

**Department of Biochemical Engineering and Biotechnology**  
**Minutes of DRC meeting**  
(DRC-4/2020-2021)

Dated: 12<sup>th</sup> Jan 2021

The fourth meeting of the Departmental *Research Committee* (DRC) for the academic session 2020-2021 was held on 6 Jan 2021 at 12 PM by video conferencing.

The following members were present:

Prof. Shilpi Sharma (Chairperson)

Prof. T. R. Sreekrishnan

Prof. D. Sundar

Prof. Ritu Kulshrestha

Prof. Preeti Srivastava

Prof. Rohan Jain

Prof. I. Gupta (Convenor)

1. To confirm the minutes of the 3<sup>rd</sup> meeting of the DRC for the session 2020-2021 held on 18<sup>th</sup> Nov 2020.

The minutes were confirmed as circulated except the following:

Agenda item 10 - Project 5 titled "Economic production of and validation of RT LAMP enzymes in the diagnosis of plant viruses" was submitted by Dr. Raja Muthuramalingam (not Dr. Allanki Sai Swaroop) under the mentorship of Prof R. Elangovan .

2. To report the matters arising from minutes of Meeting No. 03/2020-2021
  - With respect to Agenda item 3, Prof. Atul Narang withdrew the PhD project from the PhD selection, Sem 2, 2020-21.

### 3. Synopsis by MS(R) students

Name of student	Title of thesis
Aditi Keshav, 2018BEY7514	Deciphering the mechanism of regulation of <i>dsz</i> operon
Praveen Kumar Singh, 2018BEY7513	Study of role of key nutrients on copolymer production from gaseous substrates (methane and air)
Nidhi Solanki, 2018BEY7508	Investigating the role of G-quadruplexes in regulation of miRNAs

The Committee discussed and approved the synopsis of the three students. The Committee also approved the panel of Examiners and authorized the Chairperson to forward the same to Dean Academics.

(Action: Theses supervisors to send the following documents to the DRC Convener:

(a) Filled-in form for MSR synopsis submission & Appointment of Examiners (b) 2 hard copies of the Synopsis and (c) soft copy of the Synopsis by email)

### 4. Plan of Work of Ph.D. students:

(a) Shabnam Parwin, 2018BEZ8441

(b) Debashree Kar, 2018BEZ8437

(c) Salina Tigga, 2018BEZ8439

(d) Sidra Ghazali Rizvi, 2018BEZ8442

The dates of Paper II of written comprehensive examination and Oral comprehensive examination of the students was recorded, and Plan of Work approved based on recommendations by the members of SRC. (Annexure 1)

(Action: Chairperson DRC to forward the Form w/ enclosures to Dean Academics)

5. Modification of SRC for Ngangom Pravina Devi, 2016BEZ8008

In view of the recent superannuation the SRC for Ngangom Pravina Devi was revised as follows: Atul Narang (Chairperson), Preeti Srivastava (Internal Expert), Ali Haider (ChE) (External Expert), Ashish Misra (Supervisor).

6. Constitution of SRC of PhD and MSR students (Entry Sem I, 2020-21)

The committee approved the SRC composition of two Ph.D. students as below:

Student name	Project	Supervisor	Internal expert	Chair-person	External expert
Akshay Lohakare 2020BEZ8511	Effect of gene dosage on expression and secretion of recombinant protein in <i>Pichia pastoris</i>	AN	IG	PS	Y. Khasa, Univ. of Delhi, South Campus
Subhashree Pagal 2020BEZ8524	Kinetics of recombinant protein synthesis on mixtures of carbon sources in <i>Pichia pastoris</i>	AN	AM	PS	Y. Khasa, Univ. of Delhi, South Campus

The committee approved the SRC composition of MSR students (Entry Sem 1, 2020-21) as Annexure 2.

It was decided to include another expert in SRCs of MSR students (Entry Sem 1, 2019-20) as per Institute's ordinance for MSR programme.

7. Synopsis of PhD student Upma Singh (2015BEZ8004) for her thesis entitled "Engineering of the rhizospheric bacterial community structure and function by agri-management practices – A metaorganism based approach"

The Committee discussed and approved the synopsis. The Committee also approved the panel of Examiners and authorized the Chairperson to forward the same to Dean Academics.

(Action: Theses Supervisor to send the following documents to the DRC Convener: (a) Filled-in form for Ph.D. synopsis submission & Appointment of Examiners (b) 2 hard copies of the Synopsis and (c) soft copy of the Synopsis by email)

8. Comprehensive examination (Paper I) of Ph.D. students held on 21<sup>st</sup> Dec 2020

The following students were declared to have passed Paper I of written comprehensive examination held on 21<sup>st</sup> Dec 2020:

Aastha Singh, 2019BEZ8182

Nidhi Patil, 2019BEZ8669

Rahul Gupta, 2019BEZ8186

Rewati Dixit, 2019BEZ8187

9. Project entitled "Microbial metabolic engineering" floated by Prof Ashish Misra for Ph.D. students of Sem II, 2020-2021 entry.

The committee recommended the PI to revise the proposal with more focussed objectives and workplan.

#### 10. Status of SRC meetings for PhD Students

[https://docs.google.com/spreadsheets/d/1WxKIKLn0kpT11nfg6r\\_dtL7WC79G3rliLVFG2NC6J7U/edit#gid=0](https://docs.google.com/spreadsheets/d/1WxKIKLn0kpT11nfg6r_dtL7WC79G3rliLVFG2NC6J7U/edit#gid=0)

The committee was apprised of the status of SRC meetings of departmental PhD students. It was reiterated that atleast one SRC meeting annually to review the student's progress is mandatory for departmental Ph.D. students.

11. Request by Ms. Swati Varshney, 2016BEZ8325, Ph.D. Scholar from the department for advance release of stipend against her DST INSPIRE fellowship.

The committee recommended forwarding the request

12. Request by Mr. Parveen Kumar Singh, 2018BEY7513, to convert to part time MS(R), while seeking permission to join Biocon as Senior Scientist.

In view of his recruitment at Biocon the committee recommended forwarding the request received from Parveen Singh for conversion to part time MS(R). He will be required to deposit the semester fees as per Institute norm.

13. Request by doctoral student Arif Nissar Zargar, 2016BEZ7504, for the release of fellowship from 10.1.2020 to 25.10.2020.

The request put forth by Ph.D. student Arif Nissar Zargar (2016BEZ7504) for availing UGC fellowship from Jan 2020 to October 2020 during his stay at DTU, Denmark was recommended by the committee in view of the high cost of living in Denmark. However, students were advised to seek such approvals, with a request forwarded through their respective supervisors, well in advance of availing the ex-India leave.

14. To report the matters for ratification by the DRC.

(a) Project proposals submitted by departmental faculty

S.No.	Project Name	PI	Funding Agency
1	RIVERINE: Driving an agricultural water economy by riverbank filtration to manage water quality and recover resources for farmer communities along rivers	Shaikh Ziauddin Ahammad	DST
2	Exploiting principles of growth on complementary mixtures to improve biofuel and biopolymer production	Atul Narang	DBT
3	Engineering rhizosphere microbiota for enhanced resistance to plant disease and human pathogens through compost amendments	Shilpi Sharma	CEFIPRA
4	Surveillance and mitigation to combat AMR related to discharges from the antimicrobial	Shaikh Ziauddin Ahammad	RED-ICARS

	manufactory		
5	Design of an electroactive microbial community for deployment in microbial electrolysis cells for hydrogen production	Lucinda Elizabeth Doyle	ReNew Power Centre of Excellence
6	Torrefaction based technology for the recovery of torrefied biomass, furfural and acetic acid from agriculture wastes	Rohan Jain	DST
7	Rhizosphere engineering by domestication of microbiome for mitigation of salinity stress	Shilpi Sharma	SERB

The above projects were circulated to members, since no specific comments were received the projects were forwarded to Dean IRD and the item was ratified.

15. Any other item with the permission of Chair

\* The committee recommended the extension of synopsis submission deadline to 15<sup>th</sup> Feb 2021 by Syad Shefrin, 2018BZ8440 upon the supervisor's request.

\* The committee recommended that "MSR students" should present their Plan of work presentation in front of their SRC within 1 year of joining the programme.

The meeting ended with thanks to all the members.



Ishaan Gupta  
Convenor, DRC

**Distribution:** DBEB faculty (by email)

**Annexure 1**

<b>Name of student</b>	<b>Title of thesis</b>	<b>Date of Paper 2, written comprehensive examination</b>	<b>Date of Oral comprehensive examination</b>
Shabnam Parwin, 2018BEZ8441	Molecular events responsible for switching of cell shape with respect to cell cycle in <i>Rhodococcus erythropolis</i> PR4	2.12.2020	21.12.2020
Debashree Kar, 2018BEZ8437	Design and development of detection system of nucleic acid markers for prostate cancer	3.11.2020	30.12.2020
Salina Tigga, 2018BEZ8439	Reducing the burden of AMR caused by animal farms	21.12.2020	23.12.2020
Sidra Ghazali Rizvi, 2018BEZ8442	Tracking AMR in water bodies	21.12.2020	23.12.2020

## SRC composition of MSR students, Entry Sem 1, 2020-21

Name	Title	Supervisor	Chairperson	Expert 1	Expert 2
Anshul Budhraj 2020BEY7515	Optimize the isolation of non-membrane bound organelles: Assembliesomes	IG	D. Sundar	R. Kulshreshtha	S. Minocha, KSBS
Nabamita Nandi 2020BEY7516	Explore the use of formate to induce AOX1 promoter of <i>Komagataella phaff</i> ( <i>Pichia pastoris</i> )	AN	A. Mishra	T.R. Sreekrishnan	K.J. Mukherjee
Nandita Fuloria 2020BEY7517	Identification and production of siderophores that can selectively and sensitively bind to rare earth elements	RJ	T.R. Sreekrishnan	K.J. Mukherjee	Ashish Mishra
Nirmal S. Mahar 2020BEY7518	Assembly of Human Mitochondrial Genome	DS & IG	S. Sharma	Preeti Srivastava	Ashok Patel, KSBS
Rhythm Sardana 2020BEY7519	Catabolite repression in continuous cultures of <i>Escherichia coli</i> growing on a mixture of glucose + lactose	AN	A. Mishra	Preeti Srivastava	Shaunak Sen, Elect Engg
Shubham Sharma 2020BEY7520	Engineered antibacterial nanomaterial based hydrogel scaffold for chronic wound healing	PM	Preeti Srivastava	L. E. Doyle	Jayanta Bhattacharya, CBME
Anuja Sharma 2020BEY7604	Investigating the role of non-coding RNAs in meningioma pathogenesis	RK	D. Sundar	V. Perumal, KSBS	P. Srivastava
Qazi Noorul Mateen 2020BEY7605	Development of in-house kit for inexpensive DNA sequencing	IG	K.J. Mukherjee	R. Kulshreshtha	D. Sundar