जैव प्रौद्योगिकी विभाग
Department of Biotechnology
Ministry of Science & Technology
Government of India

BiOE3
for fostering High Performance Biomanufacturing

BRIC thsti
a DBT Organization

BRIC- TRANSLATIONAL HEALTH SCIENCE AND TECHNOLOGY INSTITUTE

SYMPOSIUM ON

DISCOVERY AND DEVELOPMENT OF MONOCLONAL ANTIBODY THERAPEUTICS

THSTI - INDUSTRY JOINT EVENT

10TH JUNE 2025 • 9:00 AM ONWARDS

www.thsti.res.in

Seminar Hall -01 , THSTI

+91-01292876300

mAbworkshop@thsti.res.in

SEMINAR HALL -01, NCR BIOTECH SCIENCE CLUSTER, THSTI

Discovery and development of monoclonal antibody therapeutics

Background note and objective of this symposium

India's developing biopharmaceutical sector offers tremendous opportunities for indigenous innovation. The **Bio-E3** Initiative, which stands for Biotechnology for Economy, Environment, and Employment, aims to catalyse biotechnological self-reliance by investing in advanced platforms **such as monoclonal antibodies (mAbs)** to combat prevailing, emerging and re-emerging diseases in India and other LMICs. This effort aims to strengthen local research and development capacity, reduce reliance on imports, and ensure equitable access to high-quality biologics. BRIC-THSTI as an "**Innovation Hub**" at the NCR Biotech Science Cluster is in the process of building a **"Regional Center of Excellence: Monoclonal Antibody (mAb) Biofoundry"** under the DBT's Bio-E3 initiative with following primary objectives:

1. **To accelerate the identification and validation of therapeutic monoclonal antibodies** targeting diseases of national health priorities and that of LMICs.
2. **To promote indigenous discovery pipelines** through establishment of Public-Private Partnership model ecosystem and global knowledge exchange platforms for therapeutic mAbs that is largely lacking in India.
3. **To develop** novel, high throughput and efficient modalities for discovery of therapeutic monoclonal antibodies
4. **To facilitate** early-stage R&D and optimisation of mAbs with shared infrastructure and financing assistance.
5. **To facilitate a robust ecosystem** for translational research, encompassing preclinical and clinical studies and regulatory support.
6. **To ensure affordability and accessibility** of mAb therapies
7. **To foster talent development** towards building a skilled workforce in mAb discovery and development.

This symposium is the first of a series of workshops that THSTI plans to organize, with an objective to bring experts with complementary expertise in this discipline from pharma industry, start-ups, CRDMOs and academic organizations, exchange scientific knowledge and explore new and innovative models, which can lead to expanded pipeline of mAb therapies as well as improved quality of learning and workforce preparation, thereby driving economic growth and social progress.

Discovery and development of monoclonal antibody therapeutics

One-day Symposium, 10th June 2025

Venue: THSTI Seminar Hall-1

Time	Agenda item
8:00 – 8:30 AM	**Breakfast at THSTI**
08:30 - 09:00 AM	**Meet & greet | Registration of Participants**
	Delegates to be seated in Seminar room
9:00 - 9:05 AM	**Welcome Address** by Dr. Jayanta Bhattacharya, Dean, THSTI
9:05 – 9:10 AM	**Special Address** by Prof. G. Karthikeyan, Executive Director, THSTI
9:10 – 9:40 AM	**Plenary Talk: "Journey from discovery to development"** **Speaker: Dr. Nitin Damle,** Sun Pharma Advanced Research Company Limited (SPARC)
Session 1	**Novel mAb Discovery Platforms** **Moderator: Dr. Manish Diwan**
9:40 – 10:05 AM	**Topic: "Novel monoclonal antibody discovery by B-Cell Cloning"** **Speaker: Dr. Jayanta Bhattacharya, THSTI**
10:05 - 10:30 AM	**Topic: "Novel biologics product development using next generation antibody engineering"** **Speaker: Dr. Maloy Ghosh, Zumutor Biologics**
10:30 – 10:55 AM	**Topic: "Mammalian display as tool for antibody discovery"** **Speaker: Dr. Kavita Kumari, Syngene International Ltd**
10:30 – 10:55 AM	**Topic: "Fit to Purpose tools for discovery of Antibodies"** **Speaker: Dr Rakesh Kumar, Aragen Life Sciences**
10:55 - 11:05AM	**GROUP PHOTO**
11-05 – 11:25 AM	**Tea / Coffee Break**
Session 2	**Development of novel mAbs** **Moderator: Dr. Saurabh Joshi**
11:30 AM – 11:55 AM	**Topic: "Antibody Architecture: Guiding Development Pathways and Assessing Manufacturability"** **Speaker: Dr. Priyaranjan Pattanaik, Aurigene Pharmaceutical Services Limited**
11:55AM – 12:20 PM	**Topic: "Use of immunization techniques for getting correct immune response leading successful fit for purpose antibody discovery"** **Speaker: Dr Sridhara Chakraborthy, Syngene International Ltd**
12:20 – 12:45 PM	**Topic: "Combining directed evolution with multi-omics analysis to develop a high secretory CHO host cell line"** **Speaker: Dr. Sarika Mehra, Indian Institute of Technology, Bombay – (IIT-Bombay)**
12:45 – 1:15 PM	**Poster Presentation**
1:15 – 2:15 PM	**Lunch**
Session 3	**New platforms** **Moderator: Dr. Shailendra Asthana**
2:15 – 2:40 PM	**Topic: "A New Era in Biologics: Harnessing Circular RNA to Democratize mAb Access"** **Speaker: Dr. Anand Khedkar, Sekkei Bio Pvt Ltd**
2:40 – 3:05 PM	**Topic: "Where Efficiency Meets Innovation: AI-Driven Antibody Drug Design"** **Speaker: Dr. Aridni Shah, ImmunitoAI**
Session 4	**Panel Discussion** **Moderator: Dr Dhananjay Patankar**
3:15 - 4:00 PM	**Topic: "Accelerating Discovery and Early Development of Indigenous Therapeutic Solutions using Monoclonal Antibodies under Bio-E3 initiative"**
4:00 - 4:05 PM	**Vote of thanks:** Dr. Sankar Bhattacharyya
4:05 PM	**Close of the meeting and High Tea**