

## Tata Transformation Prize, 2025

*Prelims: Current events of national and international relations | Science & Technology*

### Why in news?

*The Bengaluru-based scientists win the 2025 Tata Transformation Prize.*

- **Announced by** - The New York Academy of Sciences & Tata Sons.
- **Purpose** - To advance innovation and support visionary scientists in India developing breakthrough technologies to address India's societal challenges.
- It is awarded ***annually***.
- **3 categories** - Food Security, Sustainability, and Healthcare
- **Selection** - 3 winners chosen from 212 nominations across 27 Indian States by an international jury of scientists, clinicians, technologists, and engineers.
- **Prize** - Each winner will receive ***Rs. 2 crore*** to advance their research and scale real-world impact.

### Winners -

1. **Padubidri V. Shivaprasad**, from National Centre for Biological Sciences - ***Food Security***.
  - Developed ***epigenetically engineered rice*** using small RNA based modifications to enhance stress tolerance and nutritional quality.
  - Helps reducing fertilizer/pesticide use and lower production costs.
2. **Balasubramanian Gopal** from Indian Institute of Science - ***Sustainability***.
  - Developed a ***green chemistry platform*** using bioengineered E. coli to produce key chemicals used in pharmaceuticals, cosmetics, and agriculture.
  - Integrating AI-designed enzymes to produce chemicals sustainably, replacing traditional chemical manufacturing and helps reducing pollution

3. **Ambarish Ghosh** from Indian Institute of Science - ***Healthcare***.

- Developed magnetic nanorobots—tiny, spiral-shaped devices for ***targeted cancer treatment***.
- It is capable of navigating the body, delivering drugs to tumors, and enabling real-time imaging.

## Reference

1. [The Hindu | Tata Transformation Prize, 2025](#)
2. [The New York Academy of Sciences | Tata Transformation Prize, 2025](#)

