

CHAPTER 38

MICROBIOLOGY

Doctoral Theses

373. ABHIMANYU

Genetic Variations in Host Innate and Adaptive Immune Response in Tuberculosis: A Search for Risk Loci in North Indians.

Supervisors : Prof. Mridula Bose, Dr. Mandira Varma-Basil and Dr. J.N. Banavaliker
Th 19865

Contents

1. General introduction. 2. Review of literature. 3. Materials, methods and statistical analysis. 4. Genetic variants in the innate immunity genes and their effect on susceptibility to tuberculosis (PTB and ETB) in north Indians. 5. Cytokine gene variants and their effect on susceptibility to tuberculosis (PTB and EPTB) in north Indians. 6. Estimation of the spectrum of serum cytokine response in PTB and LNTB in north Indians. 7. Correlation of cytokine gene variants and mean serum cytokine levels in PTB and LNTB in north Indians. 8. Interaction of the cytokine gene variants (gene-gene interaction): Influence on susceptibility to TB. 9. Summary and conclusions, Epilouge, references, appendix.

374. DEVANAND KUMAR

Identification and Characterization of Histone Acetylases in the Protozoan Leishmania Donovanii.

Supervisor : Prof. Swati Saha
Th 19871

Contents

1. Introduction. 2. Materials and methods. 3. Characterization of leishmania donovani histone acetyltransferase HAT4. 4. Characterization of leishmania donovani histone acetyltransferase HAT3. 5. Characterization of leishmania donovani histone acetyltransferase HAT1. Bibliography, appendices.

375. JHA (Himanshu)
Detection of Mycobacterial Species Causing Tuberculous Lymphadenitis From Fine Needle Aspirates, Biopsy and Blood Samples Using Polymerase Chain Reaction (PCR).
 Supervisors : Dr. C.P. Baveja, Dr. P.N. Agarwal and
 Dr. Vinay Kamal
Th 19873

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

376. PATHAK (Rakesh)
Role of lspA Gene in the Biology and Pathogenesis of Mycobacterium Tuberculosis.
 Supervisor : Prof. Mridula Bose and Prof. Daman Saluja
Th 19872

Contents

1. Introduction. 2. Review of literature. 3. Production of polyclonal antibody against purified recombinant LspA protein of M. Tuberculosis. 4. Overexpression of lspA gene and its effect on the biology of mycobacterium tuberculosis. 5. Immunologic and pathogenic effect of M.tb:lspA recombinant construct in mouse model. 6. Identification and characterization of putative promoter of ORFs of lspA - Rv1540: Co-Transcribed. Summary and conclusion. References, appendix.

377. PRADEEP KUMAR
Genomic Differences Between Clinical and Non-Clinical Strains of Yersinia Enterocolitica Isolated From India.
 Supervisor : Dr. J. S. Virdi
Th 19875

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

378. PURI (AdarshKumar)
Carbon Sequestration Using Heterotrophic Bacteria
 Supervisor : Prof. T. Satyanarayana
Th 19870

Contents

1. Introduction. 2. Materials and methods. 3. Results 4. Discussions. 5. Summary and conclusion. References.

379. RAGHUWANSHI (Shailendra)
Tannase From *Penicillium Charlesii* : Process Optimization, Purification, Characterization, Scale Up and Industrial Applications.
Supervisor : Prof. R.K.Saxena
Th 19867

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1. Introduction. 2. Review of literature. 3. Materials and methods. 4. Observations and results. 5. Discussion. 6. Summary and conclusions. 7. Future prospects. 8. Bibliography.

380. ROHATGI (Bharti)
Exochitinase of the Thermophilic Mould *Myceliphthora Thermophila*
Supervisor : Prof. T. Satyanarayana
Th 19869

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1. Introduction. 2. Material and Methods. 3. Results. 4. Discussion. 5. Summary and conclusions. References.

381. SHARMA (Archana)
Production, Characterization and Applications of Acidstable α -Amylase of *Bacillus Acidicola*.
Supervisor : Prof. T. Satyanarayana
Th 19864

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1. Introduction. 2. Materials and methods. 3. Results. 4. Discussion. 5. Summary and conclusions. References.

382. SHARMA (Richa)
Keratinases From *Pseudomonas Aeruginosa* KS-1: Characterization and Degradation of Surrogate Prion Protein Sup 35 NM.
Supervisor : Prof. Rani Gupta
Th 19874

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1. Introduction. 2. Review of literature. 3. Materials and methods. 4. Observations and results. 5. Discussion. 6. Summary and conclusions. 7. Bibliography.

383. VIKASH KUMAR
Production, Cloning, Characterization and Applications of Thermo-alkali-Stable Xylanase From Polyextremophilic Bacillus Halodurans.
Supervisor : Prof. T. Satyanarayana
Th19868

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1. Introduction. 2. Materials and Methods. 3. Results. 4. Discussion. 5. Summary and conclusions. References.

384. VERMA (Digvijay)
Recovery and Expression of Thermo-alkali-Stable Xylanase Gene by Metagenomic Approaches.
Supervisor : Prof. T. Satyanarayana
Th 19866

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1. Introduction. 2. Materials and Methods. 3. Results. 4. Discussion. 5. Summary and conclusions. References.