

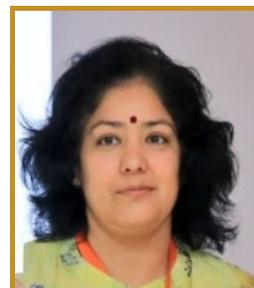
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## EMPHASIZING THE PROBIOTIC CHARACTERISTICS OF STRAINS ISOLATED FROM TRADITIONAL FERMENTED FOODS

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### Abstract

With increasing public concerns medical science is looking into Metchinkoff's statement : "Let Thy food be medicine" . The studies highlighting importance of probiotic strains; has surged the consumption of healthy foods and fermented foods. Fermented foods are considered as a major source of probiotics. The prevailing lifestyle and consumption of type of food has shown a remarkable difference in gut microbiota of rural and urban people. So it's very important to study the characteristics of probiotic strains present in our day to day products, consumed as source of fuel for body metabolism. In present study sixty two strains isolated from fermented foods including dairy and non dairy products were screened for probiotic characteristics showing high survival rate above 80% at low pH and high bile tolerance (0.3-0.5%). The ability of these strains was tested for production of digestive enzymes like amylase, lipase and proteases under simulated GIT conditions. Most of the strains had ability to adhere which was proved by auto aggregation and coaggregation studies. The selected strains had an ability to produce phytase, capable of degrading phytate, a rich source of phosphorous in staple foods. Our observations state that phytase still needs to identify its position in pharmaceutical industries as one of the digestive enzymes, having an ability to release most of the essential divalent metal ions bound in the form of phytic acid present in cereals, legumes and seeds. Statistical media optimization studies stated

the importance of reducing sugars in extracellular production of phytase, thermostability of the enzyme at higher temperatures could be stated upto 600C. The strains had an ability to produce exopolysaccharides at 370C, pH 6.0. The structural analysis of the EPS was further confirmed by FTIR analysis.

### Professional Biography:

Dr. Preeti Sharma completed her PhD in 2006 from Dr. Hari Singh Gour Vishwavidyalaya Sagar, M.P, India. She has been teaching and pursuing research in School Of Biotechnology, Shri Mata Vaishno Devi University, J&K, UT, India since 2007. She has been a BioCARE awardee (2014 -2018), DBT, Govt. of India and participated for the conclave held on 8th -9th March 2018 at NIPGER, New Delhi. She has been awarded International Travel Grant (2010) from DST, Govt. of India and funded by national agencies for projects undertaken at State level and National Level. University Grant Comission (UGC), Govt. of India funded minor project (2012) on "Molecular Modeling and Drug Docking Study on Cystathionine beta Lyase in Pathogenic Members of Enterobacteriaceae". She has more than 40 publications in National and International journals to her credit. Her field of expertise is vast Environmental Studies, Microbiology and Enzymology, Immunology and bioinformatics.

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