

**Department of Pharmaceutical Engineering & Technology
Indian Institute of Technology
(Banaras Hindu University),
Varanasi-221005**



CERTIFICATE

It is certified that the work contained in the thesis titled **“Design, Synthesis, and Biological Evaluation of Novel Heterocyclic Compounds as Dual COX-2/5-LOX Inhibitors”** by **Ms. Poorvi Saraf** has been carried out under my supervision and this work has not been submitted elsewhere for a degree.

It is further certified that the student has fulfilled all the requirements of Comprehensive Examination, Candidacy and SOTA for the award of Ph.D. Degree.

Date: 15/05/2025
Place: IIT (BHU), Varanasi


Prof. Sushant Kumar Shrivastava
(Supervisor)

Dr. S. K. SHRIVASTAVA
Professor
Deptt. of Pharm. Engg. and Tech
Indian Institute of Technology
(Banaras Hindu University)
Varanasi-221005



DECLARATION BY THE CANDIDATE

I, **Poorvi Saraf**, certify that the work embodied in this Ph.D. thesis is my own bonafide work and carried out by me under the supervision of **Prof. Sushant Kumar Shrivastava** from July 2019 to February 2025 at the Department of Pharmaceutical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi. The matter embodied in this Ph.D. thesis has not been submitted for the award of any other degree/diploma. I declare that I have faithfully acknowledged and given credit to the research workers wherever their works have been cited in my work in this thesis. I further declare that, I have not wilfully copied any other's work, paragraphs, text, data, results, etc. reported in the journals, books, magazines, reports, dissertations, theses, etc., or available on websites and have not included them in this Ph.D. thesis and have not cited as my own work.

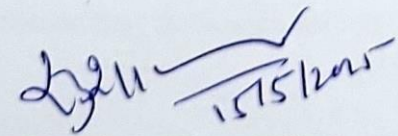
Date: 15/05/2025

Place: IIT (BHU), Varanasi

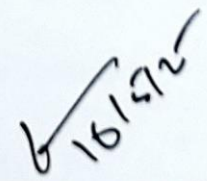
Poorvi Saraf

CERTIFICATE BY THE SUPERVISOR(S) AND HEAD OF THE DEPARTMENT

It is certified that the above statement made by the student is correct to the best of our knowledge.


Prof. Sushant Kumar Shrivastava
(Supervisor)

Dr. S. K. SHRIVASTAVA
Professor
Deptt. of Pharm. Engg. and Tech
Indian Institute of Technology
(Banaras Hindu University)
Varanasi-221005


Prof. Sairam Krishnamurthy
(Head of the Department)

विभागाध्यक्ष / Head

मैद्यकीय अभियांत्रिकी एवं प्रौद्योगिकी विभाग /
Department of Pharmaceutical Engineering & Technology
भारतीय प्रौद्योगिकी संस्थान / INDIAN INSTITUTE OF TECHNOLOGY
(बनारस हिन्दू विश्वविद्यालय) / (BANARAS HINDU UNIVERSITY)



COPYRIGHT TRANSFER CERTIFICATE

Title of the Thesis: Design, Synthesis, and Biological Evaluation of Novel Heterocyclic Compounds as Dual COX-2/5-LOX Inhibitors

Candidate's Name: Ms. Poorvi Saraf

Copyright Transfer

The undersigned hereby assigns to the Indian Institute of Technology (Banaras Hindu University), Varanasi all rights under copyright that may exist in and for the above thesis submitted for the award of the Ph.D. degree.

Date: 15/05/2025

Place: IIT (BHU), Varanasi

A handwritten signature in black ink, appearing to be 'Poorvi Saraf', written over a horizontal line.

Poorvi Saraf

Note: However, the author may reproduce or authorize others to reproduce material extracted verbatim from the thesis or derivative of the thesis for author's personal use provided that the source and University's copyright notice are indicated.