

Department of Biochemical Engineering and Biotechnology
Departmental Research Committee Minutes

(DRC-1/2024-25)

1 Aug 2024

DRC Meeting No.1/2024-25 was held on 30 July 2024 in the DBEB Committee Room at 3.30 pm.

The following members were present:

Prof. Prashant Mishra (Chairperson)
Prof. Ritu Kulshreshtha
Prof. Shilpi Sharma
Prof. Ravikrishnan Elangovan
Prof. Priti Sinha
Prof. Anjan Roy
Prof. Jatin Panwar
Prof. Lucinda Elizabeth Doyle (Convenor)

Agenda Items

1. Confirmation of the minutes of the 4th meeting of the DRC for the session 2023-24 held on 15 April 2024.
[The minutes were confirmed as circulated.](#)
2. Matters arising from the minutes of Meeting No. 4/2023-24.
[None.](#)
3. Progress report submitted by Ph.D. students for Semester 2, 2023-2024 and award of grades for the course DTD899.

Based on the recommendations of the respective SRC committee and or the supervisors of the students, the DRC approved the grades of the Ph.D. students (Annexure 1).

4. FITT award nominations
[The Committee nominated and recommended the following students for FITT award:](#)
 1. [Dr. Soumya Rajpal \(2017BEZ8291\)](#)
 2. [Dr. Avijeet Jaswal \(2018BEZ8436\)](#)[The Committee authorised the Chairperson to forward the above applications.](#)
5. Amit Garg Memorial Research Award:

Based on nomination received and the eligibility of the candidate, the following name has been recommended:

1. Dr. Shubham Dubey

6. Ph.D. student placement registrations

No requests from Ph.D. students to register for placements were received by the Committee.

7. Policy for assignment of M.Tech projects

The committee decided to continue with the existing policy for M.Tech projects and that change of supervisor should only be allowed in exceptional cases.

8. Ph.D. resignations

The resignation letters received from the following students were discussed and ratified:

- a. Resignation of Nivedhita S. (2023BEZ8392)
- b. Resignation of Arushi Katoch (2023BEZ8543)
- c. Resignation of Sarvesh Kumar (2023BEZ8541)
- d. Resignation of Tamanna Lorha (2023BEZ8542)

9. Constitution of new SRCs

The following SRC compositions were approved:

| Name/Entry No | Supervisor | Chairperson | Internal expert | External expert |
|---------------------------------|-----------------------------|-----------------------------------|-----------------------|------------------------------|
| Avantika Rai (2023BEZ8540) | Prof. Kumari Priti Sinha | Prof Ravikrishnan Elangovan | Prof. Jatin Panwar | Prof. Samaresh Das (CARE) |
| Khushi Chouhan (2023BEZ8390) | Prof. Ishaan Gupta | Prof. Anjan Roy | Prof. Jatin Panwar | Prof. Ashok Patel (KSBS) |

10. Approval of Plan of Work for PhD students

- a. Plan of work of Sonali Sharma (2022BEZ8510) for the thesis entitled "Development of Microfluidic Lab-on-Chip Based Loop-Mediated Isothermal Amplification (LAMP) Assay for Molecular Diagnostics of Antimicrobial Resistance in Blood-borne Pathogens" under the supervision of Prof. Ravikrishnan Elangovan.
The plan of work was approved based on recommendation by the student's SRC.
- b. Plan of work of Mansi (2022BEZ8511) for the thesis entitled "Comprehensive analyses of cancer cell transcriptome to identify the key genes and pathways for therapeutic targeting" under the supervision of Prof. Ritu Kulshreshtha
The plan of work was approved based on recommendation by the student's SRC.

Action: Supervisors are to ensure two hard copies of the Plan of Word document are submitted to the Department office.

11. Synopsis of students:

- a. Synopsis of the Ph.D. thesis titled "Extraction and recovery of critical metals from Industrial waste" submitted by Priyanka Dubey (2017BEZ8285) (Supervisors: Prof. TRS and Prof. RJ).

Based on the recommendation of SRC, the Committee approved the synopsis. The Committee also approved the panel of Examiners and authorised the Chairperson to forward the same to Dean (Academics).

- b. Synopsis of the Ph.D. thesis titled "Efficient resource extraction: Unveiling potential in industrial solid waste through innovative reactor designs" submitted by Partha Pratim Mondal (2018BEZ8438) (supervisor: ZSA)

Based on the recommendation of SRC, the Committee approved the synopsis. The Committee also approved the panel of Examiners and authorised the Chairperson to forward the same to Dean (Academics).

- c. Synopsis of the Ph.D. thesis titled "Functional Characterization of hypoxia-associated long non-coding RNAs and anti- cancer drug development for Glioblastoma treatment" submitted by Garmia Yadav (2018BEZ8241) (supervisor: RK)

Based on the recommendation of SRC, the Committee approved the synopsis. The Committee also approved the panel of Examiners and authorised the Chairperson to forward the same to Dean (Academics).

- d. Synopsis of the Ph.D. thesis titled "Metabolic engineering of Zymomonas mobilis for acetoin, D-2, 3-butanediol and valine branch intermediate production" submitted by Sakshi (2018BEZ8243) (supervisor: AM)

Based on the recommendation of SRC, the Committee approved the synopsis. The Committee also approved the panel of Examiners and authorised the Chairperson to forward the same to Dean (Academics).

Action: Supervisors to submit two hard copies of synopsis and one copy of the synopsis submission form to the Departmental Office for signature of DRC Chairperson. Supervisors are also to forward a soft copy of the same (signed copy of synopsis submission form), DRC minutes and synopsis to PG section (pg_eval@admin.iitd.ac.in) with a copy to DRC Chairperson.

12. Student requests:

- a. Request of Aastha Singh (2019BEZ8182) for 6 month extension of Ph.D. fellowship and to utilise unspent PMRF contingency grant due to recent flooding at DBEB affecting her lab.

The Committee approved the request.

- b. Request of Rahul Gupta (2019BEZ8186) for 6 month extension of Ph.D. fellowship due to recent flooding at DBEB affecting his lab.

The Committee approved the request.

- c. Request of Eeshan Agarwal to transfer fellowship from Institute Assistantship to DBT-JRF.
[The Committee approved the request.](#)
- d. Request of Jahanvi Sharma (2024BEZ248108) to transfer fellowship from ICMR-JRF to DBT-JRF.
[The Committee approved the request.](#)
- e. Request of Debashree Kar (2018BEZ8437) for Ex-India leave (29 June – 7 July 2024) and to avail RSTA to attend Bioelectronics Symposium Cambridge University, UK.
[The Committee approved the request.](#)
- f. Request of Ritanksha Joshi for Ex-India leave (5 – 13 October 2024) and to avail RSTA to attend Non-coding RNA World 2024, Basel, Switzerland.
[The Committee approved the request.](#)
- g. Request of Nidhi Nitin Patil (2019BEZ8669) to avail RSTA (in combination with SERB international travel grant) to attend ASM Microbe 2024 (13 – 17 June 2024), Atlanta, USA.
[The Committee approved the request.](#)
- h. Request of Shubham Sharma (2020BEZ7520) for Ex-India leave (1 Sep – 30 Nov 2024) to visit Tromso, Norway for student exchange traineeship programme.
[The Committee approved the request.](#)
- i. Request of Kolli Venkata Supraja (2020BEZ8516) for Ex-India leave (30 Aug 2024 – 2 Mar 2025) to visit HZDR Innovation GmbH, Dresden, Germany having received IGSTC Industrial Fellowship 2024.
[The Committee approved the request.](#)
- j. Request of Rashi Tyagi (Entry number 2020BEZ8525) to avail RSTA balance to attend 5th Plant Microbiome Symposium in Amsterdam, Netherlands (June 17 – 21 2024) and to utilise her previously approved Ex-India leave (University of Fribourg, Switzerland, June – Oct 2024) to also attend (a) the aforementioned conference and (b) miCROPe 2024 (15 – 18 July 2024) in Vienna, Austria.
[The Committee approved the request.](#)
- k. Request of Sakshi (2018BEZ8243) for Ex-India leave (28 June – 5 July 2024) and to avail RSTA to attend European Congress on Biotechnology (ECB 2024), Netherlands.
[The Committee approved the request.](#)
- l. Request of Shriya Grover (2022BEZ8359) for Ex-India leave (22 June – 12 July 2024) to attend the SCELSE Summer Course, NTU, Singapore.
[The Committee approved the request.](#)
- m. Request of Salila Pradhan (2020BEZ8522) to change the dates of her previously approved Ex-India leave to visit Technical University of Denmark under the SPARC scheme to 2 May – 20 November 2024 and to utilise part of the leave (15 – 18 July) to attend miCROPe 2024 in Vienna, Austria.
[The Committee approved the request.](#)
- n. Request of Kshitij Kathait to avail Ph.D. contingency fund to attend International Conference and Workshop on Exploring Cell-Cell Interaction and Dynamics using

Flow Cytometry & Bioelectronics Approaches (organised by School of Biotechnology, JNU) (20-22 July 2024) and Workshop on Molecular Docking Essentials: Fundamental Techniques for Chemical Library Screening (organised by Rajiv Gandhi Centre for Biotechnology (RGCB) (31 July 2024).

[The Committee approved the request.](#)

- o. Request of Shriya Grover (2022BEZ8359) to avail Ph.D. contingency fund to attend COMSOL Training Course: Fuel Cell and Electrolyzer Modeling (June 3 – 7 2024).

[The Committee approved the request.](#)

- p. Request of Khadeeja Parveen (2020BEZ8515) to avail of maternity leave from 30 July 2024 – 26 January 2025.

[The Committee approved the request.](#)

13. Matters for ratification

- a. Project proposals submitted by faculty members.

| S. No. | Project Name | Investigator | Funding Agency |
|--------|--|--|--------------------------------|
| 1. | Development of in vitro platform for vascular risk assessment in diabetes | Prof. Kumari Priti Sinha | CEFIPRA |
| 2. | CHAP proteins from <i>Rhodococcus erythropolis</i> , their role in cellular heterogeneity and potential as novel enzymatic: Structural and functional characterization | Prof. Preeti Srivastava | FNAPE |
| 3. | Understanding Autism Spectrum Disorder by deconstructing micro-exon splicing in the brain at single cell resolution. | Prof. Ishaan Gupta (PI) Prof. Ernst Wolventag (co-PI) | UQ-IITD Joint Call for Funding |
| 4. | Artificial antibody drug conjugate targeted to HER3 for delivery of anti-cancer agent against breast cancer cells | Prof. Prashant Mishra (PI) Dr. Nébéwia Griffete Sorbonne Université, CNRS, Paris, F-75005 France Dr Michèle SABBAH, Directeur de Recherche | IITD |

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|----|---|---|---------------------|
| | | Centre de Recherches Saint-Antoine-CRSA INSERM UMR S 938 (co-PIs) | |
| 5. | Design, synthesis, and evaluation of G4 binding small molecules targeting miRNA expression and maturation for anti-glioma therapy | Prof. Ritu Kulshreshtha (PI) Dr. Ambadas Rode (RCB) (co-PI) | BIRAC |
| 6. | Deciphering molecular effectors involved in Androgen Receptor (AR)-driven modulation of glioblastoma (GBM) and its immune tumor microenvironment (iTME) | Prof. Ritu Kulshreshtha (PI) Dr Ahmad Idbaih ((Sorbonne Univ., France) Dr. Maite Verrault (Sorbonne Univ., France) (co-PIs) | CEFIPRA |
| 7. | Deciphering non-coding RNA effectors involved in Androgen Receptor (AR)-driven modulation of glioblastoma (GBM) | Prof. Ritu Kulshreshtha (PI) Dr Ahmad Idbaih ((Sorbonne Univ., France) Dr. Maite Verrault (Sorbonne Univ., France) (co-PIs) | CEFIPRA / SU MFIRP? |
| 8. | Development of a surveillance system to monitor water quality and extreme weather conditions | Prof. Shaikh Ziauddin Ahammad (PI) Prof. Brejesh Lall (co-PI) | DST |
| 9. | Innovative Microfluidic-Single Cell Imaging Platform for Rapid Antibiotic Susceptibility Testing | Prof. Ravikrishnan Elangovan (PI) Prof. Vivekanandan Perumal (KSBS) (co-PI) | DST |

The above projects were circulated to members. As no comments were received, the projects were forwarded to the concerned authorities, and the item was ratified.

The meeting ended with a vote of thanks to the Chair.

A handwritten signature in cursive script, appearing to read 'LeD'.

Lucinda E. Doyle
DRC Convenor