OVERVIEW

Taking note of the unprecedented scenario of the COVID-19 pandemic, the Department of Biotechnology prepared a roadmap early on with a focus on diagnosis, treatment and most importantly, prevention. DBT, its Autonomous Institutions (AIs) and the Public Sector Undertaking Biotechnology Industry Research Assistance Council (BIRAC), have been working relentlessly over the past one year to develop effective interventions for combating the pandemic.

Highlights of major activities include:

• **Support for >100 projects**
  in the thematic areas of vaccines, diagnostics and therapeutics.

**Enabling 7 vaccine candidates** by industry and
**8 candidates** by academia.

• Mission COVID Suraksha being implemented to accelerate Indian COVID vaccine development and augment vaccine manufacturing capacities.

  Supporting

  **5 vaccine candidates,**
  **19 clinical trial sites,**
  **6 facilities for immunogenicity assays and animal challenge models.**

• THSTI bio-assay laboratory recognized by Coalition for Epidemic Preparedness Innovations (CEPI), under their network of

  **7 global laboratories.**

• Organizing training programs for strengthening clinical trial capacities in neighboring countries under

  **PACT initiative**

• **COVID-19 testing at 9 DBT AIs,**
  approved as Hubs for their respective City/Regional clusters.

• Rapid scale-up of manufacturing of indigenous COVID-19 diagnostic kits with a production capacity of about

  **15 Lakh kits/day**
  and deployment of nation’s first infectious disease mobile laboratory in Haryana.
• Supporting genomic surveillance of emerging variants of SARS-CoV-2, through **INSACOG initiative**

• **5 COVID - 19 Biorepositories**
  
  with more than 40,000 samples available to researchers and industry.

• Development of therapeutics from natural products in partnership with **M/o AYUSH**

• **Nearly 50 BIRAC supported startups**

  have developed innovative products for COVID-19.

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Major updates on the COVID-19 related activities of DBT for the period from from June 18, 2021 to June 25, 2021 are placed below:

**DBT’S EFFORTS TO COMBAT COVID-19 – MAJOR UPDATES OF THE WEEK AT A GLANCE**

**VACCINES**

**Mission COVID Suraksha**

• Capacity enhancement of 03 Public Sector Undertakings (PSUs), viz., Indian Immunologicals Limited (IIL), Haffkine Biopharmaceuticals and Bharat Immunologicals and Biologicals Corporation Limited (BIBCOL), is being supported under Mission COVID Suraksha, in an effort to ramp-up Covaxin production. Technology transfer MoU with BBIL has been signed by all grantees and GCVC. Execution of the Grant-in-aid Letter Agreement (GLA) with IIL and BBIL, is in progress, for transfer of funds.

• Status of update on technology transfer to HBPCL, BIBCOL and GCVC: IIL is in final stages of testing and validating the drug substance batches. Expected to supply 20 lakh doses/month of COVAXIN from August.
**Updates on ACT Accelerator and COVAX facility**

A COVAX AMC briefing session on Cost Sharing organised by COVAX facility was held on 18th June 2021. The meeting was focussed on discussion on the cost sharing options, supply offering and selections model, financing options available and the timelines.

The United States announced that 55 million COVID-19 vaccine doses will be made available for global distribution, of which, 16 million doses will be allocated for Asia under the COVAX facility. About 2 million doses are expected to be made available for India.

**Setting up of Vaccine testing Facility (VTF)**

- Regarding up-gradation of labs at National Institute of Animal Biotechnology (NIAB), Hyderabad and National Centre for Cell Sciences (NCCS), Pune as Central Drug Labs:
  - **At NIAB, Hyderabad, for permanent facility:** Through facilitation of CDSCO-Hyderabad and CLD-Kasauli, extensive discussions were held whereby, it was identified that construction of both interim and permanent facility Based on the discussions held and considering that construction and operationalization of both interim and permanent facility require the same set-up and construction. Hence, it was decided by NIAB that efforts will be made for construction of only the permanent facility. Contract was given to the service provider (iClean) for the construction of a GLP testing facility.
  - **At NCCS, Pune:** Construction of sterility testing laboratory and Class 10,000 ISO7 clean room laboratory (1200 sft) is complete. Validation of sterility testing laboratory at rest is complete. Validation of sterility testing laboratory for pressure differential as pointed by CDSCO inspectors expected to be completed by 29.06.2021. Sterility testing for confirmation of functionality of the facility as per regulatory requirements expected to be initiated soon.

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**COVID TESTING SERVICES**

- 50.80 lakh samples tested as on date across the hubs.
- 21376 samples tested in I-lab.
- New COVID-19 testing tool ‘tapestry’ developed in IIT Bombay in collaboration with DBT-inStem& NCBS Bangalore for experimental validation, gets approval to scale up cost-effective testing.
Indian SARS-CoV-2 Genomics Consortium (INSACOG) is a consortium of 28 regional genome sequencing laboratories (RGSLs) jointly established by DBT and MoHFW along with CSIR and ICMR in January, 2021.

A datahub for centralized storage, analysis and management of SARS-CoV-2 sequences from different Indian institutes has been established at NIBMG and IGIB. Virus isolation, culture and storage repositories are being maintained at DBT-ILS, DBT- RCB and CSIR-CCMB.

INSACOG partner institutions have processed nearly 45,000 samples and sequenced 35,671 viral genomes from 28 states and 9 union territories. Till date, 29,205 viral genome sequences from India shared in the global repository of sequences, GISAID.

The sequences are analyzed to detect Variants of Concern (VoCs) such as B.1.1.7, B.1.351, P.1, and Variant of Interest such as B.1.617 and other emerging Variants of Interest (VoIs).

As part of the sequencing efforts, inStem, Bengaluru has sequenced 331 samples. The data for all the samples were submitted to the consortium.

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The IBSD jointly with Society for Ethnopharmacology (SFE), India and International Society for Ethnopharmacology (ISE), Switzerland had organised the Session-35 of the International Webinar Series - Reimagine Ethnopharmacology. Session-36 of the International Webinar Series is scheduled to take place on June 26th, 2021.

The following press release has been issued by Ministry of Science & Technology on 19 June, 2021: “SENSIT Rapid COVID-19 Ag Kit”