

Internship / Training & Dissertation Programme

BioNEST, Incubation Centre IIT Patna

The **BioNEST** facility at **Incubation Centre IIT Patna**, supported under the BIRAC BioNEST programme, provides opportunities for students, scholars, innovators and startup teams to gain practical exposure to **Life Sciences, Biotechnology, MedTech and allied areas**.



The programme is designed to provide hands-on exposure to laboratory practices, scientific instrumentation, experimental techniques, project-based learning and the innovation ecosystem. BioNEST also provides an incubation environment where participants working on relevant life-science ideas can gain exposure to **product development, entrepreneurship, technology translation and startup activities**.

❖ Opportunities Available

BioNEST offers the following opportunities:

- Internship and hands-on laboratory training
- Dissertation and academic project work
- Scientific instrument training
- Exposure to biotechnology and MedTech innovation
- Startup and entrepreneurship exposure
- Product development and technology translation exposure
- Interaction with incubated startups, innovators and technical experts, wherever applicable.

❖ Broad Domains

Training and project opportunities may be available in the following broad areas:

- Biotechnology
- Molecular Biology
- Microbiology
- Agricultural Biotechnology / Agri-Tech
- Food Biotechnology / Food Technology
- Environmental Biotechnology
- Healthcare and MedTech
- Biomedical applications
- Diagnostics and biosensors
- Bio-analytical techniques
- Life science product development
- Biotechnology innovation and entrepreneurship

The availability of a particular domain or project will depend on ongoing activities, mentor availability, laboratory facilities and the candidate's academic requirements.

❖ Who Can Apply?

The programme may be considered for:

- Undergraduate students
- Postgraduate students
- Students seeking dissertation or academic project opportunities
- Ph.D. scholars and research scholars
- Early-stage Innovators/ Startup teams working on Life Science, Biotechnology, Healthcare, MedTech, Food-Tech or Agri-Tech ideas

Laboratory Infrastructure



❖ Duration of the training/project:

The duration of the programme is **flexible** and may generally range from **short-term (15-Days) training to several months (6-months)**. The duration will be finalized at the time of acceptance of the candidate.

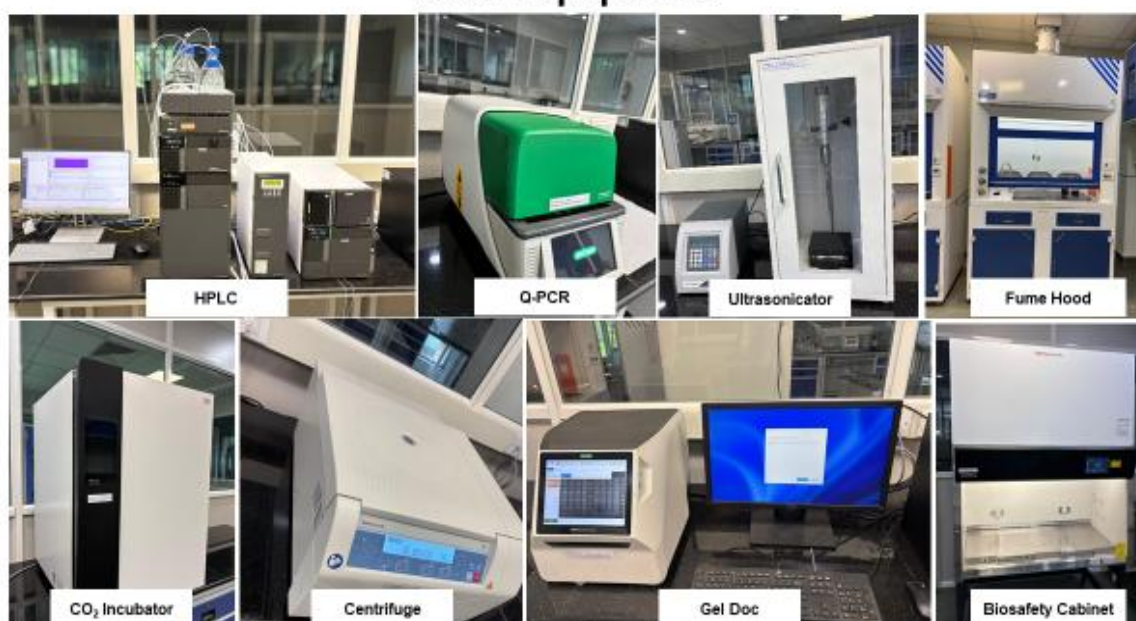
❖ Laboratory Facilities

Depending on the approved activity, participants may receive exposure to laboratory facilities and instruments including:

Sl. No.	Instrument	Company	Generic Applications
1	HPLC	Shimadzu	Precise separation & analysis of complex mixtures
2	Centrifuge	Thermo Scientific	Sample Separation
3	Micro Centrifuge	Thermo Scientific	Micro-sample Separation
4	Water Purification System	Thermo Scientific	Reagent Water Production
5	3 in one Spectrophotometer	Invitrogen	Optical Absorbance Analysis + Nanodrop + ELISA or microplate reading
6	PCR Machine	Bio-Rad	DNA Amplification
7	Deep Freezer (-80)	Thermo Scientific	Ultra-low Temperature Storage
8	BOD Incubator	SSIW	Biological Oxygen Demand
9	Upright Compound Microscope	Nikon	Microscopic Cellular Imaging
10	pH Meter	Thermo Scientific	Acidity/Alkalinity Measurement
11	Vertical Electrophoresis System	Bio-Rad	Protein Separation
12	Horizontal Electrophoresis System	Genei	Nucleic Acid Separation
13	Gel Documentation System	Bio-Rad	Gel Imaging & Analysis
14	Autoclave	ESAW	Sterilization & Decontamination

15	Lab Refrigerator	Godrej	Cold Sample Storage
16	Analytical Balance	Aczet	Precise Mass Measurement
17	Vortex Mixture	Tarson	Sample Mixing & Agitation
18	Magnetic stirrer	Borosil	Liquid Mixing & Stirring
19	Freezer (-20)	Remi	Low Temperature Storage
20	Laminar Air Flow	SSIW	Sterile Clean Workspace
21	Water Bath	Borosil	Controlled Sample Heating
22	CO2 incubator	Thermo Scientific	Cell Culture Incubation
23	Rotary Evaporator	Heidolph	Solvent Removal & Evaporation
24	Probe Ultrasonicator	Sonics	Cell Disruption & Emulsification
25	q-PCR	Bio-Rad	Quantitative Gene Expression
26	Biosafety cabinet	Thermo Scientific	Contaminant-free Biosafety Containment

Core Equipment



❖ **Internship / Training Fee**

₹6,000 + applicable GST per month per participant and ₹25,000 + GST for 6-month dissertation /thesis work.

The applicable fee will depend on the duration and nature of the approved programme.

❖ Application Procedure

Interested candidates must complete the **online registration form**:

Registration Form:

<https://forms.gle/PWWmXcx5dBe6hksq5>

Applicants must also send copy of their registration form response along with details mentioned below on email id for prompt redressal of their internship request: "soabn_ic@iitp.ac.in"

❖ Certificate

A **Certificate of Completion** will be issued by the **Incubation Centre, IIT Patna** to participants who successfully complete the approved internship/training/project and fulfil the applicable requirements.

17. Accommodation & Food

Accommodation

Participants shall be responsible for arranging their own accommodation.

Food / Canteen

Food/canteen facilities may be available on a paid basis, subject to availability and applicable campus rules of IIT Patna.

18. Why Choose BioNEST – IIT Patna?

Participants can benefit from:

- Hands-on exposure to Life Science laboratory facilities
- Practical scientific instrumentation training
- Exposure to real laboratory workflows
- Project-oriented learning
- Opportunity to interact with an incubation ecosystem
- Exposure to startup and entrepreneurship activities
- Opportunity to understand technology translation and product development
- Certificate upon successful completion

19. Contact Us

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BioNEST Incubation Centre IIT Patna

Learn. Experiment. Innovate. Incubate.

**Building practical skills and supporting the next generation of Life Science and
Biotechnology innovators.**