and therapeutic evaluation of promising essential oil-based intramammary formulation for treatment of mastitis in dairy cows*
15:20 - 15:40	Prof. P. Anand Kumar (SVVU) *Exploration of antibacterial and immunomodulatory properties of natural compounds and phytochemicals for adjunct therapy in mastitis of dairy animals*
15:40 - 16:00	Dr. Joshi V.G. (LUVAS) *Antimicrobial Peptides for Mastitis: Innovations, Challenges, and Future Perspectives*

16:00 - 16:20	*Tea Break-1*
16:20-17:40	**Session 4: Spotlight: The NIAB Mastitis Matrix** Chair: Prof. Sachinandan De (ICAR-NDRI) Co-chair: Dr. Utham K. Valekunja (BRIC-NIAB) Dr. Anand Srivastava *Identification and characterization of antibiofilm molecule from plant source* Dr. Pankaj Suman *From Detection to Decision: Field-Deployable Technologies for Precision Mastitis Management* Dr. Paresh Sharma *Proteogenomic Insights into Cell Wall Dysregulation and Oxacillin Susceptibility in Oxacillin-Susceptible mecA-Positive Staphylococcus aureus* Dr. Sanjay Singh *Development of GOx–CeO2 Hybrid Nanozyme for MRSA-induced Mastitis Treatment* Dr. Nagendra R Hegde *Good viruses vs bad bacteria*
17:40-18:00	*Tea break-2*
18:00-19:30	**Session 5: Oral presentations** Session coordinator: Dr. Yash Pal (BRIC-NIAB) 1. *Outer Membrane Vesicles: Multifaceted Roles and Their Impact on Bacterial Multidrug Resistance* – by Dr. M. V. Jagannadham, FABA 2. *Bioactive Compounds as Alternative Therapeutics for Staphylococcus aureus-Associated Bovine Mastitis: An Integrated Ethno-veterinary study*- by Dr. Sriram Vamshi Krishna, PVNRTVU 3. *Genomic and Phenotypic Characterization of Lytic Bacteriophages Active Against Multidrug-Resistant Acinetobacter baumannii Clinical Strains* – by Dr. Komal Ghonse, Symbiosis International University

	4. *PhaGenome: An Integrated Web Server for Bacteriophage Genome Characterization Targeting Bovine Mastitis Pathogens* – by Dr. Sophia Inbaraj 5. *Clinical and therapeutic efficacy of certified intraday infusion in dry cow therapy* – by Dr. J.Jyothi, PVNRTVU 6. *Caprine Mastitis-Two case reports* – by Dr. Nandani Kumari, BAU 7. *Clinical insights to the diagnosis and management of prepartum mastitis in goats* – by Dr.K.Lakshmi, PVNRTVU 8. *Bacteriological and Molecular Detection of Mastitis-Associated Bacterial Pathogens and Their Antimicrobial Resistance Profiles in Domestic Animals* - by Dr. Sonali Menamvar, PVNRTVU 9. *Effect of antibiofilm agents on mastitis causing staphylococcus species*- by Dr. Shiva Jyothi, PVNRTVU
20:00 onwards	***Gala Dinner***

Day 2: 6th November, 2026

Session 6: Beyond the lab to Beside the Barn -Speakers from Industry Chairs: Dr Srinivas Kiran Ambatipudi (IIT Roorkee) & Dr. Nagendra R Hegde (BRIC-NIAB)	
09:00 - 9:20	Dr. Ponnanna N.M. (NDDB) *Bovine Mastitis in Indian Milksheds: Challenges, Opportunities and the Way Forward*
9:20 - 9:40	Dr. Chandr Shakhar (Suvant Solutions Private Limited) *Nutritional interventions for mastitis management*
9:40 - 10:00	Dr. Kartikeya Krothapalli (Vitulomics) *A Field Proven, Antibiotic Free, Phytotherapeutic Treatment for Bovine Clinical Mastitis*
10:00 - 10:20	Dr Ragul Paramasivam (Chimertech Private Limited) *Beyond Subclinical Mastitis Diagnosis: An IoT- and AI-Driven Framework for Predictive Udder Health Management*
10:20 - 10:40	Mr. Rajat Pandya (FaunaTech) *Mastitis and Beyond: From Early Detection to Better Outcomes with Point-of-Care Diagnostics for Animal Health and Food Safety*
10:40 - 11:00	*Tea break*
11:00 – 11.20	Dr. Roshan Ratnakar Naik (Diagopreutic Private Limited) *Rapid Mastitis Detection and Antimicrobial Stewardship for Targeted Antibiotic Treatment*
11:20 - 11:40	Dr. D.J. Kalita (ZenexAH) Proteolytic Enzymes & Bioflavonoids in the management of tissue damage in Bovine mastitis
11:40 - 13:00	**Session 7: Brainstorming session: From Udder Chaos to Udderly Innovative Solutions** Panel members: Dr. Dhinakar Raj, Dr. Nagendra Hegde and Dr. Pradeep K Gupta Moderator: Dr. Anand Srivastava
13:00 - 14:00	*Lunch and Poster sessions*
Session 8: Mastitis & AMR Chair: Dr. Raghavendra Bhatta (DDG -AS, ICAR) Co-chair: Dr. Ravi Gandham (Director, BRIC-NIAB)	

14:00– 14:20	Dr. Shivasharanappa N (ICAR-NIVEDI) *Antimicrobial resistance in bovine mastitis pathogens: an update on surveillance of AMR in India*
14:20 -14:40	Dr. Nidhi Rawat (DSVCKV) *Antimicrobial Resistance in Bovine Mastitis: Chhattisgarh Scenario and Alternative Therapeutic Strategies*
14:40 – 15:00	Dr. A. Manimaran (ICAR-NDRI) *Advancing antimicrobial stewardship in bovine mastitis: from clinical assessment to treatment decision*
15:20 – 15: 40	Dr Sameer Shrivastava (ICAR-IVRI) *Mastitis Management Beyond Antibiotics: Discovering Novel Antimicrobial Peptides from Natural Sources and Artificial Intelligence-Driven Approaches to Combat AMR*
15:40 - 16:00	Prof. Sachinandan De (ICAR-NDRI) *Extra-intestinal uropathogenic E. coli: an important pathogen of mastitis in dairy animals*
16:00 onwards	**Valedictory function -** Chief guest: Dr. Raghavendra Bhatta (Deputy Director General (DDG) Animal Sciences, Indian Council of Agricultural Research)
17:00 onwards	Hi-Tea