

United Nations
Educational, Scientific and
Cultural Organization



क्षेत्रीय जैव प्रौद्योगिकी केन्द्र
Regional Centre
for Biotechnology

Regional Centre for Biotechnology

A UNESCO Category II Institution | Institution of National Importance

Presents

BioPulse

The rhythm of research, innovation, and impact at RCB



JUN-AUG 2025, ISSUE 1

Regional Centre for Biotechnology: Academic Highlights



About RCB

The Regional Centre for Biotechnology (RCB) is a premier institute, established & funded by the Department of Biotechnology, for advanced education, training, and research in biotechnology. RCB fosters interdisciplinary collaboration by integrating biotechnology with engineering, medicine, and life sciences to address critical challenges in health, agriculture, and environmental sustainability.

RCB ranks among India's Top 10 Research Institutes in Biological Sciences according to the Nature Index 2025, RCB has been recognized among the top ten academic institutions in India for research in biological sciences—an achievement that reflects the Centre's commitment to excellence in science.

1 July 2025 | PGDIB students started their industrial internship, with students joining companies like Serum Institute, Sun Pharma, Aurigene Oncology Ltd. & Sphaera Pharma.

11 July 2025 | MS-PhD students presented their MS dissertation work.

16 July 2025 | i3c BRIC-RCB PhD admissions concluded with interviews and faculty interaction.

1 August 2025 | RCB PhD, MS-PhD, and i3c BRIC-RCB PhD programmes officially commenced. 65 students selected and allotted seats in the i3c BRIC-RCB PhD programme in Biosciences, 14 selected in RCB PhD Biotech and 20 in MS-PhD Biotech.

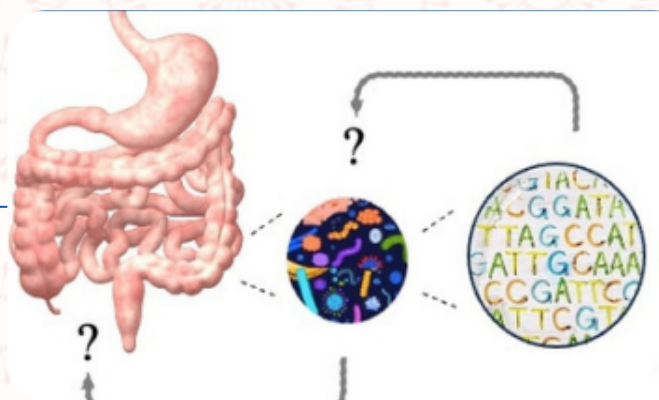
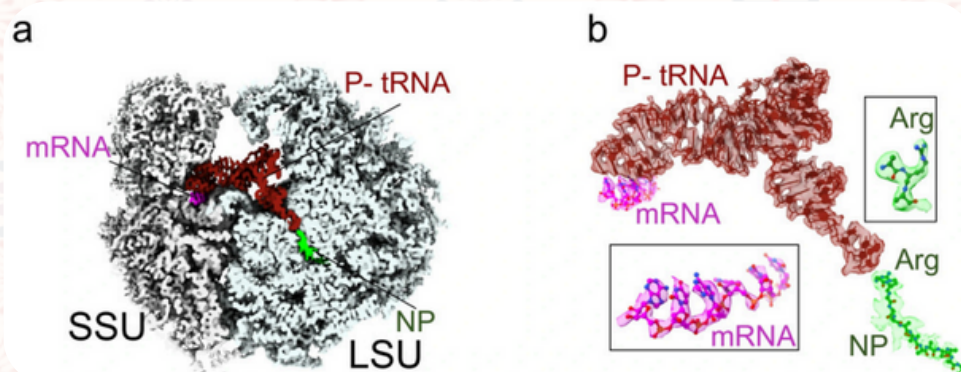
RESEARCH HIGHLIGHTS

Cryo- EM structures of ribosomes from *E. histolytica*

Several unique features of *Entamoeba* ribosome architecture, such as rRNA triple helix, coevolution of ribosomal RNA and proteins, are reported. Implications: Designing novel amoebicidal drugs.

Reference:

Sharma S. et al., *Nat Commun* 2025 Aug 20.



Novel metagenome from the human gut

Around a thousand high-quality viral genomes derived from human gut metagenomic data, largely omitted from existing sequence databases, have been uncovered.

Reference:

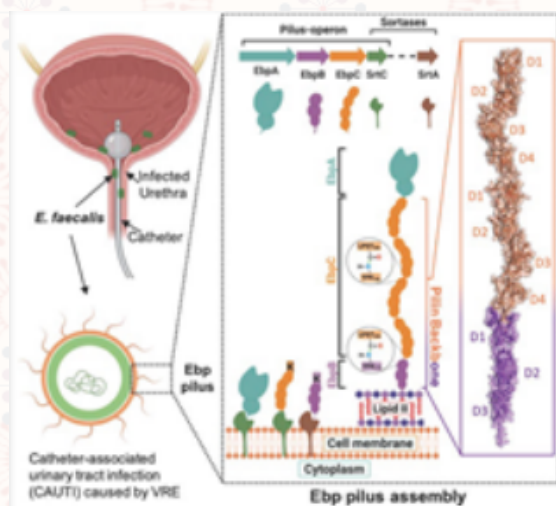
Bhardwaj K. et al. *Virol J.* 2025 Jul 25.

Structural Basis of Pilus Formation in VRE

Crystal structures of EbpB and EbpC from vancomycin-resistant *Enterococci* provide insights into biofilm-associated pili architecture—crucial for vaccine and drug development. Reference:

Reference:

Sharma V, Krishnan V. *FEBS J*, 2025 Jul 3.





News and events



Latest News

- MoU signed with RGCB
- BioE3 pakhwada announced to commemorate one year of the BioE3 policy announcement.
- Ms. Payal Gupta, PhD scholar from Dr. Rode's lab, received a placement offer from a top multinational company during the iBRIC Student Networking & Placement Conclave held in Hyderabad.
- New Hostel building comes up in NCR Biotech Science Cluster
- Mr. R.K. Rathore retired from the post of Executive Engineer after 14 years of service at RCB.

Past Events

20 June 2025 | International Yoga Day celebrated jointly with THSTI.

16 July 2025 | Tree plantation drive led by Dr. Rajesh Gokhale, Secretary DBT, DBT dignitaries and iBRIC+ Directors.

26 July 2025 | 620 saplings planted with Satya sai Foundation under Zero Waste Campaign.

1 August 2025 | Orientation session of MS-PhD, PhD (Biotech) & i3c BRIC-RCB PhD (Biosciences) students.

14 August 2025 | YourDost Orientation session organized for new PhD scholars.

15 August 2025 | Independence Day 2025 Celebrated.

18 August 2025 | Anti-Ragging awareness week commemorated by acquainting the new students with the Anti-Ragging Squad & Anti-Ragging Committee and conducting an online quiz.

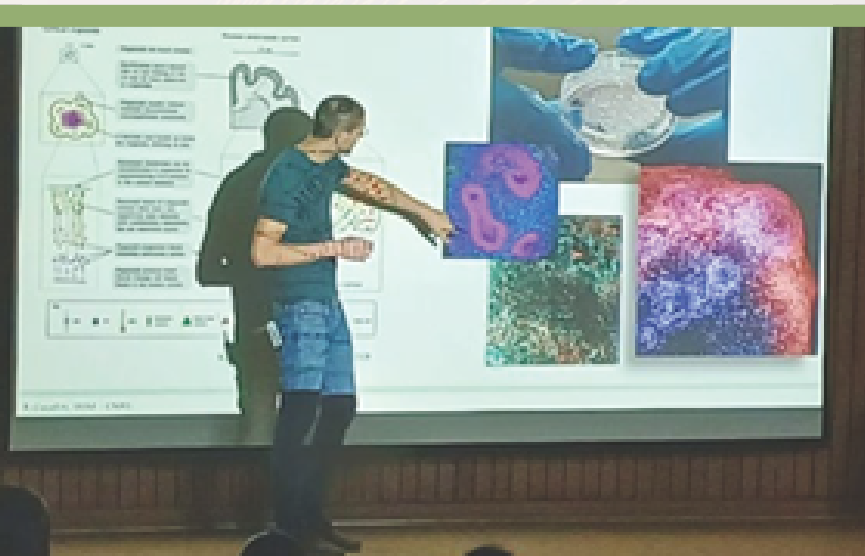
31 August 2025 | Sports meet was organized from 29th - 31st Aug



ALUMNI INTERACTION

25 July 2025

Dr. Bhargab Kalita, RCB alumnus and postdoctoral researcher at NYU Grossman School of Medicine, delivered a seminar on Therapeutic Challenges in High-Risk Rhabdomyosarcoma.



Research Talks

17 June 2025 |

Understanding the nanoscale synaptic triggers of neurodegenerative disorders | **Dr Shekhar Kedia**, University of Cambridge

22 August 2025 |

In the intimacy of virus-brain interactions: From molecular mechanistic to functional impact | **Prof. Raphael Gaudin**, CNRS, France



OUTREACH



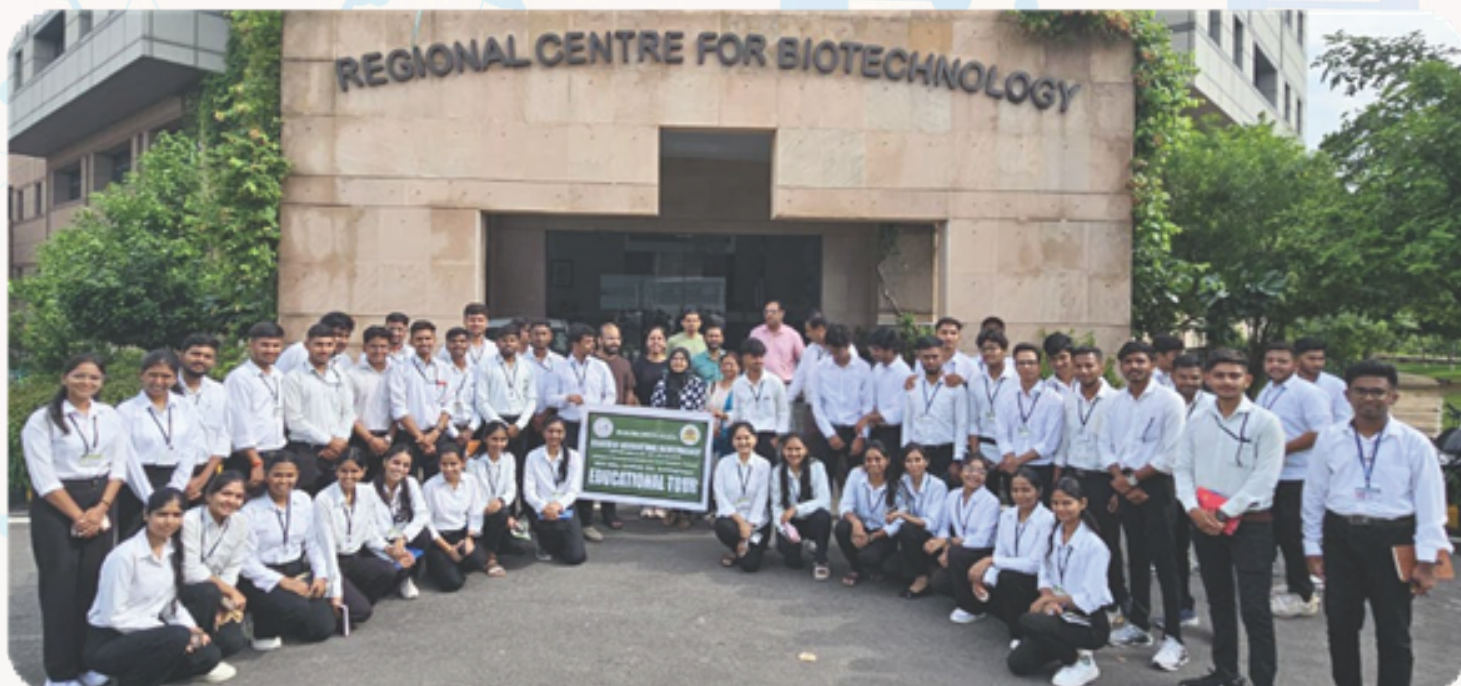
June 2025 | Under GSBTM BRIDGESIP, 105 summer interns spent a month of experiential learning at RCB, ICgeb or one of the 13 iBRIC institutes.



10 July 2025 | Students from MGM College of Agricultural Biotechnology, Aurangabad, had interactive sessions at ATPC and IBDC.

7 August 2025 | Physics undergraduates from Atma Ram Sanatan Dharma (ARSD) College, University of Delhi, visited ATPC and attended a talk by Deepanjan Banerjee (PhD scholar, Prof CV Srikanth's lab)

21 August 2025 | Students from three different DAV Public Schools – Gurugram Cluster V visited ATPC. Dr Rajender Motiani and Dr Prashant Pawar's labs hosted the students. Dr Shaminder Singh conducted demonstrations of molecular bio techniques along with First-year MScPhD students.





IBDC Computational Biology Conference



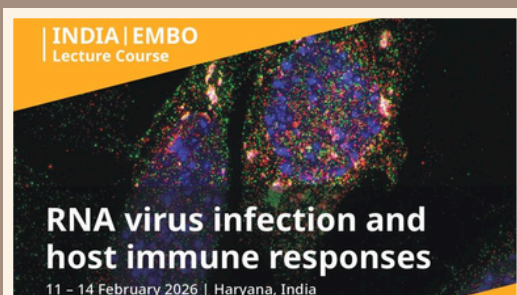
8 - 10 DECEMBER 2025

Registration deadline 10 October 2025

Organizers: Indian Biological Data Centre (IBDC) | Prof. Deepak T. Nair

Visit www.ibdc.dbtindia.gov.in/cbc to know more.

Recent Updates:



India-EMBO Lecture Course

11 - 14 FEBRUARY 2026

RNA virus infection & host immune responses. Registration/Abstract submission deadline 1 October 2025
Organizers: Prof. Prasenjit Guchhait & Prof Manjula Kalia
Visit <https://meetings.embo.org/event/26-rna-virus> for more details.



EMBO Practical Course

21 FEBRUARY - 3 MARCH 2026

Registration deadline 15 September 2025
Organizers: IIT-Delhi Co-organizer: Dr Prem S. Kaushal
Visit <https://meetings.embo.org/event/26-cem3dip> for more details.

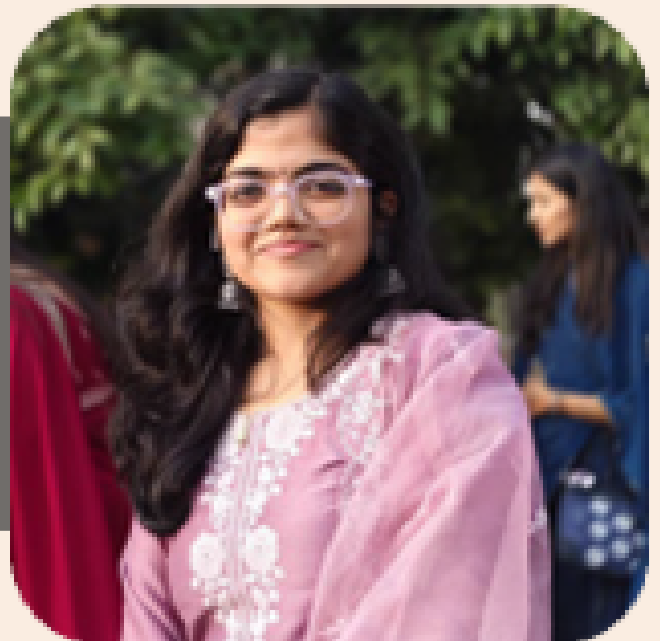
Regional Centre for Biotechnology,
NCR Biotech Science Cluster Faridabad Gurugram Expressway, Haryana – 121001
www.rcb.res.in



"My experience at RCB was truly transformative, both academically and personally. I stood first in my cohort, reflecting the intellectually stimulating environment and emphasis on research. Winning an ideathon competition was a defining moment, showcasing my problem-solving abilities. My research on Parkinson's disease-related proteins deepened my scientific curiosity and analytical skills, fostering a passion for innovation, continuous learning, and tackling complex challenges."

*-Rajarshi Chaudhuri, EXL,
MS- PhD Biotechnology 2018-20*

"The PGDIB programme has been an incredible journey. Meeting inspiring leaders from Biocon and Sun Pharma made the biotech/ pharma world feel real and within reach. The hands-on practicals boosted my confidence, and the support from coordinators and internship opportunities have given me the perfect launchpad into the industry."
— Ananya, PGDIB 2025



Testimonials