

**Department of Biochemical Engineering & Biotechnology**  
**Minutes of DRC Meeting No 04/2012-13**

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**Date 4<sup>th</sup> July, 2013**

The **Fourth meeting** of the Departmental Research Committee (DRC) for the session 2012-2013 was held on June 27, 2013 at 3 pm in the Committee Room of the Department. The following members were present:

Prof. Prashant Mishra (Chairperson)  
Prof. Saroj Mishra  
Prof. T. R. Sreekrishnan  
Dr. D. Sundar  
Dr. Atul Narang (Convener)

***Agenda Items:***

***Item 1: Confirmation of minutes of DRC meeting No 3/2012-13.***

The minutes of Meeting No. 3/2012-2013 held on April 30, 2013, were confirmed as circulated

***Item 2: Matters arising out of the minutes.***

There were no matters arising out of the above minutes.

***Item 3: Constitution of SRC for Shashank P. Katiyar***

The committee approved the constitution of the SRC for Shashank P. Katiyar (see Annexure 1 for details).

***Item 4: Constitution of SRC for Sunil Kumar.***

The committee approved the constitution of the SRC for Sunil Kumar (see Annexure 1 for details).

***Item 5: Constitution of SRC for Anees Kaprakkaden.***

The committee approved the constitution of the SRC for Anees Kaprakkaden (see Annexure 1 for details).

***Item 6: Plan of work for PhD thesis titled 'Response of hybrid anaerobic reactor to wastewater toxicity' submitted by Ms. Pragya (2011BEZ8226).***

The plan of work for Ph.D. thesis titled 'Response of hybrid anaerobic reactor to wastewater toxicity' submitted by Ms. Pragya (2011BEZ8226) was discussed and based on the recommendation of SRC it was approved.

**Item 7:** *Plan of work for PhD thesis titled 'Testing the existence of positive feedback as the mechanism for glucose-mediated lac repression' submitted by Mr. Ritesh Kumar Aggarwal (2010BEZ8846).*

The plan of work for Ph.D. thesis titled 'Testing the existence of positive feedback as the mechanism for glucose-mediated lac repression' submitted by Mr. Ritesh Kumar Aggarwal (2010BEZ8846) was discussed and based on the recommendation of SRC it was approved.

**Item 8:** *Plan of work for PhD thesis titled 'Improved biodesulfurization of persistent organosulfur compounds' submitted by Ms. Pooja Singh (2011BEZ8425).*

The plan of work for Ph.D. thesis titled 'Improved biodesulfurization of persistent organosulfur compounds' submitted by Ms. Pooja Singh (2011BEZ8425) was discussed and based on the recommendation of SRC it was approved.

**Item 9:** *Plan of work for PhD thesis titled 'A computational study of DNA-protein interactions' submitted by Ms. Shayoni Dutta.*

The plan of work for Ph.D. thesis titled 'A computational study of DNA-protein interactions' submitted by Ms. Shayoni Dutta was discussed and based on the recommendation of SRC it was approved.

**Item 10:** *Synopsis of PhD thesis titled 'Design of perfusion systems for mammalian cell culture' submitted by Ms Shweta Kamthan (2007BEZ8174).*

The committee discussed and approved the synopsis of Ph.D. thesis entitled 'Design of perfusion systems for mammalian cell culture' submitted by Ms Shweta Kamthan (2007BEZ8174). The Committee also discussed and approved the panel of Examiners and authorized the Chairman to forward the same to Dean (Academics).

**Item 11:** *Synopsis of PhD thesis titled 'Development and mass scale propagation of hairy roots of Artemisia annua in a suitable bioreactor for artemisin production' submitted by Ms Nivedita Patra (2007BEZ8174).*

The committee discussed and approved the synopsis of Ph.D. thesis entitled 'Development and mass scale propagation of hairy roots of Artemisia annua in a suitable bioreactor for artemisin production' submitted by Ms Nivedita Patra (2007BEZ8174). The Committee also discussed and approved the panel of Examiners and authorized the Chairman to forward the same to Dean (Academics).

**Item 12:** *Synopsis of PhD thesis titled 'Engineering of beta-glucosidase I for enhanced organic solvent and thermal tolerance and its use in aryl-oligosaccharide synthesis' submitted by Ms Jyoti Batra.*

The committee discussed and approved the synopsis of Ph.D. thesis entitled 'Engineering of beta-glucosidase I for enhanced organic solvent and thermal tolerance and its use in aryl-oligosaccharide synthesis' submitted by Ms Jyoti Batra. The Committee also discussed and approved the panel of Examiners and authorized the Chairman to forward the same to Dean (Academics).

**Item 13:** *Synopsis of MSR thesis titled 'Scale-up studies on Azadirachta indica suspension culture for large scale biopesticide production' submitted by Mr Sunil Nagpal (2011BEY7538).*

The committee discussed and approved the synopsis of MSR thesis titled 'Scale-up studies on *Azadirachta indica* suspension culture for large scale biopesticide production' submitted by Mr Sunil Nagpal (2011BEY7538). The Committee also discussed and approved the panel of Examiners and authorized the Chairman to forward the same to Dean (Academics).

**Item 14:** *Synopsis of MSR thesis titled 'Nanofiltration of metal salts and their modelling' submitted by Ms Kalpana Samant (2010BEY7525).*

The committee discussed and approved the synopsis of MSR thesis titled 'Nanofiltration of metal salts and their modelling' submitted by Ms Kalpana Samant (2010BEY7525). The Committee also discussed and approved the panel of Examiners and authorized the Chairman to forward the same to Dean (Academics).

**Item 15:** *A note received from Ms. Rashi Gupta for change of PhD title to 'Effects of bioinoculants on *Cajanus cajan* and its rhizospheric microbial community.'*

The change of title for Ms. Rashi Gupta's PhD thesis was discussed and the committee approved the new title 'Effects of bioinoculants on *Cajanus cajan* and its rhizospheric microbial community.'

**Item 16:** *A note received from Prof Saroj Mishra for change of Anshul Sharma's change of MSR thesis title.*

The change of title for Mr. Anshul Sharma's MSR thesis was discussed and the committee approved the new title 'Developing an integrated approach to production and separation for a therapeutic protein in *Pichia pastoris*.'

**Item 17:** *A note received from Ms. Nivedita Patra for continuation of registration with scholarship after completion of 5 years*

The committee recommended the continuation of registration and scholarship of Ms. Nivedita Patra for another six months with effect from July 2013.

**Item 18:** *Project proposal submitted by Dr. Md. Zain Khan on the project titled 'Biodegradation of textile dyes by sequential anaerobic-aerobic process and recovering energy' funded from DST Young Scientist scheme has been approved with Prof. T.R. Sreerishnan.*

The committee approved the project proposal titled 'Biodegradation of textile dyes by sequential anaerobic-aerobic process and recovering energy' funded under DST Young Scientist fellowship. The chairman was authorized to forward the proposal to Dean IRD.

**Item 19:** *Project proposal submitted by Dr. Aqeel Ahmad for funding from DST Young Scientist Life Sciences fellowship on the project titled 'Peptide bases nanocarrier for drug delivery' with Prof. Prashant Mishra.*

The committee approved the project proposal titled 'Peptide bases nanocarrier for drug delivery' submitted by Dr Aqeel Ahmad for funding from DST Young Scientist *Life Sciences* fellowship. The chairman was authorized to forward the proposal to Dean IRD.

***Item 20:*** Project proposal titled 'Investigation of MIR-191 as a potential therapeutic target & biomarker in hormone dependent breast cancer submitted by Dr. Ritu Kulshreshtha for funding from DBT.

The committee approved the project proposal titled 'Investigation of MIR-191 as a potential therapeutic target & biomarker in hormone dependent breast cancer submitted by Dr. Ritu Kulshreshtha for funding from DBT. The chairman was authorized to forward the proposal to Dean IRD.

***Item 21:*** Project proposal titled 'Elucidation of pathologically relevant miRNAs responsible for disease progression and resistance to chemotherapy in chronic lymphocytic leukemia' submitted by Dr. D. Sundar for funding from DBT.

The committee approved the project proposal titled 'Elucidation of pathologically relevant miRNAs responsible for disease progression and resistance to chemotherapy in chronic lymphocytic leukemia' submitted by Dr. D. Sundar for funding from DBT. The chairman was authorized to forward the proposal to Dean IRD.

***Item 22:*** Project proposal titled 'Development of diagnostic tool to prevent failure of anaerobic digesters' submitted by Dr. Shaikh Ziauddin Ahammad for new faculty grant from IIT Delhi.

The committee approved the project proposal titled 'Development of diagnostic tool to prevent failure of anaerobic digesters' submitted by Dr. Shaikh Ziauddin Ahammad for new faculty grant from IIT Delhi. The chairman was authorized to forward the proposal to Dean IRD.

***Item 23:*** Project proposal titled 'Mischievous metals: Impact on environment and bioremediation of metal pollution' submitted by Dr. Shaikh Ziauddin Ahammad for funding from IIT Delhi.

The committee approved the project proposal titled 'Mischievous metals: Impact on environment and bioremediation of metal pollution' submitted by Dr. Shaikh Ziauddin Ahammad for funding from IIT Delhi. The chairman was authorized to forward the proposal to Dean IRD.

***Item 24:*** Any other items

- A note received from Mr. Sunil Nagpal was discussed and the committee recommended the extension of Mr. Sunil Nagpal's fellowship up to July 15, 2013.
- The committee nominated members of the SRC for MSR students that joined in July, 2013, namely Anshul Sharma, Sunil Singh, Augustine Cleetus, and Raju Kumar). The SRC members are Prof. G.P. Agarwal (Chairman) Dr. S. Z. Ahammad, and Dr. Ritu Kulshreshtha.

- A note received from Mr. Muthu Mareeswaran was discussed and the committee recommended the extension of scholarship for Mr. Muthu Mareeswaran for a period of six months starting July, 20313.

The meeting ended with a vote of thanks to the chair

*Atul Narang.*

Atul Narang  
Convener, DRC

#### Annexure 1

Name	Chair	Internal expert	External expert	Supervisor(s)
Shashank Katiyar	V. S. Bisaria	Ritu Kulshreshtha	Tapan Chaudhuri	D. Sundar
Sunil Kumar	T. R. Sreekrishnan	Atul Narang	Anupam Shukla	G. P. Agarwal
Anees Kaprakkaden	Saroj Mishra	Shilpi Sharma	K. J. Mukherjee	V. S. Bisaria Preeti Srivastava