

IISER-Pune researchers provide insights into bacterial DNA isolation to students

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Pune: Evolution is one of the most active frontiers of research in modern biology, which has several implications for society. And one of them is in the context of diseases caused by bacteria and other microorganisms. About 40 infectious diseases have been discovered in the last 50 years alone, including SARS, MERS, Ebola, chikungunya, avian flu, swine flu and, most recently, Zika and Nipah. Are these diseases being caused by completely new organisms? Or are these organisms that have recently evolved from known pathogens?

Well, these questions and curiosity among the student from standard 12th were answered by Sutirth Dey, associate professor at Indian Institute of Science, Education Research during the Exciting Science Group (ESG), workshop on 'Evolving Genes: Isolating and Investigating Bacterial DNA', on Sunday. Stan-



CONCENTRATING: Students of Standard 12th involved in the science workshop conducted by IISER-Pune.

dard 12th students from six city schools participated in this extensive day-long workshop held at IISER, Science Activity Centre.

ESG is a a volunteer group of scientists from CSIR-NCL and IISER-Pune.

This hands-on workshop was conducted by Dey and research students from his lab. They taught the participant students the actual techniques that are used to answer the above questions.

The workshop involved isolation of bacterial DNA and gel electrophoresis by each student. Neelesh Dahanukar of IISER Pune then spoke to the students about PCR to amplify a particular gene and how to sequence it. The 12 sequences were then compared against existing databases using BLAST to figure out whether they belong to known pathogens, which have evolved to become different or completely un-

WHAT'S NEXT?

ESG will be conducting the next Popular Talk on "From Perception to Action: How does the Brain do it?" on 28 October 2018.

However, pre-registration is necessary for all the

events, details of which can be obtained from the ESG website (www.exciting-science.org).

known ones.

The advanced techniques covered in the workshop were meant to give the students an idea of how evolutionary research is performed in the labs to deal with questions that are of direct relevance to the daily lives of people," said the press release.

This workshop was free of cost to the participants and was made possible by the generous support from the Centre of Excellence in Science and Mathematics Education (CoESME) at IISER Pune.