

# UNATI Atal Jai Anusandhan Mission

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**In News:** It is expected to transform the Health, Agriculture and Energy sectors during the next 5 years.

## About Atal Jai Anusandhan Biotech Mission

- **Implemented by Department of Biotechnology (DBT), Ministry of Science and Technology.**
- Union Minister announced Atal Jai Anusandhan Biotech Mission – **Undertaking Nationally Relevant Technology Innovation (UNaTI)**, which is expected to transform Health, Agriculture and Energy sectors during the next 5 years.
- **This mission includes –**
  - **GARBH-ini** – A Mission to promote Maternal and Child Health and develop prediction tools for pre-term birth,
  - **IndCEPI** – A Mission to develop affordable vaccines for endemic diseases, Development of Biofortified and Protein Rich wheat – contributing **to POSHAN Abhiyan,**
  - Mission on Antimicrobial Resistance for Affordable Diagnostics and Therapeutics
  - Clean Energy Mission – Innovative Technology interventions for Swachh Bharat.
- He also gave away the Biotechnology Research Innovation and Technology Excellence (**BRITE**) awards.

## Missions IN Details

**GARBH-ini (interdisciplinary Group for Advanced Research in Birth outcomes- DBT India Initiative)**

- To study aim to discover molecular risk-markers and generate a risk-prediction algorithm for preterm birth which will facilitate timely referral and care for at-risk mothers, thus saving children's lives and reducing morbidity.
- This programme has established a unique pregnancy cohort comprising more than 8000 women to study **PreTerm Birth (PTB)**.
- The GARBH-ini platform comprises a bio-repository (**Rakshita**) of well characterized clinical phenotypes which has now expanded to include 750,000 bio-specimens and 450,000 ultrasound images.

### **Ind-CEPI MISSION**

- Is an India centric collaborative mission of DBT aligned to the global initiatives of CEPI (Coalition of Epidemic Preparedness Innovations).
  - DBT is supporting the implementation of the Ind-CEPIs mission "Epidemic preparedness through rapid vaccine development: Support of Indian vaccine development is aligned with the global initiative of the Coalition for Epidemic Preparedness Innovations (CEPI)", at BIRAC, PSU of DBT.
  - Ind-CEPI Mission initiated the eCourse Series entitled "Strengthening Clinical Trial Research Capacity in Neighbouring Countries" primarily aimed towards skill development, capacity building and regional networking and coordination.
  - A total of 4-Program 10 sessions series were conducted via an online platform with total engagement of more than 750 participants from neighbouring countries like Afghanistan, Bangladesh, Bhutan, Maldives, Mauritius, Nepal and Srilanka.
- **Fortified Wheat Nutritional Improvement**

- Anthocyanin rich biofortified coloured wheat lines have been developed by National Agri-Food Biotechnology Institute (NABI), Mohali. NABI has signed 18 MoUs with companies from 9 states and Non-Disclosure agreement with 9 companies from 4 States involved in contract farming and making food products.
- The program will be addressing micronutrient malnutrition problems and also help the progressive farmers to grow improved wheat lines and encourage entrepreneurship and start-ups.

### **UNATI Mission Clean Technologies for Swachh Bharat**

- DBT has developed various technology platforms designed to convert different solid, liquid and gaseous wastes into renewable fuels, energy and useful products such as food, feed, polymers and chemicals.
- Under the UNATI Mission, 10 promising clean technologies have been identified for demonstration with DBT support at different sites across India, in collaboration with local stakeholders such as municipalities and other urban local bodies.
- The identified technologies include bio-methanation, constructed wetland, bio-toilets, chemical & membrane free water purification etc.
- The first five projects under this initiative were formally launched on 01st Oct 2020, on the eve of Gandhi Jayanti, with an aim to achieve “Swachh Bharat”.

### **Global Antimicrobial Resistance Research and Development Hub**

- India joined the Global Antimicrobial Resistance (AMR) Research and Development (R&D) Hub.
- This expands the global partnership working to address challenges and improve coordination and collaboration in global AMR R&D to 16 countries, the European Commission, two philanthropic foundations and four international organisations (as observers).

## **BRITE Awards**

- Various awards instituted by DBT are now considered under an overarching umbrella as DBT BRITE Awards (Biotechnology Research Innovation and Technology Excellence Awards).
- The Department has renamed few awards in honour of outstanding scientists of our country who have immensely contributed to the Indian Science and been an inspiration to scientific fraternity across the globe.

## **DBT BRITE Awards constitute the following awards hosted by DBT**

- Har Gobind Khorana-Innovative Young Biotechnologist Award
- S. Ramachandran-National Bioscience Award for Career Development
- Janaki Ammal National Women Bioscientist Award
- Tata Innovation Fellowship Award
- Biotechnology Social Development Award

## **POSHAN Abhiyaan**

- Ministry of Women and Child Development organized the second meeting of National Council on India's Nutrition Challenges under POSHAN Abhiyaan.
- POSHAN Abhiyaan (National Nutrition Mission) was launched by the government on March 8, 2018.
- The Abhiyaan targets to reduce stunting, undernutrition, anemia (among young children, women and adolescent girls) and reduce low birth weight by 2%, 2%, 3% and 2% per annum respectively.
- The target of the mission is to bring down stunting among children in the age group 0-6 years from 38.4% to 25% by 2022.
- POSHAN Abhiyaan aims to ensure service delivery and interventions by use of technology, behavioural change through convergence and lays-down specific targets to be

achieved across different monitoring parameters.

- Under the Abhiyaan, Swasth Bharat Preraks will be deployed one in each district for coordinating with district officials and enabling fast and efficient execution of the Abhiyaan across the country. Swasth Bharat Preraks would function as a catalyst for fast tracking the implementation of the Abhiyaan

### **Preterm birth, also known as premature birth**

- Is the birth of a baby at fewer than 37 weeks' gestational age, as opposed to the usual about 40 weeks.
- These babies are known as preemies or preemies.
- Symptoms of preterm labor include uterine contractions which occur more often than every ten minutes or the leaking of fluid from the vagina.
- Premature infants are at greater risk for cerebral palsy, delays in development, hearing problems and sight problems.
- The earlier a baby is born, the greater these risks will be