Weekly Inputs on DBT’s efforts to Combat COVID-19

04th June, 2021
OVERVIEW

Taking note of the unprecedented scenario of the COVID19 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.

Major updates on the COVID-19 related activities of DBT for the period from May 28, 2021 to June 04, 2021 are placed below:

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

**VACCINES**

• Under Mission COVID Suraksha, out of the total 66 applications received against the three published Requests for Expression of Interest (REOI), 30 proposals are being supported (5 projects pertaining to candidate vaccine development, 6 proposals under capacity enhancement and 19 projects for strengthening clinical trial capacities). Execution of Grant-in-Aid Letter Agreement and disbursement of funds to the grantees is in progress.

• 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. Transfer of Technology from Bharat Biotech to the 03 PSUs and to Gujarat Biotech research Consortium (GBRC) is underway and is being monitored on a weekly basis. As part of the technology transfer facilitation process, BBIL has shared a comprehensive list of approvals to be solicited by respective organizations.

• DBT-BIRAC supported RBD protein sub-unit vaccine candidate developed by BioE has been pre-ordered by Government of India, whereby, 30 crore of COVID-19 vaccine doses will be reserved. DBT- Translational Health Science Technology Institute (THSTI), Faridabad, conducted animal challenge and assay studies for the vaccine candidate.
COVID TESTING SERVICES

- 47.31 lakh samples tested as on date across the hubs.
- 19810 samples tested in I-lab.

COVID THERAPEUTICS

- A sub-committee meeting was scheduled for evaluating the proposal entitled ‘To evaluate safety and efficacy of NovaFluTM (Nitazoxanide) in the treatment of subjects with moderate COVID-19’ on June 03, 2021, funded under COVID-19 Therapeutics.
04th June, 2021

**GENOMICS**

- Indian SARS-CoV-2 Genomic Consortium (INSACOG) an inter-ministerial consortium of 10 public funded research institutions has been established by DBT and MoH&FW for genomic surveillance of SARS-CoV-2 in India.
- 17 additional labs are being added to INSACOG to enhance efforts towards genome sequencing of SARS-COV-2.
- 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 labs have received around 20000 samples from across India for sequencing and more than 10,000 sequences have been analyzed.
- 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 and NCCS, Pune have 192 samples and 1058 samples, respectively. The data for all the samples were submitted to the consortium.
- As per the new nomenclature of the World Health Organisation (WHO), the B.1.617.1 and B.1.617.2 variants of the COVID-19, first identified in India, have been named as ‘Kappa’ and ‘Delta’ variants, respectively.

**MEETINGS, WEBINARS AND PRESS RELEASES**

- IBSD jointly with Society for Ethnopharmacology (SFE), India and International Society for Ethnopharmacology (ISE), Switzerland had organized Session-33 of the International Webinar Series - *Reimagine Ethnopharmacology*.
- The following press release has been issued by Ministry of Science & Technology on 28th May, 2021: “Indian Immunologicals Limited to start production of drug substance for Covaxin under Mission COVID Suraksha”
- The following press release has been issued by Ministry of Science & Technology on 02nd June, 2021: “Centre takes steps to accelerate domestic vaccine production Haffkine Biopharma to produce 22.8 crore doses per annum of Covaxin under technology transfer arrangement with Bharat Biotech”