REPORT
WEBINAR-1.0
ON
"COVID-19: CHALLENGES FOR SCIENTISTS IN DIAGNOSIS AND VACCINE DEVELOPMENT"

Lloyd Institute of Management and Technology (Pharm.) conducted its first addition of webinar in webinar series on 2nd May, 2020. **WEBINAR-1.0** on the theme **"Covid-19: Challenges for Scientists in Diagnosis and Vaccine Development".** The webinar was attended by 300 participants from 80 different colleges. The resource persons for the webinar were four eminent people from industry who shared their views on the following topics:

- Diagnosis: Available technology for testing and decision making
- Steps involved in developing vaccines
- Clinical testing procedures of vaccines
- Provisions for fast track approval process of vaccines

Dr. R. P. Tiwari (Director Technical, Vanguard Diagnostics Pvt. Ltd., New Delhi) explained the use of RT-PCR along with antibody test for accurate analysis of **Covid-19** diagnosis. Diagnostics involve Genomics and Molecular level analysis. He mentioned that identification of correct gene sequencing is important in diagnostics and that has been already done for **Covid-19**. Mylan and Vanguard have developed a kit for detecting **Covid-19**. Besides ICMR diagnostic kits are based on rapid serological testing of **Covid-19** virus and the antibodies like IgG and IgM. Explaining the reasons for misdiagnosis he emphasized upon better quality control at all steps of manufacturing of the kits as well as their careful use and handling at all stages. When asked about the measures to cut down the cost of diagnosis he said the main reason for this was use of imported components and inhouse production of these components can significantly cut the cost. He emphasized a need for student start ups in this direction in collaboration with the companies and support from the government.

Mr. Vyas Dhamodaran, Chief Executive Officer, Synorbs Biosolutions Pvt. Ltd., Chennai detailed about procedures and steps involved in the development of vaccines starting from preclinical to clinical development. He predicted that under normal circumstances it takes about 20 yrs for vaccine to come to the market. But in emergency situations like the current one we can buy time by carrying out several stages parallel. However, since there is interdependence between the steps in terms of results, the studies have to be closely monitored and interrelated time to time, while monitoring the adverse effects of the drug.

Addressing the concern over the need for fast development of vaccine for **Covid-19**, he said that the Regulatory bodies are taking care to keep all the relevant things on a high priority and carrying out the analysis faster not skipping any phase or any step in the development process.

Mr. Sanjay Gupta, Director, Catalyst Clinical Services Pvt. Ltd., discussed the four phases of a clinical trial during drug development and the significance of each stage. Besides he said that immunogenicity and primary and secondary endpoints monitoringare critical while testing vaccines.

Mr. Vinod Purohit, Director and Principal Consultant, Global Regulatory Strategy Lead, London, U.K. speaking on regulatory concerns over fast track approval stated that the regulators are ensuring this by giving highest priority and fast approvals for all procedures. It is being ensured through CTAP (Corona virus treatment acceleration program) and EMA. He explained how the drug Remdesvir is being worked upon at a fast pace by the regulators reflecting the preparedness of the system for speedy approval of a vaccines as well.

The discussion was summed up by the moderator for the session **Dr. Chitra Gupta**, who concluded that inspite of the fact that the situation is grim our scientists, clinicians, researchers and regulators are all determined to give us a solution to the COVID-19 pandemic in the form of a vaccine at a fast pace. That means the world is on its way to develop the fastest vaccine in history.