

## CHAPTER 33

### MEDICAL SCIENCES MICROBIOLOGY

#### Doctoral Theses

306. MOHAMMAD KHALILUR RAHMAN KHAN  
**Study of ESBLs and ESBL Plasmids in Clinical Isolates of E. Coli, Klebsiella SPP., Proteus SPP. and Pseudomonas Aeruginosa.**

Supervisor : Dr. S. S. Thukral  
Th 15355

#### *Abstract*

Determines the prevalence of ESBL producing clinical isolates of Escherichia coli, Klebsiella spp., Proteus spp. and Pseudomonas aeruginosa, to identify and characterize the ESBLs and the encoding plasmids in these isolates. Shows that there were 3 different types of 125 kb ESBL encoding plasmids harboured by the clinical isolates of Proteus spp.

#### *Contents*

1. Introduction. 2. Aims and objectives. 3. Review of literature. 4. Materials and methods. 5. Results and observations. 6. Discussion. 7. Summary and conclusion. Bibliography and appendix.

307. PREMALATHA (M. Martha)  
**Study of Immune Response in Cases of Leptospirosis and Characterization of Leptospira Antigens.**

Supervisors : Dr. Iqbal Rajinder Kaur, Dr. Rama Chaudhary,  
Dr. A. B. Dey and Dr. R. Avasthi

Th 15359

#### *Abstract*

Diagnoses the suspected cases of Leptospirosis by ELISA, MAT, RDT from hospitalized patients and to study the Th<sub>1</sub> (CMI) and Th<sub>2</sub> (HMI) Immuneresponse in cases of leptospirosis by esti-

mating the TNF  $\alpha$  and IL-6 levels respectively and to identify the antigens which are recognized during the human immuneresponse to infection by immunoblotting which could help in the serodiagnosis of leptospirosis as still there is paucity of standardized and reproducible of diagnostic kit in Indian situations.

*Contents*

1. Introduction. 2. AIMS and Objectives. 3. Review of Lirerature. 4. Materials and Methods. 5. Results. 6. Discussion. 7. Summary and Conclution. Bibliography and Appendix.

308. SRIVASTAVA (Vikram)  
**Role of Apoptosis in the Pathogenesis of Influenza A Virus, Correlation of Virological and Immunological Parameters: A Study in Human and Murine Model.**  
 Supervisors : Dr. Madhu Khanna and Dr. V.K. Vijayan  
 Th 15436

*Abstract*

Identifies the influenza virus infection in clinical specimens and estimation of level of proinflammatory and anti-inflammatory cytokines. Immunomodulation of iNOS and PKR expression in murine model. Studies the expression of iNOS and double stranded RNA dependent protein kinase (PKR) in murine model. Assays the influenza virus induced apoptosis in lymphocytes in murine model. Elucidates and correlate the role of double stranded RNA dependent protein kinase and iNOS in influenza virus induced apoptosis in the murine mode.

*Contents*

1. Introduction. 2. Review of Literature. 3. Aims and Objectives. 4. Plan of Work. 5. Materials and Methods. 6. Results. 7. Discussion. 8. Summary and Conclusions. Bibliography and Appendix.