

Department of Biochemical Engineering and Biotechnology
Departmental Research Committee Minutes
(DRC-1/2022-2023)

10 Oct 2022

The first meeting of the Departmental Research Committee for the academic session 2022-2023 was held on Friday, October 7, 2022 at 3:30 pm in the Committee Room of the Department.

The following members were present:

Prof. Prashant Mishra (Chairperson)
Prof. Ritu Kulshreshtha
Prof. Shilpi Sharma
Prof. K.J. Mukherjee
Prof. Preeti Srivastava
Prof. Shaikh Z. Ahammad
Prof. Ishaan Gupta
Prof. Kumari Priti Sinha
Prof. Lucinda Elizabeth Doyle (Convenor)

1. Confirmation of the minutes of the 13th meeting of the DRC for the session 2021-22 held on 3 August 2022.

The minutes were confirmed as circulated.

2. Matters arising from the minutes of Meeting No. 13/2021-22.

Item no. 5: It was noted that the defence of Ms Swati Varshney (2016BEZ8325) has already been conducted, hence no change in SRC composition is required.

3. Change in SRC composition for Ms Shivani Khatri (2017BEZ8287), Ms Ritu Bharadwaj (2016 BEZ8007) and Ms Shabnam Parwin (2018BEZ8441).

The Committee approved the following changes:

- Prof. Prashant Mishra as the new Chairperson in place of Prof. Saroj Mishra for the SRC of Ms Shivani Khatri (2017BEZ8287).
- Prof. Shilpi Sharma as the new Chairperson in place of Prof. Saroj Mishra for the SRC of Ms Ritu Bharadwaj (2016 BEZ8007).

- Prof. Lucinda E. Doyle as the new Chairperson in place of Prof. Saroj Mishra for the SRC of Ms Shabnam Parwin (2018BEZ8441).

4. Formation of SRC for Ms Archana V (2022BEY7568).

The Committee approved the following SRC composition: Prof. Preeti Srivastava (Supervisor), Prof. Shilpi Sharma (Chairperson), Prof. Lucinda Elizabeth Doyle (Expert-1) and Prof. Ritu Kulshreshtha (Expert-2).

5. Request of Prof. Ravikrishanan Elangovan to provide stipend for PhD student Ms Shefali Singh (2016BEZ8558) from project funds from April-Nov 2022 was discussed and the Committee approved the request.
6. Request of Aratrika Ghosh (2020BEZ8512) for approval to visit Helmholtz-Zentrum Hereon, Geesthacht, Germany as Research Associate from 1.11.2022 - 30.09.2023 as part of her PhD work was discussed and based on the recommendation of the student's SRC, the Committee approved the request.
7. Request to approve stipend payment to Ph.D. student Ms. Soumya Rajpal (2017BEZ8291) from the ongoing IRD project of Prof Prashant Mishra was discussed and the Committee approved the request.
8. Request of Jaykumar Patel (2021BEZ8007) to attend 4th IBSE international symposium on "Microbiomes in Environment, Space and in Human Health" at Indian Institute of Technology Madras from 31th October to 2nd November, and to avail DBT-JRF contingency for the registration fee and TA/DA was discussed and the Committee approved the request.
9. Approval of synopsis of MSR and PhD students
- a. The Committee discussed and based on the recommendation of SRC, approved the synopsis of the MSR thesis entitled "Investigating The Role Of CKS2 In Meningioma Pathogenesis" submitted by Ms Anuja Sharma (2020BEY7604). The Committee also approved the panel of Examiners and authorised the Chairperson to forward the same to Dean (Academics).
- b. The Committee discussed and based on the recommendation of SRC approved the synopsis of the PhD thesis with the revised title as "Total internal reflection-based fluorescence and scattering imaging for biological applications" submitted by Ms Arti Tyagi (2017BEZ8290). The Committee also approved the panel of Examiners and authorised the Chairperson to forward the same to Dean (Academics).
10. Discussion of the number of PhD students for December intake, plus qualifying criteria. It was decided to hold the PhD admissions process on Dec 1st and 2nd, 2022.

11. Approval of Plan of Work of PhD students

- a. Plan of work of Mr. Abhilash Dasari (2020BEZ8510) for his thesis entitled “Dissecting the role of alternative splicing in respiratory and hepatobiliary pathologies” was approved based on recommendation by the student’s SRC.
- b. Plan of work of Mr. Nirmal Singh Mahar (2020BEZ7518) for his thesis entitled “Generating high quality genome assemblies and annotations to enhance the speed, resolution, and dynamics of genomic assays” was approved based on recommendation by the student’s SRC.
- c. Plan of work of Ms. Monika Lutrha (2020BEZ8518) for her thesis entitled “Electroactive India: profiling electrochemically-active microorganisms from across the subcontinent” was approved based on recommendation by the student’s SRC.
- d. Plan of work of Ms. Juwayria (2020BEZ8514) for her thesis entitled “Understanding the role of the microenvironment in lung and liver functioning” was approved based on recommendation by the student’s SRC.
- e. Plan of Work of Ms. Deeksha Jain (2020BEZ8634) for her thesis entitled “Deciphering the Mechanism of Regulation of the dsz Operon of Biodesulfurization” was approved based on recommendation by the student’s SRC.
- f. Plan of Work of Ms. Shreyoshi Karmakar (2021BEY7568) for her thesis entitled “Development of genome editing tools for *Gordonia* sp. IITR100” was approved based on recommendation by the student’s SRC.
- g. Plan of Work of Ms. Bhavika Mahajan (2021BEY7571) for her thesis entitled “Development of automated smear preparation and staining device for liquid based cervical cytology” was approved based on recommendation by the student’s SRC.

12. Matters for ratification

- a. DRC approval of request of Nirmal Singh Mahar (2020BEZ7518) for exemption from HUL800 Research Writing

Request was previously circulated to DRC members via email for comments. Based on the recommendation of the student’s SRC, the Chairperson approved and subsequently forwarded the request to Dean Academics. The matter was ratified.

b. Recommendation for FITT award

Nominations for the FITT award were sought via email. The nomination of Dr. Arif Nissar Zarger (2016BEZ7504) for the FITT award for best industry relevant PhD project was received and circulated to DRC members for their comments and subsequently forwarded with Chairperson approval. The matter was ratified.

c. Project proposals submitted by faculty members

S. No.	Project Name	Investigator	Funding Agency
1.	Automated molecular assay for screening and confirmation of Tuberculosis infection in low resource	Prof. Ravikrishanan Elangovan (PI) Seyed E. Hasnain (co-PI)	Sree Padmavaty Venkateshwara Foundation
2.	To establish a model to study pre-term birth using <i>Drosophila melanogaster</i> and identify potential biomarker for early detection of preterm birth.	Nidhi Krishna Shrivastava (applicant) Prof. Ishaan Gupta (mentor)	Early Career Fellowship Program of India Alliance (DBT-Wellcome Trust)
3.	BACTERINA (Studying BACTERia and the role of Reelin IN Alzheimer's disease)	Prof. Ishaan Gupta (PI) Vanessa Hall, Wai-Hong Tham, Amanda Boyle	Human Frontier Science Program
4.	Employing spray induced gene silencing (SIGS) for the management of <i>Fusarium</i> wilt in pigeonpea.	Pashupat Vasmatkar (applicant) Prof. Shilpi Sharma (mentor)	UGC
5.	Developing "biological soil health card" to characterize arable lands for agricultural sustainability	Annapurna Bhattacharjee (applicant) Prof. Shilpi Sharma (mentor)	UGC
6.	NanoMIP integrated microfluidic diagnostic platform for stroke biomarker detection	Deepika Chauhan (applicant) Prof. Prashant Mishra (mentor)	UGC
7.	Dielectrophoresis assisted rapid detection of persister bacteria at single cell level	Pragya Swami (applicant) Prof. Prashant Mishra (mentor)	UGC

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

10. Any other matters, with permission of the Chair.

A request was received from Mr. Shubham Dubey (2017BEZ7534) to avail of RETA award and apply for Ex-India leave from 10-22 November 2022 to attend CPH Bioscience Conference in Denmark was discussed and the Committee approved this request.

Meeting ended with a vote of thanks to the Chair.

A handwritten signature in black ink, appearing to read 'LeDo', is positioned above the printed name.

Lucinda E. Doyle
DRC Convenor