

DECLARATION

Statement under O. Ph.D. 8/ (iii) of The Maharaja Sayajirao University of Baroda, Vadodara, India.

The work presented in this thesis has been carried out by me, under the guidance of **Prof. Tamishraha Bagchi**, Department of Microbiology and Biotechnology Centre, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India. The data reported herein is original and has been derived from research studies undertaken by me.

Hemanti Mandal

Hemanti Mandal

(Candidate)

Place: Vadodara

Date: 25/7/2017

This is to certify that the above declaration is true.

Tamishraha Bagchi

Prof. Tamishraha Bagchi

(Research Guide)

Place: Vadodara

Date: 25/7/2017