



Certificate

This is to certify that the thesis entitled "*Understanding the trans-translation process of *Leptospira interrogans**," submitted by **Satarupa Deb Sinha** in fulfillment of the degree **Master of Technology Biotechnology**, is a Bonafide record of the work carried out by her under the guidance of **Prof. Manish Kumar** at the **Department of Biosciences and Bioengineering, Indian Institute of Technology, Guwahati**. This study has not been submitted elsewhere for a degree.

Signature of student:

Date: 09/05/25

Place: IIT Guwahati

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Signature of supervisor:

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Date:

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Statement

I do hereby declare that the work presented in the thesis entitled "Understanding the translation process of *Leptospira interrogans*" is the result of an investigation carried out by me in the Department of Biosciences and Bioengineering, Indian Institute of Technology, Guwahati, India, under the guidance of Dr. Manish Kumar. In keeping with the general practice of reporting scientific observations, due acknowledgment has been made wherever the work described is based on the findings of other investigators.

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