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Book Chapters published by Faculty Members

S.No	Name of the faculty	Topic	Publisher	Status	Date
1	M.Kiranmai*	Fabrication and functionalization of other inorganic nanoparticles and nanocomposites	Tayler & Francis	Published	Jan-2020

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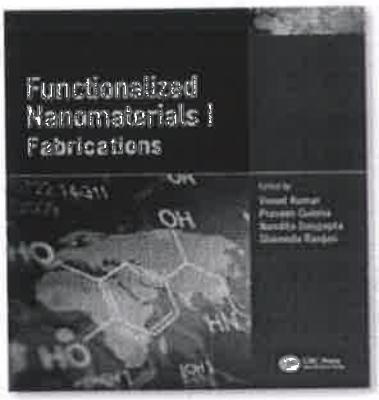
COVERPAGE OF CHAPTER

Chapter



Fabrication and Functionalization of Other Inorganic Nanoparticles and Nanocomposites

By Kiranmai Mandava, Uma Rajeswari B.

Book Functionalized Nanomaterials I

Edition	1st Edition
First Published	2020
Imprint	CRC Press
Pages	30
eBook ISBN	9781351021623

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ABSTRACT

Metallic and metal oxide nanoparticles shows unique properties compared with inorganic and organic compounds developed from the same metals or metal oxides. Apart from silver, gold, and platinum, which have been treated as front-line metallic nanoparticles, other inorganic nanoparticles such as iron and iron oxide, copper and copper oxide, palladium, zinc and zinc oxide, magnesium, calcium, iridium, titanium dioxide, tin oxide, selenium, zirconium, nickel, silicone, lithium, etc., have also been gaining the attention of researchers. In this chapter we describe the various methods of fabrication and functionalization of these nanoparticles with special attention to the chemical aspects of functionalization. This chapter also emphasizes the biomedical and various other applications of metallic nanoparticles and deals with the key findings on the fabrication of nanocomposites and their significance. This chapter focuses on all of the versatile fabrication methods of functionalized nanoparticles, including the green approach employed to synthesize inorganic nanoparticles. Also considered in this chapter are the challenges encountered during fabrication and functionalization, including stability viewpoints.

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3.3 Research publications and awards

3.3.3 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings

YEAR	Title of the paper/book	Authors
2020-2021	Green Synthesis of Facile Boswellic acid silver nanoparticles and Insilco Docking ADMET studies on SARS covid Virus	Dr. Sneha Thakur
2020-2021	Design, synthesis, molecular modeling and biological evaluation of 8-hydroxy quinoline-4-thiazolidinones.	Jagruthi Pedakka, A.Srinivas, Mohuddinfariuddin
2020-2021	Antimicrobial activity of N-Acetyl D Glucosamine by Insilico Docking	Roja Pathakotha
2020-2021	Extraction and Evaluation of Pharmacological Properties of Allium cepa and Butea monosperma	Navya Pravala

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TWO-DAYS 17TH INDO-US VIRTUAL INTERNATIONAL

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Recent Advances and Global Trends in Pharmaceutical Sciences

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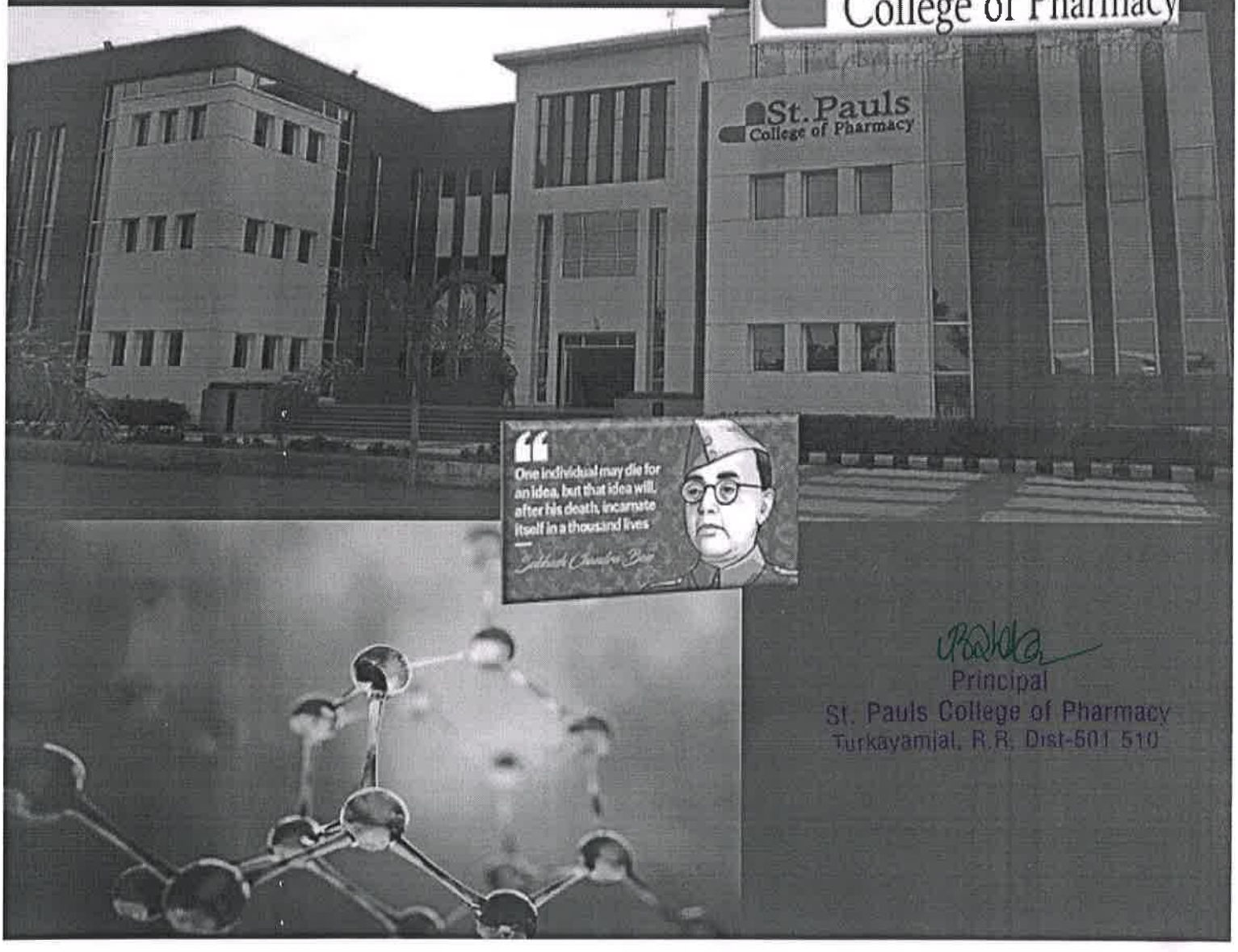

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Programme Schedule (Day 1)

Welcome Speech

Prof. Kiranmai Mandava 10.05 AM
Convener & Vice-Principal, St. Pauls College of Pharmacy, Turkayamjal

Prof. Madhabhai M. Patel 10.15 AM
Chief Guest & Vice Chancellor, Sabarmati University, Ahmedabad, Gujarat
Former Vice Chancellor, Hemchandracharya North Gujarat University, Patan, Gujarat

Objective of the Conference

Prof. Alekha K. Dash 10.25 AM
Guest of Honor & President, APP American International Branch Associate Dean (Research), Department of Pharmacy Sciences Creighton University, Omaha, Nebraska, USA

Inauguration Remarks & Opening of Scientific Session

Dr. Rajiv Dahiya 10.35 AM
Director, School of Pharmacy, Faculty of Medical Sciences
The University of the West Indies, St. Augustine, Trinidad & Tobago

Invited Lectures

Session 1

Prof. Somnath Singh 10:50 AM - 11:35 AM
Creighton University, Omaha, Nebraska, USA
Topic: "Genomic Revolution in Pharmacy Practice and Drug Development"

Dr. Shivkanya Fuloria 11:40 AM - 12:25 PM
AIMST University, Bedong, Kedah, Malaysia
Topic: "Technology based Citation and Referencing Tools"

Session 1 Chairpersons
Prof. S. Latha (Anna University, Tiruchirappalli, Tamilnadu)
Prof. S. C. Dinda (Teerthanker Mahaveer University, Moradabad, Uttar Pradesh) ***Prof. Y. Padmavathi*** (G. Pulla Reddy College of Pharmacy, Hyderabad, Telangana)***Dr. Sunita Dahiya*** (University of Puerto Rico, San Juan, PR, USA)

QA Discussion

LUNCH 12:30 - 01:25 PM

Session 2

Oration Session (Group A) 01:30 - 04:00 PM
Poster Session (Group A) (*parallel session*) 01:30 - 04:00 PM

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Session 2 Chairpersons: Oral Session
Dr. Gaurav Gupta (Suresh Gyan Vihar University, Jaipur, Rajasthan)***Dr. Ritu Kataria*** (G.V.M. College of Pharmacy, Sonipat, Haryana) ***Dr. Mehul N. Patel*** (Dharmsinh Desai University, Nadiad, Gujarat)
Dr. Neelesh Kumar Dwivedi (Nand Kishore College of Pharmacy, Naini, Uttar Pradesh)

Session 2 Chairpersons: Poster Session
Dr. J. Archana(RBVRR Women's College of Pharmacy, Lingampalli, Hyderabad, Telangana)
Dr. Sneha Thakur **(St. Pauls College of Pharmacy, Turkayamjal, Ranga Reddy, Telangana)**
Dr. Mohammed Majid Iqbal (MESCO College of Pharmacy, Mustaidpura, Hyderabad, Telangana)

Programme Schedule (Day 2)

Inauguration Remarks & Opening of Scientific Session

Prof. A. Muralidhar Rao 10.15 AM
Guest of Honor & President, APP Telangana State BranchPrincipal, St. Mary's College of Pharmacy Secunderabad, Telangana

Invited Lectures

Session 3

Prof. Kuntal Das 10:25 AM - 11:10 AM
Krupanidhi College of Pharmacy, Bangalore, Karnataka *Topic: "Application of Additive Manufacturing Technology in In VitroConserved Indian Threatened Medicinal Plants for Isolation of Bioactive Compounds in Health Care Management"*

Prof. S. Sathesh Kumar 11:15 AM - 12:00 PM
Vels Deemed to be University (VISTAS), Chennai, Tamilnadu *Topic: "Nanoparticles – A Successful Tool for Delivery of AntimicrobialsAcross Blood Brain Barrier"*

Prof. A. Sreedevi 12:05 PM - 12:50 PM
Sri Padmavati Mahila Visvavidyalayam, Tirupati, Andhra Pradesh *Topic: "Phytochemical and Pharmacological Evaluation of Roots ofJasminum auriculatum for Nephroprotective Activity"*

Session 3 Chairpersons

Prof. Suresh V. Chennupati (Nalanda College of Pharmacy, Cherlapally, Nalgonda, Telangana)
Prof. B. Chandra Shekar (St. Pauls College of Pharmacy, Turkayamjal, Ranga Reddy, Telangana)
Prof. V.V.S. Rajendra Prasad (Vishnu Institute of Pharmaceutical Education & Research, Narsapur, TS)

QA Discussion LUNCH 01:00 PM - 02:00 PM

Session 4

Oration Session (Group B) 02:00 PM - 03:00 PM
Poster Session (Group B) 02:00 PM - 03:00 PM

Session 4 Chairpersons:

Dr. K. Venu Madhav (St. Pauls College of Pharmacy, Turkayamjal, Ranga Reddy, Telangana)
Dr. D. Prasanthi (G. Pulla Reddy College of Pharmacy, Hyderabad, Telangana)
Dr. P. Sunil Kumar Chaitanya (St. Pauls College of Pharmacy, Turkayamjal, Ranga Reddy, TS) **Valedictory Function & Awards announcement by President APP** 03:00 - 04:15 PM

Closing Remarks

Prof. Kiranmai Mandava 04.15 PM
Convener & Vice Principal, St. Pauls College of PharmacyTurkayamjal, Ranga Reddy, Telangana

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Vote of Thanks

Dr. Somnath De 04.25 PM
Organizing Secretary & Professor, Department of PharmacologySt. Pauls College of Pharmacy, Turkayamjal Ranga Reddy, Telangana

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FACILE SYNTHESIS OF BOSWELLIC ACID SILVER NANOPARTICLES, *IN-SILICO* DOCKING, ADMET STUDIES ON SARS COVID PROTEINS

Dr. Sneha Thakur

St. Pauls college of pharmacy, Survey no 603,604, Turkayamjal, Hyderabad-601510

Abstract

Natural compounds are continuing source of novel drug leads for many viral diseases and tumors. Boswellic acids (BAs) are pentacyclic triterpenoids 'and pharmacologically active in many diseases due to their anti-inflammatory, anti infective and anticancer properties. The isolation was done by column chromatography and yield was found to be 85 % from the gum resin of the plant *B. serrata* characterized by UV-HPLC, FTIR and TLC studies. The BAs suffer poor water solubility and hydrophobicity necessitates a promising approach into nanoparticles formulation for effective delivery. The study aimed to evaluate the efficacy of Boswellic acid silver nanoparticles for addressing limitations of solubility and bioavailability, at the same time repurposing the drug for SARS-Covid proteins. The Novel Boswellic acid silver nanoparticles were 271 nm in size, highly stable and crystalline with FCC structure analyzed by UV, DLS, SEM, FTIR and XRD spectrometric studies. The Boswellic acid silver nanoparticles proven to show sustained release characteristics evaluated using USP II dissolution apparatus. The docking studies were performed using the Biovia, Autodock 4.0 and Autodock Vina against the target proteins Covid (PDBID: 1576, 6LU7, 2H2Z). The binding energies for BAs were in the range of —6.0 to —8.00 kcal/mol. ADMET studies prove the CYP2D6 inhibition, hydrophobicity with 1 rotatable bond. The docking analysis clearly shows that BAs bind to three functional proteins of the targeted SARS-CoV-2 virus responsible for adhesion and replication. The Boswellic acid silver nanoparticles could be druggable for the SARS-Covid pandemic as a novel formulation with high solubility, bioavailability and targeted activity.

Keywords: Boswellic acid, silver nanoparticles, SARS-COVID, Drug release, Targeted delivery

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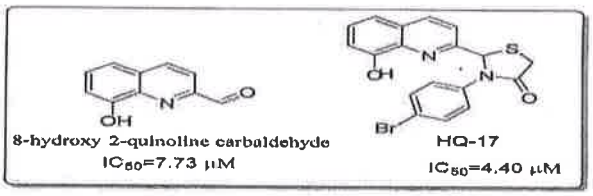
Design, Synthesis, Molecular Modeling and Biological Evaluation of 8-Hydroxyquinoline-4-thiazolidinone Derivatives

Jagruthi Peddapaka*, A.Srinivas, Mohammed Arifuddin

Abstract:

8-Hydroxyquinoline derivatives represent an important privileged structure, possessing a rich diversity of biological properties. Thiazolidinones which belong to an important group of heterocyclic compounds have been extensively explored for their application in the field of medicine.4-Thiazolidinones play a vital role due to their wide range of biological activities and industrial importance. 4-Thiazolidinones are always being an attraction point for researchers because of its efficiency towards various pharmacological usages. In view of the importance of 8-hydroxyquinoline and 4-thaizolidinones, the present study is undertaken to design and synthesis of the new 4-thaizolidninones derivatives by incorporating the 8-hydroxyquinoline moiety. A series of 20 novel 8-hydroxyquinoline-4-thiazolidinone derivatives have been synthesized by one pot, three component condensation of 8-hydroxyquinoline-2-carbaldehyde, mercaptoacetic acid and substituted aromatic amines at room temperature. Molecular docking studies of 8-hydroxyquinoline-4-thiazolidinone were performed onto the binding site of arp2/3 complex. Docking studies revealed that analogues showed better G scores compared to ligand molecule as well as CK-548 (reference compound). The–OH group of quinoline is interacting with GLU via hydrogen bonding in case of almost all the analogues for which docking was performed. 8-hydroxy quinoline is one of the excellent scaffolds with broad range of pharmacological applications. The primary cytotoxicity results reveals that all the compounds are more or equipotent with compare to reference compounds particularly the compound HQ-17 exhibiting the IC_{50} at 4.4 µM with compare to starting material which shows IC_{50} at 7.73 µM.



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REPURPOSING OF N-ACETYL -D-GLUCOSAMINE (NAG) AS A POTENTIAL ANTIMICROBIAL AGENT BY IN-SILICO DOCKING STUDIES

Mrs.Roja Pathakota

St.Pauls College of Pharmacy
Turkayamjal, Abdullapurmet, Ranga Reddy-0510

Abstract

Nutraceuticals are popular health promoting agents being utilized for various disease ailments as food supplements, health promoters etc. The raising concerns of antimicrobial resistance are a serious challenge to the researchers working globally and always a need of our issue to be addressed to develop new antimicrobial agents to combat antimicrobial resistance. N-Acetyl-D-Glucosamine is a potential nutraceutical selected as a drug of choice to be developed as antimicrobial agent. *GlcNAc* is a monomer of chitin, available widely as a component of cell wall of many fungi, molluscs and beaks of cephalopods. The present study was aimed to evaluate the antimicrobial potential of NAG by *in-silico* docking using molegro virtual docker MVD 2013.6.0 as a repurposing novel approach. N-Acetyl -D-Glucosamine was tested against various targets like Penicillin-binding protein(PDB3UDI), Ligase(PDB2zdq), Isomerase/Isomerase Inhibitor(PDB3ttz), Transferase , Thymidylate Kinase (PDB5UIV), Dihydrofolate reductase(PDB3SRW), Rifampicin-resistant RNA polymerase(PDB6VVT) in different confirmations. Based on the docking scores obtained NAG was found to have potent activity against *Acinetobacter baumannii*, *Thermus thermophius*, *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Salmonella Typhi*, *Mycobacterium smegmatis*, *Candida albicans* proving the therapeutic approach that can develop the NAG as antimicrobial agent. Further investigations are needed to evaluate the antimicrobial potential by *in-vivo* studies.

Keywords: Nutraceutical, N-Acetyl -D-Glucosamine, *in-silico* docking, antimicrobial

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PHYTOCHEMICAL AND PHARMACOLOGICAL EVALUATION OF ALLIUM CEPA FOR ANALGESIC AND ANTI DEPRESSANT SCREENING

Mrs. E.Navya Pravala

St.Pauls College of Pharmacy
Turkayamjal, Abdullapurmet, Ranga Reddy-0510

ABSTARCT

Onion is a well-known traditional nutraceutical and medicinal plant that is developed and utilized far and wide. Onions contain phenolics and flavonoids that have potential anti-incendiary, anti-cholesterol, anticancer, and antioxidant properties. Onions contain 89% water, 1.5% protein, and vitamins B1, B2, and C, alongside potassium and selenium. It likewise contains polysaccharides, for example, fructosans, saccharose, peptides, flavonoids (generally quercetin), and basic oil. Onion contains various sulfur mixes including thio sulfinates and thiosulfonates; cepaenes; S-oxides; S, S-dioxides; mono, di, and tri-sulfides; and sulfoxides. Onion is profoundly wholesome and its dietary use improves absorption and psychological wellness and let down toxigenicity of oils. Onion has potential in treating cardiovascular disease, hyperglycemia, and stomach malignancy. Onion contains a significant antioxidative, i.e., quercetin that is gotten from Allium cepa on aldehyde oxidase low-thickness lipoprotein which diminishes hepatocytes apoptosis in streptozotocin-actuated diabetic rodent. Onion has incredible ethnomedicinal significance as local cures utilized against diabetes, and related difficulties are from onion. A. cepa red and white assortments demonstrated antimicrobial and antioxidant exercises. These are utilized in customary Indian flavors and are of extraordinary wellbeing importance. These are corrective for suggestions from and for food societies for cardiovascular disease and give life span.

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3.3 Research Publications and Awards

3.3.3 Number of books and chapters in edited volumes/books published and papers

S.NO	YEAR	Title of the paper/book	Authors
1	2019-2020	Fabrication and functionalization of other inorganic nanoparticles and nanocomposites	Dr.Kiranmai
2	2019-2020	Recent advances in forced degradation and stability studies	Mrs. HafsaSiddiqua
3	2019-2020	Green nanotechnology: Recent Advances and their applications	Dr.Kiranmai
4	2019-2020	Extraction, Isolation, Characterization of various phyto-constituents from the bark of Albezia Stipulate	Mrs.Sujathajadi
5	2019-2020	Development of nanostructured formulations of BCS Class ii Drugs for enhancement of bioavailability using Modernized techniques	Mrs.K. Sravanthi
6	2019-2020	Life Saving Products from Coral Reefs	Dr. S. Vanitha Sagar
7	2019-2020	A systemic review on phytochemical and Antimicrobial potential of *Bignoniaceae* ornamental Plant: *Tecoma Stans* (L)	Dr. S. Vanitha Sagar
8	2019-2020	Safety and Efficacy of Ubrogepant: First Oral Calcitonin Gene Related Peptide Antagonist	Dr.M.Kiranmai
9	2019-2020	Bulletin on the Adverse drug event prompted by the anti-tubercular therapy	Dr.Seema Tabassum
10	2019-2020	A Case report on Doxorubicin induced dilated cardiomyopathy	Dr. T. Keerthi
11	2019-2020	Predicting of Risk of Postop Acute kidney failure using super test	Dr.M.Kiranmai
12	2019-2020	A Prospective Observational study on medication errors in a Multi super specialty hospital	Mrs.Venkateswarlu K
13	2019-2020	The Expansion of biomarkers in to the novel treatment Precision medicines	Dr. S. Vanitha Sagar
14	2019-2020	Role of vitamins therapy in Tuberculosis	Dr.M.Kiranmai

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14	2019-2020	Role of vitamins therapy in Tuberculosis	Dr.M.Kiranmai
15	2019-2020	Need of Personalized medicine: Futuristic Approach	Dr.M.Kiranmai
16	2019-2020	Formulation and Evaluation of Ketoprofen using Beta cyclodextrin Capped silver nanoparticles	Dr.M.Kiranmai
17	2019-2020	White Tea Antioxidant activities and Beneficial effects	Mrs.P. Naga Haritha
18	2019-2020	Recent advances in Nanoparticulate Drug Delivery systems	Dr. K. Venu Madhav
19	2019-020	Formulation and Evaluation of Antiacne Herbal creams	Mrs. E. Shravana Jyothi
20	2019-2020	Food Biotechnology	Dr. V. Asha jyothi
21	2019-2020	Novel Routes of insulin for Diabetes treatment: inhaled insulin	Mrs.E.Shravana Jyothi
22	2019-2020	Modern technology and Smart health care	Dr. V. Asha jyothi
23	2019-2020	Arskog-Scott Syndrome	Dr. S. Vanitha Sagar
24	2019-2020	Nipha virus	Dr. P. Sunil Chaitanya
25	2019-2020	Antibiotic Resistance	Mrs. Naga Haritha
26	2019-2020	Ebola Virus Disease: A Deadly Disease	Mrs.E.Shravana Jyothi
27	2019-2020	Novel Treatment Approach for Hutington Disease	Mr. P. Sudhakar
28	2019-2020	Artificial intelligence in pharmaceutical industry	Dr. S. Vanitha Sagar
29	2019-2020	Branded and Generic Drugs	Mrs.P. Naga Haritha
30	2019-2020	CAR T-Cell Therapy	Dr. Seema Tabassum
31	2019-2020	M health Sensors and Advanced Technology	Dr. S. Vanitha Sagar

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32	2019-2020	Advancement in management of Diabetes mellitus by artificial intelligence	Dr. S. Vanitha Sagar
33	2019-2020	Pharmacovigilance of herbal medicine in India	Dr. Seema Tabassum
34	2019-2020	Syk-GTP RAC-1 mediated immune stimulatory effect of Cuscutaepithymum, ipomea batata and Euphorbia hirta plants extracts	Dr. S. Vanitha Sagar
35	2019-2020	Method Development and Validation for Simultaneous Estimation of Ceftolozane and Tazobactum injection by RP- HPLC	Dr. M. Kiranmai
36	2019-2020	Assessment of Risk Factor for Drug related problems in ambulatory patients	Mr. Venkateswarlu
37	2019-2020	Identification Assessment of Severity and Associated complications of Polypharmacy in super specialty hospital	Dr. T. Keerthi
38	2019-2020	Anti-inflammatory interventions in Diabetes Kidney Disease and diabetic Nephropathy	Dr. S. Vanitha Sagar

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ON

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OP- PANA 07: RECENT ADVANCES IN FORCED DEGRADATION AND STABILITY STUDIES

HAFSA SIDDIQUA, RUBINA KAUSER
Assistant Professors, Department of Pharmaceutical Analysis and Quality Assurance,
St. Pauls College of Pharmacy, Turkayamjal, Hyderabad - 501510.

Drug stability affects the safety and efficacy of the drug product; degradation impurities may cause a loss of efficacy and generate possible adverse effects. Therefore, achieving the chemical and physical stability of drugs is essential to ensure their quality and safety. Forced degradation is a degradation of a new drug substance and a drug product at conditions more severe than accelerated conditions. It is required to demonstrate specificity of stability indicating methods and also to provide detailed views into degradation pathways and degradation products of the drug substance which helps to elucidate the structure of the degradation products and it also helps to show the chemical behavior of the molecule which in turn helps in the development of formulation and packaging. In addition to this, the regulatory guidance is very general and does not explain about the performance of forced degradation studies. Thus, this review discusses the current trends in performance of forced degradation studies by providing a strategy for conducting studies on degradation mechanisms and also describes the analytical methods helpful for development of stability indicating method.

Keywords: Stability, degradation studies, accelerated conditions, analytical methods.

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OP-PCHE 15: GREEN NANOTECHNOLOGY : RECENT ADVANCES AND THEIR APPLICATIONS

HEMA KUMARI, Dr.M.KIRANMAI*
ST.PAULS COLLEGE OF PHARMACY, TURKAYAMJAL

Nanotechnology today is moving from one visionary paradigm towards another.Green nanotechnology is an innovative research field which is applied for design and development methods that can bring the health hazardous substances to minimum.Green nanotechnology means the application of green chemistry and green engineering principles in field of nanotechnology.Green nanotechnology encompasses the green synthesis of nanoparticles by reducing the use of hazardous materials in the synthesis of process. Green synthesis or biological process using natural sources (i.e plants, animals,microbes) aiming for the production and processes that are safe and more efficient.A lot of physical,chemical and hybrid methods are employed for the synthesis of inorganic nanoparticles but are expensive and requires use of harmful chemicals. Green nanotechnology employs natural reducing,capping and stabilizing agents to synthesize nanoparticles with desired morphology, distribution and size. Due to unique properties of nanoparticles,they have an acclaimed reputation compared to bulk materials.There have been enormous advancements in the arena of nanotechnology with recent years related to the synthesis of nanoparticles with specific size and morphology.Green nanotechnology an advanced technology can drastically reduce environmental hazard and decreases the risk to human health as a consequence of using toxic chemicals and solvents.

Key words : Green nanotechnology, Green synthesis, Nanoparticles, Metals, Biological sources.

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OP-PCHE 18: EXTRACTION, ISOLATION AND CHARACTERIZATION OF VARIOUS PHYTOCONSTITUENTS FROM THE BARK OF ALBEZIA STIPULATE

SUJATHA JADI

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The present study was designed for extraction of various parts of *Albeziastipulata.* Isolation of phytoconstituents from pharmacologically potent extracts based on in vitro pharmacological activities through screening and their subsequent characterization. Crude extracts of leaf, stem and fruit of Cassia uniflora were prepared using various solvents such as water, methanol and hydro alcohol (60% methanol in water). The various extracts were screened for *in-vitro* pharmacological activities like antioxidant, anti-inflammatory and anti-diabetic activity. Pharmacologically potent extracts of *Albeziastipulata*weresubjected to column chromatography using various mobile phases followed by TLC. The isolated compounds were subjected to 1H NMR, 13C NMR, mass and IR, spectroscopy.The methanol extract of leaf *of Albeziastipulata*was found to be potent when compared with other extracts of the various parts of the plant. The methanol extract was subjected to fractionalization by column chromatography. The eluted fractions were run in TLC mobile phase with the various solvent ratio. The fractions showed Rf value equal to standard in TLC were united and crystallized. The characterization techniques confirmed that the isolated compounds were found to be sitosteryl-3-o-β-D-glucoside and methyl inositol. Various extracts from the bark of the plant *Albezia stipulate* were characterized.

Keywords:*AlbeziaStipulate* Antioxidant Activity, Sitosteryl-3-O-B-D-Glucoside , Methyl Inositol.

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OP-PCEU 32: DEVELOPMENT OF NANOSTRUCTURED FORMULATIONS OF BCS CLASS II DRUGS FOR ENHANCEMENT OF BIOAVAILABILITY USING OF MODERNIZED TECHNIQUES

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Most of newly invented drugs are poorly water soluble. Solubility plays a major role in biological absorption in human beings. Considering the patient compliance oral dosage forms are preferable one. Solubility is the prior criteria for bioavailability of drugs, so that to improve the bioavailabilities have to enhance solubility of drug. According to the Biopharmaceutical Classification System drugs are classified into four, Class I, Class II, Class III, and Class IV. Low bioavailability is the major problem associated with poorly water soluble drugs especially with BCS Class II & IV drugs. Nano-structured formulations have emerged as an attractive and promising approach to improve stability and bioavailability of BCS Class II & IVdrugs. The various approaches to improve bioavailability of BCS Class II & IVdrugs are nanosuspensions, nanoemulsions, nanoparticles, nanocapsules and nanocrystallization, with this nano-systems will provide small size particles that enhance the surface area there by increasing solubility and bioavailability. Lipid based delivery systems such as SMEDDS, Solid dispersions, Microspheres, Liposomes, phytosomes, niosomes, ethosomes, transferosomes etc. By using these approaches we can formulate a better dosage form for a drug which is currently under R & D process, and after that the in-vitro release characteristics are studied. In-vitro drug release represents the availability of drug in biological system, where as in–vivo studies represents the clinical approaches, by that we can choose best formulation in various formulations.

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OP- PCOG 35: LIFE SAVING PRODUCTS FROM CORAL REEFS

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Coral reefs are storehouses of genetic resources with vast medicinal potential but they must be properly managed. During past decades, marine biotechnology has been applied the areas of public health and human disease promising products from marine organisms are been advanced including a cancer therapy arthritis etc. coral reefs sometimes considered the medicine cabinets of 21st century. These are important sources for providing new drugs (medicines) been developed to treat heart disease, virus, alziemers and others. In the future coral reefs ecosystem could represent an increasingly important source of medical treatment .nutritional supplements cosmetics, and other commercial products .coral reefs first appeared 485million years ago. A Coral reef is an underwater ecosystem characterized by reef-building corals. Reefs are formed of colonies of coral polyps held together by calcium carbonate .most coral reefs are built from stony corals whose polyps cluster in group. Coral belongs to class anthozoa in the animal phylum cnidaria which includes anemones and jellyfish. The Annual global economic value of coral reefs is estimated between US$ 30-375Billions. Hence it may be concluded that coral reefs offers many medicinal applications and as it is from natural sources has less adverse effects. Therefore, further research has to be initiated in this area to enrich its medicinal values

Key words: Coral reefs, coral polyps, stony corals.

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OP- PCOG 37: A SYSTEMATIC REVIEW ON PHYTOCHEMICAL AND ANTI -MICROBIAL POTENTIAL OF *BIGNONIACEAE* ORNAMENTAL PLANT: *TECOMA STANS* (L.)

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A vast range of the pathogenic micro-organisms precipitates the incidence of prevailing infectious diseases affecting population world-wide. The emergence of antibiotic resistance by pathogenic strains, enhanced occurrence of communicable diseases and also adverse effects posed by existing synthetic antibiotics is driving an intense force in research towards developing promising potent natural antimicrobial components with less or no side effects. Plants have been proven as untapped potential source of the antimicrobial agents since time immemorial. Tecomastans is an ornamental plant belonging to the family Bignoniaceae which has gained popularity in exhibiting wide horizon of pharmacological activities. The significance of different solvent extracts of various parts of the Tecomastans with antimicrobial activity has been scientifically proven by many researches. Hereby, the present review is devoted to document about the extensive research of antimicrobial potency of Tecomastans which might be utilised to isolate and develop novel potent antimicrobial compounds.

Key words: Tecomastans, Bignoniaceae, Communicable Diseases, Antimicrobial Activity, Antibiotic Resistance.

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OP-PCOL 43: SAFETY AND EFFICACY OF UBROGEPANT: FIRST ORAL CALCITONIN GENE-RELATED PEPTIDE ANTAGONIST

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Migraine is a type of headache. It may occur with symptoms such as nausea, vomiting, or sensitivity to light and sound. In many people, a throbbing pain is felt only on one side of the head. A migraine headache is caused by abnormal brain activity. This activity can be triggered by many things. But the exact chain of events remains unclear. The changes affect blood flow in the brain and surrounding tissues.Treatment may include: antidepressants, blood pressure medicines, such as beta blockers, seizure medicines, calcitonin gene-related peptide agents(CGRP). Safe and effective treatments for migraine attacks remain an unmet need for many patients due to inadequate efficacy, contraindications, and tolerability tissues.To summarize about safety and efficacy of ubrogepant when compared to standard drugs used in migraine treatment.Ubrogepant is a new drug recently approved by FDA in the treatment of migraine in adults. In particular, triptans, the current gold standard treatment for attacks, are contraindicated in patients with cardiovascular disease. The absence of the most bothersome migraine-associated symptom (MBS; photophobia, phonophobia, or nausea) at two hours interval was significantly greater with 50 mg or 100 mg of ubrogepant than with placebo (38.6%, 37.7%, and 27.8%, respectively)significantly greater rates of pain freedom at 2 hours (PF-2H) were achieved with either 50 mg or 100 mg of ubrogepant than with placebo. Also ubrogepant does not cause elevation in ALT levels like other drugs such as CGRP antagonist.Triptants are the drugs prescribed for migraine but even though CGRP agents have shown side effects it was relatively less when compared to triptants. Now, ubrogepant is CGRP agent which is proved to have lower complications,side effects when compared to other CGRP agents.

Key words: Migraine, Oral CGRP Inhibitors, Triptants, Ubrogepant.

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OP-PPPM 62: BULLETIN ON THE ADVERSE DRUG EVENT (ADE) PROMPTED BY THE ANTI TUBERCULAR THERAPY(ATT)

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Mycobacterium tuberculosis (MTB) is one of the major engenders of tuberculosis, it is preventable and curable though patient's compliance is the great challenge. Anti tubercular therapy (isoniazid, rifampicin, pyrazinamide, ethambutol and streptomycin) is most commonly used strategy in managing TB. The authors present a case of 23 years old female patient who was admitted in the emergency department with a history of consuming ATT from the past 3 months. Adverse drug event (ADE) associated with this ATT therapy is abundant, and is the major threat which leads to morbidity and even mortality if not recognized early, an equilibrium between management of ADE's and TB with ATT under the right diagnosis with the aid of professional knowledge helps in improving patient compliance and attaining fruitful outcomes of ATT in patients with TB.

Key words: Mycobacterium tuberculosis (MTB), Anti tubercular therapy (ATT), Isoniazid, Rifampicin, Pyrazinamide, Ethambutol and Streptomycin.

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OP-PPPM 64: A CASE REPORT ON DOXORUBICIN INDUCED DILATED CARDIOMYOPATHY

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A 65year old male patient diagnosed with Hodgkins lymphoma and underwent chemotherapy treatment with doxorubicin,rituximab for 6months.6months after chemotherapy patient presented to dechallenge which was successful. 6years after the chemotherapy patient presented to hospital with breathlessness on exertion(NHYA class II). Echo report showed the LV dysfunction.Up on evaluating the patient, he was diagnosed to be suffering with DCM.The possible reasons for the patient to develop DCM were ruled out and there was no significant reason except the usage of drug doxorubicin.Thus, it was diagnosed as doxorubicin induced dilated cardiomyopathy.

Key words: Hodgkins, Doxorubicin, Cardiomyopathy.

OP-PPPM 65: PREDICTING THE RISK OF POSTOP ACUTE KIDNEY FAILURE USING suPAR TEST

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Soluble urokinase Plasminogen Activator Receptor (suPAR) which is a signaling glycoprotein that can be used in predicting the risk of postop acute kidney failure mainly in the patient who underwent recent surgeries. This suPAR is the soluble form of urokinase-type plasminogen activator receptor (uPAR) which is a membrane bound receptor for urokinase Plasminogen Activator (uPA). This glycoprotein is mainly involved in the pathogenesis of kidney disease and are found in plasma, urine, blood, serum and cerebrospinal fluid. Testing for this protein in people with chronic kidney problems can predict whether a patient is likely to develop acute renal failure after heart surgery, angiography or intensive care unit admission that has been reported by the researchers in the New England Journal of Medicine. Recently published research work showed that suPAR level test can be used in predicting acute kidney failure. The suPAR level was assessed in 3827 patients who were undergoing coronary angiography, 250 who were undergoing cardiac surgery, and 692 who were cardiac surgery. Acute kidney injury developed in 318 patients (8%) who had undergone coronary angiography. The highest suPAR quartile (vs. the lowest) had an adjusted odds ratio of 2.66 for acute kidney injury and 2.29 to 3.06 for acute kidney injury or death at 90 days. Findings were similar in the surgical and critically ill cohorts. suPAR is also used marker of disease severity and aggressiveness.By the above experiment it is clear that suPAR protein test can be used in predicting the risk of development of acute kidney failure in cardiac surgery and critically ill patients.

Key words: suPAR, Postop Acute Kidney Failure, uPAR , Cardiac Surgery, Angiography Or Intensive Care Unit Admission.

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OP-PPPM 67: A PROSPECTIVE OBSERVATIONAL STUDY ON MEDICATION ERRORS IN A MULTI SUPERSPECIALITY HOSPITAL

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The primary aim of this study was to determine the rate and severity of the medication errors as categorized according to the National Coordinating Council for Medication Error Reporting and Preventing System (NCCMERPS). Additionally, factors associated with an increased risk of medication errors were identified.This was a prospective observational study conducted at in-patient wards in Superspeciality Hospital over a period of 1 year. Institutional Review Board (IRB) approval was obtained from the Human Subjects Committee before this study was conducted.The pharmacist reviewed all the patients who were admitted into the hospital on daily basis: collected all necessary information from various resources like interviewing patients, patients care takers, patient case notes, treatment charts and other health care professionals (doctors, nurses etc) from which medication errors were identified. The medication errors were categorized according to NCCMERPS and identified the risk factors that cause medication errors and resolved the risk factors.During the study period 271 medication errors were identified in 220 patients. At least 1 medication error occurred in 69.54% of patients. Errors categorized according to the stage were: Prescribing error (34.68%), transcribing error (7.01%), dispensing error (8.11%) and administrating error (50.18%). As per NCCMERP taxonomy, types of errors observed were omission errors (41.82%), wrong frequency (30.75%), wrong dose (12.37%) and wrong time (8.72%). Major error belong to category C (35.42%), category B (32.10%), Category D (27.30%), Category A (4.79%). Factors responsible for medication errors were performance deficit (33.94%), lack of communication between health care professionals (29.88%), heavy work load

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OP-PPPM 72: THE EXPANSION OF BIOMARKERS INTO THE NOVEL TREATMENT PRECISION MEDICINE

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The objectives of this oral presentation is to emphasize on emerging novel new era of treatment namely, precision medicine that encompasses the utilization of new diagnostics and therapeutics targeting the necessity of a patient based on his or her own genetic, phenotypic, biomarker or psychosocial characteristics for the individualized treatment. The precision medicine promises to improve human health by combining clinical data and biomarker measurements on a massive scale. Although affordable 'omics'- based technology has enabled faster identification of putative biomarkers, the validation of biomarkers is still stymied by low statistical power and poor reproducibility of results. Patients with different biomarkers present with different risks of developing a disease, different disease prognoses or different responses to treatment; therefore, new biomarkers will be added to the current standards of phenotypic features (symptoms and histology) and medical history to revise the definition of a disease to include a new subtype (taxa). New standards of care will then be developed for these newly defined disease taxa. This Review summarizes the successes and challenges of using different types of molecule as biomarkers. Expanding precision in medicine opens the door to achieve twin goals of more précised diagnosis followed by more individualized treatment. Expansion of precision medicine to a global scale by continuous collaborations of health care providers, clinical partners and medical technology companies makes precision medicine accessible to everyone by 21st century to overcome the most life threatening diseases.

Key words – Precision medicine, Biomarkers, Taxa, Phenotype, Genomics, Individualized treatment.

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OP-PPPM 76: ROLE OF VITAMINES THERAPY IN TUBERCULOSIS.

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Tuberculosis is continuing as a problem of mankind. With evolution, multi-drug-resistant (MDR) and extensively drug-resistant (XDR) forms of tuberculosis have emerged from drug sensitive strain. MDR and XDR strains are resistant to most of the antibiotics, making the management more difficult. BCG vaccine is not providing complete protection against tuberculosis, long therapy time leading to high cost. Improved treatments are needed for nearly all forms of *Mycobacterium tuberculosis* infection. Adjunctive host-directed therapies have the potential to shorten tuberculosis treatment duration, prevent resistance. One of such is adding vitamins to the standard regiment. Recent evidence to believe that Vitamin C and Vitamin D has anti-mycobacterial property. Vitamin D was used to treat tuberculosis in the pre-antibiotic era. Vitamin D supplementation elevates circulating calcidiol concentrations, and thus has a potential role in the prevention and treatment of infection. *Vitamin D* enhances host protective immune responses to *Mycobacterium tuberculosis* by suppressing Interferon-gamma (IFN-g) and reducing disease associated inflammation in the host. An adequate supply of *vitamin C* usually protects the ulcerative intestinal tuberculosis. The bactericidal activity of vitamin C against *M. tuberculosis* is dependent on high ferrous ion levels and reactive oxygen species production, and causes a pleiotropic effect affecting several biological processes. Vitamin C, an inexpensive and nontoxic compound, could easily be added to the TB. Adjunctive vitamins supplementation in the treatment of pulmonary infections to accelerate resolution of inflammatory responses associated with increased risk of mortality.

Key words: **Tuberculosis, Vitamins, Adjunctive Immunotherapies, Anti Mycobacteria Property.**

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PP-PCHE 15: NEED OF PERSONALISED MEDICINE: FUTURISTIC APPROACH

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Personalized medicine is the tailoring of medical treatment to the individual characteristics of each patient. The approach relies on scientific breakthroughs in our understanding of how a person's unique molecular and genetic profile makes them susceptible to certain diseases.

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Thisresearch is increasing our ability to predict which medical treatments will be safe and effective for each patient, and which ones will not be. Personalized medicine may be considered as an extension of traditional approaches to understand and treatthedisease. Equipped with tools that are more precise, physicians can select a therapy or treatment protocol based on a patient's molecular profile that may not only minimize harmful side effects and ensure a more successful outcome, but can also help contain costs compared with a "trial-and-error" approach to disease treatment.Personalized medicine has the potential to change the way we thinkabout, identify and manage health problems. It Is Impacting Patient care in many diseases.One common example requiring the use of various medications that have numerous toxic effects is breast cancer. Today, oncologists can choose a medication, such as trastuzumab (Herceptin, Genentech) based on standard drug therapy and dosing guidelines for that disease. They can also consider such factors as a patient's weight, age, and medical history and the reactions of other blood relatives to the same drug.Personalised Medicine has the potential to fulfil the requirement to improve health outcomes by reducing healthcare costs,drug-development costs and time while people are still well or at earliest stage of disease.

Key words: Personalized medicine, Polymorphism, Gene expression, Drug response, Drug therapy.

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PP- PCEU 19: FORMULATION AND EVALUATION OF KETOPROFEN USING β-CYCLODEXTRIN CAPPED SILVER NANOPARTICLES

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According to BCS classification, Ketoprofen (KP) comes under class II drug i.e., less solubility and high penetrability which leads to less bioavailability of drug. As extremely less particles size results in increment of drug solubility, the objective of the present work is intended to prepare and estimate the silver nanoparticles loaded KP, in view of increasing drug solubility, drug bioavailability and timed release of drug molecule. The prepared polymeric silver nanoparticles (AgNPs) so formed were estimated for *in vitro* release profiles. The *In vitro* drug release studies were carried out with apparatus (USP II) with paddle. The formulation F6 showed a drug release of 94.6% indicated the increased drug bioavailability. The formulation F6 was selected as best formulation based on % entrapment efficiency and release of drug and it was subjected to determination of particle size and zeta potential, particle morphology and *in-vitro* release studies. The particle size was found to be 167.8 nm and the zeta potential was -23.7 mV. The particle morphology of KP loaded nanoparticles was confirmed by Scanning electron microscopic technique. Stability studies performed for optimized KP loaded AgNPs formulations indicated that it has more stability at room temperature and F6 follows first order kinetics with Higuchi.

Key words: Silver Nanoparticles, Ketoprofen, β-Cyclodextrin, Solubility Enhancement, Drug Release and Stability Studies.

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Key words: Silver Nanoparticles, Ketoprofen, β-Cyclodextrin, Solubility Enhancement, Drug Release and Stability Studies.

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PP- PCEU 29: WHITE TEA
ANTI OXIDANT PROPERTIES & BENEFICIAL EFFECTS

CH.Prathibha*, M. Anushashree, Mrs.P. Naga haritha.
St.Pauls College of Pharmacy

Tea is one of the most widely consumed beverages in the world, next to water. It can be categorized into three major types, depending on the level of fermentation, i.e., green and white (unfermented), oolong (partially fermented) and black (fermented) tea. Each type of tea has a distinct composition, dependent on how the leaves are processed, as well as maturation, geographical location and agricultural practices. White tea (WT), the least processed tea, is one of the less studied and is ascribed to have the highest content of phenolic compounds. Tea polyphenols, especially catechin derivatives, are potent antioxidant agents, with positive effects on human health. Antioxidant components have aroused great interest because of their ability to scavenge free radicals, thereby inhibiting oxidative stress (OS). During the past years, oxidative damage induced by reactive species has been linked to the development of several human diseases such as cardiovascular diseases, diabetes mellitus, neurodegenerative disorders and certain types of cancer. Therefore, tea antioxidants may be of great value in preventing the onset and/or the progression of OS mediated diseases, when endogenous defences are insufficient against reactive species. The possible beneficial health effects of WT are being investigated and have received considerable attention in recent years. In this review, we aim to explore the new findings concerning WT effects on health.

Key words: White Tea; Camellia Sinensis; Polyphenols; Catechins; Antioxidants; Free Radicals.

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PP- PCEU 34: RECENT ADVANCES IN NANO PARTICULATE DRUG DELIVERY SYSTEMS

Derangula Lavanya, Dr.K.Venu Madhav
St.Pauls College of Pharmacy, Turkayamjal, R.R.Dist

Nano particulate drug delivery systems are the engineered technologies that use nanoparticles for the targeted delivery and controlled release of therapeutic agents .The concept of Nano technology was first articulated in 1959 by Richard Feynman and was published in 1991,in which the term "Nano medicine" was supposedly used for the first time. Nano medicine and Nano particulate drug delivery systems are relatively new but rapidly developing science where materials in the nano scale range are employed to serve as means of diagnostic tools or to deliver therapeutic agents to specific targeted sites in a controlled manner .Nano technology offers multiple benefits in treating chronic human diseases by site specific and target oriented delivery of precise medicines. Recently, there are number of outstanding applications of the nano medicine (Chemotherapeutic agents, Biological agents, Immunotherapy agents etc.,) in the treatment of various diseases. In the field of nano medicines and nano based delivery systems through comprehensive scrutiny of the discover and application of nano materials there is an improvement in both the efficacy of novel and old drugs (Eg. Natural products) and selective diagnosis through disease maker molecules. There are a wide opportunities and challenges of nano medicines in drug delivery from synthetic/natural sources to their clinical application.

Key words: Nano medicine, Nano materials, Drug delivery, Drug targeting, Natural product

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PP- PCOG 42: FORMULATION AND EVALUATION OF ANTI-ACNE HERBAL CREAMS

Shravan Jyothi
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Acne is a multi factorial disease affecting the pilosebaceous unit of the skin. Blockage of the pilosebaceous unit may lead to the development of acne lesions. The medical term for common acne is *Acne Vulgaris* The present study was aimed at formulating and evaluating the herbal formulation for anti acne activity .The objectives of the present study was selection and collection of plants with potential antimicrobial activity Preliminary antimicrobial screening is done by zone of inhibition. Evaluation of antimicrobial activity of selected extracts were tested against acne causing 'organisms-*Staphylococcus aureus* and *Bacillus subtilis*. Formulation and evaluation of anti acne creams. Evaluation of selected formulations for their skin irritation or skin sensitivity test on animals. Six herbal creams are formulated using six plant extracts and named as cream A,B,C,D,E,F and evaluated for anti acne activity.Antiacne formulation Cream-F has shown good anti-acne activity. Our formulation was formulated from natural plant leaves and *rhizomes* in low concentrations. The physical properties and zones of inhibition obtained are compared with marketed product properties.

Key words: Acne, Formulation. Herbal extracts, *Staphylococcus aureus, Bacillus subtilis*

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PP- PCOG 46: FOOD BIOTECHNOLOGY

SAI VEENA, NIHARIKA/MANASA, Dr. V. ASHA JYOTHI
St.PAULS COLLEGE OF PHARMACY, TURKAYAMJAL, TELANGANA.

Biotechnology is providing us with a wide range of option for how we can use agriculture and commercial forestry lands the cultivation of genetically modified crops on millions of hectares of lands and their injection into our food chain is a huge global genetic experiment involving all living organisms Biotechnology It also defined as the exploitation of biological processes for industrial and other purposes ,especially the genetic manipulation of micro organisms for the production of antibiotics ,hormones etc . Food biotechnology It is a branch of food science that deals with the production processes that makes foods. The advantages of bio technology includes curing infectious diseases ,creating more efficient fuels etc ,It includes antibiotic resistant bacteria ,new allergic reactions and higher prices for farmers

Key words: Food, Genetically Engineered, Genetically modified. Healthy humans. Biotechnology has tremendous potential for increasing food production. It can be an improvement in more food sources aspect of living by the science of biotechnology

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PP-PCOL 53: NOVEL ROUTES OF INSULIN FOR DIABETES TREATMENT: INHALED INSULIN

SafooraAiman, Shireen Fatima, Mrs. Shravana Jyothi
Department of Pharmacology, St Pauls College of Pharmacy

Diabetes is a chronic disease characterized by elevated blood sugar due to inadequate insulin production or insulin action. There are two broad categories of diabetes – type 1 (T1DM) and type 2 diabetes (T2DM). Diabetes complications include both microvascular and macrovascular diseases. Many individuals with diabetes rely on subcutaneous insulin administration by injection or continuous infusion to control glucose levels. Novel routes of insulin administration are an area of interest in the diabetes field, given that insulin injection therapy is burdensome for many patients. Attempts to find effective, well-tolerated, non-enteral routes for delivering insulin began in the 1920s, and, over the years, have included ocular, buccal, rectal, vaginal, oral, nasal and uterine delivery systems. Until recently, many researchers believed that insulin delivered noninvasively was associated with too low a bioavailability to offer a realistic clinical approach. However, a growing body of evidence suggests that inhaled insulin is an effective, well-tolerated, noninvasive alternative to subcutaneous regular insulin. Critically, inhaled insulin shows a more physiological insulin profile than that seen with conventional insulin. Further studies are needed to confirm long-term efficacy and pulmonary safety, to compare the different approaches, and to characterize better their relative places in practice. As a result of the recognition of the importance of tighter control of glycaemia and the growing number of patients with type 2 diabetes who receive insulin, inhaled insulin could become an increasingly integral part of pharmaceutical and healthcare systems in managing diabetes.

Key words: Glycemic Control, Lungs, Inhalation, Insulin, Type 1 Diabetes, Type 2 Diabetes.

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PP-PCOL 58: MODERN TECHNOLOGY AND SMART HEALTHCARE

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Mobile technology has become nearly ubiquitous in healthcare. Healthcare mobile apps are gaining popularity. Patients may text message to their providers, or opt to receive text messages from providers such as doctors and other health care professionals. Smartphone health applications are available for everything from counting steps and logging meals to managing medications and contacting healthcare providers. Apps are available for tracking health conditions, educating patients, reminding users to drink more water or take medications, and almost anything else.Advantages: Quick access, Time saving, Support lifestyle changes, Timely reminders etc.Disadvantages: Less awareness, poorly affordable (few apps), inaccuracy etc.Healthcare apps support people in following health related conditions: BMI calculation, menstruation, drinking water remainder etc.

Key words: BMI Calculation, Menstruation, Drinking Water Remainder

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PP-PCOL 59: ARSKOG-SCOTT SYNDROME

Hema.P Jyoshna. Dr.Vanita Sagar
ST.PAULS COLLEGE OF PHARMACY

Aarskogscott syndrome is a rare X-Linked recessive genetic disorder. The syndrome is caused by mutations in FGD1 gene which involves in formation of a protein that aotivates another protein called Cdc42 . The Cdc42 protein transmits the signals important for numerous aspects of development before & after birth. These mutations lead to disruption of Cdc42 signaling leading to various abnormalities in people with the syndrome. It mainly affects men although women may also exhibit mild feature. It is characterized by short strature distinctive facial features, genetical& skeletal anomalies. The facial abnormalities include widely spaced eyes (hypertelorism), long area between nose & mouth (philtrum), a small nose and a widows peak hairline. Hand abnormalities are also common in the syndrome namely curvedpinky fingers (fifth finger clinodactyly), single cause across palm, short fingers (brachdactyly) & webbing of skin in between some fingers (cutaneous syndactyly). It also includes split in upeer lip (cleft lip) with (or) without cleft palate & heart defects. Most males with this syndromes exhibit hawls and scrotums undercended tests (cryptorchidism) soft pouching in lower abdomen (inguinal hernia) (or) around belly button (umbilical hernia). The syndrome can also affect variedly the intellectual disability. There is no specific treatment for completely curing this syndrome but numerous treatments like surgery to rectify some of the anomalies, orthodontic treatment to enhance the quality of life.

Key words: Inguinal Hernia, Cryptorchidism, Philtrum, Cutaneous Syndactyly.

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PP-PCOL 68: Antibiotic Resistance

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Antibiotic Resistance is a consequence of antibiotic use. We need to use antibiotics less and use them prudently. Antibiotics are necessary drugs to help protect and heal us from pathogenic infections that our immune system is unable to successfully combat on its own. The development of antibiotic resistant bacteria is occurring at an alarming rate . Researchers are investigating the mechanisms that confer resistance on bacteria. With techniques for genomic sequences, researchers have found that bacteria are very adept at gene mutations and gene transfer. Real time PCR methods have proven effective for the detection of antibiotic resistant genes and PCR array technology allows the detection of a large number of genes in a single PCR run. The PCR array contains 5'hydrolysis probe assays that uniquely target 87 antibiotic resistance genes.

Key words: Antimicrobial resistance, Antibiotics smart use, PCR Technology, Changes in antibiotic use

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PP-PCOL 81: EBOLA VIRUS DISEASE- A DEADLY DISEASE

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Ebola virus disease is a deadly disease. it causes haemorrhagic fever. Ebola viruses are negative stranded RNA virus that belongs to Filoviridae family and are endemic to regions of west and equatorial Africa .These public health pathogens are primarily transmitted by human to human contact with infected body fluids and cause severe and acute systemic disease with high mortality .The largest ever recorded outbreak of Ebola virus disease occurred in West Africa from 2013-2016 .Symptoms of Ebola fever are muscular pain ,headaches,vomiting ,diarrhoea ,sore throat .Ebola fever is treated by using medication to support blood pressure ,reduce vomiting and manage fever and pain .Ebola vaccine is used against Ebola fever .As it is a deadly disease ,"PREVENTION IS ALWAYS BETTER THAN CURE ."

Key words: Ebola,RNA virus,Diarrhoea,Haemorrhagic fever

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PP- PPPM 85: NOVEL TREATMENT APPROACH FOR HUNTINGTON DISEASE

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Huntington Disease is a fully penetrant Neurodegenerative Disease caused by a dominantly inherited CAG trinucleotide repeat expansion in Huntington gene on chromosome 4.It is Characterised by cognitive ,motor and psychiatric Disturbances. There are no currently no Disease modifying treatments ,only Supportive, symptomatic management (Tetrabenazine, Tranquilizers) is a main stay.In recent years there have been significant advances in understanding both cellular pathology and macroscopic structural brain changes that occur as the disease progresses. The most promising of the many trails are the emerging therapies aimed at lowering levels of mutant Huntlng. Antisense oligonucleotide therapy is one such approach for treating Huntington Disease.this may bring us one step closer to treating and potentially preventing this devastating Condition.

Key words:-Cognition,Tetrabenazine,Traquilizers,Antisense Oligonucleotide therapy.

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PP- PPPM 86: ARTIFICIAL INTELLIGENCE IN PHARMACEUTICAL INDUSTRY

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Department of pharmacology, St. Pauls College Of Pharmacy

Artificial Intelligence is defined as computer systems able to perform tasks that normally require human intelligence. It comprises three distinct types – human created algorithms, machine learning, and deep learning. The world is rapidly moving towards the adoption and seamless integration of artificial intelligence (AI), including machine learning as a subtract of (AI).Pharmacy uses artificial intelligence to contribute to the overall health care industry. Artificial Intelligence presents guidance on drug interactions, drug therapy monitoring, and drug formulary selection. There are many aspects of pharmacy that AI can have an impact on.In pharmacy AI is called pharmacy management system, housing patient utilization and drug data. It can identify drug related problems through clinical decision support screening. Artificial Intelligence can influence and shift our focus from the dispensing of medications towards providing a broader range of patient care services. We can leverage AI to help people get the most from their medicines and keep them healthier.AI provides pharmacy with an opportunity for more collaboration across many different entities serving the same patient. Pharmacy can address the growl8ng demand for prescriptions, even when faced with pharmacists shortages,

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PP- PPPM 91: BRANDED AND GENERIC DRUGS

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Branded medicines are medicines which have a name given to them by a company for the purpose of advertising. They are also called as Innovator Drugs. A generic drug is a pharmaceutical drug that contains the same chemical substances as a drug that originally protected by the chemical patents. Generic drugs are produced after the original patent expires.

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appropriate regimen of prophylaxis with an antibiotic treatment must be given. It is intended solely for use in autologous limbal stem cell regeneration in line with the approved therapeutic indication and should be administered under aseptic conditions.

Key words: Holoclar', Stem Cell Treatment, Cornea, Limbus, Tissue Engineered Product.

PP- PPPM 96: MHealth SENSORS And Advanced Technology

Sony.A, Dr. S. Vanita Sagar
St. Pauls College of Pharmacy, Turkayamjal.

Mhealth sensors are well known as mobile health sensors which are used in the practice of medicine and in public health supported by mobile devices. For easy understanding of mhealth, we need to have an over look on to biosensors which are well established in the medical field. Biosensors are the analytical devices which will convert the biological response to the electrical signals. Biosensors are also said to be analytical devices which are intended to used as an analyte, which pools the biological component with physico chemical .Mhealth sensors are categorized into four types ,those are wireless sensors network,ehealth wearable technology and wban technology. Mhealth sensors are useful for the patients to get monitor with the health data and physiological data without visiting to the doctor and can access fr5om the devices from the hope . mhealth sensors are emerging in the current modern technology and this may be getting boom in the near future ,so that you can operate and get the physiological testing data from home and per our feasible time.

Key words : Monitor, Network, Mhealth Sensors.

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PP- PPPM 101: ADVANCEMENT IN MANAGEMENT OF DIABETES MELLITUS BY ARTIFICIAL INTELLIGENCE

D.Akshaya* , Guide: Dr. Vanitha sagar
Pharm d 2nd year St. Paul's college of pharmacy

Diabetes mellitus is one of the most common and prevalent chronic disease, affecting major population which is characterized by dysfunction of glucose homeostasis. The present regular diagnosis technique for this condition is tedious and painful. Artificial intelligence methods in combination with latest technologies, including medical devices, mobile computing and sensor technologies have the potential to enable the creation and delivery of better management services to deal with chronic diseases like diabetes mellitus. This presentation discusses about developed artificial intelligence powdered tools for prediction and prevention of complications associated with diabetes mellitus. It may be concluded that artificial intelligence methods are being progressively established to be used in "clinical daily practice as well as self management of diabetes". This method provides powerful tools for improving patients 'Quality of life'.

Key words: Artificial Intelligence, Glucose Homeostasis, Diabetes Mellitus, Mobile Computing, Sensor Technology.

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PP- PPPM 113: PHARMACOVIGILANCE OF HERBAL MEDICINES IN INDIA

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[1][2]*Students- Pharm. D IV Year, *Assistant Professor, Department of pharmacy practice.*
St.Pauls College of pharmacy

Herbal formulations being widely accepted therapeutic agents as antidiabetics, antiarthritics, hepatoprotectives, cough remedies, memory enhancers, and adaptogens. The use of Ayurvedic medicines is popular in India and in recent times has become accepted in other countries.The commonest myth regarding herbal medicines is that these medicines are completely safe, and can therefore be safely consumed by the patient on his/her own, without a physician's prescription. This belief has led to large-scale self-medication by people all over the world, often leading to disappointing end-results, side-effects, or unwanted after-effects.

Pharmacovigilance is the science and practice related to the detection, assessment, understanding, and prevention of adverse effects of drugs or any other possible drug related problems. There is increasing awareness of the need to develop pharmacovigilance for herbal medicines. Applying standard pharmacovigilance techniques (WHO guidelines) presents additional challenges, related to the ways in which herbal medicines are regulated, used, named, and perceived. Proper reporting of suspected adverse drug reactions to herbal medicines is currently the main method of detection. However, there is under-reporting for herbal medicines, since users do not seek professional advice about their use of such products, or report adverse effects. Several other conventional pharmacovigilance tools, such as prescription-event monitoring and the use of computerized health record databases, are currently of little use for evaluating the safety of herbal medicines although modified methods have been developed. This process of pharmacovigilance of herbals in India has come a long way since its initiation. The promotion of the systematic and rational use of drugs requires the reporting of adverse events possibly caused by herbal and traditional medicines also.

Key words: Herbal medicine, pharmacovigilance, adverse drug reactions, traditional medicine.

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ABSTRACT FOR ORAL PRESENTATION in PERCEPT-2020

Syk - GTP RAC-1 mediated immune-stimulatory effect of *Cuscuta epithymum*, *Ipomoea batata* and *Euphorbia hirta* plant extracts

S. Vanita Sagar, Department of Pharmacognosy, St. Pauls College of Pharmacy, Turkayamjal, Hyderabad, Email id: vanithasagar@yahoo.com
N. J. Prameela Subhashini*,. Department of Chemistry, University College of Science, Osmania University.

Abstract:
Polymorphonuclear neutrophils (PMNn) are the pivotal mediators of phagocytosis. In addition to neutropenia, impaired neutrophilic function is associated with pathological conditions and immuno-deficiencies. Henceforth, Immuno-stimulatory strategies targeting neutrophilic function are indeed powerful tools in combating obstinate infections. In appreciation towards the usefulness of herbal medicines in therapeutic scenario, the present study was carried out to analyse the immuno-stimulatory effect of *Cuscuta epithymum*, *Ipomoea batata* and *Euphorbia hirta* using in-vitro and in-vivo rodent experimental models. Throughout the experimentation, phagocytosis was studied and expressed as phagocytotic index and percentage phagocytosis. Different extracts of these plants were initially screened for their potency to induce phagocytosis in PMNn and the methanolic fractions, which are effective, were considered for further experimentation.The phagocytosis stimulation by the methanolic extracts was compared with the standard Granulocyte Macrophage – Colony Stimulating Factor (GM-CSF) at a dose of 65ng/ml. Immunoblotting analysis shown that methanolic extracts induce the phosphorylation of Syk which in turn phosphorylates GDP-RAC-1, hinting possible mechanism of action. Following these in vitro investigations, potency of methanolic extracts was assessed using rat model by performing carbon clearance assay, Delayed Type Hypersensitivity and antibody titre.The phosphorylation status of Syk and GDP-RAC-1 was also assessed in the edematous fluid collected from the right hind paw. In vivo findings were in agreement with in vitro findings by presenting an improved immune response and increased phosphorylation of Syk and GDP-RAC-1. Conclusively, this study provides initial insights into the therapeutic implications of the tropical plants in inducing phagocytosis.

Keywords:
Cuscuta epithymum; Euphorbia hirta; Immunomodulatory; Ipomoea batata; Polymorphonuclear neutrophils; Syk / GTP-RAC1.

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OP-48: METHOD DEVELOPMENT AND VALIDATION FOR SIMULTANEOUS ESTIMATION OF CEFTOLOZANE AND TAZOBACTAM INJECTION BY RP-HPLC

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Dept. of Pharmaceutical Chemistry, St.Pauls College of Pharmacy, Turkayamjal, Hyderabad, T.S
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Background: Ceftolozane is a semi synthetic a new generation Cephalosporin (beta lactam) antibiotic used in combination with Tazobactam for the treatment of complicated intra abdominal infections.

Objective: To develop a novel, simple, sensitive, accurate and economical analytical method for the simultaneous estimation of Ceftolozane and Tazobactam

Method: A simple, selective, linear, precise and accurate reverse-phase high-performance liquid chromatography technique was urbanized and validated for the concurrent determination of Ceftolozane and Tazobactam in powder for injection. Results: The chromatographic separation was achieved on Altima C18 4.6×150mm, 5.0 µm column by means of a mobile phase consisting a mixture of Methanol: Water in proportion of 65:35 v/v at a flow rate of 1ml/min at room temperature and detection was carried out at 28 nm. The clear chromatography peaks were identified with retention times of 2.09 min for Ceftolozane and 6.07 min for Tazobactam. The proposed technique was validated according to ICH guidelines with respect to specificity, linearity, accuracy, precision, LOD, LOQ and robustness. The linearity was observed in the concentration range of 10-40 µg/ml for Ceftolozane and 5-25µg /ml for Tazobactam. A linear regression coefficient for both drugs was 0.999. The percentage recovery of Ceftolozane and Tazobactam was 100.9% and 99.6%.The %RSD for repeatability and intermediate precision was less than 2%. LOD was 0.8µg/ml and 0.9µg/ml and LOQ was 2.5µg/ml and 2.9µg/ml for Ceftolozane and Tazobactam respectively. The results of validation parameters met the ICH requirements. Hence, the projected method can be used for the estimation of Ceftolozane and Tazobactam in powder for injection during regular and quality-control analysis

Conclusion: In conclusion the present RP-HPLC method developed and validated was found to be used for simultaneous estimation of Ceftolozane and Tazobactam.

Keywords: Ceftolozane, Tazobactam, Simultaneous estimation, RP-HPLC, Injection

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PP-152: IDENTIFICATION, ASSESSMENT OF SEVERITY AND ASSOCIATED COMPLICATIONS OF POLYPHARMACY IN SUPERSPECIALITY HOSPITAL

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Background: Polypharmacy has been identified as a major risk factor for drug-drug interactions, thus an important cause of adverse drug reactions. Adverse outcomes, such as hospitalizations and falls, are associated with polypharmacy.

Objectives: The objective of this study is to bring into light such complications.

Method: The present study on polypharmacy in various departments of a Superspeciality Hospital was conducted over a period of 1 year during June 2017- June 2018. The necessary data was collected from in-patient case notes, treatment charts, interview with patients or patient care givers and nursing staff. The data was analysed using suitable softwares like micromedex and drug reference sites.

Results: The incidence of polypharmacy in this prospective observational study was found to be 17.6%. From a total of 132 polypharmacy cases majority were containing 1 drug involved in polypharmacy with multi-class polypharmacy being the major type of polypharmacy category. The most common class of drugs involved in polypharmacy are antibiotics.

Conclusion: Early detection and intervention of polypharmacy cases will improve the therapeutic outcomes which are possible through the implementation of polypharmacy reporting system in the hospital, conducting the continuing professional development programs for nurses, developing and adopting the policies regarding the importance of polypharmacy.

Keywords: Adverse Drug Reactions (ADRs), Drug-Drug Interactions(DDIs), Medication errors(ME), Polypharmacy.

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PP-132: ANTI-INFLAMMATORY INTERVENTIONS IN DIABETES KIDNEY DISEASES AND DIABETIC NEPHROPATHY

S. Vanitasagar, Katta Manogna
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ackground: In diabetes, hyperglycemia and lifted free fatty unsaturated fats may promote inflammation / invigorating glucose usagealongside modification in oxidative phosphorylation. It might instigate oinflammatory characteristic in macrophages swelling or attacking the adipose tissue and other tissue cluding the islets and vasculature. They cause glucotoxicity and lipotoxicitymovement.

bjective: To assess anti inflammatory interventions in diabetes kidney diseases and diabetic nephropathy d impact of non-steroidal anti-inflammatory drugs (NSAIDS) in controlling this condition.Method: Both -vivo and in-vitro studies related to this conditions were reviewed from various related research articles. lts:The potential renoprotective effects of non-steroidal anti-inflammatory drugs (NSAIDS) which ssessed in patients with proteinuria over 30 years prior were reviewed. These examinations raise the elihoodthat calming intercessions may moderate the progression of diabetic kidney malady.

nclusion: Diabetic nephropathy is a major complication in many people suffering with diabetes. Hence, of literature to be collected and research has to be carried out to reduce its intensity and control its ociated problems like inflammation with it.

words: Renoprotective, Diabetic kidney malady, Non-steroidal anti-inflammatory drugs, Glucotoxicity, itoxicity.

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3.3 Research Publications and Awards

3.3.3 Number of books and chapters in edited volumes/books published and papers

S.NO	YEAR	Title of the paper/book	Authors
1	2018-2019	Formulation, Development and Evaluation of Controlled Porosity Osmotic Pump Tablet of Atenolol	Dr. AyeshSulthana
2	2018-2019	Pemphigus	Dr. Nasreen Sulthana

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A.Y. 2017-18

EVERY DISEASE HAS A HERB TO CURE IT

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ABSTRACT:

According to the WHO, the high mortality rate in the world is due to disease & unhealthy lifestyle. These diseases may include CVD, respiratory, tumor & so on. With the advancement in medical & healthcare industry, a lot has changed in India. Many fatal diseases have been exterminated with invention of powerful vaccination & treatment courses. However, the county is still challenged by some killer diseases that just don't seem to declare exodus. The conventional drug has several adverse effects & that may lead to complications in human life. The herbs are derived from natural sources & have wide variety of uses with less a no adverse effects. This review focuses on different diseases & their herbal treatment which is cost effective as well as safe for healthy living patients.

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OUTBREAKS OF EBOLA VIRUS-A NEW TOOL IN PHARMA VIRULENCE

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ABSTRACT:

The Ebola virus (EBOV) is the cause of an emerging disease that may be harbored across a much larger geographic range then previously assumed. The present large outbreak of EBOV illustrates how an emerging disease may start and spread the difficulty of its containment, and the socio political factors that may appear during an emerging disease outbreak. EBOV targets the body's immune system, causes harmful inflammatory responses such as a cytokine storm, leads to apoptosis of many cell types including vascular endothelium and lymphocytes, and in fatal cases terminates in the multiple organ dysfunction syndrome (MODS) and multiple organ failure. Uncertainties in the scientific data on the transmission of this virus raise concerns about current published Centers for Disease Control and Prevention (CDC) guidance for health worker protection.

Key Words: Ebola virus, Multiple organ dysfunction syndrome, Multiple failure.

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POLYCYSTIN OVARIAN SYNDROME

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ABSTRACT

Polycystic ovarian syndrome is a set of symptoms due to elevated androgens in women. PCOS grow many small cyst on their ovaries. Polycystic ovaries develop when ovaries are stimulated to produce excessive amount of androgenic hormone particularly testosterone by either one or a combination of the following.

- The release of excessive luteinizing hormone by anterior pituitary gland
- Through high levels of insulin in the blood (hyperinsulinaemia) in women whose ovaries are sensitive to this stimulus

The cyst of PCOS are not harmful but lead to hormonal imbalance. PCOS is the most common endocrine disorder in women between the ages of 18 and 44. It is one of the leading causes of poor fertility. PCOS is a heterogeneous disorder of uncertain cause there is some evidence that it is a genetic disorder and also a hormonal imbalance. Over production of hormone androgen may be another contributing factor.PCOS signs and symptoms include irregular or no menstrual periods, hirsutism, acne, pelvic pain difficulty in getting pregnant and patches of thick, darker, and velvety skin.Women with PCOS have a higher risk of developing hypertension, high cholesterol, anxiety, depression, sleep apnea, heart attack, diabetes, breast cancer.PCOS have no cure. Treatment may involve lifestyle changes such as weight loss and exercise. Birth control pills may help with improving regularity of periods, excess hair growth, and acne. With proper diagnosis and treatment most PCOS symptoms can be effectively managed or eliminated, balance hormone risk, decreases insulin resistance and maintain a healthy body weight.

KEY WORDS: Hyperinsulinamia, ovarian, sleep apnea, testosterone , hirsutism.

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VIRAL HEMORRHAGIC FEVERS

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ABSTRACT

Viral hemorrhagic fevers (VHFs) are acute infections with high case fatality rates. Important VHF agents are Ebola, Marburg and yellow fever virus. VHFs are clinically difficult to diagnose and to distinguish; a rapid and reliable laboratory diagnosis is required in suspected cases. The incubation period usually lasts 5- 7 days and approximately 95% of the patients appears signs within 21 days after exposure. VHF is characterized by systemic viral replications, immuno suppression and abnormal inflammatory responses. The pathological features of the disease contribute to a number of systemic dysfunctions including hemorrhages, edema, coagulation abnormalities and ultimately multi organ failure and shock, often resulting in death. A detailed understanding of the pathological processes that lead to this devastating disease remain elusive, a fact that contributes to the lack of licensed vaccines or effective therapeutics. This presentation will review the clinical aspects of VHF and discuss the pathogenesis and possible aspects for diagnosis, treatment and prevention.

Key words: Virus, hemorrhage, immunosuppression

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EDIBLE VACCINES

- Let the food be thy medicine.

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Abstract

Edible vaccines offer cost effective, easily administrable, storable and widely acceptable as bio friendly particularly in developing countries. Oral administration of edible vaccine proves to be promising agents for reducing the incidence of various diseases like hepatitis & diarrhea especially in the developing world, which face the problem of storing and administering vaccines, edible vaccines are obtained by incorporating a particular gene of interest into the plant, which produces the desirable encoded protein. Edible vaccines are specific to provide mucosal activity along with systemic immunity. Unlikely edible vaccines would eliminate the need for trained medical personnel required for oral administration particularly in children. Various food that are used as alternative agents for injectable vaccines include cereals, fruits and vegetables. Thus, edible vaccines overcome all the problems associated with traditional vaccines and prove to be best substitutes to traditional vaccines.

Keywords: edible vaccines, transgenic plants, traditional vaccines, fruits, vegetables.

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EVALUATION OF PSYCHOLOGICAL PARAMETERS AND QOL ESTIMATION IN POLYCYSTIC OVARIAN SYNDROME

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ABSTRACT

INTRODUCTION: Polycystic ovary syndrome (PCOS) is a heterogenous disease and many symptoms are seen with varying degrees. Polycystic ovarian syndrome (PCOS) is a condition associated with chronic anovulation, insulin resistance and androgen excess . Women with this syndrome are at increased risk of metabolic syndrome. Affects 5-10% of premenopausal population. Most common endocrinopathy in women . Leading cause of anovulatory infertility.This study primarily aims to evaluate all psychological parameters such as depression , anxiety ,self esteem , and social worry together by classifying PCOS according to symptoms as per NIH and AES diagnostic criteria .Exploration of quality of life of women affected by PCOS and to compare it with control group.

METHODS: This is a open-labeled , prospective, observational hospital based study conducted in multi-specality teaching hospital of MBNR DIST. Cases were collected who were diagnosed with PCOS and compared with control.

RESULTS: A total of 36 test and 36 control were observed and compared in the study. Among them the incidence of psychological parameters was high in test group than control group. social anxiety (38.56+-2.70), anxiety (20.53+-1.39), depression (21,66+-1.54), are increased and self esteem (14.42+-0.39), QOL are decreased in test group i.e., PCS(57.22+-4.82) and MCS(51.71+-3.27).

CONCLUSIONS: The study concluded that the incidence of PCOS is seen in the age group 18-22yrs (55.77%) , weight group 50-60kgs patients (41.66%) the incidence of PCOS is more in married and the majority of patients are married(83.33%). The majority of patients are having the disease duration of 4-6 yrs (36.11%). The study also concluded that PCOS patients having high incidence of psychological parameters and low self esteem and QOL.

KEY WORD:

Polycystic ovarian syndrome, quality of life, depression, anxiety, infertility, amenorrhea.

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ABSTRACT

PHARMACOGENOMICS- a new paradigm to personalize treatments in cancer patients

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Abstract: Heterogeneity in patient response to chemotherapy is consistently observed across patient populations. Pharmacogenomics is the study of inherited differences in inter-individual drug disposition and effects, with the goal of selecting the optimal drug therapy and dosage for each patient. Pharmacogenomics is especially important for oncology, as severe systemic toxicity of cancer therapies. In addition, genetic polymorphisms in drug metabolizing enzymes and other molecules are responsible for much of the inter-individual differences in the efficacy and toxicity of many chemotherapy agents. This review will discuss clinically relevant examples of gene polymorphisms that influence the outcome of cancer therapy, and whole genome expression studies using microarray technology that have shown tremendous potential for benefiting cancer pharmacogenomics.

The germline variation, which is present in the patients normal tissues, will effect the pharmacokinetics and pharmacodynamics of a cancer drug independently of the disease type after development of disease it may also contribute to individualized responses to anticancer agents.

Keywords: Pharmacogenomics, chemotherapy agents, microarray technology.

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3.3 Research Publications and Awards

3.3.3 Number of books and chapters in edited volumes/books published and papers

S.NO	YEAR	Title of the paper/book	Authors
1	2016-2017	Formulation Development and evaluation of transdermal Patches of Tramdolol HCl	P. Naga Haritha
2	2016-2017	Advanced Pharmacological screening methods	Dr. Nasreen Sulthana

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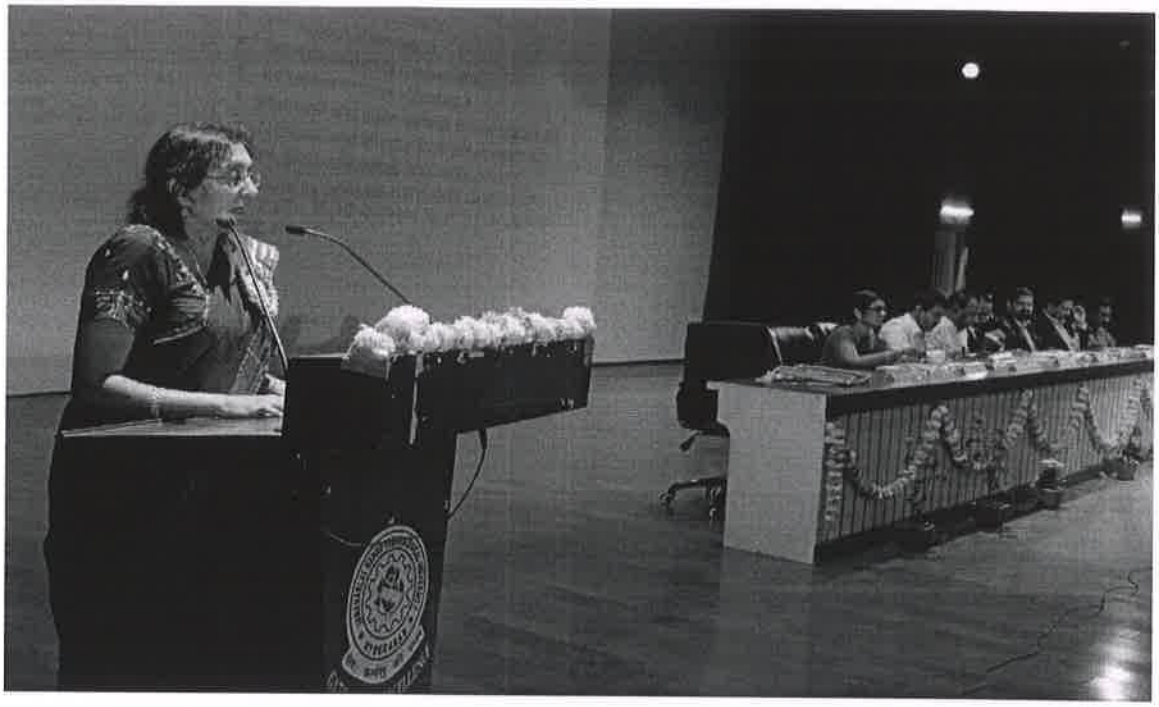

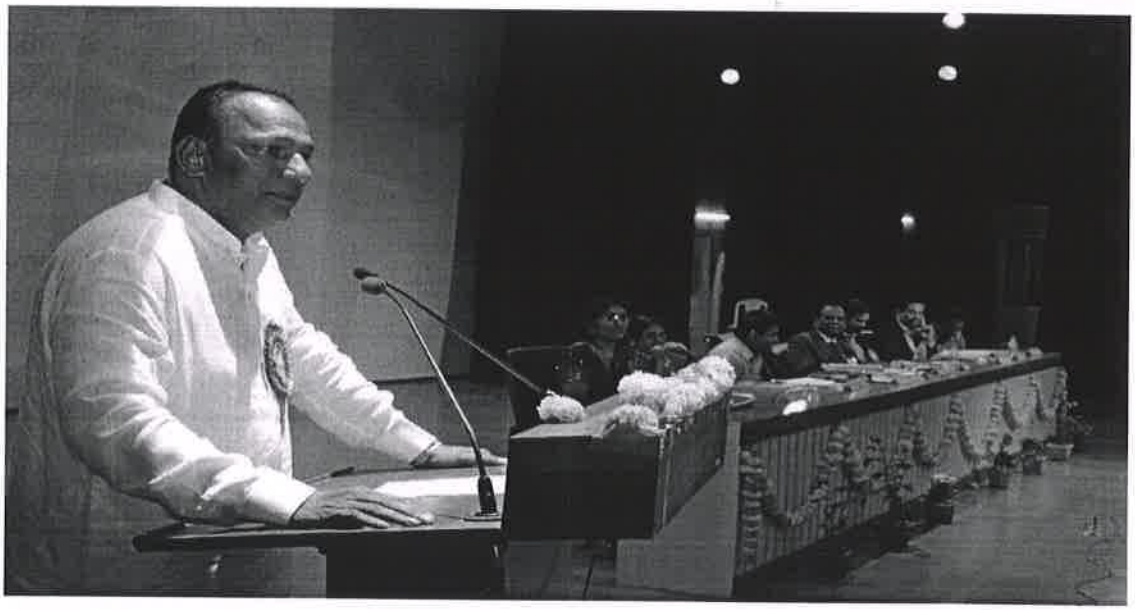

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FORMULATION DEVELOPMENT AND INVITRO EVALUATION OF TRANSDERMAL PATCHES OF TRAMADOL HCL.

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In the present research, attempt was made to prepare and evaluate the transdermal patches containing Tramadol HCl, a centrally acting opioid analgesic drug. Formulations were made by using different ratios of rate controlling polymers like Eudragit RL100, Hydroxy propyl methyl cellulose 6 cps and Ethyl cellulose. Poly Ethylene Glycol 4000 and glycerin were used as plasticizers and Tween 80 as penetration enhancer. The patches were prepared by solvent evaporation technique using liquid Paraffin as lubricant. In the pre-formulation studies, solubility, partition coefficient, and melting point were determined to assess its application for transdermal delivery. The FTIR analysis assured compatibility of drug and excipients. The transdermal patches were evaluated for their appearance, weight uniformity, and thickness uniformity, drug content uniformity, folding endurance, WVT, *In-vitro* diffusion and stability studies. Based on the evaluation studies F10 formulation was optimized. The drug release was extended for 12 hrs, the optimized F10 formulation release data was subjected to different kinetic models to know the release mechanism. Which results correlation coefficient (r^2) values of zero-order (0.952), first order (0.742), Higuchi (0.968), and korse-mayer peppas (0.862). F10 formulation subjected for accelerated stability study (40^0C temp. and 75% RH) for 3 months, results found to be stable with respect to drug content, drug release, as well as physical changes. The results suggest that polymer based transdermal patches are potential means to achieve controlled drug delivery for effective therapy.

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