

## CHAPTER 39

### PHARMACY PHARMACEUTICS

#### Doctoral Thesis

342. DATTATRAYA (Galpalli Niranjana)  
**Pharmacological, Biochemical and Ocular Toxicity Studies of Some Herbal Drugs in the Management of Glaucoma.**  
SupervisorS : Prof. S. S. Agrawal, Dr. Rohit Saxena and Prof. S. K. Gupta  
Th 15812

#### *Abstract*

Studies, some natural products and their formulation have been evaluated for antiglaucoma potential in different experimental models viz. laser, water loaded, steroid and normotensive models. Attempts to study the molecular mechanism of action (antioxidant, neuroprotective, cholinergic, anticholinesterase, TNF- $\alpha$  inhibition, beta blocking activity), regulatory toxicology and formulation development of various herbal extracts, with a view to develop a potent herbal anti-glaucoma drug with the advantages of being safe, economic and effective for long-term therapy.

#### *Contents*

1. Introduction. 2. Review of literature. 3. Lacunae. 4. Aims and objectives. 5. Materials and methods. 6. Results and observations. 7. Discussion. 8. Summary and Conclusions. 9. Bibliography. 10. Appendix.

343. KACHROO (Monica)  
**Isolation, Characterization and Anti-Fertility Activity of the Active Moiety From the Seeds of Ensete Superbum, Cheesm (Banakadali) and Anti-Fertility Studies of the Peels of Citrus Medica, Linn (TURANJ).**  
Supervisors : Prof. S. S. Agrawal and Dr. Ratan Dubey.  
Th 15814

*Abstract*

Studies the aqueous and ethanolic extracts of the seeds of *Ensete superbum* cheesm, for post-coital anti-fertility activity in female albino rats on different days of pregnancy. The anti-ovulatory study on immature female rats are also evaluated. The chemical nature of the compound isolated from the ethanolic extract of the seeds, its characterization and its anti-fertility activity on different days of pregnancy in female albino rats are taken up. The estrogenic/anti-estrogenic activities, effect on estrous cycle, mating behavior and reversibility of action of the drug are also undertaken.

*Contents*

1. Introduction. 2. Literature Review. 3. Materials and methods. 4. Observations and results . 5. Discussion. 6. Summary and Conclusions. 7. Bibliography. 8. Appendix.

344. KIRANA (H.)  
**Standardization of Some Rasayana Drugs and Their Role in Experimentally Induced Diabetes.**  
 Supervisor : Prof. B. P. Srinivasan  
 Th 158

*Abstract*

Studies the effect of rasayana drugs on type-2 diabetes and related oxidative stress. Anti-inflammatory and immunomodulatory activity with special reference to the inflammatory marker, tumor necrosis factor (TNF)- $\alpha$ . In ayurveda, combination therapy is often used. Studies the effect of drugs individually as well as in combination.

*Contents*

1. Introduction. 2. Literature review. 3. Drug review. 4. Objectives and plan of work. 5. Chemicals and equipments. 6. Standardization. 7. Pharmacological studies. 8. Discussion. 9. Conclusions. 10. Bibliography.

345. ROUT (Abhiram)  
**Formulation and Evaluation of Matrix-Type Transdermal Drug Delivery System of Nimodipine.**  
 Supervisor : Prof. B P. Srinivasan  
 Th 15811

*Abstract*

Investigates to fabricate and evaluate a matrix dispersion-type transdermal drug delivery system of Nimodipine using chitosan polymer which undergoes extensive first-pass metabolism, more than 80-90% in the liver, leading to low and variable bioavailability from conventional oral formulation. The oral bioavailability is reported to be 5-13%. Administration through transdermal route to avoid the first pass effect of drug in the liver. Nimodipine delivered by transdermal route by formulating matrix-type pathes, which enhances bioavailability and hence reduces its dose and thereby would reduce its dose dependent side effects.

*Contents*

1. Introduction. 2. Literature review. 3. Drug review. 4. Polymer profile. 5. Solvent profile. 6. Objectives. 7. Materials and methods. 8. Results. 9. Discussion. 10. Conclusion. 11. Bibliography. 12. Appendix.