

# Call for Proposals: Development of Next-Generation Vaccines, Diagnostics, and Therapeutics

**Program:** Livestock and Animal Biotechnology & Aquaculture

**Last Date for Submission:** 15-5-2026 (5:00 PM)

**Submission Portal:** [DBT eProMIS](#)

## 1. Background

### a). Animal Biotechnology

India's animal husbandry sector is the world's largest, serving as a vital economic lifeline for over two-thirds of the rural population and providing additional employment to those engaged in the supply chain and value addition. The sector is essential for food security and provides a critical financial buffer against crop failure. The Department of Biotechnology (DBT) has consistently supported research to enhance livestock productivity and health. While previous funding has resulted in the commercialization of numerous technologies, recent leaps in omics, synthetic biology, computational capacity, and other biotechnological discoveries and inventions now offer unprecedented opportunities. **This call aims to leverage these advances for accelerated discovery and real-time customization of livestock interventions through multidisciplinary collaboration.**

### b). Aquaculture

The Indian aquaculture sector currently faces an annual economic burden exceeding ₹20,000 crores (approximately 15% of total production) due to the burden of diseases caused by bacterial, viral, fungal and parasitic pathogens. Intensification of agriculture and allied sectors and global trade have accelerated the spread of these diseases. Furthermore, strict international regulations on disease status and drug/toxin residues frequently lead to export rejections, particularly in the animal, poultry and aqua sectors. There is therefore an urgent need for science-driven technology solutions that address disease prevention and/or management while mitigating antimicrobial resistance (AMR).

This call seeks to fund **multidisciplinary consortia** proposals to develop commercially viable, next-generation solutions—ranging from mRNA vaccines and DIVA-compatible diagnostics to AI-driven drug discovery—to ensure a self-reliant and biosecure livestock and aquatic ecosystem.

## 2. Priority Areas & Scope

The objective is to support **time-bound, outcome-oriented** (TRL~3) multidisciplinary **consortia proposals** under:

### **I. Animal Biotechnology (Livestock, Poultry, Canine, and Feline)**

**Proposals should leverage innovative biotechnological approaches, includingbut not limited to:**

- **Next-Gen Vaccine Platforms:** mRNA vaccines, viral or other vector platforms, newer expression systems for recombinant/subunit/synthetic proteins, toxoids and conjugate vaccines, virus-like particles; rational, precisely engineered and safe live attenuated vaccines, multi-epitope vaccines
- **Priority Needs:** Vaccines for diseases where no commercial options exist; improvements in current vaccines; multi-antigen poultry/canine vaccines; and vaccines and interventions against parasitic or non-infectious conditions (e.g., methanogens, anti-fertility, cancer), import substitution vaccines.
- **Advanced Formulations:** Thermostable designs, novel adjuvants, delivery systems (including those eliciting mucosal immune responses), broad-spectrum antigens for cross-reactive and/or longer-lasting immunity.
- **Diagnostics:** DIVA-compatible (Differentiating Infected from Vaccinated Animals), point-of-care (POC) platforms, and nucleic acid-based pathogen detection; e.g., simultaneous detection of multiple pathogens under specific syndromes.
- **Therapeutics:** Repurposing drugs and discovery of broad-category anti-infective or immunomodulators.
- **Innovative Interventions to reduce disease burden:** Precision nutrition, nutrigenomics, climate-resilient husbandry, and manure/waste management.

### **II. Aquaculture**

Proposals should focus on translational research to Enhance Health with a view to enhance sustainability across hatchery and farm production systems:

- **Infectious Disease Control:** Development of vaccines, diagnostics, and therapeutics with clear pathways to market and commercial viability.
- **Mass Delivery:** Strategies for large-scale administration of vaccines and therapeutics.
- **Biologicals:** Development of high-efficiency prebiotics and probiotics.
- **End-to-End Solutions:** Comprehensive plans spanning pathogen detection to field validation at grow-out levels.

### 3. Mandatory Requirements

- **Translational Feasibility:** Proposals must demonstrate scientific superiority, scalability, and cost-effectiveness for Indian production systems.
- **Regulatory Compliance:** PIs must ensure that all vectors and cell lines have **Freedom-to-Operate**. Projects must foresee validation steps that comply with the Government of India (GoI) regulatory norms.
- **Biosafety Compliance:** Institutions must possess (or collaborate with partners who possess) approved bio-safe laboratories and animal facilities suitable for experiments and target-species trials.
- **Economic Impact:** A strong emphasis must be placed on diseases that impact farmer livelihoods, trade, and animal/public health.
- **Futuristic Outlook:** Outcomes should be envisaged for the short and medium term and, wherever possible, for the long term.

### 4. Evaluation Criteria

1. **Scientific Merit:** Technical rationale, experimental design, and feasibility.
2. **Innovation:** Level of novelty and clarity of the technical strategy.
3. **National Priority:** Alignment with food security, biosecurity, and One Health goals.
4. **Consortium Expertise:** Credentials of the investigators and the quality of available facilities. Proven expertise in the field of proposed research area evident in the form of patent, publication or technology transfer. Proven track record of senior researchers for successfully completing research projects and delivering results.
5. **Commercialization Path:** Robustness of the proof of principle and the potential for TRL advancement.

### 5. Eligibility and Application

#### Who Can Apply

- **Lead PI:** Indian Nationals holding a regular position in a DSIR-recognized academic or scientific institution.
- **Eligible Organizations:** Central/State Government Institutions.
  - Private Universities/Research Institutions (DSIR recognized).
  - NGOs (DSIR-recognized, Must be registered on the **DARPAN Portal** of NITI Aayog).

*(PI(s) who have ongoing DBT funded projects with a cumulative funding of Rs. 20 crore or more (wherever he or she is receiving funds as PI/Co-PI) will not be considered.).*

## **Financial Support**

- Funding will be provided in accordance with **DBT Norms**.
- Funding for subsequent years is contingent upon:
  - Submission of annual progress reports and financial documents (UC/SE).
  - Satisfactory performance appraisal by the Technical Evaluation Committee.

*(The maximum budgetary limit for the proposals received under call for proposal is approx. 2.5 cr individual), Rs 10 cr (collaborative). The manpower in the proposals shall be preferably proposed as per DST guidelines or as per approved guidelines of ICMR/ICAR/institutional guidelines).*

## **How to Apply**

Applications must be submitted **online only** via the eProMIS portal only.

- Log in to [eProMIS](#).
- Select the relevant Programme for submission:
  - (a). For Animal Biotechnology projects,select “**Livestock and Animal Biotechnology**”
  - (b). For Aquaculture projects,select“**Aquaculture Biotechnology**”
- **The Consortia Leader/Coordinator** to upload the final proposal in the prescribed format including endorsements from the Executive Authority from all partnering institutions.

*(Incase of any technical difficulties in the eProMIS portal, please contact eProMIS portal administrator in the email ID: [epromis.dbt@nic.in](mailto:epromis.dbt@nic.in) Phone: 011-24365136)*

## **Contact details:**

For any questions, please contact:Dr. Manish Rana, Scientist ‘F’ (Email: [manish.rana@nic.in](mailto:manish.rana@nic.in))  
Phone: 011-24363012

**Last Date of Submission: 15<sup>th</sup>May, 2026**

**Note: Applications that are incomplete, received after the deadline of 15th May 2026, or submitted via unauthorized channels (such as email or hard copy) will be rejected without further review.**

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