



INDIAN ACADEMY OF SCIENCES

91ST

ANNUAL MEETING

14 - 16 November 2025 | Venue: Coliseum, IISER Tirupati, Tirupati



Host

Indian Institute of Science Education and Research Tirupati



In association with

Sri Venkateswara University, Tirupati,
Indian Institute of Technology Tirupati and
National Atmospheric Research Laboratory, Tirupati

SPECIAL LECTURE

Friday 14th November 2025, 04:00-04:40 PM

Chairperson: **Satish K Gupta**, Gurugram



Shinjini Bhatnagar
THSTI, Faridabad

From discovery to delivery: Translating science to improve maternal and child health

Advanced scientific methods are transforming clinical practice and public health, but their impact is maximized when aligned with societal needs. India faces a high burden of preterm birth and adverse pregnancy outcomes, shaped by biological, environmental, and socio-economic factors. Launched in 2015, GARBH-Ini (Interdisciplinary Group for Advanced Research on Birth Outcomes – DBT India Initiative) integrates clinical epidemiology, biotechnology, and data science to address these challenges. As DBT India's flagship longitudinal pregnancy cohort, it has collected multidimensional data from over 12,000 women in North India.

The programme has identified biomarkers, genetic panels, and vaginal microbiome-based assays for predicting preterm birth, and developed a microbial consortia now translated into a nutraceutical product. AI-enabled ultrasound models, multimodal risk algorithms, and point-of-care tools are under clinical validation. The GARBH-Ini DRISHTI repository serves as a national resource, exemplifying how multidisciplinary, socially aligned science can deliver scalable solutions for maternal and child health.

About the Speaker:

Prof. Shinjini Bhatnagar is Professor of Eminence and Head of Maternal and Child Health Research at the Translational Health Science and Technology Institute (THSTI), Faridabad. A paediatric gastroenterologist and clinical scientist, she is dedicated to advancing child and maternal health in low-resource settings. At THSTI, she leads large multidisciplinary programs investigating vaccine responsiveness, fetal growth restriction, and neonatal infections, while developing affordable diagnostics for childhood diseases. During her distinguished 25-year tenure at the All India Institute of Medical Sciences (AIIMS), New Delhi, she pioneered evidence-based interventions including protocols for persistent diarrhoea, low-osmolality oral rehydration salts, and zinc supplementation. Elected Fellow of India's three national science academies and a WHO advisor on child diarrhoeal diseases, she continues to shape national and global health policy and practice.

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