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# VOL. 02, ISSUE 03 MICRO SCOOP

JAN-APR 2025

NEWSLETTER

Department of Microbiology

St. Joseph Baz College

**Evidence of Microbiology in Comets** 

> Comets have been identified as carriers of biomarkers such as glycine, dimethyl sulphate, and mixture of hydrocarbons.

Halotolerant yeast isolated from Goan saltpans capable of biodegradation

The isolate exhibited plant polymer degrading enzymes such as cellulase, laccase, chitinase, xylanase, pectinase, amylase and protease.





Steatotic Liver Disease is Associated with Altered Gut Microbiology



SLD in younger adults is associated with reduced intestinal microbial diversity and a pattern of bacterial taxa depletion that is consistent with other chronic inflammatory conditions.

Impact of Artificial Intelligence on Microbial Diagnosis



Recent progressions in AI, particularly ML methodologies, are explored, showcasing their influence on microbial categorization, comprehension of microorganism interactions, and augmentation of microscopy capabilities. Invisible allies, a world unseen, Microbes at work, a vibrant scene.

> When spills occur, a toxic plight, They break down the bad, with all their might.

In medicine too, their roles are key, Fighting off invaders, for you and me.

> In forests deep and oceans wide, They cycle nutrients, where life can bide.

Decomposers true, returning what's been, A vital thread in the ecological scene.

> So let us marvel, though they're small, These tiny creations of God, helping us all

Microorganisms, a powerful force, Sustaining our planet, charting life's course. ~Arzoo Mulla

## Oropouche Virus: An Emerging Neuroinvasive Arbovirus



Oropouche virus (OROV) is an arthropod-borne virus (arbovirus) and is endemic to parts of South America, Central America, and the Caribbean. Initial OROV infections can present similarly to chikungunya, dengue, and Zika virus infections.

Lactate dehydrogenase is the Achilles' heel of Lyme disease bacterium *Borreliella burgdorferi* 



Lyme disease (LD) is the most commonly reported tickborne illness in the U.S. and Europe. Currently, there are no human vaccines nor prophylactic antibiotics to prevent LD. BbLDH is essential for *B. burgdorferi* survival and infectivity, highlighting its therapeutic potential.

## **DEPARTMENT ACHIEVEMENT CORNER**

- The entries of B.Sc. Microbiology students of St. Joseph Vaz College were recognized by the Microbiologists Society India as one of the best entries for the National Level Rangoli Competition in Microbiology.
- Ms. Isha Gomes and Ms. Maithili Rudruke were recognized for the first place, Ms. Laxmi Yadav and Damini Rajput were selected for the second place and Vishakha Bandivadekar and Manasvi Naik were selected for the third place.
- Students of S.Y.B.Sc. Microbiology presented posters on their entrepreneurship activities at the National Conference on Bioentrepreneurship in Microbiology organized by Goa University.
- Ms. Fey Da Silva, Ms. Natasha Nadaf, Ms. Sanjana Sharma, Ms. Komal Ghanchi, Ms. Khushnuma Baig, Mr. Iden Barreto, Ms. Pavithra Nair and Ms. Damini Rajput successfully presented their posters on their entrepreneurship activities in the area of Food Microbiology.