

NATIONAL SCIENCE DAY 2022

HOSTED BY UNIVERSITY SCHOOL OF BIOTECHNOLOGY



YELLAPRAGADA SUBBAROW MEMORIAL LECTURE

Dr. Gagandeep Kang



Professor Kang was invited to deliver a Dr. Yellapragada Subbarow memorial. Dr. Kang is a physician scientist working at Christian Medical College, Vellore. She mentioned about lymphatic filariasis, a research field of Subbarow and how he discovered the use of hetrazan. She provided valuable insight into Intestinal helminths and their impact on global health. Later she discussed about Soil Transmitted Helminth infections (STH). She also suggested solutions for STH control and based on her studies in Vellore and Tamil Nadu suggested that though the current strategy of deworming might not be effective, more frequent mass deworming can reduce hookworm transmission in endemic settings. In summary, large studies are necessary for any human interventions because of the heterogeneity of host-pathogens and environment. Rigorous evaluation is essential for policy change. It is challenging yet fascinating!!

DESIGN OF A COVID-19 PROTEIN SUBUNIT VACCINE

Dr. Raghavan Varadarajan



Dr. Vardharajan talked about a very popular and interesting topic of today's times: The covid-19 vaccine. Dr. Vardharajan is an Indian molecular biophysicist and a professor at IISc Bangalore. He has developed Candidate immunogens for influenza and Covid-19. He talked about the design of a COVID-19 protein subunit vaccine and discussed about DNA vaccines and Corona virus morphology and infectious mechanism, D receptor binding domain on Covid. He talked about mRNA vaccines and attempts of his research group to develop methods for the generation of thermostable RNA vaccines which would be critical for resource poor regions of the world. Candidate vaccine developed by his group is very stable at high temperatures therefore these can be easily stored and doesn't require cold chain for transportation to remote areas. He also talked about his work on developing effective vaccines against other viruses. It was a very engrossing session.