



St. Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai-400 001

OPTIMIZING AN EFFLUX ASSAY FOR MYCOBACTERIA

A dissertation submitted to St Xavier's College- Autonomous

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

By

Kavedia Jheel Bharat Sangita

MSc. (Biotechnology)

2019-2020

Under the guidance of

Prof. Sarika Mehra

Indian Institute of Technology-Bombay

Powai, Mumbai-400 076

India

POST GRADUATE DEPARTMENT OF BIOTECHNOLOGY

St. Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai-400 001



CERTIFICATE

This is to certify that **Kavedia Jheel Bharat Sangita**, student of MSc. (Biotechnology) - Semester IV, at the Post Graduate Department of Biotechnology, St. Xavier's College (Autonomous) has submitted the dissertation work titled "**Optimizing an efflux assay for Mycobacteria**" for the partial fulfilment of the Master's degree in Science in Biotechnology, during the academic year 2019-2020.

Date:

Place: Mumbai

Dr. Karuna Gokarn

Head of the Department, PGDBT

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



Department of Chemical Engineering
Indian Institute of Technology Bombay
Powai, Mumbai 400076 India

Dr. Sarika Mehra
Associate Professor

Date:

CERTIFICATE OF COMPLETION

This is to certify that Ms. Kavedia Jheel Bharat Sangita, student of MSc. (Biotechnology), St. Xavier's College (Autonomous) has completed four months training/Research Project at the Indian Institute of Technology-Bombay lab, during the academic year 2019-2020.

She has completed the dissertation work entitled "Optimizing an efflux assay for Mycobacteria" for the partial fulfilment of MSc. (Biotechnology) degree. She has been familiarized with the following techniques during this project:

- a) Aseptic handling
- b) Culturing of micro-organisms on liquid and solid media
- c) Dilution and enumeration of colonies
- d) Microplate assays

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 found Ms. Kavedia Jheel Bharat to be a sincere and hardworking student. Her overall conduct was good.

Principle Investigator: Prof. Sarika Mehra

Signature

Sarika Meh

Date

25/11/2020

Seal of the institute

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