# CHAPTER 30

# MEDICAL SCIENCES BIOCHEMISTRY

## **Doctoral Theses**

415. ADVANI (Meeta J.)

Targeting Mycobacterium Tuberculosis CAMLP for anti-TB drug Discovery: TFP as an anti-TB agent.

Supervisor : Dr. P. Hemalatha Reddy

Th 21108

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1. Introduction 2. Review of literature 3. Aims and objectives 4. Summary and conclusion 5. Bibliography 6. Appendix.

416. AWASTHI (Mayanka)

Intractome Mediated Trafficking of the Bactrial Type Rhodopsin in Chlamydomonas Reinhardtii.

Supervisor : Dr. Suneel Kateriya Th 21004

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1. Introduction 2. Review of literature 3. Aims and objectives 4. Research work carried out towards aims and objectives 5. Conclusions 5. Perspectives 6. Appendix and publications.

417. BANSAL (Savita)

Studies on the Role of Advanced Glycation End Products (Ages) and Polymorphism of Receptors for Ages in the Development of Macro-Vascular Complications in Type-II Diabetic Patients

Supervisors: Prof. A.K. Tripathi, Prof. S.V. Madhu and

Prof. B.D. Banerjee

Th 21005

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1. Introduction 2. Aims and objectives 3. Review of literature 4. Materials and methods 5. Results 6. Summary and conclusion 7. Bibliography 8. Appendix.

### 418. CHAUHAN (Priyanka)

# Development of Prophylactic and Immunotherapeutic Strategies for Vaccination Against Tubersulosis.

Supervisor : Prof. Anil K. Tyagi

Th 21002

#### **Contents**

1. Introduction 2. Review of literature 3. Aims and objectives 4. Research work carried out towards the aim and objectives 5. Summary and conclusions 9. Appendix 10. Publication.

#### 419. GANGULI (Nirmalya)

# Delivery and Targeted Expression of Transgene in Mammary Epithelial Cells Usnign Sendai Viral Envelope.

Supervisor: Prof. Debi P. Sarkar

Th 21269

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- 1. Abbreviation 2. Introduction 3. Review of literature 4. Objectives and scopes 5. Materials and methods 6. Results 7. Discussion 8. Summary 9. Reference 10. Appendix 11. Publication.
- 420. JAIN (Smita)

# Neurotoxicity Assessment of Trizophos: A Molecular and Behavioral Approach.

Supervisors: Prof. B.D. Banarjee, Dr. Rafat S. Ahmed,

Dr. Vinod K. Arora and Dr. Pramod K. Mediratta

Th 21003

#### Contents

1. Tz induced oxidative stress, delayed neuropathy and histopathological alterations 2. Attenuation of tz induced cognitive impairment: Role of bdnf 3. Tz induced cholinergic and neurotransmission disruption: Amelioration by drugs 4. Mechanism of tz transport across blood-brain barrier: Attenuating effect of drugs. 5. Summary, conclusion and bibliography.

#### 421. JAMSHEED JAVID

# Prognostic Significance of Apoptosis Gene Alterations in Non Small Cell Lung Cancer Patients.

Supervisors : Dr. Alpana Saxena and Dr. P. K. Julka Th $21110\,$ 

#### **Contents**

1. Introduction 2. Aims & objectives 3. Review of literature 4. Materials and methods 5. Results 6. Discussion 7. Summary and conclusions 8. Bibliography and appendix.

#### 422. JATANA (Nidhi)

Molecular Modeling Studies of Emerging Drug Targets Using In Silico Approaches.

Supervisor : Dr. N Latha Th 21267

#### **Contents**

1. Abbreviation 2. Introduction 3. Review of literature 4. Aims and objectives 4. Summary and conclusion 5. List of publications.

#### 423. MALHOTRA (Dipti)

Identification of Genetic Markers for Suicidal Risks in Subjects with Stress and Associated Depression.

Supervisors: Prof. A.K. Tripathi, Prof. B.D. Banarjee, Prof. M.S. Bhatia and Prof. N.K. Aggarwal.

Th 21001

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1. Introduction 2. Review of literature 3. Aims and objectives 4. Materials and methods 5. Results 6. Discussion 7. Summary and conclusion 8. Reference and appendix.

## 424. MANUSHI SIDDARTH

Gene Environment Interaction in Chronic Kidney Disease: Role of Xenobiotic Load and Polymorphism of Xenobiotic Metabolizing Enzymes in the Development of Renal Disease.

Supervisors: Prof. A.K. Tripathi, Prof. O.P. Kalra and Prof. B.D. Banarjee

Th 21000

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1. Introduction 2. Aims and objectives 3. Case-control study 3.

In vitro study 4. Summary and conslusion 5. Bibliography and appendix.

#### 425. MD. MUNTAZ KHAN

Discovering Cellular Regulatory Mechanisms that Control DNA Relication by Utilizing Targeted siRNA Delivery in Liver Cells.

Supervisor: Prof. Debi P. Sarkar

Th 21108

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- 1. Introduction 2. Review of literature 3. Materials and methods
- 4. Results 5. Discussion and summary 6. References and publications.

### 426. PACHAURI (Manendra)

Combination Therapy of Curcumin, Piperine and Monensin in Nanocarriers for the Treatment of Malaria and Cancer.

Supervisor: Prof. P. C. Ghosh

Th 21111

#### **Contents**

1. Review of literature 2. Aims and objectives 3. Materials and methods 4. Results and discussion 5. Summary and conclusions 6. Bibliography.

# 427. PEEYUSH RANJAN

Characterization of Novel Ion Channel Coupled Rhodopsin of Chlamydomonas reinhardtii.

Supervisors : Dr. Suneel Kateriya and Prof. D.P. Sarkar Th $21109\,$ 

#### **Contents**

1. Introduction 2. Materials and methods 3. Results and discussion 4. Conclusion 5. Future perspective 6. References 7. Appendices.

#### 428. SHANDILYA (Manish)

Characterization of Novel Hemoglobins and their Reductase Partners from Chlamydomonas Rreinhardtii for an Insight into Globin Function.

Supervisor: Dr. Suman Kundu

Th 21268

#### **Contents**

1. Introduction, review of literature, aims and objectives 2. Discovery and characterization of new Hemoglobins from single celled green algae Chlamydomonas reinhardtii for an evaluation of O2 transport function and ability to bind NO 3. Identification and characterization of Putative methemoglobin reductases from chlamydomonas reinhardtii 4. Investigation of interactions of Hemoglobins and their Cognate reductases to support Nitric Oxide Dioxygenase function of Hemoglobins 5. Summary and conclusions 6. Bibliography 7. Supplementary figures 8. Appendix 9. Achievements.

### 429. SHARMA (Anju)

To Investigate the Effect of Histone Hyperactylation on the Expression of Genes Involved in Lung Carcinogenesis.

Supervisors: Dr. Jayashree Bhattarcharjee and

Dr Vishwajeet Rohil

Th 21006

#### **Contents**

1. Introduction 2. Review of literature 3. Purpose of the study 4. Aim and objectives 5. Materials and methods 6. Results 7. Discussion 8. Summary 9. Reference 10. Appendix.

#### 430. UPPAL (Sheetal)

Characterization of Hexacoordinate Synechocystis Hemoglobin Stability and its Application in Engineering Heme Retention Ability and Amyloidogenesis Investigation.

Supervisor: Dr. Suman Kundu

Th 21107

#### **Contents**

1. Introduction, review of literature, aims and objectives 2. Mutational analysis of synechocystis hemoglobin heme pocket to identify amino acid side chains responsible for stability of the globin 3. Engineering synechocystis hemoglobin stability in myoglobin as a step towards production of stable hemoglobin based blood substitutes 4. Towards an understanding of the putative function of synechocystis hemoglobin through ligand binding and interaction with reductase partner 5. Investigating the property of amyloidosis of synechocystis hemoglobin in comparison to neuroglobin. Summary and conclusions. Bibliography and appendix.