



St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai-400001

**INVESTIGATION OF THE ROLE OF LAMINS IN DNA DSB  
REPAIR VIA THE NHEJ PATHWAY**

A dissertation submitted to St Xavier's College- Autonomous

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

By

Bushra Khan

MSc. (Biotechnology)

2019-2020

Under the guidance of

Dr. Kundan Sengupta

Indian Institute of Science Education & Research- Pune

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**POST GRADUATE DEPARTMENT OF BIOTECHNOLOGY**

St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai -400001



**CERTIFICATE**

This is to certify that Ms. Bushra Khan, student of MSc (Biotechnology)-Semester IV, at the Post Graduate Department of Biotechnology, St. Xavier's College (Autonomous) has submitted the dissertation work titled 'INVESTIGATION OF THE ROLE OF LAMINS IN DNA DSB REPAIR VIA THE NHEJ PATHWAY" 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.**

### CERTIFICATE OF COMPLETION

This is to certify that Ms. Bushra Khan, student of MSc (Biotechnology), St Xavier's College (Autonomous) has completed a four-month Research Project at the Chromosome Biology Lab, Indian Institute of Science Education & Research, Pune during the academic year 2019-2020.

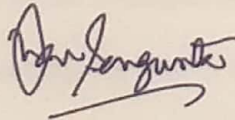
She has completed the dissertation work entitled "INVESTIGATION OF THE ROLE OF LAMINS IN DNA DSB REPAIR VIA THE NHEJ PATHWAY" for the partial fulfilment of MSc. (Biotechnology) degree. She has been familiarized with the following techniques during this project :

- a) Dose response assays with DNA damaging drugs
- b) Cell Survival assays
- c) Real Time PCR
- d) Western Blotting
- e) Immunofluorescence assays
- f) Imaging

This carefully written report represents the experiments and literature related to the same carried out by her during the period from 1<sup>st</sup> December 2019 to 31<sup>st</sup> March 2020. I found Ms. Bushra Khan to be a sincere and hardworking student. Her overall conduct was exemplary.

**Name of PI: Dr. Kundan Sengupta**

**Signature:**



**Date: 23.04.2020**

**Seal of the institute:**

