

CHAPTER 63

THESES OF THE PREVIOUS YEAR

(A List of Theses Accepted for Awarded of the
Degree of Ph.D. in 89th Annual Convocation-2012)

Doctoral Theses

BIOMEDICINE

615. AMRESH PRAKASH
In Silico Approaches to Study the Role of Adenosine A_{2A} Receptor (A_{2A}R) in Parkinson's Disease for Development of Novel Therapeutics.
Supervisor : Dr. Pratibha Mehta Luthra
Th 18352

Contents

1. Introduction and Review of literature. 2. Structural characterization of AR-subtype (A₁R, A_{2A}R, A_{2B}R, A₃R) by homology modeling and validation of their active sites. 2.1. Structural characterization of A2AR with Extracellular Loops, Identification and Validation of active site by means of molecular modeling. 2.2. Homology modeling of adenosine receptor subtypes and chemoprint identification. 3. Receptor chemoprint-based 3D-QSAR pharmacophore approach for virtual screening and putative pharmacokinetic profile of the hits in search of potential A2AR antagonist. 4. In silico study of the A_{2A}R-D₂R Kinetics and Reveal the Residues involved at the interfacial surface for molecular interaction.

616. BANSAL (Nidhi)
Understanding the Role of Human SineB in P53-Mediated Gene Repression.
Supervisor : Prof. Daman Saluja
Th 18346

Contents

1. Introduction. 2. Review of literature. 3. Objective. 4. Materials

and methods. 5. Results. 6. Discussion. 7. Summary. 8. Bibliography. 9. Appendix.

617. INDERJEET KAUR
Characterization of Neoantigenes Involved in Immunopathogenesis of Alcoholic Hepatitis.
 Supervisor : Dr. Anju Katyal
Th 18347

Contents

1. Introduction. 2. Review of literature. 3. Aims and objectives. Materials and methods.

618. KHATRI (Manisha)
Synthesis of Novel Aryl Piperazine Derivatives and an Evaluation of their Biological Activity.
 Supervisor : Dr. Manisha Tiwari
Th 18348

Contents

1. Introduction. 2. Review of literature. 3. Aims and objectives. 4. Materials and methods. 5(a). Synthesis and structural characterization of Aryl piperazine derivative. 5(b). Cytotoxic evaluation of Aryl piperazine derivatives . 6(a) Evaluation of biomaker levels for anxiety. 6(b). Involvement of 5-HT receptor system through antagonism study. 6(c). Effect of Aryl piperazine derivatives on extracellular serotonin levels. 7(a). Synthesis and structural characterization of new series of Aryl piperazine derivatives. 7(b). Behaviour evaluation of derivatives. 7(c). Investigation of receptor ligand interactions through molecular modeling studies. 8. Toxicological evaluation of Aryl piperazine derivatives. 9. Summary.

619. SATENDRA SINGH
Poteomics Approach for Molecular Characterization of Tyrosine Hydroxylase and Tartrate Resistant Acid Phosphatase from Mucuna Pruriens (L.) DC.
 Supervisor : Dr. Pratibha Mehta Luthra
Th 18350

Contents

1. Proteomics approach for molecular characterization of tyrosine hydroxylase from mucuna pruriens. 2. Proteomics

approach for molecular characterization of tartrate resistant acid phosphatase from mucuna pruriens.

620. SHARMA (Monal)
Studying the Effect of Suberoylanilide Hydroxamic Acid (SAHA), a HDAC Inhibitor and Vitamin E on Human Cervical (HeLa) Cancer Cell Line.
 Supervisors : Dr. Madhu Chopra and Dr. Anil Kumar Mishra
Th 18345

Contents

1. Introduction. 2. Review of literature. 3. Synthesis and biological evaluation of histone deacetylase inhibitor (HDACi). 4. Molecular mechanism of cell death induced by HDAC inhibitor in HeLa cells. 5. SAHA induced oxidative stress in HeLa cells. 6. Bio-distribution studies in animal model. Bibliography.

621. UDAYABANU (M.)
Investigation of the Role of Zinc in Hypobaric Hypoxia Induced Memory Impairment and Neuronal Damage.
 Supervisor : Dr. Anju Katyal
Th 18351

Contents

1. Introduction. 2. Review of literature. 3. Aim of the study. 4. Materials and methods. 5. Results. 6. Discussion. 7. Summary. 8. Conclusion. References.

622. UNNIKRISHNAN NAIR. R
Studies on Nitric Oxide Induced Apoptosis Mechanisms in Resting and Mitogen Activated CD⁴⁺ T Lymphocytes.
 Supervisors : Prof. Vani Brahmachari and Dr. Anju Katyal
Th 18349

Contents

1. Introduction. 2. Review of literature. 3. Aim of the study. 4. Materials and methods. 5. Results. 6. Discussion. 7. Conclusions. References.

BOTANY

623. YADAV (Chandra Bhan)
Genetic Linkage and Linkage Disequilibrium Mapping of Apomixis Specific Genomic Region in Cenchrus Ciliaris L. Using Molecular Markers.
 Supervisor : Dr. Vishnu Bhat
Th 18330

Contents

1. General Introduction. 2. Development and characterization of F₂ mapping population in Cenchrus ciliaris segregating for apomixis and sexual trait. 3. Genetic linkage maps of the chromosomal regions associated with apomictic and sexual modes of reproduction in Cenchrus ciliaris. 4. Mapping of apospory region controlling apomixis in Cenchrus ciliaris using retrotransposon based markers and its expression analysis. 5. Development of intron spanning gene based markers in Cenchrus ciliaris. 6. Analysis of genetic diversity in Cenchrus species. 7. Linkage disequilibrium mapping of apomixis in Cenchrus ciliaris using AFLP markers. 8. Summary. Bibliography.

BUDDHIST STUDIES

624. LUU VAN LOC
Analytical Study of Merit and Merit Making in Buddhism.
 Supervisors : Prof. K T S Sarao and Dr. R R Singhal
Th 18355

Contents

1. Introduction. 2. The concept of merit in Buddhism. 3. Merit theravada and Mahayana Buddhism. 4. Contribution of buddhist merit to society. 5. Conclusion and bibliography.

625. MISRA (Aditya Narayan)
Role of Buddhism in the Tibetan Struggle for Independence.
 Supervisors : Dr. Indra Narain Singh and Dr. P K Panda
Th 18354

Contents

1. Introduction. 2. The rise fall of Tibet as a nation state. 3. Buddhism in Tibet. 4. Buddhism and the history and dynamics of Tibetan freedom movement. 5. The state of Buddhism and human rights in Tibet. 6. Buddhism and Tibet an struggle : An empirical study. 7. Conclusion and bibliography.

626. NARAYAN (Prakash)
Social Processes and Buddhism : A Study of Bihar and Eastern Uttar Pradesh During Early Historic Period (Circa 600 BC - 200 BC).
 Supervisor : Dr. Indra Narain Singh
Th 18353

Contents

1. Introduction. 2. Political formation : Gana-sanghas and monarchies at the time of Buddha. 3. Economic and Urban processes : Agriculture, craft, trade and urbanization. 4. Religious beliefs, institutions and practices : New perspectives. 5. Social process, structures and reformations. Conclusion and bibliography.

627. PHAN DAO
Critical Examination of the Method of Sermon Dissemination as Used in Buddhism.
 Supervisor : Dr. H P Gangnegi
Th 18357

Contents

1. Introduction. 2. The early Buddhist dissemination of the Dhamma. 3. The Buddha's teachings of Sermon dissemination for the Dhamma preachers. 4. Figures of speech, words, and personality in the Buddha's Sermon : An analysis. 5. The application of new methods of sermon dissemination. 6. Dissemination of buddhism in the modern age. 7. Conclusion and bibliography.

628. TRINH NGOC BACH
Inquiry Into the Historical Development and Pure Land Buddhism in China and Vietnam.
 Supervisor : Prof. Sushma Kulshreshtha
Th 18356

Contents

1. Introduction. 2. The historical survey of pure land literature and origin of Amitabha Buddha. 3. Main teachings of the pure land. 4. Sakyamuni Buddha taught about pure land in Chinese Tripitaka. 5. Establishment of pure land school china and Vietnam. 6. Pure land masters and their contributions. 7. Proofs of rebirth in the pure land. 8. Conclusion and bibliography.

BUSINESS ECONOMICS

629. VARSHNEY (Pankaj)
Corporate Governance and Performances Measurement : An Economic Value Added Approach.
 Supervisors : Prof. Vijay Kumari Kaul and Prof. V K Vansal
Th 18329

Contents

1. Introduction. 2. Corporate Governance and Shareholder Value. 3. Economic Value Added : A Conceptual Framework. 4. Review of literature. 5. Research Methodology. 6. Corporate Governance Mechanisms and Firm Performance. 7. Corporate Index and Firm Performance. 8. Summary and conclusion. Bibliography.

EDUCATION

630. BHARTI
Inclusive Education in Primary Schools : From Resistance to Reality.
 Supervisor : Prof. Krishna Maitra
Th 18344

Contents

1. The problems. 2. Grounding the study. 3. Review of literature. 4. Journey commenced. 5. The IEP. 6. Journey realized and beyond. Bibliography.

631. SUBHASH CHANDER
Developing A Framework For Teaching Science to Visually Challenged Learners in An Invlusive Classroom.
 Supervisor : Prof. Krishna Maitra
Th 18343

Contents

1. The vision. 2. The conceptual framework : Grounding the vision. 3. Synthesizing the vision from others lenses. 4. Towards developign the framework : The Building blocks. 5. Concretizing the vision : Analysing within. 6. Beyond the vision : Paving the way for the future. Bibliography.

GEOLOGY

632. SHUKLA (Dericks Praise)
Multi-Disciplinary Approach Using Hydro-Geochemical Analysis, Remote Sensing-GIS Technique & Mitigation For Arsenic Contaminated Groundwater in Rajnandgaon, Central India.
 Supervisor : Prof. C S Dubey
Th 18340

Contents

1. Introduction. 2. Geology. 3. Geochemistry. 4. Hydro-geochemistry. 5. Remote sensing and GIS. 6. Arsenic mitigation. 7. Conclusion.

MANAGEMENT STUDIES

633. DAM (Sanjoy Kumar)
Economic Liberalization and its Impact on India's Oil and Gas Sector.
 Supervisors : Prof. Simrit Kaur and Prof. V K Seth
Th 18333

Contents

1. Introduction. 2. Oil and Gas in India economy. 3. Global overview : Energy-GDP relationship. 4. Moving towards a low-carbon growth : Policy and implications. 5. Sectoral linkages of energy in indian economy : An empirical evidence.

6. Changing energy landscape : An expirical evidence. 7. Productivity growth of Indian energy sector. 8. Concluding remarks.

MATHEMATICAL SCIENCES MATHEMATICS

634. ARORA (Neetu) NEE RITU MANCHANDA
On Repeated Burst Error Location / Correction Capabilities of Linear Codes.
 Supervisor : Prof. B K Dass
Th 18323

Contents

1. Introduction. 2. Error locating codes dealing with repeated burst errors. 3. Error correcting codes dealing with repeated burst error blockwise. 4. Error locating codes dealing with repeated low-density burst errors. 5. Error correcting codes dealing with repeated low-density burst errors blcokwise. Bibliography.

635. VERMA (Satish)
Weighted Composition Operators on Banach Function Spaces.
 Supervisor : Prof. S C Arora
Th 18322

Contents

1. Introduction. 2. Weighted compositon operators on sobolev related spaces. 3. Operators on orlicz-lorentz spaces. 4. Weighted composition operators on generalized lorentz spaces. 5. Weighted composition opertqors on rearrangement invariant Banach function spaces.

MATHEMATICAL SCIENCES OPERATIONAL RESEARCH

636. VIJAY KUMAR
Modelling and Application of Control Theory in Software Reliability.
 Supervisors : Dr. A K Bardhan and Prof. P K Kapur
Th 18334

1. Introduction. 2. Optimal resource allocation for software testing and debugging process : A control theoretic approach. 3. Allocation of testing effort for fault detection and correction processes under dynamic environment. 4. Optimal resources allocation modelling : A new insight. 5. Dynamic optimal control model for profit maximization of software product under the influence of promotional effort.

MATHEMATICAL SCIENCES STATISTICS

637. DAS (Dulumoni)
On the Estimation of HIV Mortality Rate and Survival Function of HIV/AIDS Patients Under Various Conditions Using Parametric, Nonparametric and Semi-Parametric Techniques.
 Supervisor : Dr. Gurprit Grover
Th 18328

Contents

1. Introduction. 2. Estimation of survivability of clinically diagnosed AIDS cases under competing risks using Cox's regression model. 3. On the construction of clinical life table for studying the survivability of AIDS cases. 4. On the construction of double decrement table and estimation of HIV mortality rate with an application to Hemophilia -Associated AIDS. 5. On the estimation of expected proportion of AIDS cases using bayesian approach. 6. Future research.

638. SABHARWAL (Alka)
On the Estimation of Progressive Effect of Type-2 Diabeties on Human System - Renal the Target Organ.
 Supervisor : Dr. Gurprit Grover
Th 18327

Contents

1. Introduction. 2. Identifying patients with diabetic nephropathy based on serum creatinine in the presence of convariates in type-2 diabetes : A retrospective study. 3. Identifying patients with diabetic nephropathy based on serum creatinine under zero truncated model. 4. A parametric approach to estimate

survival time of diabetic nephropathy with left truncated and right censored data. 5. Comparison of diabetic nephropathy onset times of two groups with left truncated and right censored data using parametric and nonparametric methods. 6. Conclusion and future studies.

MEDICAL SCIENCES RESPIRATORY VIROLOGY

639. PRASHANT KUMAR
Assessment of Conserved Epitopes of M1 Protein of Influenza Virus Fused to Protein Transduction Domain of Tat of HIV as a Potential Vaccine Candidates.
 Supervisors : Dr. Madhu Khanna and Dr. Akhil C Banerjea
Th 18342

Contents

1. Introduction. 2. Aims and objectives. 3. Review of literature. 4. Materials and methods. 5. Results. 7. Summary and conclusions. References, Appendix and Publications.

PHILOSOPHY

640. K L BLAKCHUNGNUNGA
Problems of Identity : Its Philosophical, Moral and Political Dimensons.
 Supervisor : Dr. Bindu Puri
Th 18341

Contents

1. Introduction. 2. Identity, culture and ethnicity. 3. Identity and questions of value. 4. Philosophy of identity and identity politics. 5. Conclusion. Bibliography.

POLITICAL SCIENCE

641. AMNA MIRZA
Sub-National Units and Foreign Affaris : A Case Study of India and United States Federal Apparatus.
 Supervisor : Dr. Rekha Saxena
Th 18331

Contents

1. Introduction : Federalism, international relations theory and multilateral trade governance. 2. Centre and states in Foreign Affaris : A case study of United States of America federal apparatus. 3. Centre and states of Foreign Affaris : A case study of Indian federal apparatus. 4. Centre and states in Foreign Affaris : Comparisons by contrast in United States of America and Indian federal model. 5. Conclusion and bibliography.

642. PRASAD (Anamika)
Internal Dynamics and Conflict Management in South Asia : A Study of Ethno-Political Issues.
 Supervisor : Dr. Shanta N Varma
Th 18332

Contents

1. Ethnicity, ethnic conflict and conflict management : Conceptual dimensions and the South Asian scenario. 2. The Sri Lankan ethnic conflict and India. 3. Politics of conflict and its management in post-IPKF Sri Lanka : From accommodation to confrontation. 4. Politics of ethno-demographic conflict in Bhutan : The Nepalese issue. 5. Conclusion. Bibliography.

PSYCHOLOGY

643. JAIN (Sharda)
Work-Family Enrichment : an Empirical Study.
 Supervisor : Prof. N K Chadha
Th 18338

Contents

1. Introduction to work-family enrichment : An empirical study.
 2. Review of literature. 3. Methodology of research. 4. Results

and interpretation. 5. Discussion of results. 6. Implications, 1 imitations & suggestions for futher research. 7. Summary and conclusions.

644. KUMAR (Garima)
Change in Organizational Culture : Study From An Interpretive Perspective.
 Supervisor : Prof. Anand Prakash
Th 18336

Contents

1. Introduction. 2. Theoretical and conceptual considerations. 3. Method. 4. Interpretation and sicussion. 5. Putting it all together : Some conclusive thoughts.

645. PHOGAT (Poonam)
Development of An Intervention Programme of Life Skills for Street Children.
 Supervisor : Dr. Veena Tucker
Th 18337

Contents

1. Introduction. 2. Psycho-social perspectives on street children. 3. The present study. 4. Psycho-social profile of street children. 5. Evaluation of NGOs. 6. Life skills intervention programme. 7. Discussion.

SANSKRIT

646. शर्मा (दीप्ति)
भारतीय ज्योतिष शास्त्र में छाया ग्रहों का स्वरूप एवं उनका प्रभाव ।
 निर्देशक : डॉ. पुनीता शर्मा
Th 18339

विषय सूची

1. भारतीय ज्योतिष शास्त्र और छाया ग्रह । 2. संस्कृत साहित्य में छाया ग्रह । 3. छाया ग्रहों का स्वरूप । 4. छाया ग्रहों का प्रभाव । उपसंहार । सन्दर्भ ग्रन्थ सूची ।

TECHNOLOGY
APPLIED PHYSICS

647. SHARMA (Jigyasa)
Studies on Open Waveguides and Components.
 Supervisors : Prof. Asok De and Prof K L Deori
Th 18358

Contents

1. Introduction. 2. Modal solutions for junction parameters of discontinuity problems in dielectric rectangular waveguides. 3. Double step discontinuity analysis using modal expansions technique in dielectric rectangular waveguides. 4. Full wave analysis of dielectric rectangular waveguides. 5. High frequency applications of rectangular dielectric waveguides for designing of microwave filters. 6. Filters characteristics of discontinuities in the dielectric waveguides. Conclusions.

TECHNOLOGY
COMPUTER SCIENCE

648. SHARMA (Ravish)
Recommending Solutions for Complex Systems Based on Ant Colony Metaphor.
 Supervisor : Dr. Punam Bedi
Th 18359

Contents

1. Introduction. 2. Ant colony optimization. 3. Solving traffic jam using ant colony metaphor. 4. Ant based collaborative filtering recommender system. 5. Adaptive link sequences recommendation for Website navigation. 6. Ant based firends recommendation in social tagging systems. 7. Conclusion and future work.

649. VINAY KUMAR
Graph Theoretic Approach to Information Hiding.
 Supervisor : Dr. S K Mutto
Th 18360

Contents

1. Introduction. 2. Information hiding in sustainable way. 3. hamiltonaian graph approach to hide information. 4. Data structure for graph to hide information in Segment. 5. Graph theoretic approach to secure message digest. 6. Hiding message in a map along pre Hamiltonian path. 7. Digital watermarking of vector map using graph tehoretic approach. 8. Conclusion and Bibliography.

TECHNOLOGY MECHANICAL ENGINEERING

650. SONI (Manoj)
Artificial Intelligence to Above Knee Prosthetic Leg.
Supervisors : Prof. Sneh Anand and Prof. S. Maji
Th 18321

Contents

1. Introduction & literature review. 2. Problem identification and methodology. 3. Mechanism design & mathematical modelling. 4. CAD modelling and structure analyses of mechanical components. 5. Dynamic analysis and experimental validation. 6. Artificial intelligence to prosthesis. 7. Result.

URDU

651. ABDUL RAHMAN
Halqa-E-Arbab-E-Zauqki Sheri Jamaaliyaat. (Poetic Aesthetics of Halqa-e-Arbab-e-Zaiq).
Supervisor : Dr. Mohammad Kazim
Th 18385

Contents

1. Urdu Shairi main jamaaliyat kai maine va mafhum. 2. Halqa-e-Arbab-e-Zaiq ki ibtida va irtika. 3. Halqa-Arbab-e-Zaiq ke aham rujhanat. 4. Halqa-Arbab-e-Zaiq ke aham sharah ka khushi mutala. 5. Halqa-Arbab-e-Zaiq ki sheri jamaaliyaat.

652. ASMA KHAN
Urdu Nazm Ka Siyasi Aur Samaji Mutala'A (Hali Se 1947 Tak).
 Supervisor: Prof. Tauqeer Ahmad Khan
Th 18383

Contents

1. Urdu nazm ka aagaz va artaqa. 2. Urdu nazm ka samaki mutala. 3. Urdu nazm mein siyasi ifqar. 4. Urdu nazm ka mahasharay per asar.

653. SANGHEER AKHTAR
Iqbal Ki Taleemi Fikr, Unke Ahad Ki Roshni Mein (Iqbal's Educational Thought, in the Context of His Age).
 Supervisor : Prof. N M Kamal
Th 18382

Contents

1. Taleem ka mafhum maqasid aur falsafa. 2. Iqbal ke taleem ke maqasid. 3. Ma-aasir nizaam hai taleem per Iqbal ki tanqed. 4. Taleem ke mukhatalib nazariyaar aur Iqbal ka Nazaryai taleem.

ZOOLOGY

654. AGGARWAL (Archana)
Role of N-Acetylcysteine, An Antioxidant in Mitigating the Adverse Effects Associated With Persistent Stimulation of Rat Leydig Cells with hCG.
 Supervisors : Dr. M M Misro and Dr. Neeta Sehgal
Th 18335

Contents

1. Review of literature. 2. Material and methods. 3. Adverse effect associated with persistent stimulation of leydig cells with hCG in -vitro. 4. NAC counteracts oxidative stress and prevents hCG induced leyding cell apoptosis in-vitro. 5. NAC prevent hCG-induced oxidative stress and apoptosis in rat leydig cells in-vivo. 6. Summary. Bibliography.

655. DEVI LAL
Exploring Bacterial Diversity of Hexachlorocyclohexane (HCH) Contaminated Dumpsite and Phylogenetic Analyses of LinA (HCH Dehydrochlorinase) and LinB (Haloalkane Dehalogenase)-Enzymes Involved in HCH Degradation.
 Supervisor : Prof. Rup Lal
Th 18325

Contents

1. Exploring bacterial, linA and linB diversity from hexachlorocyclohexane (HCH) dumpsite. 2. Phylogenetic analysis in LinA (HCH dehydrochlorinase) and other lyase dehalogenases. 3. Phylogenetic analysis of Lin B (Haloalkane dehalogenase) and other hydrolytic dehalogenases. 4. Taxonomic characterization of novel bacterial isolates from HCH dumpsite.

656. JASPREET KAUR
Whole Genome Sequencing of Rifamycin B Producing Amycolatopsis Mediterranei S699 By Using Sanger - Pyrosequencing Hybrid Approach.
 Supervisor : Prof. Rup Lal
Th 18326

Contents

1. Review of literature. 2. Materials and methods. 3. Results. 4. Discussion.

657. NIGAM (Aeshna)
Genetic Manipulation of Polyketide Synthase Gene Cluster of amycolatopsis Mediterranei S699 to Produce 24-Desmethylrifamycin B, An Analog of Rifamycin B.
 Supervisor : Prof. Rup Lal
Th 18324

Contents

1. Review of literature. 2. Material and methods. 3. Results. 4. Discussion.