



St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai-400001

Development of 3D tumoroid system to assess the effect of microenvironment on its aggressiveness

A dissertation submitted to St. Xavier's College- Autonomous

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

By

Divya Bachan Gaud

MSc. (Biotechnology)

2019-2020

Under the guidance of

Prof. Abhijit Majumder

M-Lab, Department of Chemical Engineering

Indian Institute of Technology Bombay

Powai, Mumbai 400 076.

POST GRADUATE DEPARTMENT OF BIOTECHNOLOGY

St. Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai - 400001



CERTIFICATE

This is to certify that **Ms. Divya Bachan Gaud**, student of MSc (Biotechnology) - Semester IV, at the Post Graduate Department of Biotechnology, St. Xavier's College (Autonomous) has submitted the dissertation work titled "**Development of 3D tumoroid system to assess the effect of microenvironment on its aggressiveness**" for the partial fulfilment of the Master's degree in Science in Biotechnology, during the academic year 2019-2020.

Date:

Place:

KR Gokarn

Dr. Karuna Gokarn

Head of the Department, PGDBT

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



Indian Institute of Technology Bombay

Abhijit Majumder, PhD
Associate Professor

CERTIFICATE OF COMPLETION

This is to certify that **Ms. Divya Bachan Gaud**, student of MSc (Biotechnology), St. Xavier's College (Autonomous) has completed four months training/ Research Project at the **M lab, Department of Chemical Engineering, (Indian Institute of Technology Bombay)** during the academic year 2019-2020.


She has completed the dissertation work entitled "**Development of 3D tumoroid system to assess the effect of microenvironment on its aggressiveness**" for the partial fulfilment of MSc. (Biotechnology) degree. She has been familiarized with the following techniques during this project:

- a) Animal Cell Culture
- b) Polyacrylamide gel fabrication
- c) Optical microscopy
- d) Time-lapse imaging

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. Divya Bachan Gaud to be a sincere and hardworking student. Her overall conduct was good.

Principal Investigator: Prof. Abhijit Majumder

Signature: 

Date: 11th June 2020

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