



**TEZPUR UNIVERSITY**  
(A Central University established by an Act of Parliament)  
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### **CERTIFICATE OF THE SUPERVISOR**

This is to certify that the thesis entitled “*Characterization and application of some potential probiotics isolated from milk and traditional fermented foods (Doi and Churpi) of Assam and Arunachal Pradesh, India*” submitted to the School of Science, Tezpur University in partial fulfillment for the award of the degree of Doctor of Philosophy in Molecular Biology and Biotechnology is a record of original research work carried out by **Mr. Ajay Kumar Manhar** under my personal supervision and guidance.

All helps received by him from various sources have been duly acknowledged. No part of this thesis has been reproduced elsewhere for award of any other degree.

**Date :**

**(Dr. M. Mandal)**

**Place:**

Supervisor



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## **CERTIFICATE OF THE EXTERNAL EXAMINER AND ODEC**

This is to certify that the thesis entitled “*Characterization and application of some potential probiotics isolated from milk and traditional fermented foods (Doi and Churpi) of Assam and Arunachal Pradesh, India*” submitted by Mr. Ajay Kumar Manhar to Tezpur University in the Department of Molecular Biology and Biotechnology under the School of Sciences in partial fulfillment of the requirement for the award of the degree of Doctor of Philosophy in Molecular Biology and Biotechnology has been examined by us on \_\_\_\_\_ and found to be satisfactory.

The Oral Defence Evaluation Committee (ODEC) recommends for the award of the degree of Doctor of Philosophy.

**Signature:**

**Supervisor**

**Date:**

**External Examiner**

**Date:**