

Department of Biochemical Engineering and Biotechnology
DRC Meeting No. 5 (2022-2023)

The fifth meeting of the Departmental Research Committee for the academic session 2022-2023 was held on 11th April 2023 in the DBEB Committee Room at 3.30 pm.

The following members were present:

Prof. Prashant Mishra (Chairperson)
Prof. Ritu Kulshreshtha
Prof. K.J. Mukherjee
Prof. Preeti Srivastava
Prof. Ravikrishnan Elangovan
Prof. Kumari Priti Sinha
Prof. Lucinda Elizabeth Doyle (Convenor)

1. Confirmation of the minutes of the 4th meeting of the DRC for the session 2022-23 held on 23rd Feb 2023.
The minutes were confirmed as circulated.
2. Matters arising from the minutes of Meeting No. 4/2022-23.
None.
3. Discussion on PhD, MSR and M.Tech selection
The committee discussed the upcoming selections and reserved 22 and 23 May for conducting the PhD entrance exam and interviews. The committee reserved 24 May for conducting MSR interviews.
4. Synopsis of students:
 - a. The Committee discussed and based on the recommendation of SRC, approved the synopsis of the PhD thesis with the title “Leveraging representation learning for drug discovery” submitted by Yogesh Kalakoti (2018BEZ7512) (Supervisor: D. Sundar). 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 title “Mechanistic insights and therapeutic potential of natural compounds” submitted by Vipul Kumar (2018BEZ7509) (Supervisor: D. Sundar). The Committee also approved the panel of Examiners and authorised the Chairperson to forward the same to Dean (Academics).
5. Student requests
 - a. Request of Debasa Mukherjee (2019BEZ8667) to avail of RSTA award to attend Electromicrobiology 2023, Center for Electromicrobiology Aarhus University, Denmark, 24 - 26 May 2023, and request for Ex-India leave from 22 May - 2 June

2023 for the same. (Supervisor: LED)

[The matter was discussed and the Committee approved the request.](#)

- b. Request of Shriya Grover (2022BEZ8359) to utilise contingency for registration to attend International Conference on Nanomaterials for Electrocatalysis Technology, IIT Delhi, 20-22 March 2023. (Supervisor: LED)

[The matter was discussed and the Committee approved the request.](#)

- c. Request of Soumya Rajpal (2017BEZ8291) to apply for RETA award to attend Seventh International Symposium Frontiers in Polymer Science, Gothenburg, Sweden, 29 May - 1 June 2023 and Ex-India leave from 26 May - 2 June 2023 for the same. (Supervisor: PM)

[The matter was discussed and the Committee approved the request.](#)

- d. Request of Navodit Kumar Singh (2016BEZ8009) to avail RSTA award to attend International Summer School 2023, Bioeconomy Science Center, Julich, Germany, 7 - 12 May 2023. (Supervisor: TRS + AKS)

[The matter was discussed and the Committee approved the request.](#)

- e. Request of Deepchandra Joshi (2018BEZ8240) to avail RSTA award to attend International Symposium on Plasma Chemistry (ISPC), Kyoto, Japan, 21-26 May 2023. (Supervisor: TRS)

[The matter was discussed and the Committee approved the request.](#)

- f. Request of Soumya Sahai Saxena (2021BEZ8009) to visit NCCS, Pune from 20 March to 20 June 2023 as part of PhD work. (Supervisor: SS)

[The matter was discussed and the Committee approved the request.](#)

- g. Request of Ritu Bhardwaj (2016BEZ8007) to avail of RSTA award to attend 13th International Nanomedicine Conference, Sydney, Australia, 19 - 21 June 2023 and for Ex-India leave from 16 - 25 June 2023 for the same (Supervisor: PM)

[The matter was discussed and the Committee approved the request.](#)

- h. Request of Khadeeja Parveen (2020BEZ8515) to avail Ex-India leave from 17 April - 2 May 2023 to visit Abu Dhabi, UAE.

[The matter was discussed and the Committee approved the request.](#)

- i. Request of Indranil Mondal (BEZ178286) to avail of leave from 17 - 31 May 2023 (Supervisor: RK)

[The matter was discussed and the Committee approved the request.](#)

6. Matters for ratification

- a. Project proposals submitted by faculty members.

S. No.	Project Name	Investigator	Funding Agency
1.	Climate change and increased disease burden from wastes	Prof. Shaikh Ziauddin Ahammad	Wellcome Trust
2.	Development of a method	Prof. Shilpi Sharma	CSIR

	for storing soil microbiome in its matrix for retaining its functionality: A step towards agricultural (and environmental) sustainability		
3.	Deciphering the molecular mechanisms of hypoxia-associated aggressiveness in meningioma	Prof. Ritu Kulshreshtha	DBT (LOI)
4.	Identification and characterization of microRNA signatures in distinct micro-niches of glioblastoma due to differential perfusion	Prof. Ritu Kulshreshtha (PI); Dr. Saran Kumar (KSBS), Dr. Sujata Mohanty (AIIMS) (co-PIs)	SERB
5.	Advancing Water Quality Monitoring: Development of a Bioelectrochemical Sensor as an Early Warning System	Prof. Lucinda Elizabeth Doyle (PI); Prof. Rahul Mishra (CARE) (co-PI)	SERB
6.	Harnessing the indigenous microbiome from Indian tea varieties for enhanced plant growth	Dr Abhrajyoti Ghosh (Bose Institute) (PI); Prof. Shilpi Sharma; Avinash Sharma (NCCS) (co-PIs)ww	SERB
7.	Microbiome-based soil transformation (BioTransform) for disease suppressiveness: Targeted engineering for agricultural sustainability	Prof. Shilpi Sharma	NYAS
8.	Small molecule inhibitors and chemotherapeutic drug co-loaded cubosome nanocarrier: A targeted combination approach for effective treatment of metastatic triple negative breast cancer.	Prof. Prashant Mishra, Dr. Arindam Prama	DBT (LOI)
9.	Oral microbiome as a predictor of eventual progression of chronic liver	Dr. Chhagan Bihari (PI),; Prof. Ishaan Gupta, Dr. Shiv Sarin, Dr. Sukriti,	SERB

	disease	Dr. Shiv Mudgal (co-PIs)	
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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.

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

A request was received from Prof. Ravikrishnan Elangovan to appoint Prof. Kumari Priti Sinha as co-supervisor of M.Tech student currently under his supervision, Shivam Kumar (2022BEM2408). The Committee approved the request.

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



Lucinda E. Doyle
DRC Convenor