



St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai-400001

**“Designing a dual selection promoter trap vector for testing
Epigenetic variegation in *Chlamydomonas reinhardtii*.”**

A dissertation submitted to St Xavier's College- Autonomous

For the partial fulfilment of the degree of Master of Science in Biotechnology

By

Ms. Priyanshi Vishnu Suvasia

MSc. (Biotechnology) 2019-2020

Under the guidance of

Dr. Subhojit Sen
Ramalingaswami Fellow

UM- DAE Centre for Excellence in Basic Sciences (CEBS),
Mumbai, Maharashtra- 400098

POST GRADUATE DEPARTMENT OF BIOTECHNOLOGY

St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai -400001



CERTIFICATE

This is to certify that Mr. Priyanshi Vishnu Suvasia, student of MSc (Biotechnology) - Semester IV, at the Post Graduate Department of Biotechnology, St. Xavier's College (Autonomous) has submitted the dissertation work titled "**Designing a dual selection promoter trap vector for testing Epigenetic variegation in *Chlamydomonas reinhardtii***" for the partial fulfilment of the Master's degree in Science in Biotechnology, during the academic year 2019-2020.

Date: 20/06/2020

Place: Mumbai

Dr. Karuna Gokarn

Head of the Department, PGDBT

POST GRADUATE DEPARTMENT
OF BIOTECHNOLOGY
ST. XAVIER'S COLLEGE,
MUMBAI-400 001.



मुंबि - पऊवि मौलिक विज्ञान प्रकर्ष केंद्र
UM-DAE Centre for Excellence in Basic Sciences
Registered under the Society Registration Act, 1860

CERTIFICATE OF COMPLETION

This is to certify that Ms. **Suvasia Priyanshi Vishnu**, student of MSc (Biotechnology). St Xavier's College (Autonomous) has completed four months training/ Research Project in the **Laboratory of Epigenetics**, with **Dr. Subhojit Sen**, at the **School of Biological Sciences, UM-DAE Centre for Excellence in Basic Sciences**, during the academic year 2019-2020. She has completed the dissertation work entitled "**Designing a dual selection promoter trap vector for testing Epigenetic variegation in *Chlamydomonas reinhardtii*.**" for the partial fulfilment of M.Sc. (Biotechnology) degree. She has been familiarized with the following techniques during this project:

- Culturing and maintenance of *Chlamydomonas reinhardtii*.
- In silico* plasmid construction and analyses.
- Molecular Biology techniques: Plasmid design, isolation, RE digestion, gel purification, ligation, and cloning in *Escherichia coli* & generating transgenic *Chlamydomonas reinhardtii* by transformation.
- Epigenetic Assay of *Chlamydomonas* transformants and effect of epigenetic drugs.

This carefully written report represents the experiments and literature related to the same carried out by her during the period from 1st December 2019 to 31st March 2020.

I have found Ms. **Suvasia Priyanshi Vishnu** to be a sincere and hardworking student. Her overall conduct was good.

Principal Investigator: Dr. Subhojit Sen.

Signature:

Date: 20th June 2020

Seal of the institute:



पता : सीईबीएस नालंदा बिल्डिंग, मुंबई विश्वविद्यालय, विद्यानगरी परिसर, सांताक्रुझ (पु), मुंबई - 400 098.
Address: CEBS Nalanda Building, University of Mumbai, Vidyanagari Campus, Santacruz (E), Mumbai 400 098.
दूरभाष/Phone : +91 22 2652 4983, फॅक्स / Fax : +91 22 2652 4982 Web.: www.cbs.ac.in