



St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai-
400001

**Study the role of mitochondrial DNA damage due to iron
overload in transfusion dependent Thalassemia major
individuals**

A dissertation submitted to St Xavier's College- Autonomous

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

By

Simran Suchit Thakur

MSc. (Biotechnology) 2019-2020

Under the guidance of

Dr. Manisha Madkaikar

ICMR – National Institute of Immunohematology, 13th Floor, New
Multistoreyed Building, KEM Hospital Campus, Parel, Mumbai -

400012

POST GRADUATE DEPARTMENT OF BIOTECHNOLOGY

St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai -400001



CERTIFICATE

This is to certify that **Simran Suchit Thakur**, student of MSc (Biotechnology) - Semester IV, at the Post Graduate Department of Biotechnology, St. Xavier's College (Autonomous) has submitted the dissertation work titled "**Study the role of mitochondrial DNA damage due to iron overload in transfusion dependent Thalassemia major individuals**" for the partial fulfilment of the Master's degree in Science in Biotechnology, during the academic year 2019-2020.

Date:

Place

Dr. Karuna Gokarn

Head of the Department, PGDBT

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



CERTIFICATE OF COMPLETION

This is to certify that Simran Suchit Thakur, student of MSc (Biotechnology), St Xavier's College (Autonomous) has completed four months training/ Research Project at the Pediatric Immunology & Leukocyte Biology lab, ICMR NIIH Parel, Mumbai. during the academic year 2019-2020.

She has completed the dissertation work entitled "Study the role of mitochondrial DNA damage due to iron overload in transfusion dependent Thalassemia major individuals" for the partial fulfilment of MSc. (Biotechnology) degree. He /She has been familiarized with the following techniques during this project:

- Polymerase Chain Reaction
- DNA Extraction

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.

We found Simran Suchit Thakur to be a sincere and hardworking student. Her overall conduct was good.

Dr Manisha Madkaikar

PI/supervisor

Date

Seal of the institute

Director
National Institute of Immunohaematology, (ICMR)
13th Floor, New Multisotreyed Bldg.,
KEM Hospital Campus, Parel,
Mumbai-400 012.

