

**LITTLE FLOWER DEGREE COLLEGE,
UPPAL, HYDERABAD**

**REPORT:
St. XAVIER MoU WEBINAR**

Department of Life Sciences, Faculty of Microbiology conducted online MOU the guest lecture by Dr. Aparna Shetty, St. Xavier College, Mumbai on topic virus evolution, emergence, and epidemiology.

The guest lecture on virus evolution, emergence, and epidemiology provided a comprehensive insight into the dynamic nature of viruses, their adaptive capabilities, and the factors contributing to their emergence and epidemiology in human populations. The lecture was structured to cover various aspects of viral evolution, including genetic mechanisms, environmental influences, and human behaviors.

Key points covered:

1) Introduction to viral evolution:

- Definition of viruses and their unique characteristics.
- Overview of viral replication, mutation rates, and genetic variability.

2) Mechanisms of virus evolution:

- Discussions on genetic mutations, recombination, and reassortment as driving forces of viral evolution.
- Explanation of selective pressures and adaptation to host environments.

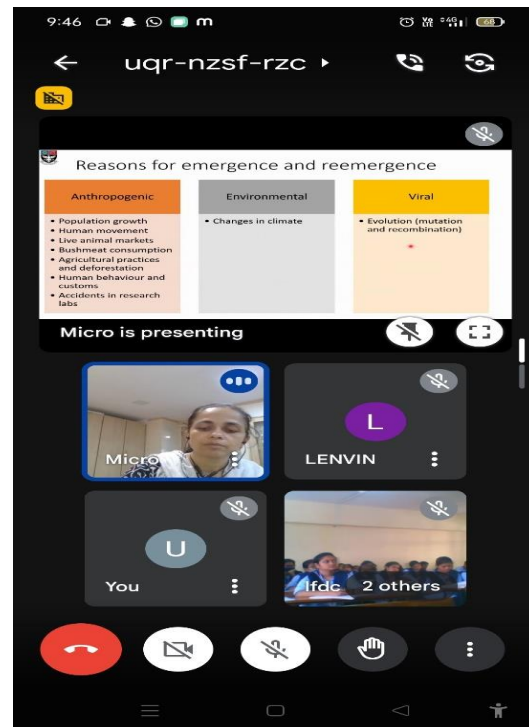
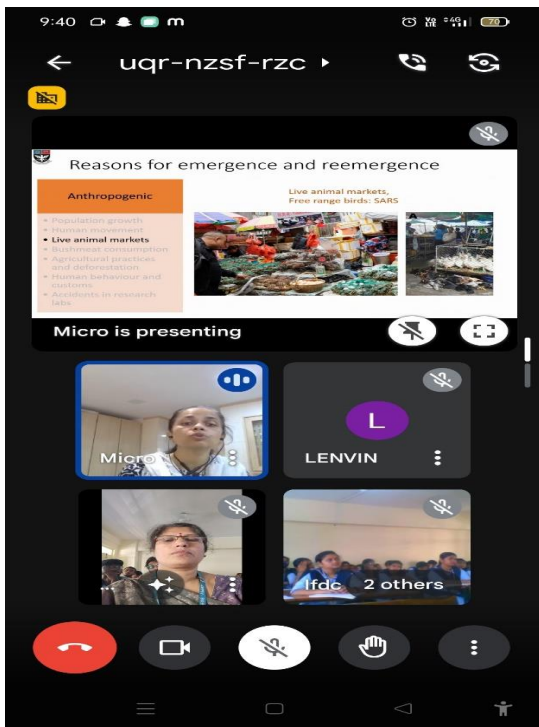
3) Factors influencing virus emergence:

- Examination of environmental changes such as urbanization, deforestation, and climate change.
- Exploration of human activities including global travel, agricultural practices, and urbanization.

4) Case studies and examples:

- Analysis of historical and contemporary examples of virus emergence
(eg : Influenza pandemics, Ebola outbreaks, Zika virus).
- Insight into role of zoonotic transmission.

CONCLUSION: The guest lecture provided a thought-provoking exploration of virus evolution, emergence and epidemiology, highlighting the interdisciplinary nature of infectious disease dynamics. Overall, the session served as a valuable platform for deepening understanding of the complex interplay between viruses, hosts, and the environment in shaping the landscape of global health.



Guest lecture by Dr. Aparna Shetty St. Xavier college, Mumbai on topic virus evolution, emergence, and epidemiology.