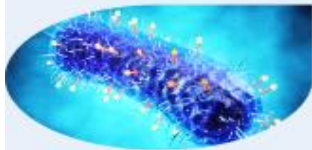




Technical Webinar
on
'Bacteriophages – Enemy & Ally'
20th January 2022, Thursday at 9 Am to 12.30 PM



Organized by


Department of Dairy Microbiology
Dairy Science College
KVAFSU, Hebbal, Bengaluru - 24


<https://meet.google.com/ejx-jmqy-vjk>



Karnataka Veterinary, Animal & Fisheries Sciences University, Bidar
Dairy Science College, Hebbal, Bengaluru - 24
Department of Dairy Microbiology



Promoters



Dr. H.D. Narayanaswamy
Vice-chancellor



Dr. K. C. Veeranna
Registrar



Dr. B.V. Shivaprakash
Director of Research



Dr. N.A. Patil
Director of Extension

Speakers



Dr. P.A. Shankar
Former DI (PGs)



Dr. S. K. Tomar
Former Principal
Scientist (NDRI)

Tacticians



Dr. A. Sachindra Babu
Dean
(Dairy Science College, BNG)



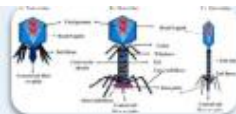
Dr. H. Arunkumar
Head of the Division
(Dairy Science College, BNG)



Dr. Pradip Y. Behare
Scientist, NDRI



Dr. Viswantha Angadi
Asst. Prof., Hassan



About Webinar

Microorganisms are microscopic structures include prokaryotes (Bacteria & Archea) and eukaryotes (yeast, molds, protozoa and algae) including ultramicroscopic structures like virus and prions. Viruses are ultramicroscopic biological agents that reproduce inside specific living hosts. The virus that infects a bacterium is called bacteriophage and contains DNA as genetic material inside capsid, as head and attached to a tail that ends in tail spikes to adhere. Bacteriophages follow lytic cycle and are virulent phages while those bacteriophages that integrate with host bacteria are the temperate phages.

Virulent phages play important role in infecting lactic starters affecting the production of fermented milk products. They are the main source of bacteriophages in fermented dairy industry. Lactic starters thus need to be checked for bacteriophages through plaque formation and if seen, immediate replacement of good quality starter is required in order to avoid the production. Bacteriophages are used in classification of bacteria as viruses are specific to bacterium due to receptor sites.

Apart from the negative role of bacteriophages (as enemy), recent attempts to use these agents to kill antibiotic resistant bacteria like *Staphylococcus aureus*, *Mycobacterium tuberculosis* and many others (as ally) also has been depicted. The two faces of bacteriophage enemy and ally required to be understood in a better way, based on which the present technical webinar entitled "Bacteriophages - Enemy & Ally" may be helpful.



Dept. Dairy Microbiology, DSC(B)

Dept. started in 1976 with Ppstgraduate programme and in 1980 Undergraduate programme was started as B.Sc (Dairy Tec.) and now it is B.Tech(D.Tech). Department is involved in teaching 7 undergraduate and 6 postgraduate courses related to general and dairy microbiology. Considerable research has been carried out in the field of microbiology of milk and milk products, lactic acid bacteria, probiotics, prebiotics, development of fermented dairy products, apart from the extension activities in clean milk production, training programmes and consultancy provided to the Commercial dairies and Food Processing industries to achieve high quality standards. The techniques taught through practical's of dairy microbiology courses improve students avenues for employment as well as help them to pursue higher studies.

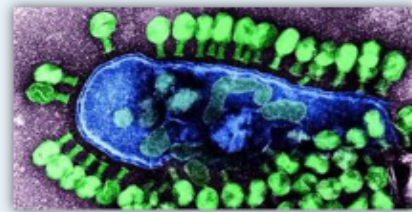


About the Ongoing Project

"Detection of Bacteriophages of Lactic Cultures used in Dairy Industry"(No.DR/KVAFSU/Project/2019-20/802/5487 dtd 7.1.2020) is funded by DSM, Pune, India since 25th Dec. 2020 and operated in the Department of Dairy Microbiology, DSC(B). From century-old roots as the Dutch State Mines, DSM has evolved into a purpose-led science company numbering 23,000 people worldwide and specializing in solutions for Health, Nutrition & Bioscience. The Direct Vat Set cultures are marketed by DSM and has lot of demand in fermented dairy industry. The aim of this project is to detect the bacteriophages of lactic cultures used in the dairy industry for the production of curd and cheese incase of starter failures. If presence of phage is detected, the prevention measures will be suggested to continue with hassle free commercial production of fermented milk products.

Schedule of the Technical Webinar on Bacteriophages – Enemy & Ally

Inauguration		
Time (AM)	Title	Name of Presenter
Master of Ceremony – Ms. Chaitra P. Uthappa		
9.00	Welcome	Dr.B.Ramachandra
9.05	Address by Vice-chancellor	Dr. H.D. Narayanaswamy
9.10	Address by Registrar	Dr.K. C. Veeranna
9.15	Address by Director of Extension	Dr. N.A.Patil
9.20	Address by Director of Research	Dr. B.V. Shivaprakash
9.25	Presidential Remark	Dr. A. Sachindra Babu
9.30	Vote of Thanks	Dr.Malashree L.



Technical Fora			
Forum	Time (AM)	Title	Name of Presenter
I	9.30 – 10.00	Bacteriophage – A Preamble	Dr. P.A. Shankar
II	10.00 – 10.10	Classification of Bacteriophages of LAB	Dr. Prabha R.
III	10.30 – 11.00	Machiavellian Life of Thrifty Bacteriophage	Dr. S.K.Thomar
IV	11.00 – 11.15	Bacteriophages – Hidden enemies of Dairy Fermentations	Dr. Viswanatha Angadi
V	11.15 – 11.30	Detection of Bacteriophages	Dr. Ramachandra B.
VI	11.30 – 11.45	Control of Bacteriophages in Fermented Dairy Industry	Dr. Malashree L.
VII	11.45 – 12. 15	Biocontrol - Control of Bacilli in Dairy by Phages	Dr. Pradeep Y. Behere
VIII	12.15 - 12.30 noon	Vote of Thanks	Dr. Malashree L.

Conveners of Webinar

Dept. Dairy Microbiology, DSC, KVAFSU Hebbal, Bengaluru -24



Dr. Prabha R.
Associate Professor & HOD



Dr. B. Ramachandra
Assistant Professor



Dr. Malashree L.
Assistant Professor



Ms. Chaitra P. Uthappa
Sr. Res. Associate

> All the PG Students of DM

- Rajsekhar P. – Ph.D. Scholar

Sr. M.Tech (DM)

- Bhargavi B.
- Ganesh
- Sireesha K.
- SreeRamya K.

> Non-Teaching Staff

- Mrs. Chayadevi H.
- Mr. Lingappa
- Mr. Nagesh