

Programme launched to identify causes of premature births

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NEW DELHI: With over 25 per cent of the total premature birth related deaths occurring in India, the Centre has launched a national programme to identify the causes and predictive "biomarkers" of such births.

"After a series of national and international consultations, the [Department of Biotechnology](#) (DBT), Ministry of Science and Technology, has launched a major national programme to identify the correlates, causes and predictive biomarkers of [preterm birth](#) under its Grand Challenge Programme.

"The first-phase of the programme has a total financial outlay of Rs 48.85 crore for a period of 5 years," Union Minister of State for Science and Technology [Jitendra Singh](#) said here today. A birth that takes place before the mother has been pregnant for at least 37 weeks construes a preterm birth.

The minister added that preterm deaths can be significantly reduced if causes of preterm birth is studied in detail.

According to [DBT](#), globally, Preterm Birth (PTB) is the single largest cause of neonatal deaths. In India, among the total 27 million babies born annually, 3.6 million babies are born preterm, and over 300,000 of these preterm babies die each year because of associated complications.

India, with its highest number of PTBs and the highest number of preterm deaths worldwide, contributes 25 per cent of the overall global preterm related deaths. The effects of [PTB](#) extend beyond the early infancy with substantial long-term consequences in late childhood and adult life.

"To collect scientific information on pregnancy that may lead to a preterm birth, a woman has to be identified early in pregnancy, followed up through the duration of pregnancy during which clinical and life-style information must be collected. Biological changes taking place during this period must also be assayed by collecting blood and other biological materials from the pregnant woman.

"Further, because differences in biological responses and life-style factors are enormous among pregnant woman, information needs to be collected on a large cohort," Singh said.

The objectives of the mission would be to stratify women early in pregnancy or before conception into various levels of risk of PTB, identify simple and better prediction tools that will recognise the optimal time of prediction and clinical intervention and develop additional strategies to identify presence of unusual/novel microbes that could serve as biomarkers, Singh said.

Its focus would also be to identify focused remedies targeting one or more mechanistic pathways (for example infection, inflammation, hormonal), and apply currently available interventions (tocolytic agents) based on better understanding of biological mechanisms.

Gurgaon based institutes like Translational Health Science and Technology Institute (THSTI), and General district Hospital of Gurgaon, Regional Centre for Biotechnology, Clinical Development Services Agency would collaborate with Safdarjung Hospital and Maulana Azad Medical College and All India Institute of Medical Sciences from New Delhi and [National Institute of Biomedical Genomics, West Bengal](#) for the research.