

## Certificate

DEPARTMENT OF BIOCHEMISTRY  
FACULTY OF SCIENCE  
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA, VADODARA-  
390 002, GUJARAT, INDIA

STATEMENT UNDER O.Ph.D.8/ (iii) OF  
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA, VADODARA.

This is to certify that the work presented in this Thesis entitled “**Establishment and Validation of In-vitro Model of Adipose Tissue Associated Macrophages in Obesity and Diabetes**” is solely based on original contribution of the research work carried out by Ms Karishma Bhatia towards the degree of Doctor of Philosophy (Ph.D.) in Biochemistry under my guidance and supervision. The work accomplished in the Thesis is original and with innovative findings. This work or any part of it is not submitted for any other degree, diploma, unless otherwise stated. Whatever references have been made, to the work of others, has been clearly indicated and included in the references. Materials and help obtained from various sources have been duly acknowledged in the Thesis. This Thesis comprises of an original work and fully satisfied all the criteria for the award of degree.

Date: 1<sup>st</sup> Aug, 2024

Place: Vadodara

Dr. Sanjeev K Upadhyay

(Ph.D. Supervisor)