CHAPTER 32

MEDICAL SCIENCES
BIOCHEMISTRY

Doctoral Theses

362. DIKSHIT (Piyush)
Biochemical Studies on Antidiabetic Effect of Central Part of Stem of Musa. Sapientum.
Supervisors: Dr. Rimi Shukla, Prof. Jaswinder K. Gambhir and Dr. Vibha Tandon
Th 20138

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363. SHUKLA (Kirtikar)
Biochemical Studies on Antidiabetic Effect of Fruit of Withania Coagulans.
Supervisor: Prof. Jasvinder K. Gambhir
Th 20137

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364. SHUKLA (Santosh Kumar)

**Molecular and Immunohistochemical Studies on Cardioprotective Mechanism (S) of Terminalia Arjuna (TA) and Eugenia Jambolana (EJ) in Ischemic Model of Myocardial Infarction : An Experimental Study.**

Supervisors: Dr. Suman Bala Sharma, Dr. Shridhar Dwivedi and Dr. Usha Rani Singh

Th 20135

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365. SINHA (Rajesh)

**Functional Analysis of mce 1A and mce 4A genes of M. tuberculosis H37 Rv Using Overexpression Approach.**

Supervisors: Prof. H. G. Raj, Prof. Mridula Bose and Prof. Ashok K. Prasad

Th 20136

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1. Introduction. 2. Review of literature. 3. Cloning and overexpression of mce1A (RvO169) and mce4A (Rv3499c) genes of M. tuberculosis H37Rv in suitable shuttle and expression vectors and purification of the proteins. 4. To assay for the putative cholesterol binding activity of the overexpressed Mce1A and Mce4A proteins of M. tuberculosis H37Rv. 5. Effect of overexpression of mce4A and mce1A genes on the expression of other genes of M. tuberculosis. 6. Comparative analysis of survival of wild type M. tuberculosis H37Rv with recombinant M. tuberculosis H37Rv overexpressing Mce1A and Mce4A, in mouse model. Summary and conclusions. References and appendix.