CHAPTER 41

PHARMACY

Doctoral Theses

01. BHUTANI (Rubina)
Synthesis and Biological Evaluation of some Oxadiazole based new Hybrid comounds
Supervisor : Prof. D.P. Pathak
Th 24776

Contents

1. Introduction. 2.Literature review 3. Aim and plan of work 4. Experimental work 5. Results and discussion 6. Summary and conclusion 7.List of publications and paper presented.

02. KAPOOR (Garima)
Design, Synthesis and Biological Evaluation of some Novel Fatty Acid Derivatives
Supervisors : Prof. D.P. Pathak
Th 24777

Contents

1. Introduction. 2. Literature review 3. Objective and plan of work 4. Experimental work 5. Results and discussion 6. Summary and conclusion 7. List of publications and paper presented.

03. KAUR (Avneet)
Synthesis, Biological Evaluation and Docking Studies of some Substituted Benzoxazole as Anit-Inflammatory Agents.
Supervisor : Prof.(Dr.) Sharad Wakode and Prof.(Dr.) D.P. Pathak
Th 24778

Contents

1. Introduction. 2. Research envisaged 3. Benzoxazole: the molecule of diverse pharmacological importance 4. Synthesis, biological evaluation and docking study of N-(2-(3,4-dimethoxyphenyI)benzoxazole-5-yIbenzamide derivatives 5. Synthesis, biological evaluation and docking study of N-(2-(3,5-dimethoxyphenyI)benzoxazole-5yI)benzamide derivatives 6. Synthesis biological evaluation and docking study of N-(2-(3,5-trimethoxyphenyIBenzozazole-5yI benzamide derivatives 7.Synthesis biological evaluation and docking study of N-(2(3,5-trimethoxybenzyI)benzoxazole-5yI) 8.Conclusions.

04. MANCHANDA (Satish)
Studies on Ocular Formulations of Selected Carbonic Anhydrase Inhibitor.
Supervisors : Prof. P.K. Sahoo
Th 24780

Abstract
(Not Verified)

The main objective of the proposed study is to formulate different topical ocular formulations of selected CAI with an aim to reduce the possible side effects with maximum activity in ocular hypertension. Part A- Acetazolamide: In this part first of all RP-HPLC analytical method was developed for Acetazolamide & validated followed by study of different formulation factor. Finally particulate drug delivery systems for Acetazolamide were developed using Chitosan-Dextran sulphate & Chitosan-STPP carrier systems. The developed analytical method was simple, accurate, precise, reproducible and economic. During the study of formulation factors drug permeation was found to be influenced by variation in drug concentration as well as pH. The optimized developed particulate dosage forms exhibited sustained drug delivery, increased in vitro permeation & significant ocular hypotensive activity. The formulations were found mucoadhesive & stable enough. Part B- Dorzolamide HCl: RP-HPLC method was developed for Dorzolamide HCl which was simple, accurate, precise, reproducible and economic. Study of different formulation factors exhibited the influence of concentration & pH on the transcorneal permeation of drug. Formulation containing Benzalkonium chloride exhibited higher transcorneal permeation & ocular hypotensive activity in contrast to control formulation. The optimized, particulate dosage forms, where Chitosan- Dextran Sulphate & Chitosan-STPP carrier systems are used, exhibited satisfactory results in terms of entrapment, loading, zeta potential, PDI, release & ocular hypotension. The formulations were found mucoadhesive & stable as well. Conclusion: As Chitosan-Dextran Sulphate & Chitosan-STPP carrier systems provided the enough mucoadhesion & sustained release of both the drugs & one may think about the commercialization after thorough clinical studies, as the products were found stable too. In future one may also try different other polymers or combination of polymers for the successful loading of these drugs with an objective to have more hypotensive activity.

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05. RUPSI
To Study the Pathophysiology of Coronary Artery Disease using Proteomic Approach.
Supervisors : Prof. P. K. Sahoo, Dr. Sagarika Biswas and Prof. Prathibha Nand
Th 24945

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06. SETHI (Sugandha)
Design, Synthesis, Spectral Characterisation, Molecular Docking and Biological Evaluation of Novel Substituted Benzimidazole Derivatives.
Supervisors : Prof. P. K. Sahoo
Th 24946

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