



## Faculty of Pharmacy

The Maharaja Sayajirao University of Baroda  
(Accredited Grade "A" by NACC)

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*Department of Special Assistance, University Grants Commission*

### CERTIFICATE

This is to certify that the thesis entitled, "**Design and Synthesis of Some Novel Heterocyclic Compounds for Antithrombotic Activity**" submitted for the award of Ph.D. Degree in Pharmacy by Mr. Niravkumar Rajeshbhai Patel incorporates the original research work carried out by him under my supervision and no part of this work has been previously submitted for any degree.

**Guide**

(Prof. M. R. Yadav)

**Head**

Pharmacy Department

**Dean**

Faculty of Pharmacy,  
The Maharaja Sayajirao University of Baroda,  
Vadodara - 390001



**CERTIFICATE**

This is to certify that the following publications have arisen out of the research work carried out by my Ph.D. student Mr. Niravkumar Rajeshbhai Patel who is submitting his thesis entitled, "**Design and Synthesis of Some Novel Heterocyclic Compounds for Antithrombotic Activity**" to The Maharaja Sayajirao University of Baroda, Vadodara for the award of Ph.D. degree in Pharmacy.

**Prof. M. R. Yadav**  
Research Guide

**PUBLICATIONS**

**A. Research/Review Papers**

1. **Nirav R Patel**, Dushyant V Patel, Ashish M Kanhed, Sagar P Patel, Kirti V Patel, Daniel K Afosah, Umesh R Desai, Rajshekhar Karpoomath, Mange Ram Yadav. 2-Aminobenzamide-Based Factor Xa Inhibitors with Novel Mono-and Bi-Aryls as S4 Binding Elements. *ChemistrySelect*, **2019**, *4*, 802-809.
2. **Nirav R Patel**, Dushyant V Patel, Prashant R Murumkar, Mange Ram Yadav. Contemporary developments in the discovery of selective factor Xa inhibitors: a review. *European journal of medicinal chemistry*, **2016**, *121*, 671-698.

3. Dushyant V Patel, **Nirav R Patel**, Ashish M Kanhed, Divya M Teli, Kishan B Patel, Prashant D Joshi, Sagar P Patel, Pallav M Gandhi, Bharat N Chaudhary, Navnit K Prajapati, Kirti V Patel, Mange RamYadav. "Novel carbazole-stilbene hybrids as multifunctional anti-Alzheimer agents." *Bioorganic Chemistry*, **2020**, 103977.
4. Dushyant V Patel, **Nirav R Patel**, Ashish M Kanhed, Sagar P Patel, Anshuman Sinha, Deep D Kansara, Annie R Mecwan, Sarvangee B Patel, Pragnesh N Upadhyay, Kishan B Patel, Dharti B Shah, Navnit K Prajapati, Prashant R Murumkar, Kirti V Patel, Mange Ram Yadav. Novel Multitarget Directed Triazinoindole Derivatives as Anti-Alzheimer Agents. *ACS chemical neuroscience*, **2019**, *10*, 3635-3661.
5. Riyaj S Tamboli, Mahesh M Shidore, Radha Charan Dash, Ashish M Kanhed, **Nirav R Patel**, Shailesh R. Shah, and Mange Ram Yadav. "Improved Rapid and Green Synthesis of N-Aryl Piperazine Hydrochlorides Using Synergistic Coupling of Hydrated Task Specific Ionic Liquid ([BbIm]OH) and Microwave Irradiation." *ChemistrySelect*, **2019**, *4*, 1138-1148.

## B. Book Chapters

1. **Nirav R Patel**, Dushyant V Patel. "*Synthesis and Biological Activities of Vicinal Diaryl Furans*". in: *Vicinal Diaryl Substituted Heterocycles. A Gold Mine for the Discovery of Novel Therapeutics Agents*. Edt: M. R. Yadav et. al., *Elsevier*, **2018**, Chapter-8, pp. 221-244.
2. Dushyant V Patel, **Nirav R Patel**. "*Vicinal Diaryl Thiazoles and Thiadiazoles*". in: *Vicinal Diaryl Substituted Heterocycles. A Gold Mine for the Discovery of Novel Therapeutics Agents*. Edt: M. R. Yadav et. al., *Elsevier*, **2018**, Chapter-8, pp. 245-276.