

The 11th meeting of Tezpur University Biosafety Committee (TUBSC)

Date: 13th October 2017; **Venue:** Dean R & D, Meeting room, Administrative Building, TU

Members present:

(A). TUBSC members

1. Prof. A. K. Mukherjee, Dean R & D, TU: **Chairperson TUBSC**
(deanrnd@tezu.ernet.in)
2. Prof. A. K. Singh, Department of Biochemistry, NEHU, Shillong, **DBT Nominee TUBSC**
(aksingh_nehu@yahoo.co.in)
3. Prof. S. S. Ghosh, Department of Bioscience and Bioengineering, IIT Guwahati **Outside expert TUBSC** (sgghosh@iitg.ernet.in)
4. Dr. J. Goswami, Medical Officer, TU, **Biosafety Officer, TUBSC** (jonalis@tezu.ernet.in)
5. Dr. Raj Kumar Duary, Dept. of FET TU, **Member TUBSC** (duary@tezu.ernet.in)
6. Prof. K. K. Baruah, Dept of environmental Science TU, **Member TUBSC**
(kkbaruah@tezu.ernet.in)
7. Dr. R. Doley, Dept. of MBBT, TU: **Member TUBSC** (doley@tezu.ernet.in)
8. Dr. Nayan M. Kakoty, Dept of ECE TU, **Member TUBSC** (nkakoty@tezu.ernet.in)
9. Dr. S. K. Ray, Dept. MBBT, TU: **Member Secretary TUBSC** (suven@tezu.ernet.in)

Leave of absentia granted to:

1. Prof. R. Borah, Department of Chemical Sciences, TU, **Member TUBSC** (ruli@tezu.ernet.in)

(B). TU faculty as special invitees

10. Prof. A. Ramteke, Head, Dept. of MBBT, TU (hod_mbbt@tezu.ernet.in)
11. Dr. N. D. Namsa, Dept. of MBBT, TU (namsa@tezu.ernet.in)
12. Dr. E. Kalita, Dept. of MBBT, TU (ekalita@tezu.ernet.in)
13. Dr. R. Mukhopadhyay, Dept. of MBBT, TU (mrupak@tezu.ernet.in)
14. Dr. S. Dasgupta, Dept. of MBBT, TU (suman@tezu.ernet.in)
15. Dr. S. Saha Dept. of MBBT, TU (sougata@tezu.ernet.in)

Agenda of the meeting (detail agenda is given in the attachment):

- (1) Discussion on new proposals submitted by:
 - (i) Dr. SPG Ponnamm
 - (ii) Dr. N. D. Namsa
 - (iii) Dr. R. Mukhopadhyay
 - (iv) Dr. S Dasgupta
- (2) Updating on the activity of research projects passed by TUBSC in its previous meetings.
 - (i). Prof. A. K. Mukherjee
 - (ii). Dr. R. Doley
 - (iii). Dr. E. Kalita
 - (iv). S. Saha
 - (v). Dr. S. K. Ray
- (3) Inputs from the committee members for future course of action.

Minutes of the meeting

1. The Chairperson welcomes the DBT nominee Prof. A. K. Singh and the external expert Prof. S. S. Ghosh. This was followed by introduction of the members present. The member secretary briefed the external member as well as DBT nominee regarding the activities of TUBSC and the reason for delay in holding the meeting in time. He also informed the house that a meeting of the internal members of this committee was held.
2. The DBT Nominee advised the Committee members to critically examine the project submitted to this committee for evaluation and clearance. The DBT nominee emphasized the role of TUBSC for guiding the researchers to avoid uncontrolled release of microorganisms in the environment.
3. Prof. S. S. Ghosh, advised the PI should be always responsible towards biosafety related issues, which mainly relates recombinant DNA works, now also includes pathogenic micro-organisms.
4. New proposal presentation:
 - (i). Dr. SPG Poonam, Department of MBBT TU proposal entitled "In vitro studies to investigate the therapeutic approach of editing the defective exon 3 of human CHST6 gene associated with Macular Corneal Dystrophy through the CRISPR-Cas9 technology" was discussed in absentia. He remained available over telephone during the discussion. The proposal was approved by the committee as the proposal may be considered under Category I as per DBT, Govt of India guidelines.
 - (ii). Dr. N D Namsa Department of MBBT TU presented two new proposals. The first proposal entitled "cloning, expression and affinity purification of synthetic gene comprising of B- and T-cell epitopes derived from rotavirus capsid proteins VP4-VP6-VP7 using bacterial expression

system" was approved by the committee as the proposal was found to be falling under Category I as per DBT, Govt of India guidelines. The second proposal entitled "Impact of vaccination on rotavirus-led diarrhoea and other common enteric viruses (Adenovirus, Astrovirus and Norovirus) associated with gastroenteritis under five children's of Manipur, Nagaland and Assam" was discussed by the committee members critically as it was coming under Category II. The proposal was approved in principle because of the containment facility is available in the laboratory of PI. It was also advised to send the proposal to RCGM for information.

(iii). Dr. R. Mukhopadhyay Department of MBBT, TU presented three new proposals. First proposal entitled "Cloning and expression of RPL22 gene using bacterial expression system" was found to be falling under Category I as per DBT, Govt of India guidelines and was approved. The second proposal entitled "Cloning and over expression of human ribosomal large subunit protein gene 22 (RPL22) in cultured animal cell lines using retroviral expression systems" was found to be falling under Category I as per DBT, Govt of India guidelines and was approved. Third proposal entitled " cloning of guide RNA (20 nt long specific for human RPL22) and knockout of RPL22 gene from cultured animal cell lines was found to be falling under Category I as per DBT, Govt of India guidelines and was approved.

(iv). Dr. S. Dasgupta, Department of MBBT TU presented one new proposal entitled " analysis of different proteins and gene expression in promastigote, intermediate and amastigote form of *Leishmania* parasites *L. major* and *L. donovani*. The strains of *Leishmania* are known to be non-pathogenic to human; therefore, the proposal was found to be falling under Category I as per DBT, Govt of India guidelines and was approved. The PI was suggested to inform RCGM if his future works will involve with human pathogenic strain of *Leishmania donovani*.

5. Updating and report submission by PIs of the approved by TUBSC

(i). Prof. A. K. Mukherjee, MBBT TU informed the progress of their work "cloning and expression of a fibrin(ogen)olytic serine protease gene from *Bacillus cereus* strain AB01" .

(ii). Dr. R. Doley, MBBT TU informed the progress of his work entitled "cloning, expression and characterization of a snake venom Kunitz-type serine protease inhibitor gene"

(iii). Dr. E. Kalita MBBT TU informed the progress their work on identification and *in vitro* establishment of culture of phytopathogenic fungus *Exobasidium vexans* causing blister blight in *Camellia sinensis* (tea) of Indian isolates.

(iv). Dr. S. Saha, MBBT TU informed the house about the work done under the approved proposals entitled "knockout of Ate1 isoforms into MEF cells knock out for Ate1 gene, as well as knock in of Ate1 isoform into ATE1 knock out MEF cells with over expression of PPAR γ 1.

(v). Prof. S. K. Ray, MBBT TU informed the progress of their work on Indian isolates of *Ralstonia solanacearum*, the causal agent of bacterial wilt disease in plants.

6. Discussions:

(i). It was proposed that there may be a Biosafety Officer in the following Departments of the University such as (a). Molecular Biology and Biotechnology, (b) Chemical science, (c).

Physics, (d). Food Engineering and Technology, (f). Environmental Sciences, and (g). Energy


(ii). A proper mechanism for the disposal of UPS battery, health centre syringe etc should be worked out.

(iii). Visit to different laboratories of different Departments of Tezpur University by Biosafety members at regular intervals.

7. The meeting ended with a vote of thank by the member Secretary.


(Signature of Chairperson)
Date: 16.11.2017


(Signature of Member Secretary)
Date: 15-11-2017

Approved

29/11/17