boltzmann

InnovateBio Design Hackathon 2025

Boltzmann Labs invites student and research teams to showcase their creativity in small molecule and protein design. Compete to solve biological challenges through innovation, structure, and strategy!

Categories for the Virtual Hackathon:

Small Molecule Design | Protein Design

Exciting cash prizes + Internship opportunities for the winning team (Students)
Cash Prizes + Extended access to the platform for winning team (Industry Professionals)

Team participation (Max: 3 members)

Application Deadline: **11th July 2025**

InnovateBio Design Hackathon 2025

Training on small molecule designing and protein designing on

boltzmann Platform

Followed by

InnovateBio Design Hackathon 2025 on

Categories:

Small Molecule Design | Protein Design

Who can Participate?

- PhD Candidates, PostDocs
- Faculty Members
- Research Scientists
- Research Scholars
- Masters Students
- Advanced UG students

boltzmann

InnovativeBio Design Hackathon using AI powered Boltzmann platform

Training on small molecule designing and protein designing on

boltzmann Platform

Followed by,

InnovateBio Design Hackathon 2025 on

Categories:

Small Molecule Design | Protein Design

Register here: Hackathon Application

Application Deadline: **11th July 2025**
Hackathon Start Date: **21st July 2025**

REGISTER NOW !!!

boltzmann

InnovateBio Hackathon 2025

Overview

Join our upcoming Hackathon and compete for a **₹10,000 cash prize!**
This event is built for innovators in synthetic chemistry, protein design, and small molecule development. Pitch your ideas, receive hands-on training, and bring your solutions to life using our AI-powered platform.

Who Can Participate?

This hackathon is open to students, early-career researchers, innovators and scientists passionate about drug discovery, synthetic chemistry, or computational biology. Ideal participants include:

- **Research Scholars** – actively engaged in academic or industrial research related to chemistry, biology, or interdisciplinary sciences.

- **PhD Candidates** – currently pursuing doctoral studies in fields such as bioinformatics, cheminformatics, biotechnology, pharmaceutical sciences, or related areas.

- **Master's & Bachelor's Students** – enrolled in undergraduate &postgraduate programs with interests in molecular design, protein engineering, or synthetic route planning.

- **Early career professionals** – Industry professionals in their early career phases, innovators and scientists passionate about Agentic AI and drug discovery.

Hackathon Categories

Participants can compete in one of the following tracks. Choose based on your area of interest or academic expertise:

1. **Protein Engineering**

Design or improve proteins with desirable properties using computational tools. This track is ideal for those with a background in structural biology, bioinformatics, or synthetic biology.
Examples of challenge ideas:

- Designing a stable enzyme for industrial bio catalysis
- Engineering a novel protein binder for a disease target
- Optimizing protein solubility or thermostability for therapeutic use

You'll use tools for protein generation, structure prediction, docking, and property analysis to build your solution.

2. **Small Molecule Design**

Develop novel drug-like molecules or optimize existing compounds for better efficacy, selectivity, or synthesizability. This track is great for those interested in medicinal chemistry, cheminformatics, or drug discovery.
Examples of challenge ideas:

- Designing a new inhibitor for a validated disease target
- Optimizing ADMET properties of a known lead compound
- Generating diverse analogs for a small molecule hit

This category involves using modules like molecule generation, virtual screening, QSPR modeling, and molecule optimization.

boltzmann

Event Flow:

1. **Registration & Idea Submission:** [**Deadline: 11 July 2025**]

Interested participants must register through the official form(scan the QR code) and submit a brief proposal outlining their idea, problem statement, and how they intend to solve it using the platform.

2. **Proposal Evaluation & Team Shortlisting**: **[15 July 2025]**

All submitted ideas will be carefully reviewed by our internal scientific team. Teams will be evaluated on originality, clarity, and scientific merit. Shortlisted teams will be notified via email.

3. **Platform Training (2 Days):** **[17 and 18 July 2025]**

Selected teams will undergo two days of immersive training to familiarize themselves with the platform's capabilities — including modules for protein/molecule generation, virtual screening, retrosynthesis, optimization, and more.

Event Flow:

4. Hackathon Execution Period: **[21 to 25 July 2025]**

Teams will be given access to platform credits and tools to work on their solutions over a defined period (you can specify dates if fixed). They will be expected to develop and refine their ideas using the platform's features.

5. **Final Submission & Review:** **[25 July 2025]**

Teams will submit their final results, including data, workflows, and a brief explanation of the solution developed. Submissions will be evaluated by a panel of domain experts.

6. **Judging & Winner Announcement:** **[30 July 2025]**

The judging panel will score each project based on predefined criteria (outlined below), and the top team will be awarded the ₹10,000 cash prize. Additional recognition may be provided for outstanding entries.

Shortlisting Criteria

Proposals will be shortlisted based on a mix of scientific depth, innovation, and relevance:

1. **Originality & Innovation**
- Is the idea novel or creative?
- Does it approach the problem in a unique way?

2. **Clarity of Problem Statement**
- Is the research question or challenge well-defined?
- Is the proposed solution aligned with the problem?

3. **Relevance to Selected Category**
- Does the idea appropriately fit within either Protein Engineering or Small Molecule Design?
- Are the proposed tools or approaches suitable for the track?

4. **Scientific Feasibility**
- Is the idea practical within the given timeline and toolset?
- Can the hypothesis or design be reasonably implemented?

5. **Potential Impact**
- Does the idea have potential to advance research, address a real-world challenge, or contribute meaningfully to the field?

boltzmann

Guidance materials and reference papers will be shared with participants to help ideate effectively.

We look forward to your participation.

For any queries, please reach out to us here.

product@boltzmann.co

+91-9498866488