

Department of Biochemical Engineering and Biotechnology

Minutes of the meeting of Departmental Research Committee (DRC) (DRC-05/2016-2017)

February 15, 2017

The fifth meeting of the *Departmental Research Committee* (DRC) for the academic session 2016-2017 was held on **Wednesday, February 15, 2017** at **12 noon** in the Committee Room (I-230) of the Department.

The following members were present:

Prof. T.R. Sreekrishnan (*Chairman*)
Prof. Atul Narang
Prof. Saroj Mishra
Prof. A.K. Srivastava
Prof. Prashant Mishra
Dr. Shilpi Sharma
Dr. Ritu Kulshreshtha
Dr. Preeti Srivastava
Dr. Ravikrishnan Elangovan
Dr. Ziauddin Shaikh Ahammad
Dr. Ashish Misra
Dr. D. Sundar (*Convener*)

Item No. 1 - To confirm the minutes of the 4th meeting of the DRC for the session 2016-2017 (DRC-04/2016-2017) held on January 02, 2017.

The Minutes of the DRC meeting No. 04/2016-2017 were confirmed as circulated.

Item No. 2 - Matters arising out of the minutes of DRC-04/2016-2017.

None

Item No. 3 – Allotment of M.Tech Major Project (MTP) for the dual degree students who have registered for BED853 in the current semester

Sl.	Entry Number	Student
1	2009BB50003	Akhil Kumar
2	2012BB50010	Ankit Dutt
3	2012BB50041	Nikhil Kanojia
4	2012BB50045	Avijeet Singh Jaswal

Based on the interest indicated by the students, the project allocation and evaluation committee was constituted as given below:

Sl.	Student	Project that is allocated	Evaluation Committee
1	Akhil Kumar (2009BB50003)	Analysis of whole genome sequence for resistance prediction	Ravi Elangovan (Supervisor) D. Sundar (Expert)
2	Ankit Dutt (2012BB50010)	Development of automated DNA isolation method	Ravi Elangovan (Supervisor) Ritu Kulshreshtha (Expert)
3	Avijeet Singh Jaswal (2012BB50045)	Evaluation of Granulocyte Colony-Stimulating Factor production in <i>Pichia pastoris</i> through fusion protein construction	Saroj Mishra (Supervisor) Preeti Srivastava (Expert)

The Committee noted that one of the students Mr. Nikhil Kanojia has neither indicated his interest in any topic nor contacted the DRC on this matter.

Item No. 4 – Two new PhD projects submitted by Dr. Ravikrishnan Elangovan.

The following two projects of Dr. Ravikrishnan Elangovan that were earlier circulated to all members were approved for floating to the PhD students:

- a) Development of automated DNA purification system for lab on a chip applications
- b) Development of nano metal substrate for single molecule fluorescence detection.

Item No. 5 – Allotment of projects to 2016 Dec-entry PhD students.

The Committee approved the allotment of projects to the two 2016 Dec-entry PhD students as given below:

Sl. No.	Student	Project Title	Supervisor
1	Shefali Singh (2016BEZ8558)	Development of automated DNA purification system for lab on a chip applications	Ravikrishnan Elangovan
2	Deepak Sharma (2016BEZ8559)	Mitigating the risk of heavy metals and emerging contaminants in the environment	Shaikh Ziauddin Shaikh TR Sreekrishnan

The respective Supervisors are required to submit requests to DRC for constitution of SRC.

An updated list of DRC approved Ph.D. projects as on date (for allocation in the future semesters) is given in **Annexure - 1**.

Item No. 6 – Synopsis of the PhD thesis titled ‘Study on antibiotic resistance transmission and proliferation in Delhi and development of possible mitigation strategy’ submitted by Ms. Manisha Lamba (2013BEZ7506).

The Committee discussed and approved the synopsis submitted by the PhD student Ms. Manish Lamba. The Committee also approved the panel of Examiners and authorized the Chairman to forward the same to Dean (Academics).

*(Action: 1 Thesis Supervisor to send the following documents to the DRC Convener -
(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 by email)*

(Action 2: Upon receipt of the above documents, Chairman DRC to forward it to Dean - Academics)

Item No. 7 – A note received from Dean (Academics) requesting a fresh panel of foreign examiners for the PhD student Ms. Swati Jaiswal (2009BEZ8506).

The Committee approved a fresh panel of Foreign Examiners for the the thesis submitted by Ms. Swati Jaiswal and authorized the Chairman to forward the same to Dean (Academics).

*(Action: 1 Filled-in form for Appointment of Examiners to be submitted by Prof. Prashant Mishra to DRC Convenor)
(Action 2: Upon receipt of the above form, Chairman DRC to forward it to Dean - Academics)*

Item No. 8 – Finalization of results of the PhD written Comprehensive Exam conducted on January 25 & 27, 2017.

The Committee finalized the results of the PhD written Comprehensive Exams conducted on January 25 & 27, 2017 and approved the list of successful students who have passed the examination as given in **Annexure - 2**.

Item No. 9 – To report the matters for ratification by the DRC.

The Committee ratified the approval accorded by the Chairman DRC or Head of the Department on the following items:

- a) Project proposals submitted by Drs. Shilpi Sharma and Ashish Misra

Sl.	Project Title	Project Investigators	Funding Agency
1	Metabolic engineering of <i>Bacillus subtilis</i> for the production of biorenewable isoprene	Ashish Misra (PI)	DST
2	Manure fertilizers in agricultural soils – a reservoir for antibiotic resistance genes	Shilpi Sharma (PI) (on behalf of Dr. Tanushree Saxena)	DST (Scheme for Young Scientists & Technologists)

- b) Request of PhD student Ms. Swati Varshney (2016BEZ8325) for release of fellowship from the Institute as her INSPIRE fellowship has not been yet been released by DST.
- c) Ex-India leave application received from PhD student Ms. Richa Sharma (2013BEZ8026) to intern at *INRA, UMR1347 Agroécologie, Dijon, France* (from 06-03-2017 to 30-08-2017) by availing the Raman-Charpak Fellowship.

Item No. 10 - Any other item with the permission of the Chair.

- a) Synopsis of the research thesis submitted by the following students:

Sl	Student	Program	Pre-PhD or Pre-MSR Seminar date	Thesis Title
1	Jitendra Singh Verma (2012BEZ8551) <u>Supervisors:</u> AKS & TRS	PhD	Jan 11, 2017	Production of biopolymer by gram positive bacteria (<i>Bacillus thuringiensis</i>)
2	Pravita Singh (2014BEY7506) <u>Supervisor:</u> AN	MSR	Jan 05, 2017	Study of ethanol tolerance in <i>Pichia stipitis</i>

The Committee discussed and approved the synopsis submitted by the above students. The Committee also approved the panel of Examiners and authorized the Chairman to forward the same to Dean (Academics).

(Action: 1 Thesis Supervisor to send the following documents to the DRC Convener -
(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 by email)


(Action 2: Upon receipt of the above documents, Chairman DRC to forward it to Dean - Academics)

b) Research Scholar Travel Award application received from the PhD student Ms. Manisha Lamba (2013BEZ7506).

The Committee recommended the application to be forwarded to Dean (Academics) for favorable consideration:

Sl.	Student	Abstract title	Conference
1	Manisha Lamba (2009BEZ8506)	Distribution and abundance of ESBL and NDM-1 in different environmental settings in New Delhi	British Society for Antimicrobial Chemotherapy (BSAC) Spring Meeting 2017, March 04, 2017; London, UK

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


D. SUNDAR
DRC Convener

Distribution

All DRC members and other DBEB Faculty (by email)

Cc: DRC File

Updated list of PhD projects approved by DRC and available for allotment in the future

(as on Feb 15, 2017)

Sl.	Supervisor 1	Supervisor 2	Potential PhD research topic
1	AKS		Mass production of bio/copolymer using <i>Azohydromonas australica</i> and <i>A. eutropha</i> in novel reactor configurations.
2	AKS		Production of biopolymers (PHB and its derivatives) from sulfite waste water
3	AKS		Scale up of continuous cultivation with cell retention for mass production of bio-pesticide (Azadiractin) by plant cell cultures
4	PM		Engineering of Lipase for their application in reigo and stereoselectivity
5	SN	RE	Measurement of oxygen exchange by mass spectrometry for probing the mechanism of ATP synthesis by ATP synthase: A splendid molecular machine
6	SN	RE	Probing the mechanism of ATP synthesis
7	AN		Production of platform chemical 6-pentyl- α -pyrone (6PP) by <i>Trichoderma atroviride</i>
8	DS		Computational genome analysis
9	DS	Renu Wadhwa, AIST, Japan	Bioinformatics insights to the manipulation of hypoxia signalling for cancer metastasis treatment by natural products
10	SS		Non-dairy probiotics for Indian market
11	SS		Biotic and abiotic factors affecting healthy Indian adult microflora
12	PS		Engineering of Dibenzothiophene monooxygenase (DszC) for enhanced substrate range and improved activity
13	PS		Regulation of dsz operon
14	RE		Visualizing processive molecular motors using single molecular fluorescence techniques
15	RE		Development of nano metal substrate for single molecule fluorescence detection

Results of the PhD written Comprehensive Exams conducted on January 25 & 27, 2017

List of PhD students who have passed the Written Comprehensive Examination:

Sl. No.	Entry Number	Name of the student
1	bez158350	Jananee Jaishankar
2	bez158351	Rishabh Shukla
3	bez158352	Rabab Anjum
4	bez158353	Srishti Srivastava
5	bez158356	Nudrat Huda Khan
6	bez158357	Arun Thapa
7	bez158358	Shashi Kumar
8	bez158501	Divya Singhi
9	bez158502	Nitu Maity
10	bez168003	Samannaya Hazra
11	bez168004	Anirban Jana
12	bez168005	Priyanka
13	bez168007	Ritu Bhardwaj
14	bez168008	Ngangom Pravina Devi
15	bez168325	Swati Varshney
16	bez168335	Biju Jacob

List of PhD students who have **NOT** passed the Written Comprehensive Examination:

Sl. No.	Entry Number	Name of the student
1	bez158354	Manju
2	bez158355	Rohit Khandelwal
3	bez158503	Jyoti Sharma