



St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai-400001

FABRICATION OF POROUS SCAFFOLDS VIA EMULSION TEMPLATING

A dissertation submitted to St Xavier's College- Autonomous

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

By

Mr. Prashant Vishnu Suvasia

MSc. (Biotechnology) 2019-2020

Under the guidance of

Prof. Prakriti Tayalia

Cell & Tissue engineering lab, Department of Biosciences & Bioengineering

Indian Institute of Technology Bombay, Powai, Mumbai-400076.

POST GRADUATE DEPARTMENT OF BIOTECHNOLOGY

St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai -400001



CERTIFICATE

This is to certify that Mr. **Prashant 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 "**Fabrication of porous scaffolds via emulsion templating**" 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.



भारतीय प्रौद्योगिकी संस्थान मुंबई
पवई, मुंबई - 400 076, भारत

Indian Institute of Technology Bombay
Powai, Mumbai - 400 076, India

दूरभाष/Phone : (+91-22) 2572 2545

फैक्स/Fax : (+91-22) 2572 3480

वेबसाइट/Website : www.iitb.ac.in

IIT Bombay

CERTIFICATE OF COMPLETION

This is to certify that Mr. Prashant Vishnu Suvasia, student of MSc (Biotechnology), St. Xavier's College (Autonomous) has completed four months training/ Research Project at the **Cell and Tissue engineering lab**, (IIT-Bombay) during the academic year 2019-2020.

He has completed the dissertation work entitled "**Fabrication of porous scaffolds via emulsion templating**" for the partial fulfilment of MSc. (Biotechnology) degree. He has been familiarized with the following techniques during this project:

- Synthesis of gelatin emulsion particles
- 3D porous scaffold development using emulsion templating and freeze drying
- Scaffold characterization using SEM, FTIR, porosity and swelling ratio measurement

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

I found Mr. **Prashant Vishnu Suvasia** to be a sincere and hardworking student. His overall conduct was good.

Principal Investigator: Prof. Prakriti Tayalia

Signature and Seal of the institute:

डा. प्रकृति तायलिया/Prof. Prakriti Tayalia
सह प्राध्यापक/Associate Professor
वैद्य विज्ञान एवं वैद्य अभियंत्रिकी विभाग
Department of Biosciences & Bioengineering
भा. प्रौ. सं. मुंबई/IIT Bombay, पवई/Powai
मुंबई/Mumbai - 400 076 भारत INDIA

Date: 20/06/2020