

Department of Biochemical Engineering and Biotechnology
DRC MEETING NOTICE
(DRC-04/2015-2016)

March 21st, 2016

The fourth meeting of *Departmental Research Committee* (DRC) for the academic session 2015-2016 was held on **Wednesday, March 2nd, 2016** at **10:30 AM** in the Committee Room (I- 230) of the Department.

The following members were present:

Prof. Prashant Mishra (*Chairman*)

Prof. V. S. Bisaria

Prof. T. R. Sreekrishnan

Prof. A. K. Srivastava

Prof. Atul Narang

Dr Ritu Kulshreshtha

Dr. Shilpi Sharma (*Convenor*)

1. To confirm the minutes of the 3rd meeting of the DRC for the session 2015-2016 (*DRC-03/2015-2016*) held on Jan 27, 2016

The minutes of 3rd meeting of DRC 2015-16 held on 27th Jan 2016 were confirmed as circulated.

2. To report the matters arising from minutes of Meeting No. 02/2015-2016 and action taken.

Item # in DRC Meeting No. 03/2015-2016	Brief description	Gist of the decision of the DRC	Action taken / Present status
3	Projects for PhD students admitted in Sem II, 2015-16	Approved	Preferences sought
4	Formation of Student's Research Committee (SRC)	Approved	Forms of Ashish Lohar, Upma Singh, and Deepak K. Prasad sent to Dean PGS&R
5	Plan of work of Ph.D. student Ankur Kumar	Approved	Forwarded to Dean PGS&R
6	Plan of work of Ph.D. student Omkar S. Vinchure		Forwarded to Dean PGS&R
7	Allotment of MTP topics to students for Sem II, 2015-2016	Allotted	
9	Synopsis of Mr. Anees Kaprakkaden	Approved	Forwarded to Dean Academics
14ii	Ms. Shilpi Jain's request for conversion of full-time PhD to part time	Approved	Forwarded to Dean Academics
14iii	Mr. Sunil Kumar's request for extension of Institute assistantship for one semester	Approved	Forwarded to Dean Academics

3. Allotment of Ph.D. topic to students admitted in Sem II, 2015-16
Students were allotted Ph.D. topics as per Annexure 1.

4. Allotment of MTP topic to students starting in Sem I, 2016-17
Students were allotted MTP topics as per Annexure 2.

5. Synopsis of the following PhD theses:

Student	Entry No	Title
Akanksha Mehrotra	2011BEZ8222	Energy neutral thermophilic sludge digestion and metal leaching process
Pragya	2011BEZ8226	Response of hybrid anaerobic reactor to waste water toxicity

Based on the recommendations of the SRC, the Committee discussed and approved the synopsis submitted by Ms Akanksha Mehrotra (2011BEZ8222) and Ms Pragya (2011BEZ8226). The Committee also approved the panel of Examiners for the two theses and authorized the Chairman to forward the same to Dean Academics.

(Action: 1. Supervisor to send the following documents to the DRC Convenor-
(a) Filled-in form for PhD synopsis submission & Appointment of Examiners, (b) 2 hard copies of the Synopsis and (c) soft copy of the Synopsis on CD and by email
(Action 2: Upon receipt of the above documents, Chairman DRC to forward it to Dean Academics)

6. Report on Comprehensive Examination and Approval of Research Plan of Ms Vidhi Malik (2014BEZ8267)

Based on the recommendation of the student's SRC, Ms Vidhi Malik's plan of work was approved.

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

7. Proposal entitled "Membrane Technology for Clarification of Sugar Cane Juice" submitted by Prof. G. P. Agarwal for submission under Uchchar Avishkar Yojana

The Committee ratified the submission of the project proposal. Since no specific comments were received from the members after circulation on the proposal, the Chairman DRC has already forwarded proposal to Dean IRD.

8. Admission for Ph.D. programme (Sem I, 2016-17)

The dates for written test and interview for admission to departmental Ph.D. and MSR programme for entry in Semester I, 2016-17 was finalised as 18th and 19th May 2016. The eligibility criteria for the selection was proposed to be finalised in the next DFB meeting.

9. Proposal entitled "Pilot project on development of an economical, eco-friendly and energy efficient process for production of ethanol from lignocellulosic biomass" submitted by Dr Z. Ahammad and Prof. P. K. Roychoudhury for GAIL

The above project was discussed and members raised certain issues related to the feasibility of project, and logistics of housing 1000 L fermenter. The Chairman was authorized to seek clarifications before forwarding the proposal to Dean IRD.

10. Proposal entitled "Metabolic engineering of *Bacillus subtilis* and *Zymomonas mobilis* for the production of high value isoprenoid compounds" submitted by Dr. A. Misra for submission to DST.

The above project was circulated to members, since no specific comments were received from the members on the proposal, the project was forward to Dean IRD and item was ratified in DRC.

11. Results of comprehensive examination held in Jan 2016

Based on the marks obtained by students in written comprehensive examination held in January 2016 Aditya Prakash Soni (2014BEZ8264), Pooja Murarka (2014BEZ8265), Vidhi Malik (2014BEZ8267)

Sonia Gupta (2014BEZ8391), Deepak Kumar Prasad (2015BEZ8001), and Upma Singh (2015BEZ8004), were declared to have passed the same

12. Discussion on email received from Dr. Sundar and request from Chandel Angad Singh (2011BB50013) regarding MTP topic

In view of the requests by Dr. D. Sundar and Chandel Angad Singh regarding allotment of a fresh topic for his MTP, the committee decided that the student be asked for choice of project from the list of DRC approved projects that are currently available.

13. Selection of Ph.D. candidate from project staff

In view of receipt of three applications, the interview for selection of Ph.D. candidate from project staff was scheduled for Wednesday, 30th March 2016, at 12 noon in the next DRC meeting. Convenor was requested to send interview letters to the candidates. *(Action: Convenor, DRC)*

14. Request received from Ph.D. student, Anamika (2011BEZ8228), for extension of assistantship beyond Dec 2015.

Anamika Singh's (2011BEZ8228) request for extension of Institute assistantship for one semester, starting from Jan 2016 was considered favourably.

(Action: Chairperson to forward the request to Dean Academics)

15. Matters for information

As per a notification received from Dean Academics, departmental alumnus Dr. Rashi Gupta was selected for Award of distinction in Doctoral research, 2013-14. The award will be conferred on 6th April 2016, Research Scholar's Day.

16. Any other item with the permission of Chair

The committee decided that departmental Ph.D. students who have completed (or are nearing completion of) three years in the Ph.D. programme are required to deliver mid-term presentation on their doctoral work as a departmental seminar open to all. This is compulsory for all students of **Entry year 2013** onwards, before the submission of their synopsis.

(Action: Departmental Seminar I/c to coordinate the seminars)

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

Shilpi Sharma
(Convenor)

Distribution

All DRC members and other DBEB faculty (by email)

Cc: DRC File

ANNEXURE 1**Allotment of topics to departmental PhD students, Sem II, 2015-16**

Student	Title	Supervisor
Jananee Jaishankar 2015BEZ8350	Isolation and characterization of promoters from <i>Gordonia</i>	P. Srivastava
Rishabh Shukla 2015BEZ8351	Efficiency comparison of conventional wastewater treatment systems in removing emerging pollutants	Z. Ahammad
Rabab Anjum 2015BEZ8352	Scale up of mass scale production of shikimic acid (raw material for TAMIFLU) by Plant Cell Cultures	A. K. Srivastava
Srishti Srivastava 2015BEZ8353	Investigating the role of mediator complex in cancer	R. Kulshreshtha
Manju 2015BEZ8354	Evaluation of laccase variants for degradation of complex dyes	S. Mishra & P. Srivastava
Rohit Khandelwal 2015BEZ8355	Improved production of malic acid by redirection of cellular metabolism in a suitable bacterial host	P. Srivastava & V. S. Bisaria
Nudrat Huda Khan 2015BEZ8356	Isolation and detection of rare cells on Lab on chip device	R. Elangovan
Arun Thapa 2015BEZ8357	Engineering <i>Zymomonas mobilis</i> for the production of high value isoprenoids	A. Misra
Shashi Kumar 2015BEZ8358	High Cell Density Microbial Cells for Ethanol Fermentation from biomass hydrolysate	T. R. Sreekrishnan & G. P. Agarwal

Allotment of topics for MTP, Sem I, 2016-17

S. No.	Student	Topic	Faculty
1.	Aayushi Singhal	Mass production of shikimic acid using inert solid supports.	AKS
2.	Chirag Mittal	Mass production of azadirachtin using inert solid supports	AKS
3.	Meenakshi Saranga	Bio-sorption of heavy metals using hairy root cultures	AKS, TRS
4.	Yoshita Agrawal	Production of bio-polymer using air lift reactor with cell retention	AKS
5.	Shenoy Rutha Ratnakar	Biopolymer for therapeutic	AKS
6.	Aashika Shekhar	Overcoming catabolite repression in <i>P.stipitis</i>	AN
7.	Annie Godara	Production of the platform chemical 6-pentyl pyrone	AN
8.	Malay Shah	Development of a starvation promoter for recombinant protein synthesis	AN
9.	Rohit Kumar Agarwal	Clarification of sugar cane juice via microfiltration and ultrafiltration ¹	GPA
10.	Mayank Kumar Sahu	Fouling studies during microfiltration and ultrafiltration of treated waste water ¹	GPA
11.	Tushar Thote	Use of nanofiltration for converting xylose & glucose into ethanol using yeast strains ¹	GPA
12.	Divyansh Apurva	Concentration of clarified sugar cane juice using nanofiltration and reverse osmosis ¹	GPA
13.	Rahul Kumar	Revisiting the characterization & annotation of <i>Saccharomyces cerevisiae</i> genes ²	GPA
14.	Abhay Tanksali	Membrane Bioreactor (MBR) for waste water treatment ³	GPA
15.	Atul Verma	Anaerobic and aerobic digestion of stillage from distillery ³	GPA
16.	Rishabh Mathur	Preparation and characterization of drug loaded BSA nanoparticles	PM
17.	Nikhil Patidar	Preparation and characterization of bimetallic nanoparticles	PM
18.	Yash Kumar Bhati	Preparation of magnetic nanoparticle coated bacteria	PM
19.	Gunjan Gupta	To engineer Fructosyl Amino acid Oxidase	PS
20.	Ankit Dutt	Detection of rare cells in blood	RE
21.	Vasu Jaiswal	Identification of key molecules involved in cancer using TCGA analyses ²	RK
22.	Deependra Kushwah	Elucidation of regulation and functions of a microRNA in glioblastoma	RK
23.	Aashima Goyal	Investigating N-terminus residues in laccase functioning	SM
24.	Karishma Dagal	Biopreservative from <i>Lactobacillus</i> sp.	SS
25.	Abhineet Sain	Interaction of microbes with textiles	SS & DG (Textile)
26.	Roshi Raina	Biodegradation of xenobiotic compounds	TRS
27.	Gaurav Singh Choudhary	Application of nano cross-linked enzyme aggregates of cellulolytic enzymes in hydrolysis of lignocellulosic residues	VSB
28.	Aditi Mishra	Preparation of nCLEA of β -glucosidase and its application in production of Indigo	VSB
29.	G Vijay Kumar	Effect of interaction amongst <i>Azotobacter chroococcum</i> , <i>Bacillus megaterium</i> and <i>Pseudomonas fluorescens</i> on their plant growth promoting properties.	VSB, SS
30.	Shashank Yadav	<i>In-silico</i> analysis of antibiotic resistance genes	ZA, DS

¹ONLY for students who have done membrane course;²ONLY for students who have done BEL418 Bioinformatics;³ONLY for students who have done both membrane & waste-water treatment courses