
St Xavier's College (Autonomous)

5, Mahapalika Marg, Mumbai-400001

# DEVELOPMENT OF DIFFERENTIAL CENTRIFUGE AND CENTRIFUGE TUBE (CAPILLARY) FOR WHITE BLOOD CELLS ENUMERATION AND RAPID DETECTION OF INFECTIOUS AGENTS.

A dissertation submitted to St Xavier's College- Autonomous for the partial fulfilment of the degree of Master of Science in Biotechnology

By

Rutesh Vivek Agharkar

MSc. (Biotechnology) 2019-2020

Under the guidance of Prof. Rohit Srivastava

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**POST GRADUATE DEPARTMENT OF BIOTECHNOLOGY**

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## CERTIFICATE

This is to certify that **Rutesh Vivek Agharkar** , 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 differential centrifuge and centrifuge tube (capillary) for White blood cells enumeration and rapid detection of infectious agents.**" 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**

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# CERTIFICATE OF COMPLETION

This is to certify that **Rutesh Vivek Agharkar**, student of MSc (Biotechnology), St Xavier's College (Autonomous) has completed four months Research Project at the **NanoBios Lab, IIT Bombay** during the academic year 2019-2020.

He has completed the dissertation work entitled "**Development of differential centrifuge and centrifuge tube (capillary) for White blood cells enumeration and rapid detection of infectious agents.**" for the partial fulfilment of MSc. (Biotechnology) degree. He has been familiarized with the following techniques during this project:

a) Density Gradient Centrifugation.
b) Acridine Orange Staining.
c) Confocal Microscopy image analysis from ZEN software.

This carefully written report represents the experiments and literature related to the same carried out by him during the period from 2nd December 2019 to 31st March 2020.

We found **Rutesh Vivek Agharkar** to be a sincere and hardworking student. His overall conduct was good.

**Prof. Rohit Srivastava**

**Signature and Date**

प्रा. रोहित श्रीवास्तव
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