

Department of Biochemical Engineering and Biotechnology
DRC MEETING NOTICE
(DRC-03/2015-2016)

Feb 22, 2016

The third meeting of *Departmental Research Committee* (DRC) for the academic session 2015-2016 was held on **Wednesday, Jan 27th, 2016** at **03:00 PM** in the Committee Room (I- 230) of the Department.

The following members were present:

Prof. Prashant Mishra (*Chairman*)

Prof. V. S. Bisaria

Prof. A. K. Srivastava

Prof. Atul Narang

Dr. D. Sundar

Dr. Preeti Srivastava

Dr. Shilpi Sharma (*Convenor*)

1. To confirm the minutes of the 2nd meeting of the DRC for the session 2015-2016 (*DRC-01/2015-2016*) held on Nov 23, 2015, and special DRC held on 20th Jan 2016.

The minutes of 2nd meeting of DRC 2015-16, and special DRC meeting held on 20th 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. 02/2015-2016	Brief description	Gist of the decision of the DRC	Action taken / Present status
6	Admission for Ph.D. programme (Sem II, 2015-16)	Approved	Interviews conducted on 15 th Dec 2015
8	Prof. T. R. Sreekrishnan to be included as co-supervisor for Ph.D. student Ms Sonia Gupta	Approved	Forms of Sonia Gupta and Aditya Soni sent to Dean PGS&R
12	Plan of work of Ph.D. student Sanjay Singh	Approved	Forwarded to Dean PGS&R
13	Progress of work of departmental doctoral students		Approved online
14	Application received by foreign student for Ph.D. under Self Financing Scheme.	Called for interview	Interviewed on 20.01.16 with QIP candidate
15	Allotment of MTP topics to students for Sem II, 2015-2016	Topics sought from faculty	For approval/ratification in 3 rd DRC meeting
16	Comprehensive exam scheduled for Jan 2016	Choices sought from students	Exam conducted on 21-22 nd Jan 2016
18	Synopsis of Mr. Satyendra Singh	Approved	Forwarded to Dean Academics

3. New projects floated by departmental faculty for Ph.D. students

Proposals for new projects floated by departmental faculty members was discussed and approved.

Final list of projects to be floated for Ph.D. students, based on faculty members' slot availability is given in Annexure 1. The convenor was authorized to collect preferences from the new Ph.D. students in two weeks from the date of floating the list of projects. (Action: Convenor, DRC)

4. Formation of Student's Research Committee (SRC) for the following PhD students: Ashish Lohar (2014BEZ7503), Upma Singh (2015BEZ8004), Deepak Kumar Prasad (2015BEZ8001)

The Committee discussed and constituted the SRC for Ashish Lohar (2014BEZ7503), Upma Singh (2015BEZ8004), Deepak Kumar Prasad (2015BEZ8001) (Annexure 2).

5. Report on Comprehensive Examination and Approval of Research Plan of Mr. Ankur Kumar (2014BEZ8001)

Based on the recommendation of the student's SRC, Mr Ankur Kumar's plan of work was approved.

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

6. Report on Comprehensive Examination and Approval of Research Plan of Mr. Omkar Suhas Vinchure (2014BEZ8003)

Based on the recommendation of the student's SRC, Mr Omkar Suhas Vinchure's plan of work was approved.

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

7. Project allotment to students starting MTP in Sem II, 2015-16 and constitution of their SRC

The Committee discussed and allotted projects to M.Tech students starting MTP part I in Sem II, 2015-16 and constituted their evaluation committees (Annexure 3).

8. Applications received from Mr Rahul Agrawal (2011BEZ8421) and Ms Khushboo Rastogi (2011BEZ8351) for Newton-Bhabha fellowship

The Committee after discussion ratified the submission of applications from Mr Rahul Agrawal and Ms Khushboo Rastogi for Newton-Bhabha fellowship. The Committee noted that since no specific comments were received from the members on the applications, the Chairman DRC had forwarded it for onward transmission to the funding agency.

9. Synopsis of the PhD thesis titled "Biosynthesis of aleuritic acid in India lac insect, *Kerria lacca* and its in vitro production" submitted by Mr Anees Kaprakkaden (2012BEZ8192)

Based on the recommendations of the SRC, the Committee discussed and approved the synopsis submitted by Mr. Anees Kaprakkaden. The Committee also approved the panel of Examiners for the thesis 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)

10. Proposal entitled "Functional and regulatory characterization of hypoxia regulated microRNAs and evaluation of their therapeutic and prognostic potential in glioblastoma" submitted by Dr Ritu Kulshreshtha for submission to DBT.

The Committee after discussion ratified the submission of the project proposal to DBT. The Committee noted that since no specific comments were received from the members on the proposal, the Chairman DRC had forwarded it on IRIS for onward transmission to the funding agency.

11. Constitution of SRC for MSR students.

The Committee discussed and constituted the SRC for MSR students admitted in Sem I, 2015-16 (Annexure 4).

12. Application received from Mr Shashank Katiyar for participation in 3rd AIST International Imaging Workshop 2016 in Tsukuba Japan.

The Committee after discussion ratified the application from Mr Shashank Katiyar for participation in 3rd AIST Imaging Workshop 2016 in Tsukuba, Japan.

13. Matters for information

- (a) Dr Sundar informed the committee of an invitation received from DBT to possibly start a 'Virtual Centre in Synthetic Biology'. This will be joint project between IITM, JNU and IITD. The participating investigators are: IIT Madras (Guhan Jayaraman), IIT Delhi (D. Sundar) and JNU (K J Mukherjee, Indira Ghosh and Pawan Dhar).
- (b) Chairperson apprised the committee of the acceptance of departmental research scholar, Ms Ria Banerjee's (2014BEZ8004) resignation by Deputy Registrar (PGS&R) w.e.f. from Dec 2015.
- (c) Convenor IBSC, Dr Preeti Srivastava, informed the committee that the Institutional Biosafety Committee is in the process of drafting a document with details specifying the kind of research that should be put forth the committee for approval before being approved by DRC. The document will be circulated to all faculty members once it is finalised.

14. Any other item with the permission of Chair

- i. The coordinator was requested to seek MTP topics from faculty members for allotment to students for Sem I, 2016-17, and then to collect preferences from the students
(Action: MTP Coordinator)
- ii. The committee after discussion approved the request by Ms Shilpi Jain (2010BEZ8159) for conversion of full time PhD to part time. *(Action: Chairperson to forward the request to Dean Academics)*
- iii. As per decision taken in 2nd DRC meeting (Item No 11), Mr Sunil Kumar's (2011BEZ8480) request for extension of Institute assistantship for one semester, starting from Jan 2016, was considered favourably in view of availability of slots after the selections made in Dec 2015. However, it was decided that the issue should be taken up for discussion in DFB for such requests in future. *(Action: Chairperson to forward the request to Dean Academics)*

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

Shilpi Sharma
(Member, officiating Convenor)

Distribution

All DRC members and other DBEB faculty (by email)

Cc: DRC File

ANNEXURE 1

Projects for PhD students

Faculty / Supervisor	S. No.	Project	Co-supervisor	Vacant slots
Prof. G. P. Agarwal	1	Production and purification of lipase using MF and UF membrane	P. Mishra	4
	2	Succinic acid production and its separation via nanofiltration	P. Srivastava	
	3	Protein transmission investigations through ultrafiltration for moderately high-pressure range (> 100 Kpa).	Ashish Mishra	
	4	Mixed sugars fermentation for alcohol production with the help of nanofiltration	Atul Narang	
	5	High Cell Density Microbial Cells for Ethanol Fermentation from biomass hydrolysate	T R Sreekrishnan	
Prof. V. S. Bisaria	1	Improved production of malic acid by redirection of cellular metabolism in a suitable bacterial host	P. Srivastava	1
Prof. S. Mishra	1	Strategies for improvement of human serum albumin production in <i>Pichia pastoris</i> (Available only for Part-Time PhD students)		2
	2	Evaluation of laccase variants for degradation of complex dyes	P. Srivastava	
Prof. A K Srivastava	1	Mass production of bio/copolymer using <i>Azohydromonas australica</i> & <i>A. eutropha</i> in novel reactor configurations.		1
	2	Production of biopolymers (PHB and its derivatives) from sulfite waste water		
	3	Scale up of continuous cultivation with cell retention for mass production of bio-pesticide (Azadirachtin) by Plant Cell Cultures		
	4	Scale up of mass scale production of shikimic acid (raw material for TAMIFLU) by Plant Cell Cultures		
Prof. Sunil Nath	1	Measurement of oxygen exchange by mass spectrometry for probing the mechanism of ATP synthesis by ATP synthase: A splendid molecular machine.	R. Elangovan	2
	2	Probing the mechanism of ATP synthesis	R. Elangovan	
Prof. P K Roychoudhary	1	Process optimization for bioconversion of rice straw to ethanol	P. Mishra	1
Prof P. Mishra	1	Engineering and nano-delivery of Azurin protein for cancer therapy		1
	2	Engineering of Lipase for their application in reigo and stereoselectivity		
Dr D. Sundar	1	Computational genome analysis		1
Dr S. Sharma	1	Understanding the interaction of bioinoculants applied as consortium		1
Dr R. Kulshreshtha	1	Investigating the role of mediator complex in cancer		1
Dr R. Elangovan	1	Isolation and detection of rare cells on Lab on chip device		4
	2	Visualizing processive molecular motors using single molecule fluorescence techniques		
Dr. P. Srivastava	1	Chromosome Segregation in <i>Rhodococcus erythropolis</i> PR4 (Available only for Part-Time PhD students)		3
	2	Engineering of Dibenzothiophene monooxygenase (DszC) for enhanced substrate range and improved activity		
	3	Isolation and characterization of promoters from <i>Gordonia</i>		
	4	Regulation of dsz operon		
Dr. Z. Ahammad	1	Efficiency comparison of conventional wastewater treatment systems in removing emerging pollutants		1
	2	Mitigating the risk of heavy metals and emerging contaminants	T R	

		in the environment	Sreekrishnan	
Dr Ashish Misra	1	Engineering <i>Zymomonas mobilis</i> for the production of high value isoprenoids		1

ANNEXURE 2

Student's Research Committee (SRC) for Ph.D. students

Student	Chairman, DRC or his nominee	One expert in the field from the department	One Institute faculty expert, preferably in the concerned area, from outside the department to which the student belongs	Supervisor
Ashish Lohar 2014BEZ7503	AN	ZA	Prof. B. J. Alappat, Civil, IITD	TRS
Deepak K Prasad 2015BEZ8001	AN	TRS	Dr. Arun Kumar, Civil, IITD	ZA
Upma Singh 2015BEZ8004	DS	PS	Dr. D. K. Singh, Delhi University	SS

ANNEXURE 3

Allotment of projects to MTP part I students, Sem II, 2015-16

Student	Entry No	Project	Supervisor	Internal expert
Jaiprakash	2011BB50051	Processing of fermented sweet sorghum hydrolysate	GPA	VSB
Ashish Nain	2011BB50007	Development of fluorescent assay for quantification of bacterial cell viability	RE	AM
Jasmeet Singh	2011BB50020	Performance comparison of tertiary treatment systems used in sewage treatment plants	ZA	TRS
Akhil Kumar	2009BB50003	Lignocellulose to bioethanol SHF conversion in continuous mode	PKRC & ZA	VSB
Chandel A. Singh	2011BB50013	NGS data analysis	DS	RK

ANNEXURE 4

Student's Research Committee (SRC) for M.S.(R) students

Student	Chairman, DRC or his nominee	One expert in the field from the department	Another faculty expert	Supervisor
Radhika Khera	TRS	PS		SM
Shikha Gupta	DS	PS	Dr. V. Perumal, KSBS	RK
Anjani Kumari	RK	RE		DS & Dr R Wadhwa
Kamakshi Gupta	TRS	AM	ZA	AKS
Gopal K. Roy	AKS	AM	ZA	TRS
Asmita Pandey	PM	MNG	Prof. S. K. Khare	VSB