International Conference
On

CAREER POINT UNIVERSITY, KOTA

INTERNATIONAL CONFERENCE

ON

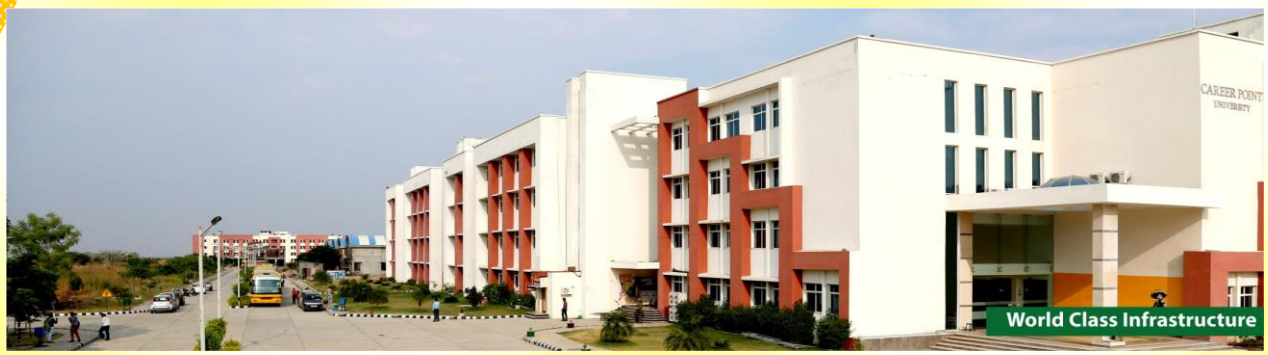
"EXPLORE CUTTING-EDGE RESEARCH & INNOVATION IN PHARMACEUTICAL, LIFE SCIENCES AND TECHNOLOGY (ICERIPLST-2024)"

SUPPORTED BY

Career Point International Journal of Research (CPIJR)

16th MARCH 2024 (Saturday)

DOI: https://doi.org/10.5281/zenodo.13770768



CAREER POINT SCHOOL OF PHARMACY

CAREER POINT UNIVERSITY, KOTA (RAJ.)

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

SOUVENIR

CAREER POINT SCHOOL OF PHARMACY
CAREER POINT UNIVERSITY, KOTA.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

About the Conference

International Conference 2024; based on the theme "Emerging cutting-edge research & Innovations in Pharmaceutical, Life Sciences & Technology" is conducted by Career Point School of Pharmacy, Career Point University, Kota. The conference spanning one day 16th March 2024, focusing on cutting-edge research and innovation in these areas typically provide a platform for researchers, scientists, industry professionals, and academics from around the world to exchange knowledge, present their latest findings, discuss emerging trends, and collaborate on future projects.

The International conference covers a wide range of topics including:

- Drug discovery and development: Highlighting advancements in pharmaceutical research, including new drug candidates, drug delivery systems, and therapeutic approaches.

- Life sciences: Including areas such as genetics, molecular biology, biochemistry, biotechnology, and microbiology.

- Technology in healthcare: Exploring the role of technology in improving healthcare delivery, such as telemedicine, wearable devices, electronic health records, and artificial intelligence.

- Regulatory affairs: Addressing legal and regulatory issues related to pharmaceuticals, medical devices, and biotechnology products.

- Translational research: Bridging the gap between basic science and clinical applications to accelerate the development of new treatments and therapies.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

PROGRAMME SCHEDULE

International Conference on Emerging cutting-edge research & Innovations in Pharmaceutical, Life Sciences & Technology (16th March 2024)

Inaugration Session

S.No.	Event	Participant
1	Introduction to the theme of Conference	Student Anchors
2	Sarasvati Vandana	Student
3	Welcome speech	Dr.M.K. Gupta
4	Speech of Special Guest	Dr. Kamal Singh Rathore
5	Award Ceremony	Faculty Anchors
6	Speech of Chancellor Sir	Honourable Er. Pramod Maheswari
7	Award Ceremony	Faculty Anchors
8	Introduction of Chief Guest	Student Anchors
9	Speech of Chief guest	Dr.M.L.Kori
10	Speech of Guest of Honour	Dr. Yogesh Kumar
11	Speech of Guest of Honour	Dr. Andras Sapi
12	Speech of Special Guest	Prof. B. Krishanmoorthy
11	Vote of thanks	Dr. Rajkumari Thagele

Technical Session I (1:00 pm – 4:00 pm)

S.No.	Topic of Presentation	Name of Participant
1	Green Gold Nanoparticles for Cancer Therapy: A Targeted	Aayushi Tiwari

	and Sustainable Approach	
2	Unleashing the Power of Precision: Fluoroalkane Polymers Turbocharge Personalized mRNA Cancer Vaccines	Aditya Agnihotri
3	Photo-modulatory Effects of Nutrient doped Quantum Dots in Plants	Aditya Bapu Keskar
4	Formulation and Evaluation of Curcumin Based Lotion for Treating Fungal Infection	Akshay Kumar
5	Ecofriendly Synthesis of Metformin Loaded Silver Nanoparticles using Natural Polymers and Synthesised Starch as Stabilizing Agents	Alok Kumar
6	An update of Pharmacological Activity of Vajradanti	Anil Kumar
7	Formulation and In-Vitro Evaluation of Sublingual Tablet	Ankit Yadav
8	Novel Tetrahydropyrimidine Derivatives as Inhibitors of Topoisomerase II: Molecular Docking Analysis and Admet Studies	Apeksha K Hegde
9	Artificial Intelligence in Pharmaceutical and Healthcare Research	Archana Dangi Ratoriya
10	Role of Artificial Intelligence in Health Care System.	Bhargavi Gaikwad
11	Anti-aging medicine	Bushra Rahman Khan
12	Global Health and Access to Medicines	Chetna Saini
13	Nanotechnology in Herbal Drug Delivery Systems: Enhancing Therapeutic Efficacy and Patient Compliance	Deepika Aggarwal
14	Nanotechnology and Modern Pharmacy: A Concise Overview	Devansh Vijayvargiya
15	In Silico studies of Isoquinoline Alkaloids for the screening of DNA interacting mode and ability	Poonam R. Inamdar
16	To Study *Pistia Stratiotes* Plant use in different Medication	Gaurav Kamewal
17	Innovative Convergence: Exploring the Synergy of Emerging Technologies in Life Science	Geetanjali
18	Spatial distribution and nesting behavior of the Black winged-stilt (*Himantopus himantopus*) in the Kota, Rajasthan, India	Mamta Nagar
19	3D Printing Drug	Mayuri Nikam

20	Cancer Awareness	Neha Kankerwal
21	Research on natural polymer in execution of raft forming gastro- retentive drug delivery system of an Anti-hypertensive Drug.	Neha Raghuwanshi
22	Millets	Pragya Nigam
23	Innovative Strategies in Antitubercular Drug Discovery: Design, Synthesis, and Evaluation of 2 & 3-(4-Aminobenzamido) Benzoic Acid Derivatives	Prashik B. Dudhe
24	An Overview Research Study on Recent Advancement, Application & Formulation Type Related To GRDDS	Niraj Gupta
Technical Session II (1:00 pm – 4:00 pm)		
25	Antimicrobial activity of Crassula ovata	Radhika Tyagi
26	Role of Microemulsion in Curing Microbial Infections	Rajat Rai
27	Understanding Dengue Virus – Searching New Therapeutic Agents	Satnam Singh
28	Formulation and Evaluation of Anti Bacterial Herbal Gel of Couroupita Guianensis Extract	Shailesh Kumar
29	Synthesis, Characterization & Pharmacological Evaluation of Benzohydrazide Analogues for Antiinflammatory Activity	Shantanu Sanjay Ghodke
30	Potential of Cow urine therapy for cancer treatment	Simran Bajaj
31	HPLC study on stress degradation behavior of Idelalisib and development of a validated specific stability-indicating rp-HPLC assay method	Vaishali Madhukar Badgujar
32	Personalized Medicine	Vaishnavi Hyalij
33	Formulation and Evaluation of Floating Gastroretentive Microsphere for Gastric Reflux Disease	Rupanjali
34	Design and Evaluation of Vesicular Emulsomes Containing Gel for Rheumatoid Arthritis	Abhishek Kumar
35	Revolutionary Innovations in Pharmacy	Anshul Sharma
36	Phytochemical screening, characterization of bioactive component from plant Phragmites karka (Retz.)Trin ex Steud.and its biological evaluation with reference to Wound healing activity	Anjali Peter

37	Nutraceutical Potential of Amomum Subulatum (Black Cardamom): Recent Advances & Novel Potential Therapeutics Effects	Pranjal Sachan
38	FDI Impacts on India's Economy: A Comprehensive Review and Outlook"	Kajal Sharma
39	Phytochemical, Pharmacognostic and Chromatographic Profiling of Commonly Available Sida Species in Kerala: A Comprehensive Comparative Analysis	Rahul Maurya
40	Challenges and Innovations in Analytical Method Development and Validation for BCS Class II and IV Anti-Hypertensive Drugs Using HPLC	Deepak Sharma
41	Herbal Oil: An Insight into the Past Knowledge	Aditya Vikram Jain
42	Different Pathways via Polysaccharides Influence Human Health	Preeti Yadav
43	Plant Extract Mediated Synthesis of Metal/Metal Oxide Nanoparticles	Sarika Kapoor
44	Nutrition for Neuroprotection: Building Resilience Against Cognitive Decline	Sabeena Hussain Syed
45	Synthesis and Charectorization of Benzoxazinone Derivatives	Shailesh Choudhari
46	One Pot Synthesis of Novel Hydrazono-1,3-Thiazolidin4-One Derivatives with Anti-HIV and Anti-Tubercular Activities	Subham Kumar Vishwakarma
47	Revolutionary Innovations in Pharmacy	Anshul Sharma
48	Artificial Intelligence (AI): Advancement in the Field of Health and Medicine Fields	Rajesh Shukla
Session III (1:00 pm – 4:00 pm)		
49	Artificial Intelligence in Drug Discovery	Chetan Nagar
50	Comparative Evaluation of Antimicrobial Potency in Rhizome Extracts from Curcuma Caesia, Curcuma Amada, and Curcuma Angustifolia: Unlocking Phytotherapeutic Potential	Mamta Yadav
51	Hptlc Fingerprint of different varieties of Capsicum	Sonu Kachhiya
52	Zebrafish Animal Model Using AI in Exploration &	Tarun Kumar

	Research of Pharmaceutical Studies	
53	A Novel Approach on in Situ Gel for Nose to Brain Delivery of Anti-Migraine Drug: A Review	Priya Diwedi
54	Tracing the Trace: A Comprehensive Review of Impurity Profiling in Atorvastatin Calcium and Bempedoic Acid	Avantika Agrawal
55	Assessment of Synthesis and Anticancer Studies of Triazole Based Molecular Hybrids	Dipesh Kumar Sharma
56	AI-Driven Herbal Interventions: Exploring Synergies for AMH Enhancement	Harshita Jain
57	Ligand Based Pharmacophore Modelling, Virtual Screening and Molecular Docking to Identify Novel SCD Inhibitor's for the Treatment of Metabolic Syndrome	Pragya Sharma
58	A Study on Fish Diversity and Water Quality Parameters of Chandrakeshar Reservoir, Dewas, Madhya Pradesh	Kamlesh Parte
59	Nutraceuticals and Their Impact on Human Health	Juliyas Shrotriya
60	Structure-Based Virtual Screening for the Identification of Potential and Promising Inhibitors Against Prostate Cancer	Ruchi Verma
61	PDE5 Inhibitors-Loaded Bioadhesive Vesicular Gel for Topical Therapy of Erectile Dysfunction	Nidhi P. Shah
62	Review on Pancreatic B Cell Regeneration: Potential Drug Therapy for Diabetes Mellitus	Nirmal Joshi
63	Comparative Assessment of Psoralen Distribution in Bhopal and Surrounding Areas	Monika Singh
64	Recent Insights into Nanocurcumin in the Management of Health Issues	Mukul Pratap
65	Natural Flavanones Exhibit Potent Anticancer Activity: An Overview	Kanhaiya Kumar
66	Role of Herbal Medicine in the Management of Alzheimer's Diseases – An Overview	Shubham Sharma
67	Aloe: The Magical Remedy an Overview	Ishika Jain
68	Synthesis, In-Silico And In-Vitro Screening of Benzoxazole-Thiazolidinone Scaffolds as Potent Antimycobacterial Agents	Pradeep Kumar M.R

69	Overview on Artificial Intelligence in Healthcare	Aditi Patel
70	Recent Advancement of AI Tools and Techinque in Pharmaceuticals Industries and Educational Purposes	Preeti Anand
71	Investigating Natural Polymers for use in Raft-Forming, Gastro-Retentive Drug Delivery Systems for Anti-Hypertensive Medications.	Neha Raghuwanshi
72	Clinical Study between the Length of Anterior Cruciate Ligament on both the Knees and Correlated it with length of Femur and Tibia & its Clinical Application: A Cadaveric Study	Abhinav Kumar Mishra
73	Formulation and Evaluation of Mometasone Furoate	Shreya Srivastava
74	Anti-Hemorrhoidal Activity of Leaf Extract of *Cassia Occidentalis* L.	Samriti Faujdar
75	Depofoam Technology in Cancer Disease Treatment	Pooja solanki
76	In-Vitro and In-Vivo Evaluation of Dexamethasone Sustained Release Matrix Tablets for PCOS	Sunayana Rathore
77	Review on Pancreatic B Cell Regeneration: Potential Drug Therapy for Diabetes mellitus	Nirmal Joshi
78	Design and Synthesis of Novel 1-H-Pyrazolo[3,4-B] Pyridine Derivatives As Anti-Tubercular Agents	Payal Patel
79	Preliminary Phytochemical Evaluation of Methanolic Ethyl Acetate Extract and Petroleum Ether Extract *Cleome Viscosa* (Cleomaceae), *Cordia Dichotoma* (Boraginaceae) and Root Extract of *Tephrosia Purpurea* (Fabaceae)	Abhay Kumar Mishra
80	In-Vitro Antiplasmodial Activity of Aqueous and Ethanol Stem and Leaf Extracts of *Senna Occidentalis* (Coffee Senna)	Vikash Jha
81	Design and development of bio engineered personalized medicine with the application of AI tools for the treatment of Breast cancer	Ravikant Gupta
82	In-Vitro Anti-Obesity Efficacy of *Wrightia tinctoria* Seeds Extract in 3T3-L1 Preadipocytes	Divyang Patel

83	A Review on Medicinal and Pharmacological Properties of *Cassia fistula*	Deepak K. Birla
84	Polyherbal extracts used to synthesize Silver nanoparticle for wound healing activity	Vijay Bahadur Maurya
85	A Comprehensive Review on Cubosome: A Novel Versatile Nanocarrier	Aashish Singh
86	3D QSAR Study of The Heterocyclic Analogues as an Anti-Microbial Activity	Dharmesh Sisodiya
87	Repurposed Drugs Paving the way for Cancer Treatment	Supriya A. Unavane
88	Pharmacological Evaluation of the Antidepressant Activity of *Lavender Latifolia* Leaf Extract	Piyush Chandra
89	Neuroprotective Effect of A-Mangostin in Wistar Rats: Propionic Acid-Induced Autism Model Improvement	Aarti Tiwari
90	*Nigella Sativa* Seed Derivatives based Transdermal Patches: Evidence of Improved Antioxidant and Anti-Inflammatory Potential	Deepika Bairagee
91	A Comprehensive Analysis of Neopterin as a Prognostic Marker for SARS-COV-2 Patients	Roma Sharma
92	In-Silico Studies of Phenyl Piperazine Derivatives as Serotonine Reuptake Inhibitor	Shrestha Sarkar
93	Androgenetic Alopecia in A Mouse Model	Sourabh Kumar Sharma
94	Synthesis of Zno/Cuo Nanocomposites via Green Route for Photocatalytic Applications	Falguni S. Bhavsar
95	Development and Validation of a Robust RP-HPLC Method for Simultaneous Quantification of Domperidone and Cinnarizine in Bulk and Tablet Dosage Formulations	Vijendra Singh Chauhan
96	Neuroprotective Effects of Pantothenic Acid against Kainic Acid-Induced Status Epilepticus and Spatial Memory Deficits: Insights into Oxidative Stress, NF-Kb Modulation, and Neuroinflammation	Nitish Bhatia
97	Nanorobots Aided in the Detection of Cancer and Targeted Therapies	Sandhiya
98	Controlled Release Formulation of Esmiprazole to Improve Bio Availability and Bio Equivalence	Pooja Bhati

99	Development and Pharmacological Evaluation of Pegylated Nanoparticles Formulation for the Controlled Delivery against Alzheimer	Barkha Chaturvedi
100	Formulation, characterization, and optimization of Curcumin based Nanoemulsion for the treatment of Psoriasis	Deepa Lashkari
101	Evaluation of Immunomodulation through Leaves Extract of *Spinacia Oleracia*	Namrata Singh
102	Role of Nutraceuticals in Diabetes Mellitus	Vaibhav singhal
103	Repurposing Drugs: Rediscovering Potential Cures in Existing Medications - An Overview	Vivek Sharma
104	Pharmacognostical and Phytochemical Evaluation of Antihyperlipedemic Polyherbal Formulation	Ankur Agrawal
105	Automation and Robotic Systems in Pharmaceutical Analysis for High-Throughput Screening and Analysis	Akhilesh Tiwari
106	Formulation and Pharmacokinetic Evaluation of Acebrophylline Orodispersible Tablets	Sripathi Srinivas
107	Development and Characterization of Transdermal Patch for Management and Treatment of Mental Illness	Arpita Srivastava
108	Hydrotrophy: A greenish tool for extraction of Phytoconstituents Pharmacognosy	Meghna Singh
109	Phytochemical Screening and TLC analysis of *Madhuca longifolia* extracts: unveiling bioactive compounds	Dilip Kumar Chanchal
110	Expanding Horizons: Exploring The Boundless Scopes of Madhuca Longifolia in Diabetes Management	Shahbaz Khan
111	The Role of Pharmacological Agents in Modulating Mitochondrial Function and Metabolism	Vivek Tomar
112	The Role of Pharmacological Agents in Modulating Mitochondrial Function and Metabolism	Neha Khan
113	Innovative Strategies in Wound Care - Combining Advanced Dressing Technologies with Natural Antimicrobial Agents	Rohit Verma
114	Nanostructures and Niosomes: A Quantum Leap in Clotrimazole Therapeuctics	Jitendra Singh Chaudhary
115	Exploring the Therapeutic Potential of Medicinal Plants in	Neha Chaturvedi

	Wound Healing	
116	Computer Aided Prediction of ADMET Properties of Selected Phytochemicals from Leaves of Termenalia Chebula	Patil Adarsh Arun
117	Investigation of Pharmacokinetic Properties Some Phytochemicals from Aloe Vera using Computer Aided Drug Design Tools	Ronak Dsouza
118	In-silico Prediction of Physicochemical and Drug Likeness Properties of Selected Phytocompounds from Leaves of *Muntingia Calabura*	Siddhesh Bandekar
119	Quality By Design Assisted Development and Validation of UV-Spectrophotometric Technique for Quantification of Dapagliflozin: A Method Optimization Approach by Design of Experiment based Central Composite Model	Shailendra S. Suryawanshi
120	Exploring the Prospects for the Future of Healthcare: Gene-Specific Medicines	Pooja Uttekar
121	To synthesize the simplified vancomycin analogue and evaluation of its analogue as novel antibiotics	Prateek Porwal
122	A Review of the System and its wide range of Therapeutic applications in Diabetes for Microparticle Drug Delivery	Gyan Singh
123	Phytochemistry, Medicine and the Flower of *Nymphaea Alba's* (Nymphaeaceae) Biological Activity	Vinay Kumar Siroliya
124	Current Scenario on Novel Drug Delivery System: Microsphere	Mohit Saini
125	Recent Developments in Hydrogel Systems: Biomedical Applications Driven by Biological Response	Priyanka Ahirwar
126	Therapeutic Potential of Natural Bioactive for Management of Neurodegenerative disorder: Insights and Future Trends	Kushi Chouksey
127	Formulation and Evaluation of Aceclofenac Mucoadhesive Microspheres for Oral Controlled Drug Delivery	Ravi Rajput
128	Phytochemical and pharmacological study on the leaves of ficus religiosa linn for antilithiatic activity	Shailendra Singh
129	In- Silico Consideration of Anti- Microbial Prospective of Plant Phenolic and Flavinoids	Amit Kumar

130	Formulation Development and Evaluation of Cimetidine Floating Microspheres	Saurabh Savita
131	Development and Characterization of Transdermal Patch For Management and Treatment of Mental Illness	Arpita Srivastava
132	Good Automated Manufacturing Practices 5: Updates and Challenges	Simran Yadav
133	Current Status of Pharmaceutical Products Based on Phytomolecules	Abhishek Nagar
134	Biological and Chemical Wastewater Treatment Processes	Musa Adamu Jajere

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

CHIEF PATRONS

Hon'ble Mr. Pramod Maheshwari
Chancellor

Hon'ble Mr. OM Maheshwari
Chairman
Career Point University, Kota

PATRONS

CAREER POINT SCHOOL OF PHARMACY
CAREER POINT UNIVERSITY, KOTA.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

Prof. (Dr.) M.K. Gupta
Vice Chancellor (O),
Career Point University, Kota,
Rajasthan

Mr. Kamal Arora,
Registrar,
Career Point University,
Kota, Rajasthan.

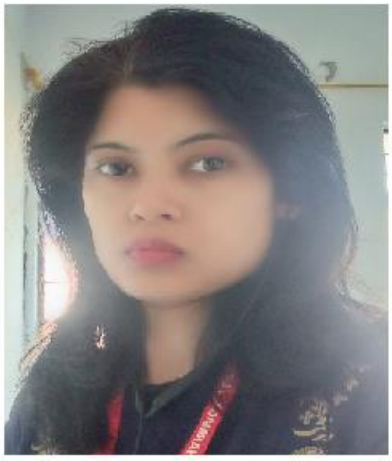
CONVENER

Prof (Dr.) M.K. Gupta
Vice-Chancellor (O),
Career Point University, Kota (Raj)

ORGANIZING COMMITTEE

CAREER POINT SCHOOL OF PHARMACY
CAREER POINT UNIVERSITY, KOTA.

REGISTRATION COMMITTEE



Ms. Kavita Vijay

Mr. Rahul Kumar Ancheria

STAGE/VENUE/MEDIA COMMITTEE

Dr. Rajkumari Thagele

Ms. Shalini Chawla

Mr. Ashar Khan

Dr. Mithlesh Malviya

Ms. Harshita Jain

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

SCIENTIFIC COMMITTEE


Dr. Girish Vyas


Dr. Ashutosh Kumar


Dr. Pushpendra Yaduvanshi


Dr. Abid Hussain


Dr. Vivek Jain


Dr. Ashish Jorasia


Dr. Surabhi Singh


Ms. Shreya Singh


Dr. Sandeep Kumar


Dr. Prateek Sharma

FOOD COMMITTEE


Dr.Nitin Nama


Ms. Sakshi Sukla


Mr. Mahesh Malav

CAREER POINT SCHOOL OF PHARMACY
CAREER POINT UNIVERSITY, KOTA.

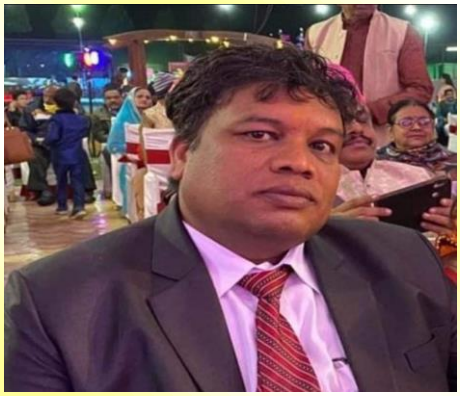
PHOTOGRAPHY AND MEDIA COMMITTEE

Dr. Abhishek Nagar

Dr. Amit Kumar

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

CHIEF GUEST



Honourable Chief Guest

Prof. (Dr.) M.L. Kori

Director and Dean, Faculty of Pharmacy RKDF University, Bhopal, Madhya Pradesh, India.

CAREER POINT SCHOOL OF PHARMACY
CAREER POINT UNIVERSITY, KOTA.

CHIEF GUEST'S MESSAGE

Prof. (Dr.) M.L. Kori

Director and Dean,

Faculty of Pharmacy RKDF University, Bhopal, Madhya Pradesh, India.

It is with great honor and privilege that I address this distinguished gathering on the occasion of our conference dedicated to Emerging Cutting-Edge Research and Innovations in Pharmaceutical, Life Sciences & Technology. It's a great effort of Career Point School of Pharmacy in association with Career Point International Journal of Research is Organizing National Conference with the theme "Emerging Cutting-Edge Research and Innovations in Pharmaceutical, Life Sciences & Technology" on 16th March 2024, under the flagship of Career Point University, Kota, Rajasthan.

The fields of pharmaceutical science, life sciences, and technology are at the forefront of the most transformative changes in our society today. The rapid advancements we witness daily are not merely incremental improvements; they are paradigm shifts that have the potential to redefine our understanding of medicine, biology, and technological applications.

I extend my heartfelt gratitude to all the participants, organizers, and sponsors for their dedication and hard work in making this conference a success.

I wish you all a productive and enlightening conference.

SPECIAL CHIEF GUEST'S MESSAGE

Prof. (Dr.) Kamal Kumar Rathore

Head of Department, School of Pharmaceutical Sciences,

B.N. College of Pharmacy, Udaipur, Rajasthan, India.

It is a distinct privilege and honor to address you at this prestigious International Conference on "Emerging Cutting-Edge Research and Innovations in Pharmaceutical, Life Sciences & Technology" on 16th March 2024, organized by Career Point University, Kota, Rajasthan.

As we convene here from different corners of the globe, united by our shared commitment to advancing scientific knowledge and technological prowess, we stand at the cusp of transformative breakthroughs that have the potential to reshape our world. This conference is a testament to our collective endeavor to push the boundaries of what is possible in pharmaceutical sciences, life sciences, and technology.

May this conference inspire new ideas, foster meaningful collaborations, and pave the way for groundbreaking discoveries that will benefit humanity for generations to come.

I wish you all a fruitful and inspiring conference.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

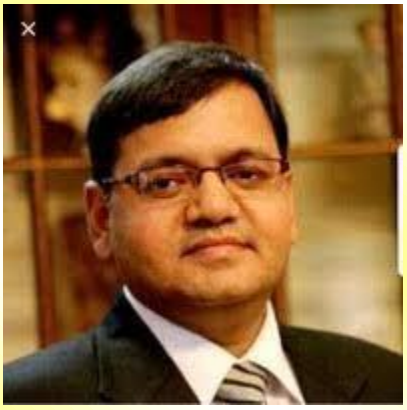
KEYNOTE SPEAKER

Mr. Lav Sharma

Plant Head (Sr. General Manager),
Amneal Pharmaceuticals Ltd.,
Ahmedabad, Gujarat.

CAREER POINT SCHOOL OF PHARMACY
CAREER POINT UNIVERSITY, KOTA.

Chancellor's Message



Shri Pramod Maheshwari, Chancellor
Career Point University, Kota

It is my distinct pleasure to welcome you to this International Conference on "Emerging Cutting-Edge Research and Innovations in Pharmaceutical, Life Sciences & Technology" on 16th March 2024, under the flagship of Career Point University, Kota, Rajasthan.

As Chancellor, I am immensely proud to host such a distinguished assembly of minds from around the world, all dedicated to advancing the frontiers of science and technology.

Our conference comes at a time when the synergy between pharmaceutical sciences, life sciences, and technology is driving unprecedented progress. The innovations and research we explore here have profound implications for health, wellbeing, and the sustainability of our global community.

I extend my deepest gratitude to the organizers, sponsors, and participants who have made this event possible. Your dedication and hard work are the driving forces behind our collective success. I am confident that this conference will be a catalyst for groundbreaking discoveries and transformative advancements.

I wish you all an enriching and productive conference experience.

Chairman's Message

Shri. Om Maheswari, Director
Career Point Ltd., Kota

It is with great pride and enthusiasm that I welcome you to this International Conference on Emerging Cutting-Edge Research and Innovations in Pharmaceutical, Life Sciences & Technology on 16th March 2024, under the flagship of Career Point University, Kota, Rajasthan. As Chairman, I am honored to be part of this gathering of brilliant minds from around the world, united by our commitment to pushing the boundaries of science and technology.

This conference arrives at a pivotal moment in our history, where the convergence of pharmaceutical sciences, life sciences, and technological innovation is driving transformative changes that hold immense promise for the future. The research and advancements we discuss here are not only groundbreaking but also crucial for addressing some of the most pressing challenges facing humanity today.

I extend my heartfelt gratitude to the organizers, sponsors, and participants for their dedication and hard work in making this conference a success. Your contributions are invaluable, and I am confident that this event will inspire new ideas, foster meaningful collaborations, and lead to groundbreaking discoveries.

I wish you all a productive and inspiring conference.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

Vice-Chancellor's Message

Prof. (Dr.) M.K. Gupta, Vice-Chancellor (HO)

Career Point Univerisity, Kota

It is with great pleasure and pride that I extend my warmest welcome to all of you attending this International Conference on Emerging Cutting-Edge Research and Innovations in Pharmaceutical, Life Sciences & Technology on 16th March 2024, under the flagship of Career Point University, Kota, Rajasthan. As Vice Chancellor, I am honored to witness the gathering of some of the brightest minds in these critical fields from across the globe.

We are living in an era marked by rapid advancements and unprecedented discoveries in pharmaceutical sciences, life sciences, and technology. These fields are not only shaping the future of medicine and healthcare but are also driving significant societal and economic progress. This conference serves as a vital platform for sharing knowledge, fostering collaboration, and inspiring innovation.

I would like to express my deepest gratitude to the organizers, sponsors, and participants for their dedication and hard work in making this conference possible. Your contributions are essential to the success of this event, and I am confident that our collective efforts will lead to groundbreaking achievements.

I wish the conference all the success and my heartiest congratulations to the organizing committee.

CAREER POINT SCHOOL OF PHARMACY
CAREER POINT UNIVERSITY, KOTA.

Convener's Message

Prof (Dr.) M. K. Gupta,
Dean, Pharmacy
Career Point University,
Kota

Warm Greeting to All !!!!!

It is with great excitement and anticipation that I welcome you to the International Conference on Emerging Cutting-Edge Research and Innovations in Pharmaceutical, Life Sciences & Technology on 16 March 2024. As the Convener, I am honored to facilitate this gathering of some of the most brilliant minds and pioneering experts in these transformative fields.

This conference is a celebration of innovation, a testament to the relentless pursuit of knowledge, and a platform for collaboration. Our goal is to explore the latest advancements, share groundbreaking research, and foster partnerships that will drive future discoveries and innovations.

I extend my heartfelt gratitude to the organizers, sponsors, and participants for their unwavering dedication and hard work in making this conference a reality. Your contributions are invaluable, and I am confident that this event will inspire new ideas, foster meaningful collaborations, and lead to groundbreaking discoveries.

Thank you, and I wish you all a productive and inspiring conference.

Registrar's Message

Mr. Kamal Arora
Registrar, Career Point University, Kota.

It is my great pleasure to welcome you to the International Conference on Emerging Cutting-Edge Research and Innovations in Pharmaceutical, Life Sciences & Technology on 16 March 2024. As the Registrar, I am honored to witness the convergence of so many distinguished experts, scholars, and innovators from around the world.

This conference represents a unique opportunity to delve into the forefront of scientific and technological advancements. Our aim is to provide a platform where groundbreaking research can be shared, innovative ideas can be exchanged, and meaningful collaborations can be forged.

Technology serves as the backbone of these advancements, providing the tools and methodologies that drive innovation. The integration of biotechnology with digital technologies is giving rise to new fields such as bioinformatics and digital health. These interdisciplinary approaches are revolutionizing how we collect, analyze, and apply biological data, leading to more precise and efficient healthcare solutions.

I wish you all a productive and inspiring conference.

INDEX

12	ICERIPLST/PH/2024/1262	Chetna Saini	Global Health and Access to Medicines
13	ICERIPLST/PH/2024/1263	Deepika Aggarwal	Nanotechnology in Herbal Drug Delivery Systems: Enhancing Therapeutic Efficacy and Patient Compliance
14	ICERIPLST/PH/2024/1264	Devansh Vijayvargiya	Nanotechnology and Modern Pharmacy: A Concise Overview
15	ICERIPLST/PH/2024/1265	Poonam R. Inamdar	In Silico studies of Isoquinoline Alkaloids for the screening of DNA interacting mode and ability
16	ICERIPLST/PH/2024/1266	Gaurav Kamewal	To Study *Pistia Stratiotes* Plant use in different Medication
17	ICERIPLST/PH/2024/1267	Geetanjali	Innovative Convergence: Exploring the Synergy of Emerging Technologies in Life Science
18	ICERIPLST/PH/2024/1268	Mamta Nagar	Spatial distribution and nesting behavior of the Black winged-stilt (*Himantopus himantopus*) in the Kota, Rajasthan, India
19	ICERIPLST/PH/2024/1269	Mayuri Nikam	3D Printing Drug
20	ICERIPLST/PH/2024/1270	Neha Kankerwal	Cancer Awareness
21	ICERIPLST/PH/2024/1271	Neha Raghuwanshi	Research on natural polymer in execution of raft forming gastro-retentive drug delivery system of an Anti-hypertensive Drug.
22	ICERIPLST/PH/2024/1272	Pragya Nigam	Millets
23	ICERIPLST/PH/2024/1273	Prashik B. Dudhe	Innovative Strategies in Antitubercular Drug Discovery: Design, Synthesis, and Evaluation of 2 & 3-(4-Aminobenzamido) Benzoic Acid Derivatives
24	ICERIPLST/PH/2024/1274	Niraj Gupta	An Overview Research Study on Recent Advancement, Application & Formulation Type Related To GRDDS
25	ICERIPLST/PH/2024/1275	Radhika Tyagi	Antimicrobial activity of Crassula ovata

26	ICERIPLST/PH/2024/1276	Rajat Rai	Role of Microemulsion in Curing Microbial Infections
27	ICERIPLST/PH/2024/1277	Satnam Singh	Understanding Dengue Virus – Searching New Therapeutic Agents
28	ICERIPLST/PH/2024/1278	Shailesh Kumar	Formulation and Evaluation of Anti Bacterial Herbal Gel of Couroupita Guianensis Extract
29	ICERIPLST/PH/2024/1279	Shantanu Sanjay Ghodke	Synthesis, Characterization & Pharmacological Evaluation of Benzohydrazide Analogues for Antiinflammatory Activity
30	ICERIPLST/PH/2024/1280	Simran Bajaj	Potential of Cow urine therapy for cancer treatment
31	ICERIPLST/PH/2024/1281	Vaishali Madhukar Badgujar	HPLC study on stress degradation behavior of Idelalisib and development of a validated specific stability-indicating rp-HPLC assay method
32	ICERIPLST/PH/2024/1282	Vaishnavi Hyalij	Personalized Medicine
33	ICERIPLST/PH/2024/1283	Rupanjali	Formulation and Evaluation of Floating Gastroretentive Microsphere for Gastric Reflux Disease
34	ICERIPLST/PH/2024/1284	Abhishek Kumar	Design and Evaluation of Vesicular Emulsomes Containing Gel for Rheumatoid Arthritis
35	ICERIPLST/PH/2024/1285	Anshul Sharma	Revolutionary Innovations in Pharmacy
36	ICERIPLST/PH/2024/1286	Anjali Peter	Phytochemical screening, characterization of bioactive component from plant Phragmites karka (Retz.)Trin ex Steud.and its biological evaluation with reference to Wound healing activity
37	ICERIPLST/PH/2024/1287	Pranjal Sachan	Nutraceutical Potential of Amomum Subulatum (Black Cardamom): Recent Advances & Novel Potential Therapeutics Effects
38	ICERIPLST/PH/2024/1288	Kajal Sharma	FDI Impacts on India's Economy: A Comprehensive Review and Outlook

39	ICERIPLST/PH/2024/1289	Rahul Maurya	Phytochemical, Pharmacognostic and Chromatographic Profiling of Commonly Available Sida Species in Kerala: A Comprehensive Comparative Analysis
40	ICERIPLST/PH/2024/1290	Deepak Sharma	Challenges and Innovations in Analytical Method Development and Validation for BCS Class II and IV Anti-Hypertensive Drugs Using HPLC
41	ICERIPLST/PH/2024/1291	Aditya Vikram Jain	Herbal Oil: An Insight into the Past Knowledge
42	ICERIPLST/PH/2024/1292	Preeti Yadav	Different Pathways via Polysaccharides Influence Human Health
43	ICERIPLST/PH/2024/1293	Sarika Kapoor	Plant Extract Mediated Synthesis of Metal/Metal Oxide Nanoparticles
44	ICERIPLST/PH/2024/1294	Sabeena Hussain Syed	Nutrition for Neuroprotection: Building Resilience Against Cognitive Decline
45	ICERIPLST/PH/2024/1295	Shailesh Choudhari	Synthesis and Charectorization of Benzoxazinone Derivatives
46	ICERIPLST/PH/2024/1296	Subham Kumar Vishwakarma	One Pot Synthesis of Novel Hydrazono-1,3-Thiazolidin4-One Derivatives with Anti-HIV and Anti-Tubercular Activities
47	ICERIPLST/PH/2024/1297	Anshul Sharma	Revolutionary Innovations in Pharmacy
48	ICERIPLST/PH/2024/1298	Rajesh Shukla	Artificial Intelligence (AI): Advancement in the Field of Health and Medicine Fields
49	ICERIPLST/PH/2024/1299	Chetan Nagar	Artificial Intelligence in Drug Discovery
50	ICERIPLST/PH/2024/1300	Mamta Yadav	Comparative Evaluation of Antimicrobial Potency in Rhizome Extracts from Curcuma Caesia, Curcuma Amada, and Curcuma Angustifolia: Unlocking Phytotherapeutic Potential
51	ICERIPLST/PH/2024/1301	Sonu Kachhiya	Hptlc Fingerprint of different varieties

			of Capsicum
52	ICERIPLST/PH/2024/1302	Tarun Kumar	Zebrafish Animal Model Using AI in Exploration & Research of Pharmaceutical Studies
53	ICERIPLST/PH/2024/1303	Priya Diwedi	A Novel Approach on in Situ Gel for Nose to Brain Delivery of Anti-Migraine Drug: A Review
54	ICERIPLST/PH/2024/1304	Avantika Agrawal	Tracing the Trace: A Comprehensive Review of Impurity Profiling in Atorvastatin Calcium and Bempedoic Acid
55	ICERIPLST/PH/2024/1305	Dipesh Kumar Sharma	Assessment of Synthesis and Anticancer Studies of Triazole Based Molecular Hybrids
56	ICERIPLST/PH/2024/1306	Harshita Jain	AI-Driven Herbal Interventions: Exploring Synergies for AMH Enhancement
57	ICERIPLST/PH/2024/1307	Pragya Sharma	Ligand Based Pharmacophore Modelling, Virtual Screening and Molecular Docking to Identify Novel SCD Inhibitor's for the Treatment of Metabolic Syndrome
58	ICERIPLST/PH/2024/1308	Kamlesh Parte	A Study on Fish Diversity and Water Quality Parameters of Chandrakeshar Reservoir, Dewas, Madhya Pradesh
59	ICERIPLST/PH/2024/1309	Juliyas Shrotriya	Nutraceuticals and Their Impact on Human Health
60	ICERIPLST/PH/2024/1310	Ruchi Verma	Structure-Based Virtual Screening for the Identification of Potential and Promising Inhibitors Against Prostate Cancer
61	ICERIPLST/PH/2024/1311	Nidhi P. Shah	PDE5 Inhibitors-Loaded Bioadhesive Vesicular Gel for Topical Therapy of Erectile Dysfunction
62	ICERIPLST/PH/2024/1312	Nirmal Joshi	Review on Pancreatic B Cell Regeneration: Potential Drug Therapy for Diabetes Mellitus

63	ICERIPLST/PH/2024/1313	Monika Singh	Comparative Assessment of Psoralen Distribution in Bhopal and Surrounding Areas
64	ICERIPLST/PH/2024/1314	Mukul Pratap	Recent Insights into Nanocurcumin in the Management of Health Issues
65	ICERIPLST/PH/2024/1315	Kanhaiya Kumar	Natural Flavanones Exhibit Potent Anticancer Activity: An Overview
66	ICERIPLST/PH/2024/1316	Shubham Sharma	Role of Herbal Medicine in the Management of Alzheimer's Diseases – An Overview
67	ICERIPLST/PH/2024/1317	Ishika Jain	Aloe: The Magical Remedy an Overview
68	ICERIPLST/PH/2024/1318	Pradeep Kumar M.R	Synthesis, In-Silico And In-Vitro Screening of Benzoxazole-Thiazolidinone Scaffolds as Potent Antimycobacterial Agents
69	ICERIPLST/PH/2024/1319	Aditi Patel	Overview on Artificial Intelligence in Healthcare
70	ICERIPLST/PH/2024/1320	Preeti Anand	Recent Advancement of AI Tools and Techinque in Pharmaceuticals Industries and Educational Purposes
71	ICERIPLST/PH/2024/1321	Neha Raghuwanshi	Investigating Natural Polymers for use in Raft-Forming, Gastro-Retentive Drug Delivery Systems for Anti-Hypertensive Medications.
72	ICERIPLST/PH/2024/1322	Abhinav Kumar Mishra	Clinical Study between the Length of Anterior Cruciate Ligament on both the Knees and Correlated it with length of Femur and Tibia & its Clinical Application : A Cadaveric Study
73	ICERIPLST/PH/2024/1323	Shreya Srivastava	Formulation and Evaluation of Mometasone Furoate
74	ICERIPLST/PH/2024/1324	Samriti Faujdar	Anti-Hemorrhoidal Activity of Leaf Extract of *Cassia Occidentalis* L.
75	ICERIPLST/PH/2024/1325	Pooja solanki	Depofoam Technology in Cancer Disease Treatment
76	ICERIPLST/PH/2024/1326		In-Vitro and In-Vivo Evaluation of

		Sunayana Rathore	Dexamethasone Sustained Release Matrix Tablets for PCOS
77	ICERIPLST/PH/2024/1327	Nirmal Joshi	Review on Pancreatic B Cell Regeneration: Potential Drug Therapy for Diabetes mellitus
78	ICERIPLST/PH/2024/1328	Payal Patel	Design and Synthesis of Novel 1-H-Pyrazolo[3,4-B]Pyridine Derivatives As Anti-Tubercular Agents
79	ICERIPLST/PH/2024/1329	Abhay Kumar Mishra	Preliminary Phytochemical Evaluation of Methanolic Ethyl Acetate Extract and Petroleum Ether Extract *Cleome Viscosa* (Cleomaceae), *Cordia Dichotoma* (Boraginaceae) and Root Extract of *Tephrosia Purpurea* (Fabaceae)
80	ICERIPLST/PH/2024/1330	Vikash Jha	In-Vitro Antiplasmodial Activity of Aqueous and Ethanol Stem and Leaf Extracts of *Senna Occidentalis* (Coffee Senna)
81	ICERIPLST/PH/2024/1331	Ravikant Gupta	Design and development of bio engineered personalized medicine with the application of AI tools for the treatment of Breast cancer
82	ICERIPLST/PH/2024/1332	Divyang Patel	In-Vitro Anti-Obesity Efficacy of *Wrightia tinctoria* Seeds Extract in 3T3-L1 Preadipocytes
83	ICERIPLST/PH/2024/1333	Deepak K. Birla	A Review on Medicinal and Pharmacological Properties of *Cassia*

			fistula
84	ICERIPLST/PH/2024/1334	Vijay Bahadur Maurya	Polyherbal extracts used to synthesize Silver nanoparticle for wound healing activity
85	ICERIPLST/PH/2024/1335	Aashish Singh	A Comprehensive Review on Cubosome: A Novel Versatile Nanocarrier
86	ICERIPLST/PH/2024/1336	Dharmesh Sisodiya	3D QSAR Study of The Heterocyclic Analogues as an Anti-Microbial Activity
87	ICERIPLST/PH/2024/1337	Supriya A. Unavane	Repurposed Drugs Paving the way for Cancer Treatment
88	ICERIPLST/PH/2024/1338	Piyush Chandra	Pharmacological Evaluation of the Antidepressant Activity of *Lavender Latifolia* Leaf Extract
89	ICERIPLST/PH/2024/1339	Aarti Tiwari	Neuroprotective Effect of A-Mangostin in Wistar Rats: Propionic Acid-Induced Autism Model Improvement
90	ICERIPLST/PH/2024/1340	Deepika Bairagee	*Nigella Sativa* Seed Derivatives based Transdermal Patches: Evidence of Improved Antioxidant and Anti-Inflammatory Potential
91	ICERIPLST/PH/2024/1341	Roma Sharma	A Comprehensive Analysis of Neopterin as a Prognostic Marker for SARS-COV-2 Patients
92	ICERIPLST/PH/2024/1342	Shrestha Sarkar	In-Silico Studies of Phenyl Piperazine Derivatives as Serotonine Reuptake

			Inhibitor
93	ICERIPLST/PH/2024/1343	Sourabh Kumar Sharma	Androgenetic Alopecia in A Mouse Model
94	ICERIPLST/PH/2024/1344	Falguni S. Bhavsar	Synthesis of Zno/Cuo Nanocomposites via Green Route for Photocatalytic Applications
95	ICERIPLST/PH/2024/1345	Vijendra Singh Chauhan	Development and Validation of a Robust RP-HPLC Method for Simultaneous Quantification of Domperidone and Cinnarizine in Bulk and Tablet Dosage Formulations
96	ICERIPLST/PH/2024/1346	Nitish Bhatia	Neuroprotective Effects of Pantothenic Acid against Kainic Acid-Induced Status Epilepticus and Spatial Memory Deficits: Insights into Oxidative Stress, NF-Kb Modulation, and Neuroinflammation
97	ICERIPLST/PH/2024/1347	Sandhiya	Nanorobots Aided in the Detection of Cancer and Targeted Therapies
98	ICERIPLST/PH/2024/1348	Pooja Bhati	Controlled Release Formulation of Esmiprazole to Improve Bio Availability and Bio Equivalence
99	ICERIPLST/PH/2024/1349	Barkha Chaturvedi	Development and Pharmacological Evaluation of Pegylated Nanoparticles Formulation for the Controlled Delivery against Alzheimer
100	ICERIPLST/PH/2024/1350		Formulation, characterization, and

		Deepa Lashkari	optimization of Curcumin based Nanoemulsion for the treatment of Psoriasis
101	ICERIPLST/PH/2024/1351	Namrata Singh	Evaluation of Immunomodulation through Leaves Extract of *Spinacia Oleracia*
102	ICERIPLST/PH/2024/1352	Vaibhav singhal	Role of Nutraceuticals in Diabetes Mellitus
103	ICERIPLST/PH/2024/1353	Vivek Sharma	Repurposing Drugs: Rediscovering Potential Cures in Existing Medications - An Overview
104	ICERIPLST/PH/2024/1354	Ankur Agrawal	Pharmacognostical and Phytochemical Evaluation of Antihyperlipedemic Polyherbal Formulation
105	ICERIPLST/PH/2024/1355	Akhilesh Tiwari	Automation and Robotic Systems in Pharmaceutical Analysis for High-Throughput Screening and Analysis
106	ICERIPLST/PH/2024/1356	Sripathi Srinivas	Formulation and Pharmacokinetic Evaluation of Acebrophylline Orodispersible Tablets
107	ICERIPLST/PH/2024/1357	Arpita Srivastava	Development and Characterization of Transdermal Patch for Management and Treatment of Mental Illness
108	ICERIPLST/PH/2024/1358	Meghna Singh	Hydrotrophy: A greenish tool for extraction of Phytoconstituents Pharmacognosy
109	ICERIPLST/PH/2024/1359	Dilip Kumar	Phytochemical Screening and TLC

		Chanchal	analysis of *Madhuca longifolia* extracts: unveiling bioactive compounds
110	ICERIPLST/PH/2024/1360	Shahbaz Khan	Expanding Horizons: Exploring The Boundless Scopes of Madhuca Longifolia in Diabetes Management
111	ICERIPLST/PH/2024/1361	Vivek Tomar	The Role of Pharmacological Agents in Modulating Mitochondrial Function and Metabolism
112	ICERIPLST/PH/2024/1362	Neha Khan	The Role of Pharmacological Agents in Modulating Mitochondrial Function and Metabolism
113	ICERIPLST/PH/2024/1363	Rohit Verma	Innovative Strategies in Wound Care - Combining Advanced Dressing Technologies with Natural Antimicrobial Agents
114	ICERIPLST/PH/2024/1364	Jitendra Singh Chaudhary	Nanostructures and Niosomes: A Quantum Leap in Clotrimazole Therapeuctics
115	ICERIPLST/PH/2024/1365	Neha Chaturvedi	Exploring the Therapeutic Potential of Medicinal Plants in Wound Healing
116	ICERIPLST/PH/2024/1366	Patil Adarsh Arun	Computer Aided Prediction of ADMET Properties of Selected Phytochemicals from Leaves of Termenalia Chebula
117	ICERIPLST/PH/2024/1367	Ronak Dsouza	Investigation of Pharmacokinetic Properties Some Phytochemicals from Aloe Vera using Computer Aided Drug

			Design Tools
118	ICERIPLST/PH/2024/1368	Siddhesh Bandekar	In-silico Prediction of Physicochemical and Drug Likeness Properties of Selected Phytocompounds from Leaves of *Muntingia Calabura*
119	ICERIPLST/PH/2024/1369	Shailendra S. Suryawanshi	Quality By Design Assisted Development and Validation of UV-Spectrophotometric Technique for Quantification of Dapagliflozin: A Method Optimization Approach by Design of Experiment based Central Composite Model
120	ICERIPLST/PH/2024/1370	Pooja Uttekar	Exploring the Prospects for the Future of Healthcare: Gene-Specific Medicines
121	ICERIPLST/PH/2024/1371	Prateek Porwal	To synthesize the simplified vancomycin analogue and evaluation of its analogue as novel antibiotics
122	ICERIPLST/PH/2024/1372	Gyan Singh	A Review of the System and its wide range of Therapeutic applications in Diabetes for Microparticle Drug Delivery
123	ICERIPLST/PH/2024/1373	Vinay Kumar Siroliya	Phytochemistry, Medicine and the Flower of *Nymphaea Alba's* (Nymphaeaceae) Biological Activity
124	ICERIPLST/PH/2024/1374	Mohit Saini	Current Scenario on Novel Drug Delivery System: Microsphere

125	ICERIPLST/PH/2024/1375	Priyanka Ahirwar	Recent Developments in Hydrogel Systems: Biomedical Applications Driven by Biological Response
126	ICERIPLST/PH/2024/1376	Kushi Chouksey	Therapeutic Potential of Natural Bioactive for Management of Neurodegenerative disorder: Insights and Future Trends
127	ICERIPLST/PH/2024/1377	Ravi Rajput	Formulation and Evaluation of Aceclofenac Mucoadhesive Microspheres for Oral Controlled Drug Delivery
128	ICERIPLST/PH/2024/1378	Shailendra Singh	Phytochemical and pharmacological study on the leaves of ficus religiosa linn for antilithiatic activity
129	ICERIPLST/PH/2024/1379	Amit Kumar	In- Silico Consideration of Anti-Microbial Prospective of Plant Phenolic and Flavinoids
130	ICERIPLST/PH/2024/1380	Saurabh Savita	Formulation Development and Evaluation of Cimetidine Floating Microspheres
131	ICERIPLST/PH/2024/1381	Arpita Srivastava	Development and Characterization of Transdermal Patch For Management and Treatment of Mental Illness
132	ICERIPLST/PH/2024/1382	Simran Yadav	Good Automated Manufacturing Practices 5: Updates and Challenges
133	ICERIPLST/PH/2024/1383	Abhishek Nagar	Current Status of Pharmaceutical Products Based on Phytomolecules

134	ICERIPLST/PH/2024/1384	Musa Adamu Jajere	Biological and Chemcial Wastewater Treatment Processes

ICERIPLST/PH/2024/1251

GREEN GOLD NANOPARTICLES FOR CANCER THERAPY: A TARGETED AND SUSTAINABLE APPROACH

Aayushi Tiwari, Nayany Sharma Sakalle, Nimita Manocha
Indore Institute of Pharmacy, Indore, Madhya Pradesh

aayushi.tiwaribpharm2021@indoreinstitute.com

Abstract:
Traditional cancer treatments often suffer from limited selectivity and severe side effects. Green synthesis of gold nanoparticles (AuNPs) offers a promising alternative, combining targeted therapy with environmental sustainability.

This study focuses on the application of biogenic AuNPs in cancer treatment. These nanoparticles, synthesized using plant extracts, bacteria, or fungi, exhibit unique properties crucial for targeted therapy. Their tunable size and surface chemistry allow specific binding to cancer cell receptors, minimizing damage to healthy tissues. Additionally, AuNPs possess inherent photo thermal and radio sensitizing properties. When exposed to near-infrared light or ionizing radiation, they generate localized heat or enhance radiation damage, effectively ablating cancer cells with minimal systemic toxicity. The green synthesis aspect offers further advantages. Biogenic AuNPs are often biocompatible and readily biodegradable, reducing concerns about long-term toxicity. Compared to traditional synthesis methods, this approach is eco-friendly, cost-effective, and avoids hazardous chemicals. In conclusion, green AuNPs hold immense potential for targeted and sustainable cancer therapy. Their unique properties enable selective tumor ablation while their green synthesis provides an environmentally friendly alternative. With further research and development, this promising approach could revolutionize cancer treatment strategies.

Keywords: Green Synthesis, Gold Nanoparticles (AuNPs), Targeted Therapy.

ICERIPLST/PH/2024/1252

UNLEASHING THE POWER OF PRECISION: FLUOROALKANE POLYMERS TURBOCHARGE PERSONALIZED mRNA CANCER VACCINES

Aditya Agnihotri, Aayushi Tiwari, Nayany Sharma Sakalle, Rohit Sahu , Nimita Manocha
Indore Institute of Pharmacy, Indore, Madhya Pradesh, India
aditya.agniotribpharm2021@indoreinstitute.com

Abstract:
The remarkable success of mRNA vaccines against COVID-19 has sparked excitement for their potential in personalized cancer immunotherapy. However, efficient delivery and robust immune stimulation remain critical roadblocks. This study introduces fluoroalkane-modified cationic polymers (F-PEIs) as game-changers for personalized mRNA cancer vaccines targeting tumor-specific neoantigens. F-PEIs, compared to unmodified polymers, excel in protecting mRNA, facilitating cellular uptake, and ensuring endosomal escape, the key to releasing mRNA inside cells. Moreover, they potently activate dendritic cells, the immune system's sentinels, via Toll-like receptor 4 (TLR4) signaling, priming a robust anti-tumor response. In vivo studies using B16-OVA melanoma and MC38 colon cancer models demonstrate the power of F-PEI/mRNA vaccines. They significantly suppress tumor growth compared to naked mRNA, and when combined with checkpoint blockade therapy, even achieve tumor eradication and prevent recurrence. F-PEIs emerge as revolutionary delivery vehicles for personalized mRNA cancer vaccines. Their ability to enhance delivery, trigger TLR4-mediated immune activation, and synergize with existing therapies paves the way for a new era in personalized cancer immunotherapy, offering hope for tailored and effective treatments against this complex disease.

Keywords: Personalized mRNA cancer vaccines, Fluoroalkane-modified cationic polymers (F-PEIs), Tumor neoantigens, Delivery carriers.

ICERIPLST/PH/2024/1253

PHOTO-MODULATORY EFFECTS OF NUTRIENT DOPED QUANTUM DOTS IN PLANTS

Aditya Bapu Keskar, Saheli Pradhan Mitra
Department of Botany, B. K. Birla College (Empowered Autonomous Status), Kalyan

Saheli.pra@gmail.com

Abstract:

Nanomaterials show great promises in altering the functioning of plants due to their small size, large surface by volume ratio, chemically alterable properties, enhanced photoemission, and improved catalytic activity. Therefore, nano-biotechnological platform could be ensembled to study the nanoparticle-plant interaction. Nano-sized micronutrient particles can be suitable alternative for commercially used salt counterparts to improve growth and development of the plants. Carbon dots are small sized which exhibits unique photoluminescent property and is exceptionally biocompatible, non-toxic in nature. in contrast zinc is one of the essential micronutrients used in the plant system. We anticipate zinc doped carbon dots (ZnCQDs) could be useful for enhancing nutrient use efficiency in rapeseed plants. They have unique PL property, hydrophilic nature, and very small particle size distribution of ZnCQDs could really benefit the plant system with a supply of desired micronutrient for their growth and productivity.

Keywords: Carbon dots, Nano-fertilizer, Zinc, Micronutrient

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1254

FORMULATION AND EVALUATION OF CURCUMIN BASED LOTION FOR TREATING FUNGAL INFECTION

Akshay Kumar, Rahul Kumar Ancheria, Dr.M.K. Gupta

Career Point University, Kota, Rajasthan, India.
akshaybwl@gmail.com

Abstract:
The prevalence of fungal infections has dramatically grown, which is one of the factors causing morbidity and mortality. The root causes of this issue are the growing numbers of patients at risk and antibiotic resistance, coupled with the limited availability of antifungal medications that still have a lot of negative effects. These drawbacks highlight the necessity of creating novel, potent antifungal medications. Because natural materials have a wide range of biological activity, they provide interesting prototypes for this purpose. Asian cuisine frequently uses curcumin, a yellow-orange polyphenol chemical, as a spice. It is produced by the rhizome of Curcuma longa trees.This molecule has been demonstrated to have a variety of pharmacological properties, with tests using crude extracts of C. longa being used to evaluate its antifungal activity.

Keywords: Curcumin, C. Longa, Fungal Infections, Drug Delivery, Rhizome.

ICERIPLST/PH/2024/1255

ECOFRIENDLY SYNTHESIS OF METFORMIN LOADED SILVER NANOPARTICLES USING NATURAL POLYMERS AND SYNTHESISED STARCH AS STABILIZING AGENTS

Alok Kumar*, Nitin Nama, Dr. M.K. Gupta
Career Point University, Kota, Rajasthan, India.
alokdpkumar@gmail.com

Abstract:

By delivering the medicine to the targeted location and allowing for controlled, sustained distribution, the novel drug delivery system increased the therapeutic effectiveness of the combined treatments. Throughout the course of a treatment plan, the drug delivery system should administer a medication at a rate determined by the body's requirements. medication nano-encapsulation is becoming a viable alternative for achieving site-specific delivery, controlled release, and reduced adverse effects from medication administration. It is frequently said that polymers are the ideal option for encasing a range of guest molecules, including medications. Polymers can release the required dose in a variety of ways, such as via conjugation, surface modification, pH change, and temperature change. They are also biodegradable and biocompatible. Because of this, polymeric nanocarriers are sufficiently efficient to provide enhanced medication targeting, permeability, bioavailability, and controlled release. Among the several polymers that are available, most pharmaceutical firms and research have used chitosan, alginate, silver, and gums.

Keywords: Drug Delivery, Diabetes, Nanoparticles, Polymers.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1256

AN UPDATE OF PHARMACOLOGICAL ACTIVITY OF VAJRADANTI

Anil Kumar[1], Mamta Bhatia[2], Imran Khan Pathan[3], Devender Sharma[4]

[1,2,3]Maulana Azad University, Jodhpur Rajasthan
[4]R J World College of Pharmacy Education and Technology, Jakhod, Jhunjhunu, Rajasthan
anilchandeladumoli@gmail.com

Abstract:
Herbal plants are used as a best and easily available source of medicine. Vajradanti means strong teeth in Hindi and India. The medicinal properties of Vajradanti plant are well reported in Ayurveda. Its botanical name is Barleria prionitis L. and it belongs to family Acanthaecae. The importance of herbal products in the field of pharmaceuticals has gained famous in recent years. In India, Plants, such as Turmeric, Ashoka and Triphala, are some common household names being widely used nowadays and one such name is Barleria prionitis L. or Vajradanti, having anti-arthritic, anti-inflammatory and anti-fertility properties. The leaves of this plant are also believed to provide relief in tooth ache. So, these properties lead us to the use of this shrub in the remedy of dental diseases. This review article mainly focusses on update on pharmacological activity of Vajradanti and medicinal uses and also gives knowledge about the tooth diseases and Vajradanti plant part extractions which have potential and novelty of given pharmacological activities of Vajradanti and compare study.

Keywords: Hadjod, Varajdanti, Triphala, Anti-inflammatory, Strong-Teeth.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1257

FORMULATION AND IN-VITRO EVALUATION OF SUBLINGUAL TABLET

Ankit Yadav, Nitin Nama, Harshita Jain, Dr. M.K. Gupta
Career Point University, Kota, Rajasthan, India.
anikt9616002286@gmail.com

Abstract:

Any drug delivery system's objective is to deliver a therapeutic dose of the medication to the right location in the body in order to quickly reach and subsequently maintain the intended drug concentration. Throughout the course of treatment, the drug delivery system should administer the medication at a rate determined by the body's requirements. Without a suitable delivery method, even the greatest new therapeutic entity in the world is not very useful. Simple immediate release formulations to intricate extended or modified release dose forms are possible using tablet delivery systems. Getting the medication to the site of action in an adequate quantity and at the right rate is the primary function of the drug delivery system. Nonetheless, it must satisfy additional crucial requirements including chemical and physical stability and the capacity to be mass-produced in a way that guarantees content homogeneity. Because solid dose forms have been used for so long, they are very common.

Keywords: Sublingual Tablet, Homogeneity, Therapeutic, Drug Delivery.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1258

NOVEL TETRAHYDROPYRIMIDINE DERIVATIVES AS INHIBITORS OF TOPOISOMERASE II: MOLECULAR DOCKING ANALYSIS AND ADMET STUDIES

Apeksha K Hegde, Suma B V
M.S. Ramaiah University of Applied Sciences
apeksha28hegde@gmail.com

Abstract:
Tetrahydropyrimidines (THPMs) are partially reduced pyrimidine derivatives. These compounds were produced utilizing multicomponent processes like the Biginelli reaction. THPMs derivatives have many biological effects, including anti-tubercular, anticancer, antibacterial, anti-inflammatory, antiviral, calcium channel inhibition, antifungal, and antioxidant. The main objective of this work is to check whether the derivatives of tetrahydropyrimidines possess better anti-bacterial activity than the standard therapy. Hence a library of compounds was prepared and molecular docking was done using PyRx software. The pathway used for the study is inhibition of Topoisomerase II using Daunorubicin as the standard drug.

Keywords: Tetrahydropyrimidines, Biginelli reaction, PyRx software, Topoisomerase II.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1259

ARTIFICIAL INTELLIGENCE IN PHARMACEUTICAL AND HEALTHCARE RESEARCH

Archana Dangi Ratoriya, Arvind Singh Parmar

GYR Institute of Pharmacy, Borawan, Khargone, Madhya Pradesh

archanadangi9@gmail.com

Abstract:

Artificial intelligence (AI) has emerged as powerful tools that harnesses anthropomorphic knowledge and provides promote solutions to complex challenges. Remarkable advancements in AI technology and machine learning present a transformative opportunity in the drug discovery, formulation, and testing of pharmaceutical dosage forms. By utilizing AI algorithms that analyze extensive biological data, including genomics and proteomics, researchers can identify disease-associated targets and predict their interactions with potential drug candidates. This enables a more efficient and targeted approach to drug discovery, thereby increasing the likelihood of successful drug approvals. Furthermore, AI can contribute to reducing development costs by optimizing research and development processes. Machine learning algorithms assist in experimental design and can predict the pharmacokinetics and toxicity of drug candidates. This capability enables the prioritization and optimization of lead compounds, reducing the need for extensive and costly animal testing. Personalized medicine approaches can be facilitated through AI algorithms that analyze patient data, leading to more effective treatment outcomes and improved patient adherence. This comprehensive review explores the wide-ranging applications of AI in drug discovery, drug delivery dosage form designs, process optimization, testing, and Pharmacokinetics/Pharmacodynamics (PK/PD) studies. This review provides an overview of various AI-based approaches utilized in pharmaceutical technology, highlighting their benefits and drawbacks. Nevertheless, the continued investment in and exploration of AI in the pharmaceutical industry offer exciting prospects for enhancing drug development processes and patient care.

Keywords: Artificial Intelligence (AI), machine learning, drug discovery, formulation, dosage form testing, pharmacokinetics, pharmacodynamics, PBPK, QSAR

ICERIPLST/PH/2024/1260

ROLE OF ARTIFICIAL INTELLIGENCE IN HEALTH CARE SYSTEM

Bhargavi Gaikwad, Harsha Sharma, Ashish Katke, Neeta Rai
Vishwakarma University Pune, Maharashtra, India
bhargavigiakwad03@gmail.com

Abstract
Artificial intelligence (AI) is a powerful and disruptive field of computer science that has the potential to fundamentally transform medical practice and healthcare delivery. It increases in healthcare due to its ability to generate and analyze healthcare data to improve the patient care system as well as to reduce costs, clinical risk and improve administrative processes within the organizations. AI has the potential to create various sources of growth, change the way people work, and improve the effectiveness of their work. As a result, implementing AI systems in healthcare can enable the optimization of healthcare resources, improve patient experience, and population health, reduce per capita costs, and increase health professional satisfaction. This abstract contains various roles and techniques for diagnosing various diseases such as cancer, chronic heart disease, liver disease, and so on. AI in healthcare, describe a road map for developing effective, reliable, safe systems, and discuss the potential future direction of AI-augmented healthcare systems.

Keywords: Artificial intelligence, Healthcare applications, electronic health record systems, clinical decision support.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1261

ANTI-AGING MEDICINE

Bushra Rahman Khan, Abhilasha Shete, Dr. Jagdish Chandra Nagar
Kota College of Pharmacy, Kota, Rajasthan, India.
brkkhan28@gmail.com

Abstract:
Anti-aging medicine is an developing branch of medical science and applied medicine. It treats the underlying causes of aging and aims at releiving any age-related problems. Its goal is to extend the healthy lifespan of humans having youthful attributes. Aging is a progressive failure of metabolic processes. there are three main biochemical processes involved in aging. These are oxidation, glycation and methylation. Other applicable processes are chronic inflammation and hormonal deregulation. The basis of anti aging involves: Enhancing health through eating a hormonally correct diet, enrich body with optimum doses of proven antioxidants and nutraceuticals, improve physical exercise performance, which includes aerobic, anaerobic and flexibility training, Replace hormones to levels to those of 20-30 years old. Balancing Insulin and glucagon activity is at the core of eating a hormonally correct diet.CRM define compounds that imitate the outcome of calorie restriction, and these include the activator of AMPK (metformin), inhibitor of GH/IGF-1 axis (pegvisomant), inhibitor of mTOR (rapamycin), and activator of the sirtuin pathway (resveratrol). Hormonal replacement such as estrogen, progestin, testosterone, and DHEA in the elderly have been widely used to improve various symptoms associated with frailty, body composition, cardiometabolic diseases, neurodegenerative diseases, and quality of life. The future will involve manipulating genes, increasing utilization of stem cells (embryonic and adult) and targeted delivery of nutrients and drugs using nanotechnology

Keywords: Aging, AMPK, CRM, Glycation, Oxidation, Nutraceuticals, Antioxidants, Methylation.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1262

GLOBAL HEALTH AND ACCESS TO MEDICINES

Chetna Saini
Bharat Institute of Pharmacy, Babain, Kurukshetra, Haryana.

chetna000786@gmail.com

Abstract:
The issue of access to medicine (ATM) is a fundamental component of right to health. World Health Organization (WHO) emphasizes that the equitable access to safe and affordable medicine is vital to attaining the highest possible standard of health. During the recent covid -19 pandemic, there have been reports everywhere that there was a disproportionate impact on the vulnerable groups. Access to medicine refers to reasonable ability for people to get needed medicines required to achieve good health. It started with single idea how can we encourage the pharmaceutical industry to do more to help the world's poorest people access to essential medicines they need. United Nation's Sustainable Development Goals (SDG) also enlists the access to essential, effective, safe and affordable medicine and vaccines for all as a core component of global and Universal Health Coverage (UHC). However still more than 02 billion people globally do not have access to essential medicines specially in third world countries. Recognition of good health as a fundamental right by the governments will obligate them to provide timely and affordable health service to their populace. Global Health Diplomacy (GHD) will contribute towards reducing the gaps in treatment and also in adoption of health as a human right by the governments all over the world.

Keyword: Access to medicine, Global Health Diplomacy, Sustainable Development Goals, Universal Health Coverage.

ICERIPLST/PH/2024/1263

NANOTECHNOLOGY IN HERBAL DRUG DELIVERY SYSTEMS: ENHANCING THERAPEUTIC EFFICACY AND PATIENT COMPLIANCE

Deepika Aggarwal

Bharat Institute of Pharmacy, Babain, Kurukshetra, Haryana.

deepika.rlic@gmail.com

Abstract:
Herbal medicines have been widely used throughout history and due to their decreased possibility of adverse effects when compared to modern drugs, both medical professionals and patients have recognized their superior therapeutic efficacy. A systematic strategy for delivering the elements over time is necessary for phytotherapeutics in order to maximize patient compliance and prevent repetitive administration. This might be accomplished by creating Novel Drug Delivery Systems (NDDSs) for herbal components. By reducing toxicity and increasing bioavailability, NDDSs contribute to increasing therapeutic efficacy by reducing the need for successive administrations to address non-compliance. Nanosized herbal medication delivery techniques may one day enhance performance and address problems with plant-based medicines. To fight more chronic diseases like cancer, diabetes, and others, the conventional medical system must deploy nanocarriers as an NDDS. The article covers the numerous nano herbal drugs and nano herbal cosmetics currently available on the market, as well as the characteristics, benefits, and drawbacks of nano drug delivery systems.

Keywords: Herbal drugs, Nanotechnology, Novel Drug Delivery System (NDDS), Nano-particles, Nanoherbal formulations.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1264

NANOTECHNOLOGY AND MODERN PHARMACY: A CONCISE OVERVIEW

Devansh Vijayvargiya, Uttam Singh Baghel
University of Kota, Kota, Rajasthan, India.
devanshvijay2003@gmail.com

Abstract:
The field of pharmaceuticals and medicine is seen to be entering a new and fast-developing domain with nanotechnology. Because they are more effective and cause fewer side effects than other drug delivery methods, nanoparticles provide several benefits. Fundamental sciences and applied fields including biophysics, molecular biology, and bioengineering are brought together in nanotechnology, an interdisciplinary field of study. Heart, ophthalmology, endocrinology, oncology, pulmonology, immunology, and highly specialized fields like brain targeting, tumor targeting, gene delivery, and oral vaccine formulations are just a few of the medical domains extensively touched by it. As drug delivery vehicles, nanoparticles provide a unique set of benefits that can significantly improve treatment efficacy while mitigating side effects. They also successfully solve problems associated with poorly water-soluble drug formulations. The rapid evolution of nanotechnology in disease diagnostics can be attributed to its unique size-dependent features, which make it an excellent tool for a wide range of human undertakings. One of the most well-known areas of nanotechnology study is nanomedicine. It creates highly focused medical interventions for illness detection, prevention, and treatment using nanotechnology. Research on nanomedicine has exploded in the last couple of decades, and efforts are now being made worldwide to commercialize the field. Nowadays, drug delivery systems make up more than 75% of all sales in nanomedicine. It is possible to create nanoparticles by modifying the manufacturing process. It has been demonstrated that nanoparticles are effective drug delivery systems. There are numerous applications for nanoparticulate medication delivery systems, such as radiation, cancer, AIDS, and gene therapy. It can also act as vesicles to pass the blood-brain barrier and carry proteins, medicines, and vaccines.

Keywords: Nanotechnology, Nanomedicine, Drug Delivery.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1265

IN SILICO STUDIES OF ISOQUINOLINE ALKALOIDS FOR THE SCREENING OF DNA INTERACTING MODE AND ABILITY

Poonam R. Inamdar[1], Mrunalini H. Kulkarni[2]
[1]Dr Vishwanath Karad MIT World Peace University, Pune
[2]Vishwakarma University, Pune
pnmnmdr524@gmail.com

Abstract:
Severe toxicity of platinum metallotherapeutics prompted the screening in natural products as anti-cancer agents. Alkaloids are basic nitrogen containing heterocyclic compounds having a multiaromatic system. Isoquinoline alkaloids isolated from Chelidonium majus are used as potent cholinesterase agents. These chemical entities have reported to exhibit apoptotic activity and thus medicinal chemists initiated the in-silico research for the screening of natural products for suitability of DNA interaction. Structures of Chelindonine and Chelerthryine were drawn and saved in pdb format. Topological parameters of both structures were calculated using Swissparameter. The Swiss ADME module was used to calculate drug likeliness properties of the structures. Molecular docking studies of the compounds were performed using Autodock Vina. Topological Parameters were used to assess the Swiss ADME platform and molecular docking studies suggested the DNA groove binding mode. Chelindonine was found to exhibit a greater number of hydrogen interactions with DNA compared to Chelerthryine. As Number of H bond donors' group are more in Chelindonine, we concluded that Chelindonine possesses better potential as DNA interacting agents.

Keywords: DNA, Chelindonine, ADME, In-silico, Isoquinoline.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1266

TO STUDY *PISTIA STRATIOTES* PLANT USE IN DIFFERENT MEDICATION

Gaurav Kamewal, Shreya Singh, Abhishek Nagar, M.K. Gupta
Career Point School University, Kota, Rajasthan, India.
gauravkamewal@gmail.com

Abstract:
Pistia stratiotes L. commonly known as water lettuce belongs to Araceae. It has been used in various medicines for the treatment of eczema, leprosy, ulcers, piles, stomach disorder, throat and mouth inflammation, a few to mention. This review article is a compilation of the updated information regarding phytochemical, pharmacological, medicinal, bioremediation potential, allelopathy, utilization and management of water lettuce. In Pakistan it was first reported from Razmak, South Waziristan in 1972, but now it is widespread throughout the country. Information regarding the uses and effects of different extract (ethanolic and methanolic) of this plant is also documented. Pistia stratiotes possess different useful activities like, diuretic, antidiabetic, antidermatophytic, antifungal, and antimicrobial properties against harmful diseases. It has great potential for absorption of heavy metals (Fe, Zn, Cu, Cr, and Cd) without developing any toxicity or reduction in growth due to metal accumulation and has shown a wide range of tolerance to all the selected metals and therefore can be used for water purification and to combat water pollution in waste water bodies such as drainage ditches and channels carrying industrial effluents. This article provide bases and encourages further study on any of the above-mentioned aspects of P. stratiotes for creation as well as confirmation of the information and also to reveal therapeutic effects, bioremediation and bioaccumulation potential with possible isolation of active bio-moieties and their mechanism of action.

Keyword: Iron - Fe, Zinc - Zn, Copper - Cu, Chromium - Cr, Cadmium – Cd and before present time – BP.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1267

INNOVATIVE CONVERGENCE: EXPLORING THE SYNERGY OF EMERGING TECHNOLOGIES IN LIFE SCIENCE

Geetanjali
Post Graduate Govt. College for Girls (PGGCG-11), Chandigarh
khokhargeetanjali@gmail.com

Abstract:
This research paper explores the innovative convergence of various technologies and their synergistic applications in the field of life sciences such as biotechnology, healthcare, pharmaceuticals, and agriculture. Through a comprehensive review of literature and case studies, the paper highlights the transformative impact of converging technologies on scientific research, medical treatments, and agricultural practices. Main areas of convergence include biomedical imaging and artificial intelligence, genomics and gene editing, nanotechnology and drug delivery, IoT and wearable health devices, 3D bio printing and tissue engineering, big data analytics and precision medicine, as well as robotics and surgical innovation. Furthermore, the paper discusses the opportunities, challenges, and ethical considerations associated with this convergence, emphasizing the importance of responsible innovation and equitable access to benefits. Interdisciplinary convergence is essential for developing comprehensive strategies to address these grand challenges and create a sustainable and equitable future for all. Interdisciplinary convergence plays a vital role in driving innovation, addressing complex challenges, translating research into practical applications, and preparing future leaders in the life sciences. By fostering collaboration and integration across disciplines, we can unlock new opportunities for scientific discovery and societal impact. By elucidating the potential of innovative convergence in driving scientific discovery and improving human well-being, this paper aims to inspire further interdisciplinary collaborations and research initiatives in the life sciences. Emphasize the importance of interdisciplinary collaboration, responsible innovation, and continuous exploration of innovative convergence in driving positive change and addressing pressing challenges in the life sciences. It contributes to advancing scholarly knowledge, informing policy and practice, and stimulating further inquiry into the synergy of emerging technologies in the life sciences.

Keywords: Innovative convergence, Emerging technologies, Life science, Biotechnology, Healthcare, Pharmaceuticals.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1268

SPATIAL DISTRIBUTION AND NESTING BEHAVIOR OF THE BLACK WINGED-STILT (*HIMANTOPUS HIMANTOPUS*) IN THE KOTA, RAJASTHAN, INDIA

Mamta Nagar[1], Harsh Gulati[1], Smriti Johari[2]
[1]Career Point University, Kota, Rajasthan, India
[2]University of Kota, Kota, Rajasthan
nagarmamta73@gmail.com

Abstract:

Wetlands, integral to ecological balance and biodiversity, are the focal point of this study examining the Black-winged Stilt (Himantopus himantopus, Linnaeus 1758) in the Alniya Dam and Abhera Wetland, located in Kota, Rajasthan, India. These wetlands, recognized for their significance in avian conservation, provide habitats for a diverse array of bird species, with the Black-winged Stilt being a notable inhabitant. The research aims to unravel the intricate aspects of the Black-winged Stilt's population, spatial distribution, and nesting behavior within the distinctive ecological of Kota. Exploring the qualitative dimension further, the study sheds light on the social dynamics within the Black-winged Stilt population, observing cooperative behaviors during nesting activities. Intriguingly, communal nesting behaviors and social interactions among individuals contribute to the species' adaptability to the dynamic wetland environment. In addition to these behavioral insights, the research documents the response of the Black-winged Stilt to anthropogenic disturbances, highlighting adaptive strategies employed by the species to mitigate potential threats. Such qualitative findings provide a deeper understanding of the resilience of the Black-winged Stilt in the face of environmental challenges, enriching our comprehension of the species' ecological niche in the Kota wetlands. Amidst the anthropogenic influences, a crucial qualitative aspect of the study is the documentation of specific environmental cues influencing the breeding success of the Black-winged Stilt. These cues, ranging from water quality to vegetation structure, contribute to a comprehensive understanding of the species' reproductive ecology in the Kota region. This research, by incorporating qualitative findings, not only advances the scientific knowledge of the Black-winged Stilt's ecology in Kota, Rajasthan, but also underscores the need for nuanced conservation strategies. Recognizing the ecological intricacies revealed by qualitative data, the study suggests conservation plans to ensure the preservation of biodiversity and avian resources in Alniya Dam and Abhera Wetland.

Keywords: Black-winged stilt, Alniya dam, Abhera wetland, Kota, Rajasthan, spatial distribution, ecology, nesting behaviour.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1269

3D PRINTING DRUG

Mayuri Nikam[1], Sweta Patel[1], Kinjal Parmar[2]

mayurinikam135@gmail.com

Abstract:
The three-dimensional (3D) printing drug is most relevant, precise and accurate method for the potent drugs in the pharmaceuticals. This 3D printing drug technology emphasizes patients personalized needs to customized medication. This technology revolutionizes manufacturing style of medicine. 'One size fits all' is not true always, medicine used for curing one patient but it also possible is giving some side effects to another. To conquer this "3D Printed medicines" are developed. This 3D printing drug technology is the one of the prototyping techniques in which layer by layer fabrication of 3D printed drug in digital designs. This 3D printing drug has huge drug loading ability, the multiple drugs easily administered in single dosage form. The selected studies focused on the key role of 3D printing drugs in pharmaceutical technology. This study gives the overview of the various types 3D printing techniques powder-based 3D printing, extrusion-based 3D printer, inkjet-based 3D printing, and laser-based 3D printing. 3D printing technology has been applied to several kinds of drug delivery systems such as immediate-release tablets, sustained-release tablets, modified-release tablets, immediate-release films, pulsatile release capsular devices, controlled-release implants and controlled release transdermal patches. It covers possible future aspects of 3D printing drugs in pharmaceutical formulation. In future aspects it is attractive new research and development in drug product manufacturing. The success of 3D printing drug is depending on the uniqueness of drug product to meet patients personalized needs with the accounting of value of medicine.

Keywords: 3D printing drug technology, pharmaceutical formulation, Medicine, Customized medication, Prototyping.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1270

CANCER AWARENESS

Neha Kankerwal
United Institute of Pharmacy, Roorki, Kurukshetra
kankerwalneha@gmail.com

Abstract:
Cancer awareness is the key to early detection and better health-seeking behaviour. Cancer is quite common in both developing as well as developed countries, but awareness is yet poor among the general population. Poor awareness may lead to poor uptake of screening modalities and delay in diagnosis. The poor awareness level among the Indian population shows the need for health education and sensitisation regarding cancer and its different aspects. This will be helpful in the successful implementation of health programmes related to cancer.

Keywords: Cancer, detection, diagnosis, population.

ICERIPLST/PH/2024/1271

RESEARCH ON NATURAL POLYMER IN EXECUTION OF RAFT FORMING GASTRO- RETENTIVE DRUG DELIVERY SYSTEM OF AN ANTI-HYPERTENSIVE DRUG

Neha Raghuwanshi
RK University, Rajkot, Gujarat, India.
neharaghuwanshi41@gmail.com

Abstract:
Metoprolol succinate, a β-selective adrenergic blocker, has a short half-life, low bioavailability, and high dosing frequency. In-situ gel drug delivery is a good approach to achieve sustained release for once-daily administration that will prolong drug retention time at the stomach and increase absorption. Thus, the aim of the study is to formulate floating in-situ gel formulations of metoprolol succinate using Sodium Alginate and Isabgol as a gelling polymer and sodium bicarbonate as an agent to generate gas and calcium carbonate as an agent to strengthen gels. Sodium bicarbonate, along with divalent Ca++ ions, forms a floating raft loaded with drugs. Testing was done on all batches for pH, In-Vitro Floating, Raft strength, viscosity, and drug release. The majority of formulations using Isabgol as a gelling agent have a gelled raft in less than 2 minutes and are buoyant for more than 8 hours in 0.1N hydrochloric acid having pH 1.2. Optimized batches show good administration capabilities and better stability over six months.

Keywords: Gastro-retentive In-situ Gel, Sodium Alginate, Isabgol, Metoprolol succinate, Raft Strength.

ICERIPLST/PH/2024/1272

MILLETS

Pragya Nigam
Vikaram University, Ujjain, Madhya Pradesh, India.
Pragyan0702@gmail.com

Abstract:
The forgotten grain, which inherits the high amount of nutritional factor has become by the time less consumable. Millets are widely used to treat diseases and supports the functioning of healthy body. There are various species of millet which are specifically or collectively responsible for treating diseases. The origin of millet dates back during Indus civilization, during 3000 B.C. Millets have high anti oxidant activity, gluten free, rich sources of dietary fibre and macro nutrients. It can also grow in less water, less potent soil and less sunlight. But during the time this grain has been forgotten. Thought it is more potent than other grains, but its importance is neglected and ignored because its amount harvested is less then others. 'International Year of Millets – 2023' had been declared by government of India to support this grain. There are many other initiatives taken by government. This coarse superfood grain are among the first crops to be domesticated. They are considered to maintain balance bio energy in human body. Its consumption in daily life adds more importance to maintain healthy, disease-free lifestyle.

Keywords: grain, millets, crops, water, gluten free, bio energy.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1273

INNOVATIVE STRATEGIES IN ANTITUBERCULAR DRUG DISCOVERY: DESIGN, SYNTHESIS, AND EVALUATION OF 2 & 3-(4-AMINOBENZAMIDO) BENZOIC ACID DERIVATIVES

Prashik B. Dudhe[1], Sujata P. Dudhe[2], Hardik G. Bhatt[3]

[1]Sandip University, Nashik, Maharashtra, India,

[2]Sandip foundation, Nashik, Maharashtra, India,

[3]Nirma University, Ahmedabad, Gujarat, India.

dudhe.prashik@gmail.com

Abstract:

In response to the persistent global health threat posed by tuberculosis, this study focuses on the design, synthesis, and evaluation of thirty-three novel 2 & 3-(4-aminobenzamido) benzoic acid derivatives as potential antitubercular agents. Leveraging advanced computational tools, including 3D QSAR COMFA, CoMSIA, and Molecular Docking Studies, the design of this novel series aimed to address the urgent need for more effective and less resistance-prone antitubercular drugs. The synthesis of the designed series involved a meticulous three-stage reaction sequence. Starting with p-aminobenzoic acid, Con. Hydrochloric acid treatment yielded its salt, subsequently modified to ammonium benzoyl chloride using thionyl chloride. Condensation with 2 or 3 benzoic acids resulted in the desired 2 & 3-(4-aminobenzamido) benzoic acid derivatives. Characterization of the newly synthesized molecules was conducted through FT-IR, HRMS, 1H-NMR, and 13C-NMR techniques. Remarkably, five compounds (14, 18, 19, 26, and 30) demonstrated superior activity with a minimal inhibitory concentration (MIC) of 1.6 µg/mL, a notable 50 times lower than that of the standard drug. Initial Structure-activity relationship (SAR) analysis highlighted the favorable impact of electron-donating groups, such as glycine anhydride and triazine, on the aminobenzoic acid for enhanced antitubercular activity. The synthesized 2 & 3-(4-aminobenzamido) benzoic acid derivatives exhibit promising antitubercular activity, with five compounds showing exceptional potency. Future prospects include the screening of selected compounds against antimicrobial strains and the specific assay on the DHFR enzyme. This research provides valuable insights into the development of innovative antitubercular agents, offering a potential breakthrough in combating tuberculosis globally.

Keywords: Antimycobacterial, QSAR, Docking, Antibacterial, Benzoic acid.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1274

AN OVERVIEW RESEARCH STUDY ON RECENT ADVANCEMENT, APPLICATION & FORMULATION TYPE RELATED TO GRDDS

Niraj Gupta
Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh, India.

nirajg261@gmail.com

Abstract:
Effective oral drug delivery depends upon the factors such as gastric emptying process, the gastrointestinal transit time of the dosage form drug release from the dosage form, and site of absorption of drug. In recent years, scientific and technological advancements have been made in the research and development of gastro retentive drug delivery systems. Because of the short residence period, oral absorption of medicines with a limited absorption of drugs inside the upper intestinal wall results in low bioavailability with traditional dose forms. Controlled drug delivery systems with an extended residence period in the stomach can be employed to circumvent this constraint and boost the bioavailability of these medications. In this context, various gastroretentive drug delivery systems (GRDDS) have been used to improve the therapeutic efficacy of drugs that have a narrow absorption window, are unstable at alkaline pH, are soluble in acidic conditions, and are active locally in the stomach. The gastroretentive drug delivery system (GRDDS) aims to hold the dosage form in the stomach to attain the desired activity by the formulator against the challenges involved with the body. GRDDS comparably prevails in this process of sustaining in the GI tract, influenced by the nature of excipients and driven by the type of formulation to attain therapeutic goals. Solid oral dosage forms are the leading class of preferred modified release system in action, which minimizes the frequency of dosing on an account to minimize multiple dosing to attain this desired release profile. In conventional delivery system it is hard to provide drug at specific site, but on other hand GRDDS we can retain the drug in stomach for prolong period. GRDDS have great potential in improving the bioavailability of drugs that exhibit an absorption window.

Keywords: Recent Advancement, Broader Applications, Types of Formulation, Marketed Products.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1275

ANTIMICROBIAL ACTIVITY OF CRASSULA OVATA

Radhika Tyagi

radhikatyagi087@gmail.com

Abstract:
Crassula ovata is a common houseplant that is usually called jade plant, part of the orpine family (Crassulaceae), about half of them are native to southern Africa. In vitro antibacterial activity of the sample was studied against gram-positive and gram-negative bacterial strains by the agar well diffusion method (Perez et al., 1990). Mueller Hinton agar no. 2 (Hi-Media, India) was used as the bacteriological medium against 2 bacterial strains namely: Pseudomonas aeruginosa being a gram negative bacteria and Staphylococcus aureus being a gram positive bacteria. It was observed that methanolic extract of plant has shown prominent results in the case of Pseudomonas aeruginosa with the highest of 13mm inhibition zone in 80 µl plant sample whereas Staphylococcus aureus 10mm inhibition zone in 80 µl plant sample.

Keywords: Jade plant, Diffusion method, Inhibition zone, Bacteria, *Staphylococcus aureus*.

ICERIPLST/PH/2024/1276

ROLE OF MICROEMULSION IN CURING MICROBIAL INFECTIONS

Rajat Rai, M.K Gupta, Harshita Jain, Nitin Nama

Career Point University, Kota, Rajasthan, India.
rajatrai448@gmail.com

Abstract:
Microemulsions have several advantages over emulsions, such as low manufacturing costs, high solubility, good penetrating power, clarity and transparency, the ability to be sterilised through filtration, and thermodynamic stability over an extended length of time. One of the most important components in the creation of a microemulsion was surfactants. Combining surfactants and co-surfactants can enhance the dispersion of oil in water. The skin acts as an amazing barrier against bacterial infections. Many bacteria touches or reside on the skin, yet most of the time they are unable to create an infection. In the event that bacterial skin infections do develop, they can impact any area of the body, no matter how big or tiny. Depending on how bad they are, they could be harmless or even deadly. Bacterial skin infections can arise when bacteria enter the skin through hair follicles or microscopic skin breaks brought on by burns, sunburns, animal or insect bites, wounds, or pre-existing skin diseases. People are prone to developing bacterial skin illnesses following a variety of activities, such as gardening in contaminated soil or swimming in a contaminated pond, lake, or ocean. Antibiotics used topically are drugs used to treat bacterial infections.

Keywords: Microemulsions, Skin infections, Bacteria, Antibiotics, Co-surfactants.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1277

UNDERSTANDING DENGUE VIRUS – SEARCHING NEW THERAPEUTIC AGENTS

Satnam Singh, Navjot Kaur
ASBASJSM College of Pharmacy, An Autonomous College, Bela.
drssb13pu@gmail.com

Abstract:
Dengue fever is a severe viral infection carried by Aedes mosquitos mainly by female mosquitos of the Aedes aegypti species and caused by a Flaviviridae RNA virus, dengue virus (DENV). The symptoms might range from asymptomatic fever to life-threatening consequences including hemorrhagic fever and shock. It is critical to acquire a diagnosis as soon as possible to avoid death. Although dengue fever is usually selflimiting, it has become a public health crisis across globe, affecting more than 3 billion people in more than 125 nations. The World Health Organization (WHO) classified dengue fever as, non- specific fever, dengue fever (DF) and dengue hemorrhagic fever (DHF) in 1997. DENV is enveloped, positive-sense, single-stranded RNA virus which has four closely related serotypes (DENV-1 to -4) that are antigenically distinct. Each DENV serotype is subdivided into different genotypes, each composed of three structural (capsid, precursor membrane, and envelope) and seven nonstructural (NS) proteins namely NS1, NS2A, NS2B, NS3, NS4A, NS4B, and NS5. The structural protein envelope glycoprotein (E) is the main target for neutralizing antibodies and involves receptor binding and entry to the host cell by fusion. The occurrence of dengue fever has grown dramatically around the globe in recent decades. Furthermore, all four DENV serotypes co-circulate and create a problematic hyperendemic situation. Apart from the inherent virulence of the virus strain, a dysregulated host immune response could make the condition worse. The possible measures to control dengue virus (DENV) include mosquito control, vaccine development and antiviral therapy especially based on natural products. Currently, there is no highly recommended vaccine or therapeutic agent against dengue. Furthermore, with the advent of virus strains resistant to antiviral agents, there is an urgent need for new therapies to be developed.

Keywords: Dengue virus (DENV), dengue fever (DF), dengue hemorrhagic fever (DHF), The World Health Organization (WHO), glycoprotein (E).

ICERIPLST/PH/2024/1278

FORMULATION AND EVALUATION OF ANTI BACTERIAL HERBAL GEL OF COUROUPITA GUIANENSIS EXTRACT

Shailesh Kumar, Rahul Kumar Ancheria, M. K. Gupta
Career Point University, Kota, Rajasthan, India.
sk8324696@gmail.com

Abstract:
Pharmacologically active compounds that have been utilised to cure a variety of terminal diseases are abundant in nature. Herbal remedies are suggested for various biological activities related to medical requirements. Plants are the fundamental source of information in modern medicine. Botanical medicine or herbology is another name for herbal medicine. Plant-based products come in a range of forms and are used for treatment without undergoing any kind of chemical modification. The world's population uses herbal medicine for primary healthcare in between 75 and 80 percent of cases due to its low toxicity, good body compatibility, and high cultural acceptability. The use of herbal remedies has become much more popular. Herbal remedies are a legacy of ancient civilization and science. Herbal medications are made using sustainable methods from renewable raw materials and are used to treat some illnesses for which there is no access to contemporary pharmaceuticals. Plants have various therapeutic properties in all sections of them. The active ingredients and plant extracts are tested for a range of pharmacological actions. Herbal medicine has a long history of use and includes a wide range of chemical compounds that are used to treat a wide range of illnesses. The treatment of the human body, mind, and spirit is taken into account in the holistic traditional medical approach known as ayurveda.

Keywords: Herbal plants, Ayurveda, Pharmaceutical properties, Herbal medicines.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1279

SYNTHESIS, CHARACTERIZATION & PHARMACOLOGICAL EVALUATION OF BENZOHYDRAZIDE ANALOGUES FOR ANTIINFLAMMATORY ACTIVITY

Shantanu Sanjay Ghodke
MET's Institute of Pharmacy, Nashik
sgshant45@gmail.com

Abstract:

Conventional anti-inflammatory agents which are generally used in inflammation are linked with various side effects such as gastric irritation, gastric bleeding, hepatotoxicity and various others. Also, their continuous use in autoimmune diseases such as arthritis, leads to formation of resistance against them. This creates a need for development of new agents with good anti-inflammatory potential. The aim was to synthesis benzohydrazide analogues and study their anti-inflammatory potential by pharmacological screening. A series of 2-(1H-benzoimidazolylthio) acetyl benzohydrazide analogues (2MBF-2MBF14) were synthesized and evaluated for anti-inflammatory potential. The synthesized analogues were characterized by spectral analysis with the help of FT-IR, 1H-NMR, and Mass Spectrometry. Anti-inflammatory activity was performed by carrageenan induced rat paw edema test. Various analogues of benzohydrazide were synthesized and characterized successfully by different spectral methods. Functional groups such as amide (-CONH) was found observed at 1685 cm-1, (-NH) was seen at 3312 cm-1, in 1H-NMR specific number of protons were detected, also in MASS spectrometry the molecular ion peaks were observed at exact molecular weight. The carrageenan induced rat paw edema test was used to assess the anti-inflammatory potential of the synthesized compounds. Comparing the activity of synthesized analogues with standard drug (indomethacin) it was found that compounds 2MBF, 2MBF5 and 2MBF12 had good anti-inflammatory activity. It can be concluded that benzohydrazide analogues substituted with 2-mercaptobenzimidazole can be used to develop a good class of anti-inflammatory agents.

Keywords: Benzohydrazide, 2-mercaptobenzimidazole, anti-inflammatory.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1280

POTENTIAL OF COW URINE THERAPY FOR CANCER TREATMENT

Simran Bajaj, Abhilasha Shete, Jagdish Chandra Nagar
Kota College of Pharmacy, Kota, Rajasthan, India.
simranbajaj.06new@gmail.com

Abstract:

Cow urine therapy, rooted in traditional Ayurvedic medicine, has gained attention for its potential role in cancer treatment. Cow urine is enriched with various bioactive compounds, possesses therapeutic properties that can combat cancer cells. This alternative approach is based on the belief that cow urine contains anti-cancer agents and immune-modulating substances. One of the key components attributed to the anti-cancer effects of cow urine is colostrum, the first milk produced by cows after giving birth. Colostrum is believed to contain essential nutrients and antibodies that may help in bolstering the immune system to target cancerous cells. Additionally, cow urine has trace elements and minerals with anti-cancer properties, contributing to its perceived efficacy in cancer therapy. Furthermore, cow urine therapy is thought to have detoxified effects, helping to cleanse the body and eliminate harmful substances that may contribute to cancer development. Advocates argue that the therapy enhances the body's natural detoxification mechanisms, promoting overall well-being and potentially hindering cancer progression. While there is some anecdotal evidence supporting the positive outcomes of cow urine therapy in cancer treatment, scientific validation remains limited. Rigorous clinical studies are essential to determine the efficacy and safety of this approach. The scientific community emphasizes the importance of evidence-based medicine, urging caution in embracing alternative treatments without substantial empirical support. In conclusion, cow urine therapy for cancer treatment is an alternative approach rooted in traditional medicine, with proponents claiming its efficacy in combating cancer cells. However, scientific validation through well-designed clinical trials is necessary to establish the true potential and safety of this unconventional method. Until then, individuals considering such treatments should consult with healthcare professionals and make informed decisions regarding their cancer care.

Keywords: Cow urine, cancer treatment, colostrum, natural detoxification, anticancer properties.

ICERIPLST/PH/2024/1281

HPLC STUDY ON STRESS DEGRADATION BEHAVIOR OF IDELALISIB AND DEVELOPMENT OF A VALIDATED SPECIFIC STABILITY-INDICATING RP-HPLC ASSAY METHOD

Vaishali Madhukar Badgujar
R. C. PATEL Institute of Pharmaceutical Education and Research, Shirpur.
vaishalimbadgujar123@gmail.com

Abstract:
The objective of the current investigation was to study the degradation behaviour of idelalisib under different ICH recommended stress conditions by RP-HPLC, and to establish a validated stability-indicating RP-HPLC method. A stability-indicating reverse phase high performance liquid chromatography method was developed and validated for Idelalisib. The wavelength selected for quantitation was 280 nm. The method has been validated for linearity, accuracy, precision, robustness, limit of detection and limit of quantitation. Linearity was observed in the concentration range of 5-25 µg/ml for idelalisib. For RP-HPLC, the separation was achieved by Agilent C18 (250×4.6 mm) 5 µm column using methanol: orthophophoric acid (0.05%) as mobile phase with flow rate 0.7 ml/min. The retention time of Idelalisib were found to be 5.734 min. The drug was subjected to stress conditions of hydrolysis, oxidation, photolysis and thermal decomposition. Extensive degradation was found to occur in acidic medium, alkaline medium and under oxidativestress conditions while Mild degradation was observed in neutral and photolytic conditions and it stable to thermal stress. Successful separation of drug from degradation products formed under stress conditions was achieved. The method well separated the drug and degradation products even in actual samples. The developed method was simple, specific and economic, which used for estimation of idelalisib in bulk and tablet dosage form.

Keywords: RP-HPLC, Agilent, Idelalisib, degradation, concentration.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1282

PERSONALIZED MEDICINE

Vaishnavi Hyalij, Deepanti Gajjar

Parul University, Gujarat

vaishnavihyalij.v2000@gmail.com

Abstract:

Decreased drug toxicity for a specific patient is the goal of personalized medicine(PM). It demonstrates using the appropriate medication at the appropriate time, with the appropriate patient, substance, and dose. The goal of personalized medicine is to provide each patient with a unique pharmacological regimen based on their genetic composition. The PM strategy is a comprehensive expansion of the traditional One-Size-Fits-All method, aimed at improving our capacity to anticipate which medical interventions, depending on each patient's own genetic profile, will be safe and beneficial and which won't. As a consequence of ongoing technological advancements, customized medicine's capacity to anticipate outcomes improves with time, leading to even better health results. This study aims to assess personalized medicine's indications, benefits, problems, and consequences for health care. The knowledge and abilities to employ a wide range of genomic-based diagnostic and therapeutic techniques will be essential for future clinicians and health professionals. Optimizing medical care and outcomes for each unique patient is the main objective of personalized medicine, leading to previously unknown levels of patient customization.

Keywords: Genome, Patient , Health, Individualized Drug Treatment, Personalized medicine.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1283

FORMULATION AND EVALUATION OF FLOATING GASTRORETENTIVE MICROSPHERE FOR GASTRIC REFLUX DISEASE

Rupanjali
Career Point University, Kota, Rajasthan, India.
rupanjali2603@gmail.com

Abstract:
A potentially effective method for boosting the bioavailability of medications with an absorption window in the upper small intestine is the use of drug delivery systems that float as soon as they come into contact with gastric fluids. However, instantaneous floating is only possible if the device's density is initially low. A significant issue with gastric delivery is achieving the best possible concentration at the site of action while maximizing the drug's bioavailability. Because of its short half-life, the traditional dosage form for peptic ulcer diseases has the drawback of requiring frequent dosing. Only a small portion of an instilled compound will typically reach the target site due to low solubility and low bioavailability between 1.5 and 3.0 hours. In order to improve gastric residence time and boost bioavailability, the current study set out to develop a gastroretentive mucoadhesive pulsatile formulation of nizatidine mucoadhesive microspheres for the treatment of peptic ulcers, primarily at the gastric part of the GIT. Flow properties determination, particle size measurement, shape and surface morphology, mucoadhesive properties, swelling study, percentage yield, drug entrapment efficiency, in-vitro drug release studies, and stability studies were some of the parameters used to evaluate these prepared systems. The goal of the current study was to create mucoadhesive Nizatidine microspheres with varying polysaccharide polymeric combinations in different ratios to improve mucoadhesion at the gastric mucosa, lengthen the gastric residence time, and ultimately increase the bioavailability.

Keywords: delivery, floating, gastric, microspheres, polymeric combination.

DESIGN AND EVALUATION OF VESICULAR EMULSOMES CONTAINING GEL FOR RHEUMATOID ARTHRITIS

Abhishek Kumar
Career Point University, Kota, Rajasthan, India.
abhishek0525sn@gmail.com

Abstract:
Rheumatoid arthritis (RA) is a chronic autoimmune disease affecting the joints, characterized by progressive symmetrical inflammation of the affected joints, leading to cartilage destruction, bone erosion and disability. Quercetin is one of the most important bioflavonoids known for its anti-inflammatory, anti-hypertensive, vasodilator, anti-obesity, anti-cholesterol and anti-atherosclerosis effects. The use of the drug is largely limited by its low hydrophilicity, so the present study improves its solubility by adding ethanol. Local use of high concentrations of ethanol is not recommended due to the risk of local irritation. Therefore, a suitable quercetin carrier for effective topical application is necessary for the treatment of rheumatoid arthritis. The use of quercetin is largely limited due to its low hydrophilicity. The aim of this study is to investigate the possible use of emulsomes to deliver quercetin in the treatment of rheumatoid arthritis. Emulsomes provide an effective topical drug delivery system due to the high retention flux and high skin retention of the drug, resulting in increased antifungal activity and reduced skin irritation. The characterization of the prepared emulsomes was performed using PDI index, zeta potential measurement, capture efficiency, etc. The pH, extrudability, dispersibility, roughness, viscosity, adhesion efficiency, etc. of the emulsome gel were checked. Emulsomes containing phosphatidylcholine (soy lecithin) cholesterol and or solid lipid were prepared and optimized for lipid ratios.

Keywords: : Emulsomes, Joints, Disease, pH, Topical drug delivery system.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1285

REVOLUTIONARY INNOVATIONS IN PHARMACY

Anshul Sharma, Abhilasha Shete, Ankit Sharma
Kota College of Pharmacy, Kota, Rajasthan, India.
whoisanshulsharma@gmail.com

Abstract:

The pharmaceutical industry is undergoing a profound transformation driven by cutting-edgeinnovations that promise to revolutionize drug discovery, development, and patient care. From advanced technologies to novel approaches, these innovations are reshaping the landscape of pharmaceutical research and production. Innovations such as, AI and Machine Learning: an Artificial intelligence and machine learning are playing a pivotal role in drug discovery. These technologies analyze vast datasets to identify potential drug candidates, predict their efficacy, and streamline the research process. Precision Medicine: Advances in genomics and personalized medicine enable the tailoring of treatments to individual patients based on their genetic makeup. This approach enhances treatment effectiveness while minimizing side effects. CRISPR Technology: CRISPR-Cas9 gene editing technology has opened new frontiers in developing targeted therapies. It allows for precise modifications in the genetic code, offering potential cures for genetic disorders and new avenues for treating diseases. Immunotherapy: Immunotherapies, including checkpoint inhibitors and CAR-T cell therapy, harness the body's immune system to fight cancer. These groundbreaking treatments show remarkable results in various types of cancer and represent a paradigm shift in oncology. Continuous Manufacturing: Traditional pharmaceutical manufacturing involves batch processes, but cutting-edge continuous manufacturing technologies enable a more streamlined and efficient production process, reducing costs and increasing flexibility. Blockchain in Supply Chain: Blockchain technology is being explored to enhance transparency and traceability in the pharmaceutical supply chain, reducing the risk of counterfeit drugs and ensuring the integrity of medications from manufacturing to distribution. These cutting-edge innovations not only accelerate the drug development pipeline but also hold the promise of more effective and personalized therapies, ultimately improving patient outcomes and reshaping the future of healthcare. Pharmacy is a huge field, which has lots of loop holes and time taking processes. Through these innovations we can make the work easier, more precise and accurate. Cost of product formation will also reduce.

Keywords: Artificial Intelligence, Precision Medicine, CRISPR Technology, Immunotherapy CAR-T Cell therapy, Blockchain Technology.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1286

PHYTOCHEMICAL SCREENING, CHARACTERIZATION OF BIOACTIVE COMPONENT FROM PLANT PHRAGMITES KARKA (RETZ.) TRIN EX STEUD.AND ITS BIOLOGICAL EVALUATION WITH REFERENCE TO WOUND HEALING ACTIVITY

Anjali Peter
B.R. Nahta College of pharmacy, Mandsaur, Madhya Pradesh, India
anjalipeter882@gmail.com

Abstract
Skin repair is a complex, multi-step biological process that requires close contact among several cell types in a well-synchronized system. Recent research has improved our understanding of the particular intervention of distant stem cells originating from distant tissues like bone marrow to enable cutaneous repair. This information's conclusion will focus briefly on three issues of great concern: scarring, tissue engineering for skin wound healing, and plasma application.

Keywords: Wound healing activity, Phytochemical screening, evaluation, Phragmites karka (Retz.) Trin.exSteud.

ICERIPLST/PH/2024/1287

NUTRACEUTICAL POTENTIAL OF AMOMUM SUBULATUM (BLACK CARDAMOM): RECENT ADVANCES & NOVEL POTENTIAL THERAPEUTICS EFFECTS

Pranjal Sachan
Sanskriti College of Higher Education and Studies, Kanpur Dehat, Uttar Pradesh.
pranjalsachan97@gmail.com

Abstract:
Fruits and vegetables high in nutrients are essential parts of a balanced diet. The present demographic and health trends are the main drivers of the global nutraceutical market's growth. Dietary fibre, prebiotics, probiotics, polyunsaturated fatty acids, antioxidants, and various herbal/natural food kinds are among the food products utilised as nutraceuticals. The period in which nutrients are beginning to be used as pharmaceuticals is significant and highlights the noteworthy advantages for scientists and researchers. Because of this, interdisciplinary methods are currently being used to create and develop different dosage forms that will administer these herbal compounds according to their intended uses. Green cardamom (Elettaria cardamom) is an aromatic spice cultivated mainly in southern India, Sri Lanka, Southeast Asia, Guatemala, and the Malabar Coast and in Ceylon. It is a native crop of India. The spice, sometimes referred to as real or lesser cardamom, is crucial to global trade. A member of the Zingiberaceae family is cardamom. It is utilised in many different candies and confections and has a well-established culinary worth. A common spice for both vegetarian and non-vegetarian meals, cardamom is a key component in "garam masala."Cardamom is a rich source of the compound 1,8-cineole, which is present in most oils used by aroma therapists to treat various ailments and relieve tension. Antioxidant activity, total flavonoid content, total phenolic content and reducing power of different organic and aqueous extracts. Dichloromethane, ethyl acetate, methanol, and water from four distinct cardamom varieties Mysore, Malabar, Vazhukka, and Guatemala have all been investigated using hexane extracted consecutively.

Keywords: Cardamom, Phytochemicals, Bioactivities, Traditional medical, Phenolic compounds, Anti-inflammatory, Antioxidant.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1288

DESIGN AND EVALUATION OF LOSARTAN POTASSIUM SUSTAINED AND HYDROCHLOROTHIAZIDE IMMEDIATE RELEASE DRUG FORMULATION

Kajal Sharma, Manoj Kumar

Ramswaroop Memorial University, Barabanki, Uttar Pradesh, India
kajalsharma.smu@gmail.com

Abstract:
This comprehensive research delves into the evolution and repercussions of FDI (Foreign Direct Investment) in India, focusing on the transformative years 1991–2021 and placing special emphasis on the pharmaceutical sector. The analysis begins by elucidating the fundamental characteristics of FDI, emphasizing factors like effective control, capital movements, and long-term commitment that characterize such investments. A pivotal moment in India's FDI landscape occurred in 1991 with the implementation of the act on Foreign Exchange Management (FEMA), marking a departure from conservative policies. Pre-1991, FDI inflows were restrained due to cautious policies post-independence. However, the subsequent liberalization era witnessed significant growth, with FDI reaching an impressive $41,150 million in 2005, reflecting a remarkable 50.93% Rate of Compound Annual Growth (CAGR) over fourteen years. The paper delineates the two primary routes of FDI, namely the Automatic and Government routes, providing foreign entities with distinct frameworks for engagement. Certain industries face outright prohibition for foreign investment, underscoring the meticulous regulatory approach toward sensitive sectors like Atomic Energy Generation and Gambling. A meticulous review of the literature summarizes the results of various studies, underlining the intricate the connection between FDI, institutional quality, and GDP growth. The pharmaceutical industry emerges as a focal point, with studies highlighting its pivotal role in attracting FDI and contributing significantly to India's economic development. Employing a quantitative approach, the research methodology spans data collection from reputable sources such as the Ministry of Commerce and Industry and the Reserve Bank of India. A robust analysis is complemented by an in-depth analysis of the literature covering various determinants, trends, and outcomes associated with FDI in India. To sum up, this study not only offers a nuanced understanding of India's FDI journey but also is an important source of information for policymakers, researchers, and stakeholders. The focus on historical trends, policy shifts, and sector-specific regulations, especially within the pharmaceutical domain, provides a comprehensive view of how FDI has influenced and continues to shape India's economic development.

Keywords: Narrative literature review, The Indian economy, foreign direct investment, Gross domestic product, institutional and regulatory quality.

ICERIPLST/PH/2024/1289

PHYTOCHEMICAL, PHARMACOGNOSTIC, AND CHROMATOGRAPHIC PROFILING OF COMMONLY AVAILABLE SIDA SPECIES IN KERALA: A COMPREHENSIVE COMPARATIVE ANALYSIS

Rahul Maurya, Lakshminarayana Misro, Thirupataiah, B, Thulasi, R
National Ayurveda Research Institute for Panchakarma (CCRAS, Ministry of AYUSH, Government of India), Cheruthuruthy, Kerala.
mauryabrahul@gmail.com

Abstract:
Bala, a commonly used Ayurvedic remedy for rheumatic arthritis, traditionally sources its roots from Sida cordifolia, as stated in the Ayurvedic Pharmacopeia of India. Nevertheless, in the Kerala region, the roots of locally abundant Sida species such as Sida acuta, Sida cordifolia and Sida alnifolia are employed for medicinal purposes. This study aims to comprehensively compare the pharmacognostical, phytochemical, and chromatographic characteristics of these commonly available Sida species in Kerala with the established Sida cordifolia. The study extensively analyzed the HPTLC figure print profiles and HPLC chromograms of both plant specimens. Simultaneously, a chemoprofile investigation was carried out, comparing the Total Phenolic Content (TPC) and Total Flavonoid Content (TFC) profiles of selected Sida species. The TPC and TFC profiles of both plant species were determined, revealing all species having similar flavaonid and phenol content. The HPTLC figure print profiles of both plants displayed an identical number of bands with similar Rf. Similarly, the HPLC chromatograms exhibited comparable patterns and Rt. These findings indicate a similar chemical profile for both species, suggesting their potential use as substitutes for each other. In this study, commonly available Sida species in Kerala were exhibiting significant similarities in chemical profile. The study provides a foundation for future research, emphasizing the potential utilization of these Sida species in Ayurvedic applications.

Keywords: Sida, Bala, Kerala, Phytochemistry, HPLC, HPTLC finger print profiling.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1290

CHALLENGES AND INNOVATIONS IN ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR BCS CLASS II AND IV ANTI-HYPERTENSIVE DRUGS USING HPLC

Deepak Sharma[1,2], Deepa Gupta[3], Surendra Kumar Swarnkar[4]
[1]Assam Don Bosco University, Tapesia, Assam.
[2]Rajasthan University of Health Sciences, Jaipur, Rajasthan, India.
[3]LBS College of Pharmacy, Jaipur, Rajasthan, India.
[4]LBS College of Pharmacy, Jaipur, Rajasthan, India.
deepak28aug@gmail.com

Abstract:

This review article explores the intricate landscape of analytical method development and validation specific to BCS (Biopharmaceutics Classification System) Class II and IV anti-hypertensive drugs utilizing High-Performance Liquid Chromatography (HPLC) techniques. The analysis encompasses the challenges encountered in dissolution profiling, bioavailability assessment, and drug release characterization for this essential category of medications. Innovations in analytical methodologies, regulatory considerations, and emerging trends are thoroughly discussed. By synthesizing current knowledge, this review aims to provide a comprehensive resource for researchers, scientists, and pharmaceutical professionals engaged in the critical task of assuring the quality and performance of these vital therapeutic agents.

Keywords: HPLC, BCS, Method Development, Validation, Anti-hypertensive Drugs.

HERBAL OIL: AN INSIGHT INTO THE PAST KNOWLEDGE

Aditya Vikram Jain, P YADAV, A VERMA, A. E PRABAHAR
Teerthanker Mahaveer University, Moradabad, Uttar Pradesh.

adityaj.pharmacy@tmu.ac.in

Abstract:
Using "Herbal oils" for hair disorders are a common knowledge in Indian tradition. Ancient Indian text mentions by name and how to prepare them. To calm and revitalise the scalp, hair oil is used. Three kinds of hair oils are available in India. The first includes oil used as a foundation or vegetable oil, type 2 solely has mineral oil as base oil, whereas type 3 has an additional blend of mineral and vegetable oil. To encourage the development and production of medicinal plants, the Ministry of Ayush has formed the National Medicinal Plant Board legally. Medicines pertaining to Ayurveda, Siddha, Unani, and Homoeopathy (ASU&H) in India are regulated by the Drugs & Cosmetics Act, 1940. The advancement of traditional Indian medicine is in the interest of public health with the goal of achieving high-quality medications. The nation has over 8000 licensed ASU&H manufacturers. The majority are on a small to medium scale. business owners lacking sufficient resources and development opportunities. Controlling investment is necessary for growing demand for high-quality Ayush goods in both the domestic and global markets. Strategic actions for mainstreaming of this sector, is to assist the producers to implement internal quality assessment and high-quality production facilities, product quality certification, and rationalizing the medication regulatory framework, R&D and fostering collaboration for a convergent strategy with allied industries. To achieve this context of the Ayush Oushadhi Gunvatta evam, there are ways being programmed. The Uttpadan Samvardhan Yojana Plan (AOGUSY) seeks to support the caliber of medications and results pertaining to the advancement of the Ayush certified medicine sector thus fortifying the legislative structure. Without a license, it is prohibited to produce ASU&H medications for commercial use. It is necessary to follow Good Manufacturing Practices (GMP) to receive manufacturing authorization.

Keywords: AYUSH, Medicinal Plants, Herbal Oils, GMP.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1292

DIFFERENT PATHWAYS VIA POLYSACCHARIDES INFLUENCE HUMAN HEALTH

Preeti Yadav, A. V Jain, A Verma, A. E Prabhakar
Teerthanker Mahaveer University, Moradabad, Uttar Pradesh
preeti.pharmacy@tmu.ac.in

Abstract:

The relationship between polysaccharides and human health is intricate and interdependent (Gan et al., 2022). Lately, there has been a surge in curiosity regarding the impact of polysaccharides on gastrointestinal health, obesity, and associated disorders, owing to the diverse array of beneficial biological activities that polysaccharides exhibit. Polysaccharides, consisting of over ten monosaccharide units joined by glycosidic linkages. Modification of carbohydrate by the methods like partial hydrolysis, cross-linking of starch, oxidation for formation of esters and ethers can alter their properties. Chemical modification (introduction of functional group) alters physical and chemical properties of carbohydrates (Lovegrove et al., 2017). The intestinal bacteria-encoded carbohydrate- active enzymes (CAZymes) facilitate the metabolic degradation of β-2,6-linked fructan levan which increases the population density of B. thetaiotaomicron in the diet. There exists a strong correlation between microbiota, polysaccharides. Despite their complex structures and high molecular weight, polysaccharides can be absorbed into the circulatory system by oral administration i.e. physiological role. Dietary polysaccharide deficiency results in gut dysbiosis as polysaccharides are the primary source of nutrition for microbiota. Several research has documented the mechanisms and anti-obesity properties of polysaccharides. The Roxburgh's Jewel Orchid polysaccharides to inhibit gluconeogenesis enzymes, enhancing glucose absorption, elucidates the mechanism by which these polysaccharides reduce fasting blood glucose levels. The fact that chicory polysaccharides impeded fatty acid biosynthesis and increased β oxidation of extremely long-chain fatty acids suggests potential mechanisms by which they mitigate NAFLD (non- alcoholic fatty liver disease). All modifications of carbohydrates can be improved or extended the uses of the polysaccharides physiologically. Technological advancements will contribute to a broader range of polysaccharides in the portfolio, including those with tailored structures and properties for health applications

Keywords: Polysaccharide, microbiota, modification, dietary, health applications.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1293

PLANT EXTRACT MEDIATED SYNTHESIS OF METAL/METAL OXIDE NANOPARTICLES

Sarika Kapoor, Rohit Dutt

G.D. Goenka University, Gurugram, Haryana, India

sarikadhir_22@yahoo.co.in

Abstract:

Since last two decades, nanotechnology has gained enormous attention in pharmaceutical research. Interest in metal nanoparticles and their synthetic methods have increased greatly. Different physical and chemical approaches are used to prepare these metal/metal oxide nanoparticles. However, these approaches have various disadvantages such as producing toxic substances which are harmful to the atmosphere, high energy requirements, and the cost of production is also very high. So an alternative method which is green synthetic approach for the formation of metal/metal oxide nanoparticles using plant extract is used. Metal nanoparticles using plant components are biologically safe, eco-friendly and economical. Plant contain various phytoconstituents such as flavonoids, phenols, tannins, terpenoids, alkaloids, and proteins present in leaves, flowers, fruits stem and bark are great reducing and stabilizing agents in the synthesis of metal nanoparticles. When appropriate concentration of metal salt and plant extract are mixed together, the bioactives act as reducing agent and reduces metal ion into zerovalent metal which are nanosize and are called metal nanoparticles. After the reduction, the atom formed acts as a nucleation centre, over which the smaller neighbouring particles join to form a large metal nanoparticle These metal nanoparticles further adsorb phytocontituents on its surface, so the metal nanoparticles along with phytoconstituents show synergistic effect and are used therapeutically in treatment of various diseases. Metal NPs of gold, silver, lead, copper, zinc, iron and other metal oxides such as copper oxide, titanium oxide, zinc oxide are categorised as engineered type of nanoparticles and are used as antimicrobial, antioxidant, anticancer, antidiabetic and antimalarial agents.

Keywords: Nanotechnology, metal nanoparticles, Plant extract, Bio-reduction, Green synthesis.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1294

NUTRITION FOR NEUROPROTECTION: BUILDING RESILIENCE AGAINST COGNITIVE DECLINE

Sabeena Hussain Syed, Supriya Unavane
Vishwakarma University, Kondhwa, Pune, Maharashtra, India.
sabina.syed10@gmail.com

Abstract:
Cognitive decline represents a pressing concern for aging populations globally, with conditions like Alzheimer's disease and other forms of dementia escalating. Recent research delves into the intricate nexus between nutrition and brain health, spotlighting dietary interventions' role in fostering neuroprotection and fortifying against cognitive decline. A wealth of evidence points to specific dietary regimens, notably the Mediterranean and DASH diets, abundant in fruits, vegetables, grains, proteins, and healthy fats, as potentially shielding against cognitive decline. Key nutrients, including vitamins, minerals, antioxidants, and omega-3 fatty acids, emerge as pivotal in upholding brain function and structural integrity. These nutrients operate via diverse pathways, encompassing the reduction of oxidative stress, inflammation, and the promotion of synaptic plasticity and neuronal survival. Additionally, dietary patterns fostering overall health, such as caloric restriction and intermittent fasting, display promise in bolstering brain resilience and staving off age-related cognitive decline. The synthesis of research underscores the critical role of nutrition in preserving cognitive function. Dietary interventions, particularly those emphasizing nutrient-rich foods and health-promoting patterns, show potential in mitigating cognitive decline risks and enhancing overall brain health. By leveraging the power of nutrition, individuals can proactively safeguard their cognitive function and enhance their quality of life as they age. Embracing dietary strategies rich in key nutrients and conducive to overall health presents a promising avenue for countering the challenges posed by cognitive decline in aging populations.

Keywords: Cognitive decline, caloric restriction, Dietary interventions, quality of life.

ICERIPLST/PH/2024/1295

SYNTHESIS AND CHARECTORIZATION OF BENZOXAZINONE DERIVATIVES

Shailesh Choudhari
Career Point School of Pharmacy, Career Point University, Kota, Rajasthan, India.
shailesh.c22@gmail.com

Abstract:
The benzoxazinone scaffold's versatile biological activity profile drew medicinal chemists to investigate lead compounds for the treatment of several microbial illnesses. A large body of research confirmed the thiosemicarbazones' undeniable antibacterial capabilities, which inspired us to conduct the current investigation. Condensation of substituted anthranilic acid (1a-1c) with acetyl chloride (2) yields methyl bzoxazine-4-ones (3a-3c), which are then oxidized with selenium dioxide to the corresponding aldehydes (4a-4c), and finally condensation with different thiosemicarbazides yields novel benzoxazinone-thiosemicarbazone (5a-5c) hybrids. A sufficient number of novel benzoxazinone-thiosemicarbazone (5a1-5a5, 5b1) were synthesized, and their spectral analysis was used to characterize them by in-depth study employing sophisticated analytical support. The antibacterial and antifungal properties of the named compounds were investigated. Findings declared that every synthetic chemical had antibacterial properties.

Keywords: Benzoxazin-4-one, Thiosemicarbazone, Antibacterial, Antifungal, Agar disc diffusion.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1296

ONE POT SYNTHESIS OF NOVEL HYDRAZONO-1,3-THIAZOLIDIN-4-ONE DERIVATIVES WITH ANTI-HIV AND ANTI-TUBERCULAR ACTIVITIES

Subham Kumar Vishwakarma[1], Arif Pasha[2], Sumanta Mondal[2], Harish Rajak[1]
[1]Guru Ghasidas Vishwavidyalaya, Bilaspur, Chatish Gharh, India
[2]GITAM Institute of Pharmacy, Rushikonda, GITAM (Deemed to be University), Visakhapatnam, Andhra Pradesh, India.
vshubham.chemistry@gmail.com

Abstract:
The increasing prevalence of opportunistic infections in HIV patients highlights the critical need for more effective anti-HIV and anti-tubercular medications. In response to this challenge, we present the design, synthesis, and evaluation of ten novel hydrazono 1,3-thiazolidin-4-one derivatives as potential therapeutic agents. These compounds were conveniently synthesized through a one-pot reaction and meticulously characterized to ensure purity and structural integrity. To assess their biological potential, we investigated their in vitro activity against both HIV and Mycobacterium tuberculosis H37Rv, the causative agent of tuberculosis. While the anti-HIV activity was moderate, with the most potent compound (KTE1) exhibiting promising activity against syncytia formation (EC50 = 47.95 µM) and p24 antigen production (EC50 = 80.02 µM), the anti-tubercular activity was particularly encouraging. KTE1 demonstrated significant activity against M. tuberculosis H37Rv, with a minimum inhibitory concentration (MIC) of 12.5 µg/ml. Furthermore, we utilized computational tools to predict the drug-likeness and absorption, distribution, metabolism, excretion, and toxicity (ADMET) properties of these compounds. The insilico analysis indicated favorable drug-like characteristics and promising interactions with the target HIV-1 reverse transcriptase and Mycobacterium Tuberculosis H37Rv proteins. While further optimization is necessary to achieve potency comparable to standard drugs, these initial findings demonstrate the potential of these novel hydrazono-1,3-thiazolidin-4-one derivatives as promising candidates for the development of more effective anti-HIV and anti-tubercular therapies.

Keywords: anti-HIV, anti-tubercular, ADMET, hydrazone, Thiazolidin-4-one.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1297

REVOLUTIONARY INNOVATIONS IN PHARMACY

Anshul Sharma, Abhilasha Shete, Ankit Sharma
Kota College of Pharmacy, Kota, Rajasthan, India.
whoisanshulsharma@gmail.com

Abstract:

The pharmaceutical industry is undergoing a profound transformation driven by cutting-edgeinnovations that promise to revolutionize drug discovery, development, and patient care. From advanced technologies to novel approaches, these innovations are reshaping the landscape of pharmaceutical research and production. Innovations such as, AI and Machine Learning: an Artificial intelligence and machine learning are playing a pivotal role in drug discovery. These technologies analyze vast datasets to identify potential drug candidates, predict their efficacy, and streamline the research process. Precision Medicine: Advances in genomics and personalized medicine enable the tailoring of treatments to individual patients based on their genetic makeup. This approach enhances treatment effectiveness while minimizing side effects. CRISPR Technology: CRISPR-Cas9 gene editing technology has opened new frontiers in developing targeted therapies. It allows for precise modifications in the genetic code, offering potential cures for genetic disorders and new avenues for treating diseases. Immunotherapy: Immunotherapies, including checkpoint inhibitors and CAR-T cell therapy, harness the body's immune system to fight cancer. These groundbreaking treatments show remarkable results in various types of cancer and represent a paradigm shift in oncology. Continuous Manufacturing: Traditional pharmaceutical manufacturing involves batch processes, but cutting-edge continuous manufacturing technologies enable a more streamlined and efficient production process, reducing costs and increasing flexibility. Blockchain in Supply Chain: Blockchain technology is being explored to enhance transparency and traceability in the pharmaceutical supply chain, reducing the risk of counterfeit drugs and ensuring the integrity of medications from manufacturing to distribution. These cutting-edge innovations not only accelerate the drug development pipeline but also hold the promise of more effective and personalized therapies, ultimately improving patient outcomes and reshaping the future of healthcare. Pharmacy is a huge field, which has lots of loop holes and time taking processes. Through these innovations we can make the work easier, more precise and accurate. Cost of product formation will also reduce.

Keywords: Artificial Intelligence, Precision Medicine, CRISPR Technology, Immunotherapy CAR-T Cell therapy, Blockchain Technology.

.

ARTIFICIAL INTELLIGENCE (AI): ADVANCEMENT IN THE FIELD OF HEALTH AND MEDICINE FIELDS

Rajesh Shukla

Mangalayatan University, Jabalpur, Madhya Pradesh, India.
rajesh.shukla@mangalayatan.ac.in

Abstract:
Artificial Neural Networks (ANN) and Machine Learning (ML) are increasingly employed in healthcare to enhance diagnostic accuracy, improve decision-making, and advance patient outcomes. The integration of Artificial Intelligence (AI)-based image analysis software, ML algorithms, wearables, and electronic health records within medical devices holds immense potential for revolutionizing healthcare, reducing costs, and expanding medical knowledge. Despite challenges in data acquisition, validation, and ethical implementation, ANN and ML demonstrate promise in healthcare. Medtronic utilizes AI in surgical procedures, personalized healthcare, predictive analytics, patient monitoring, and drug development. ML generates predictive models, such as the IPU-ML model for predicting rebreeding in idiopathic peptic ulcer disease (IPU). However, ethical considerations must address bias and discrimination. Careful assessment is necessary to optimize the benefits of ML in healthcare while minimizing risks. This abstract highlight the transformative potential of ANN and ML in healthcare, emphasizing the need for ethical implementation and cautious evaluation of these technologies.

Keywords: Artificial intelligence (AI), Machine learning (ML), medical devices, Predictive analytics, drug discovery.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1299

ARTIFICIAL INTELLIGENCE IN DRUG DISCOVERY

Chetan Nagar

Career Point University, Kota, Rajasthan, India.

Chetanaami@gmail.com

Abstract:
Artificial intelligence emerged intervention for data and number related problems. Artificial intelligence plays a crucial role for development of more fields like architecture, business, education etc. Artificial intelligence interpreting some field of pharmacy such as drug discovery, doses form designing, Poly pharmacology, drug delivery, formulation, hospital pharmacy. Ai plays an important role in software and computer applications like diagnosis tools, MRI, CT-scan, x-ray diagnosis. Data and information storage management's patient medical history, medicine stroke, sale records. AI reduces human error, assists medical professionals and staff patient service 24/7. Several artificial neural networks (ANNs) like deep neural networks or recurrent neural networks (RNNs) are being employed. Ann's machine learning process simulates the network of neurons that make up the human brain.

Keywords: Artificial intelligence, Neural network, Hospital pharmacy.

ICERIPLST/PH/2024/1300

COMPARATIVE EVALUATION OF ANTIMICROBIAL POTENCY IN RHIZOME EXTRACTS FROM CURCUMA CAESIA, CURCUMA AMADA, AND CURCUMA ANGUSTIFOLIA: UNLOCKING PHYTOTHERAPEUTIC POTENTIAL

Mamta Yadav, Ankita Khare, Satish N
Bansal college of Pharmacy, Bhopal, Madhya Pradesh.
mamtayadavpharmacy@gmail.com

Abstract:
The surge in antibiotic resistance among pathogenic microorganisms necessitates the exploration of novel antimicrobial agents. Curcuma species, renowned for their medicinal properties, offer a promising reservoir of bioactive compounds. This study aims to comparatively evaluate the antimicrobial potency of rhizome extracts from Curcuma caesia, Curcuma amada, and Curcuma angustifolia, thereby highlighting their potential in phytotherapeutic applications. The increasing prevalence of antimicrobial resistance (AMR) has revitalized interest in natural products as potential sources of novel antimicrobial compounds. The Curcuma genus, renowned for its medicinal properties, offers a promising avenue for such explorations. This study aimed to conduct a comparative evaluation of the antimicrobial potency of rhizome extracts from Curcuma caesia, Curcuma amada, and Curcuma angustifolia, thereby assessing their potential as phytotherapeutic agents against a spectrum of microbial pathogens.

Keywords: Curcuma caesia, Curcuma amada, Curcuma angustifolia, antimicrobial activity, phytochemical screening, phytotherapy.

ICERIPLST/PH/2024/1301

HPTLC FINGERPRINT OF DIFFERENT VARIETIES OF CAPSICUM

Sonu Kachhiya, Vaishali Patel
Parul University, Vadodara, Gujarat, India
sonukacchiya604@gmail.com

Abstract:
Capsicum is very useful and routinely used ingredients in cooking. This also contains various herbal constituents and some antioxidants. The idea is to develop HPTLC finger print from various extract of three different varieties of capsicum. The objective was to prepare methanolic, aqueous and ether extract of yellow, red and green capsicum. The purpose of the study is to prepare HPTLC finger printing of different constituents of capsicum from various extract. Using standard calibration curve of capsaicin, the capsaicin content in three different varieties of capsaicin. Three different varieties of capsicum i.e., yellow, red and green was used for the study. Three different extracts i.e., ether, methanol and distilled water were prepared from red, yellow and green capsicum separately. The extract was spotted on the HPTLC plate using CAMAG Linomat 5 applicator. The plate was placed in the mobile phase of chloroform: glacial acetic acid in a ratio of 12:8. The developed plate was scanned using CAMAG TLC scanner 4 and the densitogram was obtained at 254 nm. The obtained HPTLC densitogram showed that 2 to 6 constituents are present in various extracts of red capsicum, 4 to 7 herbal constituents are present in yellow capsicum and 3 to 6 constituents are present in green capsicum. Amount of Capsaicin was also determined in ether, methanolic and water extract of capsicum.

Keywords: Capsicum, HPTLC, Capsaicin, CAMAG TLC, extract.

ZEBRAFISH ANIMAL MODEL USING AI IN EXPLORATION & RESEARCH OF PHARMACEUTICAL STUDIES

Tarun Kumar, Preeti Anand, Alankrita Sonkar, Afsha Khan
IIMT University, Meerut, Uttar Pradesh, India.
mail@iimtindia.net

Abstract:
A common animal model used in biomedical research, such as studies of biological processes and human disorders is the zebrafish (Danio rerio). Because of their fully sequenced genome, ease of genetic manipulation, high fertility, external fertilization, and rapid development, zebrafish are a special model animal for biomedical research. Because of their robust cortisol stress response, behavioral strain differences, and susceptibility to both medication treatments and predators, zebrafish have gained acceptance as model organisms for biological study. However, a lot of data is produced by experimental zebrafish research, and this data needs to be examined using consistent, accurate, and objective methodologies. Recent developments in artificial intelligence (AI) have made it possible to automate data processing, image identification, and tracking, which has resulted in more effective and perceptive research. We look at important uses of AI in zebrafish research, including as behavior analysis, genetics, and neuroscience, in this study. Deep learning technology has made it possible for AI systems to properly evaluate and identify zebrafish photos, allowing for automated testing and analysis. Researchers have better understood the connection between genes and biology by using AI algorithms in genomics research, which has improved the foundation for the creation of gene therapies and treatments for disease. Furthermore, improved neuroscience instruments may facilitate a deeper comprehension of the intricate neuronal networks in zebrafish brains. Future developments in AI technology should make it possible to conduct more thorough and extensive medical research applications on zebrafish, which will deepen our understanding of this crucial animal model. This article demonstrates how AI technology can help researchers manage, process, and visualize experiment results more quickly, which can help zebrafish research reach its full potential.

Keywords: Zebrafish model, AI tool & technique, Biomedical Research, Genetics, Neuro-Science instruments.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1303

A NOVEL APPROACH ON IN SITU GEL FOR NOSE TO BRAIN DELIVERY OF ANTI-MIGRAINE DRUG: A REVIEW

Priya Diwedi
AKS University, Satna, Madhya Pradesh, INDIA
priya.diwedi07@gmail.com

Abstract:
Migraine, a globally prevalent and incapacitating neurological disorder, impacts over a billion individuals worldwide. Treatment options vary among countries and encompass acute, preventive, and non-pharmacological approaches. However, certain migraine therapeutics encounter challenges related to suboptimal bioavailability. The delivery of medications to address migraines within the central nervous system (CNS) is predominantly regulated by the blood-brain barrier (BBB). This protective structure hinders the entry of external substances from the bloodstream into the extracellular fluid of the brain. While existing treatments for prevalent brain diseases affecting millions globally demonstrate partial efficacy, they are accompanied by significant side effects stemming from the widespread distribution of drugs throughout the systemic circulation. Conversely, the physicochemical properties of specific drugs hinder their capacity to traverse the blood-brain barrier (BBB), resulting in sub-therapeutic concentrations within their intended target tissues. While the oral route remains the most preferred and prevalent method for drug administration, limitations such as drug absorption and targeted delivery to specific organs can pose challenges for oral administration. Addressing these challenges and aiming to enhance both the safety and efficacy of drug delivery, a novel approach has been developed the in situ nasal drug delivery system. This system represents an innovative method for drug administration. The nasal route, being an alternative and viable option, stands out due to its abundant vasculature and high permeability. The nasal route proves advantageous for drugs facing challenges in oral administration, particularly those susceptible to gastric irritation. The in-situ gel process involves the drug existing in a sol form before administration, transforming into a gel in situ upon entering the body. In recent times, there has been a significant surge in interest in in-situ based gel drug delivery systems. This heightened interest is attributable to their features such as robust vascularization, heightened permeability, swift onset of action, and diminished enzymatic degradation. These systems hold promise in circumventing the blood-brain barrier, precisely delivering therapeutics to targeted sites, mitigating peripheral toxicity, and regulating the kinetics of drug release. This review focus on the treatment methodologies for migraines, exploring the anatomy and physiology of the nose, the mechanism of drug transmission from the nose to the brain, the principles governing nasal in situ gel, as well as its advantages and inherent properties. Additionally, the review delves into the evaluation parameters crucial in the preparation of in situ gel formulations.

Keywords: Migrane, in-situ based gel, drug delivery system, vascularization.

TRACING THE TRACE: A COMPREHENSIVE REVIEW OF IMPURITY PROFILING IN ATORVASTATIN CALCIUM AND BEMPEDOIC ACID

Avantika Agrawal, Pinkal H. Patel, Guno Sindhu Chakraborthy
Parul University, Vadodara, Gujarat, India
avantikaagrawal470@gmail.com

Abstract:
Blood cholesterol that is too high causes a host of additional conditions, including heart attacks and strokes. Two recently approved combinations of Bempedoic acid and Atorvastatin calcium were introduced to the market to treat excessive cholesterol. Impurities create a space to be dealt with while handling strong medications in order to improve the efficacy, safety, and quality. As a result, in order to manage the contaminants, several regulatory bodies set reporting requirements and reports .As incorrect handling during production, poor storage, contamination, etc., cause impurities to form through physical or chemical deterioration or combination. These impurities cause poisoning, pollution, and the creation of undesirable, hazardous chemicals. These contaminants cause new compounds to degrade or lose their therapeutic potential chemically. As a result, care must be taken and analysis must be done to determine the correct amount of product lost or contaminants created. As a more severe degeneration leads toxicity. This involves a thorough examination of the impurity profiles of Bempedoic acid and Atorvastatin calcium by impurity profiling. By using cutting-edge analytical methods, we seek to clarify and define contaminants, offering important insights for quality assurance and guaranteeing the safety of pharmaceuticals

Keywords: Bempedoic acid, Atorvastatin, Impurity profiling.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1305

ASSESSMENT OF SYNTHESIS AND ANTICANCER STUDIES OF TRIAZOLE BASED MOLECULAR HYBRIDS

Dipesh Kumar Sharma, Surabhi Singh

Career Point University, Kota, Rajasthan, India.
suru276@rediffmail.com

Abstract:
The search for potent new anticancer drugs is still being conducted with constant rigour. This study aims to investigate a novel class of substituted 1,2,4-triazole carboxamide derivatives. The synthesis process consists of multiple steps: ethyl β-N-boc-oxalamidrazone is created by converting thiooxamic acid ethyl ester to ethyl β-N-boc-oxalamidrazone; ethyl esters of 5-substituted 1,2,4-triazole-3-carboxylic acid are prepared; and potassium tert.-butoxide is used to synthesise 5-substituted 1,2,4-triazole-3-carboxylic acid amides (4a-n) are synthesised. The resultant compounds are characterised using HRMS and 1H and 13C NMR spectroscopy. The produced compounds are used in molecular docking studies against two cancer targets, EGFR (6LUD) and CDK-4 (7SJ3). Anticancer potential is assessed using four distinct cancer cell lines: A-549 for non-small cell lung cancer, PANC-1 for pancreatic cancer, HCT-116 for colorectal cancer, and Cervical cancer. The 1,2,4-triazole carboxamides (4c, 4e, 4h, 4m, and 4n) show better binding interactions than co-crystallized ligands, according to the results of molecular docking research. Every molecule exhibits a cytotoxicity profile that is satisfactory when compared to the standard medication, doxorubicin. Among all evaluated cell lines, chemicals 4e and 4m notably show the strongest inhibitory action.

Keywords: 1,2,4-Triazole, Anticancer, MTT assay, EGFR, CDK-4.

ICERIPLST/PH/2024/1306

AI-DRIVEN HERBAL INTERVENTIONS: EXPLORING SYNERGIES FOR AMH ENHANCEMENT

Harshita Jain, Nitin Nama,
Career Point University, Kota, Rajasthan, India.
harshita13jain@gmail.com

Abstract:

This abstract explores an exciting frontier in reproductive health where artificial intelligence (AI) and herbal remedies join forces to enhance Anti-Müllerian Hormone (AMH) levels, a key factor in female fertility. Imagine a personalized approach that combines the wisdom of traditional herbal treatments with the analytical power of AI. In this innovative approach, AI algorithms analyze vast amounts of data related to herbs and their impact on AMH. The goal is to tailor herbal treatments based on individual needs, creating a precise and effective strategy to boost reproductive health. Herbs like Vitex agnus-castus and Tribulus terrestris, known for their positive effects on fertility, play a crucial role in this AI-guided journey. The abstract emphasizes the potential synergy between AI's analytical prowess and the natural benefits of herbs. These interventions aim to promote folliculogenesis and hormonal balance, contributing to improved AMH levels. However, it acknowledges the importance of rigorous clinical validation and ethical considerations to ensure the safety and efficacy of this innovative approach. In conclusion, these abstract paints a picture of a promising collaboration between technology and nature in the realm of fertility. The combination of AI and herbal interventions represents a forward-thinking strategy for personalized reproductive health management, offering hope and possibilities for those navigating the journey towards improved fertility.

Keywords: Fertility, Artificial Intelligence, Herbal Interventions, Reproductive Health, Anti-Müllerian Hormone (AMH).

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1307

LIGAND BASED PHARMACOPHORE MODELLING, VIRTUAL SCREENING AND MOLECULAR DOCKING TO IDENTIFY NOVEL SCD INHIBITOR'S FOR THE TREATMENT OF METABOLIC SYNDROME

Pragya Sharma[1,2], Sarvesh Paliwal[1]

[1]Banasthali Vidyapith, Rajasthan, India,

[2]Amity University, Jaipur, Rajasthan, India.

pragyasharma9211@gmail.com

Abstract:

In emerging nations, the epidemic known as metabolic syndrome is now the main cause for health concern. In recent years, enzyme stearoyl-CoA desaturase has emerged a promising target for design and evolution of novel therapeutics for the treatment of Metabolic Syndrome includes obesity, diabetes and insulin resistance. Validated pharmacophore models were developed and used for virtual screening. The hits were obtained and categorized according to fit value, estimate value, and zero Lipinski's violation. Molecular docking studies were performed on the most effective hits. Pharmacophore models were developed using a series of 40 compounds containing benzo-fused spirocyclic oxazepine scaffold ring. All the 40 compounds were dividing into training and test set for development of Pharmacophore model. The best model comprising of 5 features (3hydrobhobic, 2 HBA) with Root Mean Square (RMS) of 0.81, Correlation of 0.90 was considered as best. The model cleared Fischer randomization test. The validated model was used for mining of NCI database containing 2.6 Lac compounds. In total 250 hits were retrieved out of which 3 showed most promising fit and estimated value. All the three hits showed good molecule docking score of 145.23, 143.21, 165.43. In conclusion, through our sequential approach we have discovered three effective and novel SCD inhibitors with potential in the treatment of Metabolic Syndrome.

Keywords: Metabolic Syndrome, molecular docking, SCD inhibitors, 3D pharmacophore, virtual screening.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1308

A STUDY ON FISH DIVERSITY AND WATER QUALITY PARAMETERS OF CHANDRAKESHAR RESERVOIR, DEWAS, MADHYA PRADESH

Kamlesh Parte[1], Rajendra Chouhan[2], Vipin Vyas[1], R.K. Garg[3]
[1,3]Barkatullah University, Bhopal, Madhya Pradesh, India
[2]Govt. Dr Shyama Prasad Mukharjee Science and Commerce College
Bhopal, Madhya Pradesh, India
kamleshparte1782@gmail.com

Abstract:
The aim of this research was to determine the trophic status of the reservoir by estimation of water quality and ecological parameters. Chandrakeshar reservoir is a tropical reservoir located approximately 170 km from Bhopal city, Madhya Pradesh. Its latitude is 22˚37’00” N and longitude are 76˚2’30’’E. Local peoples utilizes its water for drinking purposes and sustains fish culture among the area's fishermen. During the investigation the Fish diversity and water quality parameters were estimated from January, 2023 to December, 2023. The fish diversity collecting sample in different sites by using cast, gill net and identification of fishesh. The water quality parameters, including pH, dissolved oxygen, biochemical oxygen demand, chemical oxygen demand, total dissolved solids, turbidity, and nutrient levels such as nitrates, phosphates, and ammonia, were examined for the classification of the trophic status. When studied and compared various physico-chemical parameters of Chandarkeshar reservoir with the range values and categories of trophic status as provided by various authors, then Chandarkeshar can safely be placed under the category of oligo-mesotrophic water body. This oligo-mesotrophic catergory defipcated that, the reservoir is healthy and its water is suitable for various purposes like drinking, agriculture and aquatic life.

Keywords: Chandarkeshar reservoir, Fishdiversity physico-chemical characteristics, trophic status, eutrophication,

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1309

NUTRACEUTICALS AND THEIR IMPACT ON HUMAN HEALTH

Juliyas Shrotriya
Lakshmi Narayan College of Pharmacy (RCP), Indore, Madhya Pradesh
juliyas.shrotriya@gmail.com

Abstract:
Nutraceutical is used as a food or part of it that provides the body with medical or health benefits, including the prevention and treatment of a disease. It is seen as a more natural way to accomplish therapeutic results with minimal side effects, and this view has propelled the discovery and production of nutraceutical to become a multibillion-dollar enterprise. A wide range of products are marketed as nutraceuticals. These include vitamins and essential minerals, polyunsaturated and monounsaturated fatty acids, and a variety of herbal products (e.g., phytoestrogens) that have diverse claims of health-promoting properties. Other examples include nutrient-supplemented, or "functionalized," products, such as milk with added vitamin D, products designed for certain groups, such as athletes and pregnant and lactating women, probiotic and prebiotic yogurt. (Prebiotics are nondigestible nutrients that serve as an energy source for bacteria that assist with the breakdown of food in the human digestive tract.) A key criticism of nutraceuticals is related to their potential use as a substitute for a healthy diet or lifestyle. As a case in point, in the early 21st century, nutraceutical use was deemed to be ineffective in preventing obesity. Furthermore, people can improve their diets by other means, such as by increasing fruit and vegetable intake. However, it is unclear what specific contribution is made by making these changes, such as whether more fruit in the diet translates to higher levels of disease-fighting antioxidant compounds in the body.

Keywords: fatty acids, Prebiotics, antioxidant, functionalized, nutraceutical.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1310

STRUCTURE-BASED VIRTUAL SCREENING FOR THE IDENTIFICATION OF POTENTIAL AND PROMISING INHIBITORS AGAINST PROSTATE CANCER

Ruchi Verma[1], Kavana Nayak[1], Sumit Raosaheb Birangal[1], Lalit Kumar[2]
[1]Manipal College of Pharmaceutical Sciences, Manipal, Karnataka, India.
[2]NIPER, Hajipur, Patna, Bihar
ruchi.verma@manipal.ed

Abstract:
Human Fatty Acid Synthase (FAS) is a crucial enzyme of de novo fatty acids synthesis. Since the expression and activity of this enzyme are reported to be up-regulated in prostate cancer (PCa) cells, FAS represents a promising therapeutic target for the development of anti-neoplastic agents against PCa. Enoyl-Acyl Carrier Protein Reductase (hER) is one of the catalytic domains of FAS, and its inhibition results in selective cytotoxicity towards cancer cells. FDA (Food and Drug Administration)-approved drugs were screened against Human Enoyl-Acyl Carrier Protein Reductase Enzyme (Protein Data Bank ID 4W9N) employing structure-based virtual screening to limelight the promising hER inhibitors. The best two identified hits namely DB07676 and DB11399, exhibited a favorable dock score of -11.23 and -11.220, respectively, compared to that of Triclosan (TCL), the co-crystallized ligand. The stability of these two receptor-ligand complexes was evaluated using molecular dynamics simulation studies, and results revealed that these complexes exhibited more pronounced stability than that of TCL. This study identifies and reports two promising hits, namely DB07676 and DB11399, which could potentially be developed into novel and potent hER blockers, thereby opening new avenues in the field of cancer research.

Keywords: De nova fatty acid synthesis, Dock score, Simulation studies, novel.

PDE5 INHIBITORS-LOADED BIOADHESIVE VESICULAR GEL FOR TOPICAL THERAPY OF ERECTILE DYSFUNCTION

Nidhi P. Shah
Sankalchand Patel University, Mehsana, Gujarat, India.
nidhishah514@gmail.com

Abstract:

A novel therapeutic candidate for therapy of erectile dysfunction is tadalafil. It is a PDE5 inhibitor with extremely high efficacy. The current study's objective was to create and assess a tadalafil bioadhesive vesicular (liposome) gel that releases the medication at a controlled rate, hence lowering the need for consumption of the medication in order to effectively treat ED. Topical application of gel strengthened the curative power of the medication and decreased adverse effects by delivering the medicine via the skin in a regulated and predefined manner. Presently, a variety of chemical and physical techniques have been investigated used to improve the effectiveness of ingredient transmit throughout healthy skin. These techniques include the use of iontophoresis, penetration enhancers, and colloidal transporters like niosomes and proniosomes, which are non-ionic surfactant vesicles, and bioadhesive vesiculs like liposomes and proliposomes. Utilising a factorial design, 1% w/w of the TD-LG formulation was produced. It underwent extensive testing for pH (6.6±0.01), vesicle size (460.1±0.15 nm), encapsulation efficiency (83.1±0.15%), Zeta potential (-38.8±0.3 mV), viscosity (1054 ± 14.25 cps), and SEM, and showed no signs of instability following storage. Using in vitro and ex vivo drug permeation and histopathology investigations, significant cell absorption of TD-LG was found; the results were compared with the conventional dosage. Vesicle-based gel of tadalafil (TD-LG) formulations for topical treatment of erectile dysfunction were found to be safer, not bothersome, easier to penetrate, and significantly more effective in all evaluation parameter's investigation.

Keywords: Tadalafil, lipogel, in vitro – ex vivo skin permeation, erectile dysfunction.

REVIEW ON PANCREATIC β CELL REGENERATION: POTENTIAL DRUG THERAPY FOR DIABETES MELLITUS

Nirmal Joshi

Amrapali University, Haldwani, Nainital, India.
nirmaljoshi1305@gmail.com

Abstracts:

Type 1 diabetes mellitus, also known as T1DM, is the most frequent form of chronic autoimmune sickness found in young people. It is characterized by a lack of pancreatic cells, which ultimately results in hyperglycemia and an insulin shortage. It is not possible for exogenous insulin, whether it is taken orally or injected, to take the place of the insulin that is created naturally by a pancreas that is working properly. Pancreas and islet transplantation have only relatively lately been recognized as viable therapeutic options for type 1 diabetics seeking to reestablish normal levels of glucose control in their bodies. There is a major shortage of pancreases and islets derived from human organ donors, challenges related with transplantation, a high cost, and limited procedural availability. These are just some of the constraints that prevent the widespread application of these treatments. There has been some work done in order to better serve the ever-increasing population of people who are living with type 1 diabetes. Stem cell therapy has the potential to one day be utilized to treat patients suffering from Type 1 diabetes and entirely cure the condition. The advent of research into stem cell therapy for a variety of diseases has coincided with the documentation of progress made in the treatment of type 1 diabetes using stem cells. But there are still a lot of unanswered problems that need to be resolved before stem cell therapy can be considered a therapeutically feasible option for diabetes patients. In this article, we will discuss various methods for isolating insulin-producing cells (IPCs) from a wide variety of progenitor cells, as well as summaries recent breakthroughs in stem cell-based therapies for the treatment of diabetes.

Keywords: Type I diabetes mellitus, Hyperglycemia, Pancreas, documentation, Insulin.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1313

COMPARATIVE ASSESSMENT OF PSORALEN DISTRIBUTION IN BHOPAL AND SURROUNDING AREAS

Monika Singh
Govt. M.V.M. Bhopal, Madhya Pradesh, India
00monikasingh@gmail.com

Abstract:
The present study elucidates the preliminary phytochemical analysis and High-Performance Thin Layer Chromatography (HPTLC) fingerprint analysis of Psoralen extract from Psoralea corylifolia seeds and evaluates their region-based quantitative estimations. The content of psoralen has been evaluated quantitatively in three plant samples collected from Bhopal, Raisen and Vidisha in Madhya Pradesh. Here, we aimed to optimize high-performance thin-layer chromatography for the determination of psoralen. The chromatography development was carried out on the TLC silica gel 60 F254 aluminium plate, and good resolution was achieved with toluene: ethyl acetate (3:1) as the mobile phase. Psoralen detection was carried out densitometrically at 254 nm by absorption mode, and a linear regression coefficient was obtained with Y = 17.37 + 0.1068*X, r = 0.99976, sdv = 1.54. The presence of the peak at Rf 0.74 in the placebo indicates the method is specific, as none of the recipients interfered with the analytes of interest. The peak purity of Psoralen was achieved at 817.53-2714.78. Au.

Keywords: Psoralea corylifolia, HPTLC, Psoralen, Bakuchi, Seeds.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1314

RECENT INSIGHTS INTO NANOCURCUMIN IN THE MANAGEMENT OF HEALTH ISSUES

Mukul Pratap, Reena Gupta, Jitendra Gupta

GLA University, Mathura, Uttar Pradesh, India.
mukulpratap9458@gmail.com

Abstract:
Curcumin is an active phytochemical of Curcuma longa (turmeric), have been used in the Indian System of Traditional Medicines since an ancient time. It has been traditionally used for the cure, mitigation and treatment of various health issues such as inflammation, wound, fever, cough, cold, diabetes, cancers, etc. Curcumin is responsible for exhibiting several pharmacological activities including anticancer, antioxidant, antiinflammatory, antipyretic, antimicrobial, etc. Curcumin have been reported for several health benefits but have certain limitations like low aqueous solubility and poor bioavailability. In this context, Novel Drug Delivery Systems (NDDS) are promising to overcome the problems of curcumin. NDDS such as liposomes, nanoparticles, nanoemulsions, phytosomes, transfersomes, etc. have been utilized to encapsulate the curcumin to enhance its solubility, bioavailability and therapeutic efficacy. Thus, NDDS of curcumin is pioneering in the management of various health problems.

Keywords: Curcumin, Bioavailability, Health issue, Delivery system.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1315

NATURAL FLAVANONES EXHIBIT POTENT ANTICANCER ACTIVITY: AN OVERVIEW

Kanhaiya Kumar, Reena Gupta, Jitendra Gupta

GLA University, Mathura, Uttar Pradesh, India
kkumarlkr@95gmail.com

Abstract:

Natural flavanones are a subclass of flavonoids that are abundant in fruits, vegetables, and other plant-based foods. Over the years, there has been increasing interest in the potential of natural flavanones as anticancer agents due to their ability to inhibit various stages of tumor development and progression. This review provides a comprehensive overview of the current literature on the anticancer properties of natural flavanones. Studies have shown that natural flavanones possess a wide range of biological activities, including antioxidant, anti-inflammatory, and antitumor properties. They have been found to inhibit the growth and induce apoptosis of cancer cells in vitro and in vivo, as well as inhibit angiogenesis and metastasis. Moreover, some natural flavanones have been shown to enhance the efficacy of conventional chemotherapy agents, suggesting their potential use as adjutants in cancer treatment. Overall, the review concludes that natural flavanones hold great promise as potential anticancer agents and that further studies are needed to explore their full therapeutic potential, as well as their safety and efficacy in human trials. With the growing interest in natural products for cancer therapy, natural flavanones may represent a promising avenue for the development of novel cancer treatments.

Keywords: Flavanone, Anticancer, Antioxidant, Chemotherapy, Drug development.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1316

ROLE OF HERBAL MEDICINE IN THE MANAGEMENT OF ALZHEIMER'S DISEASES – AN OVERVIEW

Shubham Sharma, Reena Gupta
GLA University, Mathura, Uttar Pradesh, India.
sharmashubham57306@gmail.com

Abstract:
Alzheimer's disease (AD) is a neurological disorder that occurs in older people at the age of about 60 years and above. In this condition, the patient cannot memorize and understand the things accurately, possibly due to an increased activity of Acetylcholinesterase enzyme (ACH), Butyrylcholinesterase enzyme (BChE), and other factors. AD is the most common cause of dementia, resulting in gradual loss of memory. There is no exact cause of AD understood to date. So, it is a multifactorial neurodegenerative disorder. There is continuous research going on for its management. In this contest, herbal medicine plays an essential role in the cure, treatment, and prevention of AD. Herbal medicine like (Curcuma longa, Marsilea quadrangularis, Centella asiatica, Withania sommifera, Bacopa monnieri, Ginkgo biloba, Glycyrrhiza glabra, Tinospora cordifolia, Convovulus pluricaulis,) etc. has been shown to have miraculous effect in the management of Alzheimer disease. Hence, this overview of herbal medicine can help researchers and academicians further explore these plants against neurodegenerative diseases.

Keywords: Alzheimer diseases , Herbal medicine, Dementia , Neurodegenerative diseases.

ALOE: THE MAGICAL REMEDY AN OVERVIEW

Ishika Jain, Reena Gupta, Jitendra Gupta.
GLA University, Mathura, Uttar Pradesh, India

ishikajainij2004@gmail.com

Abstract:
Aloe vera, a cactus-like plant has been used for traditional medical purposes for thousands of years. Aloe leaves can be separated into two basic products: the latex, a bitter yellow liquid beneath the epidermis of the leaf and the gel, a colorless and tasteless substance in the inner part of the leaf. Both of them have many biologically active components, mainly anthraquinones and polysaccharides (the most active is ace Mannan), which may act alone or in synergy. Scientific studies provide support for the application of Aloe vera in cosmetic-moisturizers, toothpastes etc., food as flavoring compounds or preservative of fresh products and in medicine of humans or animals. Aloe vera seems to treat a variety of conditions because of its wound healing, anti-inflammatory, immunity, antidiabetic, antioxidant, laxative, antibacterial, antifungal, antiviral and antitumor effects. Besides these applications it can be also included in the animals diet to utilize their benefits to the maximum extent. Aloe vera is a natural product that is now a day frequently used in the field of cosmetology. Though there are various indications for its use, controlled trials are needed to determine its real efficacy. The aloe vera plant, its properties, mechanism of action and clinical uses are briefly reviewed in this article.

Keywords: Aloe vera, Health, Beauty, Skin.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1318

SYNTHESIS, IN-SILICO AND IN-VITRO SCREENING OF BENZOXAZOLE-THIAZOLIDINONE SCAFFOLDS AS POTENT ANTIMYCOBACTERIAL AGENTS

Pradeep Kumar M.R

KLE College of Pharmacy, Vidyanagar, Hubli, Karnataka, India.
pradeepmrpk@yahoo.co.in

Abstract:
The efficacy of a novel series of benzoxazole-thiazolidinone-5-carboxamides as potential antitubercular agents was assessed after they were developed, synthesized, and screened for in-vitro and in-silico anti-tubercular activity. In this pursuit, N-(2-(substituted)-4-oxothiazolidin-3-yl) benzo[d]oxazole-5-carboxamide derivatives (IIIa-o) were synthesized by the reaction between Schiff bases of benzoxazole (IIa-o) with thioglycollic acid. Structure of the synthesized compounds were confirmed on the basis of physico-chemical and spectral data (IR, 1H-NMR, 13C-NMR and Mass). In-vitro anti-tubercular studies of newly synthesised molecules against Mycobacterium tuberculosis H37Rv strain using MABA method have shown substantial MIC values. The fit of these compounds within the active sites of the enoyl ACP reductase was evaluated using Molecular docking techniques. The findings of the in-silico investigation showed that the synthesized compounds have drug-like characteristics. Among the synthesized compounds III d, III e, III g, III m, and III o exhibited good anti-tubercular activity. Therefore, depending on the resultant outcomes, the optimization of benzoxazole-thiazolidinone derivatives III d, III e, III g, III m, and III o may afford suitable lead molecule for further scientific exploration which may result in the development of the new compounds with significant antitubercular activity in future.

Keywords: Antitubercular agents, MIC values, benzoxazole-thiazolidinone derivatives.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1319

OVERVIEW ON ARTIFICIAL INTELLIGENCE IN HEALTHCARE

Aditi Patel, Pinkal H. Patel
Parul University, Vadodara, Gujarat, India

pateladitiben@gmail.com

Abstract:
The integration of Artificial Intelligence within healthcare is undergoing a transformative phase, holding the promise of revolutionizing patient care, diagnostics, and operational efficiency. This paper provides an in-depth examination of the current state, applications, advantages, challenges, benefits and future trajectories of Artificial Intelligence in the healthcare domain. From improving diagnostic precision to facilitating personalized medicine, the various applications of Artificial Intelligence are reshaping the healthcare landscape. Ethical considerations, privacy issues, and regulatory obstacles are also discussed, underscoring the importance of responsible Artificial Intelligence integration in healthcare. The paper concludes by emphasizing the potential of Artificial Intelligence to drive substantial progress in healthcare delivery, recognizing the need to navigate ethical, legal, and technical complexities for its successful incorporation.

Keywords: Artificial Intelligence, Healthcare, Operational efficiency.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1320

RECENT ADVANCEMENT OF AI TOOLS AND TECHINQUE IN PHARMACEUTICALS INDUSTRIES AND EDUCATIONAL PURPOSES

Preeti Anand, Afsha Khan, Alankrita Sonkar, Tarun Kumar
IIMT university, Meerut, Uttar Pradesh, India.
anandp.pharma029@gmail.com

Abstract:
Every aspect of life is constantly subject to change, and one of the main aims of humans is to control these changes for our benefit; this is especially true in the field of medicine and pharmaceuticals. These disciplines focus on the creation or discovery of chemical compounds and mixtures and their use to ease physical and psychological suffering. The drug and biopharmaceutical industries have been limited source of inventive and novel technologies or machinery, and have led the development of novel principles or interpretations in general chemical and mechanical engineering. There are opportunities for AI to explore further in the field of pharmaceutical and healthcare research because of its ability to investigate enormous data from various modalities. Artificial intelligence (AI), first described in 1955, is a combination of various intelligent processes and behavior, developed by computational models, algorithms or a set of rules which supports the machine to mimic the cognitive functions of humans such as learning, problem-solving, etc. Artificial intelligence is a debatable subject because it involves topics like brain architecture and human intelligence. The use of AI is increasing, and is likely to change how clinical examination and training is carried out, this will ensure that the potential of AI to significantly improve medical care is fulfilled. Artificial intelligence (AI) is Pharma's next frontier in life sciences to analyze about the recently techniques of AI that aims to imitate human intelligence functions i.e. with the help of Artificial intelligence & Robots 'Automation become the result of Industrialization', driven by the need to increase productivity, to achieve consistent quality products & to remove hazardous and heavy work from workers. However, robots manufacturers face several challenges in their effort to establish themselves in pharmaceutical applications. AI with robotics in the life of mankind has several advantages & disadvantages. Despite the increasingly rich AI literature from the drug discovery to care options AI techniques are used such as in ANN [artificial neural network], machine learning, AI in healthcare, AI in clinical practice. This research mainly concentrates around a few disease types: Cancer, Nervous system and cardiovascular diseases as they are life threatening. The future is always hard to predict, but it will be determined by AI as it would become the next frontier in pharmacy.

Keywords: Artificial Intelligence (AI), Robotics, Components of AI, Application, Cancer, Neurological, cardiovascular diseases.

ICERIPLST/PH/2024/1321

INVESTIGATING NATURAL POLYMERS FOR USE IN RAFT-FORMING, GASTRO-RETENTIVE DRUG DELIVERY SYSTEMS FOR ANTI-HYPERTENSIVE MEDICATIONS

Neha Raghuwanshi
RK University, Rajkot, Gujarat, India
neharaghuwanshi41@gmail.com

Abstract:
Metoprolol succinate, a β-selective adrenergic blocker, has a short half-life, low bioavailability, and high dosing frequency. In-situ gel drug delivery is a good approach to achieve sustained release for once-daily administration that will prolong drug retention time at the stomach and increase absorption. Thus, the aim of the study is to formulate floating in-situ gel formulations of metoprolol succinate using Sodium Alginate and Isabgol as a gelling polymer and sodium bicarbonate as an agent to generate gas and calcium carbonate as an agent to strengthen gels.Sodium bicarbonate, along with divalent Ca++ ions, forms a floating raft loaded with drugs. Testing was done on all batches for pH, In-Vitro Floating, Raft strength, viscosity, and drug release.The majority of formulations using Isabgol as a gelling agent have a gelled raft in less than 2 minutes and are buoyant for more than 8 hours in 0.1N hydrochloric acid having pH 1.2. Optimized batches show good administration capabilities and better stability over six months.

Keywords: Gastro-retentive In situ Gel, Sodium Alginate , Isabgol, Metoprolol succinate, Raft Strength.

ICERIPLST/PH/2024/1322

CLINICAL STUDY BETWEEN THE LENGTH OF ANTERIOR CRUCIATE LIGAMENT ON BOTH THE KNEES AND CORRELATED IT WITH LENGTH OF FEMUR AND TIBIA & ITS CLINICAL APPLICATION: A CADAVERIC STUDY

Abhinav Kumar Mishra
KMC Medcical College & Hospital, Maharajganj, Uttar Pradesh, India.
abhinavanatomy07@gmail.com

Abstract:
The Anterior Cruciate Ligament is considered as the strongest ligament of knee joint which helps in standing as well as prevention of hyperextensibility of joint and rotational stability. It is related with the femoral and tibial insertions via collagen fibres. Its anatomy varies by race and doesn't heal easily if ruptured. Its anatomy is necessary for identifying their footprints and association with long bones of lower limb is reviews by this article for understanding the restoration and reconstruction of the ligament. To study the comparison between total length of Anterior Cruciate Ligaments (ACL) on both knee joints and correlate with the length of Femur and Tibia. The study was conducted on 20 knee joints of ten formalin fixed cadavers of unknown sex and measured the length of ACL with the help of digital caliper and Femur and Tibia with tools measuring tape. Mean ± SD of Total length of ACL of right and left knee in which the Mean ± SD are 29.43 ± 5.49 and 29.77 ± 4.06 and ranges between 19.4-36.1 and 22.3-35.6 respectively. The parametric distribution of Length of Femur in right and left sides are found 42.95 ± 2.32 and ranges between 39-45.5 respectively whereas the Mean ± SD of Length of Tibia in both sides of lower limb are 36.54 ± 1.86 which lies between 33-38.5 ranges respectively. There is a positive correlation noted in all the parametric distributions at $p<0.05$ level of significance. The present study provides the necessary knowledge for orthopedic surgeons during performing the surgery and grafting.

Keywords: ACL reconstruction, Femoral Length, Tibial Length, Tendon grafting.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1323

FORMULATION AND EVALUATION OF MOMETASONE FUROATE INCORPORATED NANOSPONGE GEL FOR TOPICAL DISEASE

Shreya Srivastava[1], Krishna[1], kr. Nishchaya[2]

[1]Goel Institute of pharmacy and Science, Lucknow, Uttar Pradesh, India.

[2]Manipal Academy of Higher Education, Manipal, Udupi, Karnataka, India

shreyasrivastava1611@gmail.com

Abstract:

Effective illnesses incorporate every one of the sicknesses that happen on the skin because of ecological circumstances, nourishing lacks, or as auto-invulnerable infections like psoriasis, atopic dermatitis, and so forth. Psoriasis causes constant irritation and erupts a layer on the skin surface that is interceded because of lymphocyte enactment, prompting epidermal development and hyperproliferation. Such infections can be dealt with either by cytokine antagonists or immunosuppressive drugs like corticosteroids. Mometasone furoate is a critical corticosteroid that enters the layer corneum and gets appended to the glucocorticoid receptor to forestall the arrival of cytokines like TNF-α, IL-1, and IL-6. As a great deal of skin treatment is accessible, however, not even one of them offers all out help. Nanosponges gel is a unique system of delivering drugs in a programmed manner to a specific site. Nanosponges consist of nanometre-sized voids that hold the various materials. They are composed of polymers, or cross-linkers. The drug moiety is stored in the core, which gets released in a pre-defined manner by the polymer, which breaks down in the body to form a 3-D network that is biodegradable. These nanosponges can be prepared by various methods, like the solvent method, the ultra-sound-assisted method, quasi-emulsion solvent diffusion, hyper-cross-linked β-cyclodextrin, ultra-sound-assisted synthesis, and the emulsion solvent diffusion method. Various evaluations can be performed to analyse formulation stability, particle size, pH, viscosity, and Spreadability. The solvent emulsion diffusion method will be used for the formulation of Mometasone containing nanosponge gel. The pH value of the formulation plays a vital role as it may alter the skin's pH. So, the preparation should be formed in range of 5.4-6 pH which will be suitable for topical application. Nanosponges enhance drug delivery by focusing on specific sites, reducing side effects, improving soundness, and enhancing definition adaptability, while reducing side effects.

Keywords: Nanosponge, Nanosponge gel, Mometasone, Hydroquinone, Topical, Psoriasis.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1324

ANTI-HEMORRHOIDAL ACTIVITY OF LEAF EXTRACT OF *CASSIA OCCIDENTALIS* L.

Samriti Faujdar, Bhawana Sati, Pratibha Sharma
Banasthali Vidyapith, Banasthali, Rajasthan, India

faujdarsamriti@gmail.com

Abstract:
Cassia occidentalis L. is an annual or perennial herb of Fabaceae family. Seeds of the plants are reported to have anti-inflammatory activity. Hemorrhoids is one of the most common disease in the present scenario and condition worsens in heart patients. As hemorrhoids is a type of inflammatory disease. Our aim of the present study was to evaluate the anti-hemorrhoidal potential of leaves extract of Cassia occidentalis. In this method, extracts were prepared by using Soxhlet assembly in successive manner of solvents. Induction of the hemorrhoids was given in rats by cotton oil, severity index and inflammation were calculated. Different inflammatory markers such as IL-6, TNF-α and prostaglandins were measured. Phytochemical screening of extract revealed the presence of glycosides, flavonoids and fixed oil. Results depicted significant anti-hemorrhoidal activity at 200mg/kg which was observed by reduction in severity index. The results also showed low levels of inflammatory markers in treated rats. From the study, it can be concluded that leaves of C. occidentalis have good anti-hemorrhoidal activity attributed to flavonoids content.

Keywords: Cassia occientalis, Inflammation, severity index, Fabaceae.

ICERIPLST/PH/2024/1325

DEPOFOAM TECHNOLOGY IN CANCER DISEASE TREATMENT

Pooja solanki
Sri Aurobindo group of Institute, Indore, Madhya Pradesh, India.
pooja.solanki@saip.ac.in

Abstract:
Encapsulation of drugs into multivesicular liposomes (DepoFoam) is a nanotechnology that allow delivery of the active constituent at a sufficient concentration during the entire treatment period. This guarantees the reduction of drug administration frequency, a very important factor in a prolonged treatment. Currently, diverse DepoFoam drugs are approved for clinical use against neurological diseases and for post-surgical pain management while other are under development for reducing surgical bleeding and for post-surgical analgesia. Also, on pre-clinical trials on cancer DepoFoam can improve bioavailability and stability of the drug molecules minimizing side effects by site-specific targeted delivery. The genetic and phenotypic complexity of the cancer cells leads to the clinical diversity and therapeutic resistance, a major hurdle in the therapy of cancer. Chemotherapy, despite being one of the most common approach for cancer treatment, possesses critical limitations, such as poor bioavailability and severe side effects. Multivesicular particles (Depofoam) technology have revolutionized the concept of cancer therapy by overcoming these limitations via improving bioavailability and stability of the drug molecules and minimizing side effects by site-specific targeted delivery of the drugs. There are various liposomal formulations approved for cancer therapy such as Doxil® (PEGylated liposome), DaunoXome® (daunorubicin citrate liposomal formulation), Depocyt® (multivesicular liposome), Myocet® (nonpegylated liposomal formulation), Mepact® (multilamellar liposomes), Marqibo® (vincristine sulfate liposomal injection), and Onivyde™ (irinotecan liposome injection). Depocyt, a multivesicular liposome-based formulation using DepoFoam technology, is approved by the FDA for clinical use in cancer therapy.

Keywords: Multivesicular liposomes, Cancer, DepoFoam drugs, DepoFoam technology, Encapsulation, site-specific targeted delivery.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1326

IN-VITRO AND IN-VIVO EVALUATION OF DEXAMETHASONE SUSTAINED RELEASE MATRIX TABLETS FOR PCOS

Sunayana Rathore

Sri Aurobindo Institute of Pharmacy, Indore (M.P.)
nenn2212@gmail.com

Abstract:

The purpose of this study was to develop a sustained release matrix tablet that can effectively deliver dexamethasone for the treatment of Polycystic ovary syndrome (PCOS). Chitosan and HPMC K4M polymers were used to prepare matrix tablets by the direct compression method. The tablets were evaluated for various parameters such as thickness, friability, hardness, uniformity of weight, drug content, in-vitro dissolution and in-vivo studies. The study showed that the drug release can be modulated by varying the concentrations of polymers. The optimization studies indicated that the F7 formulation exhibited the best release profile of the drug and sustained the drug release for 8 hours with optimum mucoadhesive strength. The mechanism of drug release was investigated by fitting in vitro drug release data to several release kinetic models. The optimized F7 tablet floated continuously in the stomach area of rabbits for over 12 hr, so the gastric retention time could be extended to over 12 hr. The X-ray imaging of the tablet at the 6th hr and 12th hr indicated clearly that the tablet was present in the region of the stomach but had shifted its location in the abdomen. Overall, the study concluded that matrix tablets can be used as a successful carrier for the sustained delivery of dexamethasone with prolonged gastric residence time.

Keywords: Dexamethasone, Matrix tablets, sustained release, Chitosan and HPMC K4M, Gastric retention.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1327

REVIEW ON PANCREATIC β CELL REGENERATION: POTENTIAL DRUG THERAPY FOR DIABETES MELLITUS

Nirmal Joshi

Amrapali University, Haldwani, Nainital, India.
nirmaljoshi1305@gmail.com

Abstracts:

Type 1 diabetes mellitus, also known as T1DM, is the most frequent form of chronic autoimmune sickness found in young people. It is characterized by a lack of pancreatic cells, which ultimately results in hyperglycemia and an insulin shortage. It is not possible for exogenous insulin, whether it is taken orally or injected, to take the place of the insulin that is created naturally by a pancreas that is working properly. Pancreas and islet transplantation have only relatively lately been recognized as viable therapeutic options for type 1 diabetics seeking to reestablish normal levels of glucose control in their bodies. There is a major shortage of pancreases and islets derived from human organ donors, challenges related with transplantation, a high cost, and limited procedural availability. These are just some of the constraints that prevent the widespread application of these treatments. There has been some work done in order to better serve the ever-increasing population of people who are living with type 1 diabetes. Stem cell therapy has the potential to one day be utilized to treat patients suffering from Type 1 diabetes and entirely cure the condition. The advent of research into stem cell therapy for a variety of diseases has coincided with the documentation of progress made in the treatment of type 1 diabetes using stem cells. But there are still a lot of unanswered problems that need to be resolved before stem cell therapy can be considered a therapeutically feasible option for diabetes patients. In this article, we will discuss various methods for isolating insulin-producing cells (IPCs) from a wide variety of progenitor cells, as well as summaries recent breakthroughs in stem cell-based therapies for the treatment of diabetes.

Keywords: Type I diabetes mellitus, Hyperglycemia, Pancreas, documentation, Insulin.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1328

DESIGN AND SYNTHESIS OF NOVEL 1-H-PYRAZOLO[3,4-B] PYRIDINE DERIVATIVES AS ANTI-TUBERCULAR AGENTS

Payal Patel, Afzal Nagani
Parul University, Vadodara, Gujarat
afzal.nagani@gmail.com

Abstract:
Tuberculosis is one of the most devastating diseases which is responsible for the deaths of numerous individuals in the current scenario. Tuberculosis or TB is caused by inhalation of aerosolized TB bacilli Mycobacterium tuberculosis or by the reawakening of dormant bacilli that have been in the body for many years. Newly discovered anti-TB drugs are mainly focused on inhibiting M. tb developed Multi-Drug Resistance (MDR-TB) and Extensively Drug Resistance (XDR-TB) tuberculosis. The alarming situation arose when around 7.5 million cases were diagnosed in 2022 worldwide. This figure surpassed the pre-COVID baseline (and prior historical peak) of 7.1 million in 2019, marking the highest number since WHO started worldwide TB monitoring in 1995. It also represents an increase from 5.8 million in 2020 and 6.4 million in 2021. In 2022, males accounted for 55% of tuberculosis cases, women for 33%, and children (ages 0–14) for 12%. There are several target proteins or biosynthetic pathways available that can be used for the treatment of tuberculosis. Among them, DprE1 and DprE2, that are responsible for the biosynthesis of the cell wall of the mycobacterium, are under the limelight as a novel target for treating TB-infected patients. Heterocycles like pyrazole and pyridine show distinctive versatility in treating bacterial infectious diseases. Designing scaffolds using these heterocycles has been assumed to inhibit the biological pathway of synthesis of the cell wall of M.tb. Using these facts, 15 derivatives were designed and docked into the active pocket of the DprE receptor (PDB ID: - 4FDO). The docking score of the standard drug CT319 was found to be -7.9 kcal/mol, whereas the docking scores of the scaffolds were in the range of -8.0 to -8.8 kcal/mol. Subsequently, this novel scaffold and its derivatives were synthesized. All the synthesized molecules were evaluated using various spectral analyses. Hence, these compounds could be considered potential therapeutic agents for tuberculosis.

Keywords: Tuberculosis, Multi-Drug resistance, Scaffolds, Potential therapeutic agents.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1329

PRELIMINARY PHYTOCHEMICAL EVALUATION OF METHANOLIC ETHYL ACETATE EXTRACT AND PETROLEUM ETHER EXTRACT CLEOME VISCOSA (CLEOMACEAE), CORDIA DICHOTOMA (BORAGINACEAE) AND ROOT EXTRACT OF TEPHROSIA PURPUREA (FABACEAE)

Abhay Kumar Mishra [1], Kamran Javed Naquvi [2]
Mangalayatan University, Aligarh, Uttar Pradesh, India.
abhaycps05@mail.com

Abstract:
Nature is the richest source of medicinal principles, plants act as phytochemicals since time immemorial. Impressive number of modern drugs has been isolated from the floristic natural resources, many based on their use in treatises of traditional medicine. Various medicinal plants have been used for years in daily life to treat diseases world over. Higher plants, as source bioactive medicinal principles, have continued to play a dominant role in the maintenance of human health since past. Phytoconstituents of the plants are essential source for herbal drug development. Hence, the study on detection about those is playing majorly in the pharmaceutical, botanical, agricultural and other life sciences fields. These chemicals are divided into two categories depend on its metabolism such as primary and secondary metabolites. Among this, the later one acts as ailments in treating many diseases in human and are known as traditional medicine.The aim was to distinguish the components present in the mthanolic, ethyl acetate & petroleum ether extract of the Cleome viscosa (cleomaceae), Cordia dichotoma (Boraginaceae) and Root Extract of Tephrosia purpurea (Fabaceae) qualitatively using preliminary phytochemical tests. The experimental procedures were followed for identifying carbohydrates, proteins, aminoacids, alkaloids, glycosides, flavonoids, tannins, phenol steroids & triterpenoids and saponins. From the analysis, primary metabolites such as carbohydrates, proteins & aminoacids and secondary metabolites such as alkaloids, glycosides, flavonoids, phenol, tannins, steroids & triterpenoids were found positive for the tests carried out.

Keywords: Phytochemical, Screening, Methanolic, metabolites, preliminary.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1330

IN-VITRO ANTIPLASMODIAL ACTIVITY OF AQUEOUS AND ETHANOL STEM AND LEAF EXTRACTS OF SENNA OCCIDENTALIS (COFFEE SENNA)

Vikash Jha, Prateek Porwal
FS University, Shikohabad, Uttar Pradesh, India.
vikash12510@gmail.com

Abstract:
Development of resistance against the frontline anti-malarial drugs has created an alarming situation, which requires intensive drug recovery to develop new, more effective, affordable and accessible anti-malarial agents. Plants as Senna occidentalis produce a wide variety of phytochemical constituents, which are secondary metabolites and are used either directly or indirectly in the pharmaceutical industry. Phytochemical screening and antiplasmodial activity of the aqueous and ethanol extracts of S. occidentalis (L.) leaves and stems were studied in this work. The preliminary screening of the leaf extracts revealed the presence of alkaloids, saponins, cardiac glycosids, quinine, protein and amino acid, phenol, flavonoids and carbohydrate and showed absence of tannins. Likewise stem extracts which shows absence of phenols in addition to tannins in the ethanol extract. These extracts were assayed at various concentration using double serial dilution (20mg/ml, 10mg/ml, 5mg/ml, 2.5mg/ml and 1.25mg/ml) for antiplasmodial effect after 24, 48 and 72hours respectively, and the activity of the extracts were obtained as percentage activity of the extracts after 72 hours of incubation period. The result of antiplasmodial activity revealed that both aqueous and ethanol stem and leaf extracts of the plant were effective against the malaria parasite. However, the aqueous stem extract showed greater activities than the ethanol extract. At extract concentration of 20mg/ml, both ethanol and aqueous extracts produced highest parasite clearance rate after 72 hours of incubation with percentage elimination of 77%. From these observations, S. occidentalis is likely to contain promising chemical compounds which can be utilized as an effective plant-based medicine for the treatment of malaria.

Keywords: Malaria, Senna, Phytochemical, S. occidentalis (L.), Antiplasmodial.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1331

DESIGN AND DEVELOPMENT OF BIO ENGINEERED PERSONALIZED MEDICINE WITH THE APPLICATION OF AI TOOLS FOR THE TREATMENT OF BREAST CANCER

Ravikant Gupta, Sudha Vengurlekar, Sachin K Jain
Oriental University, Indore, Madhya Pradesh, India.
ravikant491990@gmail.com

Abstract:
The design and development of bioengineered personalized medicine, coupled with the application of artificial intelligence (AI) tools, present a transformative approach to breast cancer treatment. This abstract explores the integration of AI algorithms for data analysis and bioengineering techniques for tailored drug delivery and tissue engineering, aimed at enhancing treatment outcomes. By leveraging patient-specific factors and genomic data, personalized therapies hold the promise of improved efficacy and reduced adverse effects. Nanotechnology-based drug delivery systems and scaffold-based tissue engineering offer innovative avenues for targeted treatment and breast reconstruction. Moreover, AI-driven predictive analytics enable precise patient stratification and treatment response assessment. This abstract underscore the synergistic potential of AI and bioengineering in revolutionizing breast cancer therapy, while addressing challenges and highlighting future prospects for clinical implementation and interdisciplinary collaboration.

Keywords: Bioengineered personalized medicine, Breast cancer treatment, Artificial intelligence, AI tools, Drug delivery, Tissue engineering.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1332

IN-VITRO ANTI-OBESITY EFFICACY OF *WRIGHTIA TINCTORIA* SEEDS EXTRACT IN 3T3-L1 PREADIPOCYTES

Divyang Patel[1], Dipti Patel[2], Vimal Kumar[3]
[1,2]Parul University, Vadodara, Gujarat.
[3]Baroda University, Vadodara, Gujarat
divyang.patel31198@paruluniversity.ac

Abstract:
The present study was aimed to evaluate the in-vitro anti-obesity efficacy of methanolic extracts of Wrightia tinctoria seeds. The effect of methanolic extracts of Wrightia tinctoria seeds (MEWT) on the process of adipocyte development and function was investigated. To test the effect of MEWT (100 & 200 µg/ ml) on adipocyte development, 3T3-L1 preadipocytes were differentiated in the presence and absence of MEWT followed by estimation of lipid content using Oil O Red stain and extracting with isopropanol at 500 nm wavelength. To test its effect on adipocyte function, mature 3T3-L1 adipocytes were treated with MEWT followed by estimation of lipolysis. Results: The viability of differentiated adipocytes was not affected by lower dose (100 µg/ ml) of MEWT. Higher doses (200 µg/ ml) of MEWT moderately decreased adipocyte viability. The treatment of adipocytes with MEWT (100 & 200 µg/ ml) inhibited lipid accumulation in dose dependent manner. There was a significant decrease in triglyceride content in treated group MEWT (200 µg/ ml) as compared to negative control. MEWT treatment significantly enhanced lipid breakdown in matured 3T3-L1 adipocytes. The methanolic extracts of Wrightia tinctoria seeds showed anti-adipogenic effects in 3T3-L1 adipocytes, as indicated by a significant reduction in lipid accumulation & triglyceride content along with increased lipolysis.

Keywords: 3T3-L1 differentiation, Wrightia tinctoria, adipogenesis, lipid accumulation, lipolysis.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1333

A REVIEW ON MEDICINAL AND PHARMACOLOGICAL PROPERTIES OF *CASSIA FISTULA*

Deepak K. Birla[1], Deeksha Saini [2]
[1]Gurukul School of Pharmacy, Indore, MP, India
[2] B. Pharmacy College of Rampura, Godhra, Gujrat, India
deepakbirla7@gmail.com

Abstract:
Cassia fistula is also known as a golden shower, Indian laburnum, purging cassia or amaltas in India. Owing to the vibrant yellow flowers, the Amaltas flower is designated as the national flower of Thailand and the state national flower of Kerala. It's belonging to the legume family. Amaltas is a miraculous herb that is of deciduous origin. A fruit is cylindrical pod and seeds many in black, sweet pulp separated by transverse partitions. The long pods which are green, when unripe, turn black on ripening after flowers shed6. The pods are 40-70 cm long and 2027 mm in diameter, straight or slightly curved, smooth but finely striated transversely, the striations appearing as fine fissures. The root is prescribed as a tonic, astringent, febrifuge and strong purgative. The leaves extract reduced mutagenecity in E. coli. Extract of the root bark with alcohol can be used for backward fever. Cassia fistula have a rich source of tannins, flavonoids and glycosides. It also possesses the properties such as hypo-glycemic, laxative, anti-bacterial, antipyretic, anti-inflammatory, smooth muscle stimulant, hepato-protective, analgesic, anticancer, abortifacient, anti-colic, antifertility, estrogenic, etc.

Keywords: Cassia fistula, Amaltas, Antipyretic, Anti-inflammatory, Anti Viral, Anti Fungal.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICLTIPB/PH/2023/1334

POLYHERBAL EXTRACTS USED TO SYNTHESIZE SILVER NANOPARTICLE FOR WOUND HEALING ACTIVITY

Vijay Bahadur Maurya
V.B.S. Purvanchal University, Jaunpur, Uttar Pradesh, India.
vijaypharmavbs@gmail.com

Abstract:
Silver nanoparticles are harmful to bacteria and are frequently used in a variety of scientific fields. 90 ml of 1 mM silver nitrate solution and 10 ml of acetonic polyherbal extract were combined in a 250 ml conical flask. The mixture was heated for 10 minutes in a water bath that was set to 80°C. A color change from yellow to brown was observed as the reduction of Ag+ to Ag0 occurred. The synthesis of silver nanoparticles was confirmed by UV-Vis spectrophotometer. The silver nanoparticles were characterized byEDS, Transmission Electron Microscope, and Fourier Transform Infra-Red spectroscopy. The antioxidant property of silver nanoparticles was analyzed by the 2, 2-diphenyl-1- picrylhydrazyl, hydrogen peroxide, hydroxyl radical and superoxide radical scavenging methods. The bacteriostatic activity of silver nanoparticles against Pseudomonas aeruginosa (Pa), and Staphylococcus aureus (Sa) was determined using bacterial growth inhibition method. The antibacterial sensitivity and Minimum Inhibitory Concentration (MIC) of silver nanoparticles was determined against the bacteria.

Keywords: MIC, *Pseudomonas aeruginosa*, Silver nanoparticles, Bacteria.

A COMPREHENSIVE REVIEW ON CUBOSOME: A NOVEL VERSATILE NANOCARRIER

Aashish Singh A, Kamlesh Dashorab, Tanu Bhargava C, Dharmesh Sisodiya D, Anju Tomar E
Institute of Pharmacy, Vikram University, Ujjain
aashishsingh2120@gmail.com

Abstract:
Cubosome a self -assembled liquid nanocrystal is a novel nanodrug delivery carrier of cubic shape and amphiphilic in nature. Cubosome gets a center of attention due to its unique architecture and entrapment capability of wide range of drug including both hydrophilic and lipophilic drugs. Cubosome encompasses of curved lipid bilayer arranged in three-dimensional structure that resembles with honeycomb. Between the lipid bilayer there exist a aqueous channel which have a large interfacial area. The presence of both lipid and aqueous phase makes cubosome versatile in case of drug entrapment, but about 60% of outer surface of cubosome contacts with water so it is most suitable for hydrophilic drugs. The preparation of liquid crystal is simple and can be prepared by aqueous phase by ultrasonication. Cubosome are formulated simply by mixing lipids with water. Generally, Glyceryl monooleate lipid is mixed with water which is biocompatible with body tissue and pharmaceutical purposes. There are two main approaches of cubosome preparation (1) Top-down approach (2) Bottom-up approach. In top-down approach, melted lipid is added with aqueous phase and by sonication or homogenization liquid cubic crystal is prepared While in bottom-up approach crystallization occurred from a precursor. Cubosomes have several advantages like Non-allergic, Non-irritant, Thermodynamic stability, Physicochemical stability and larger entrapment efficiency. Cubosome have stable thermodynamic state and cubosomal dispersions have mucoadhesive and biodegradable property. Drug candidates like cosmetics and protein can also be formulated in cubosome. Cubosome acts as a carrier for drug of various routes like – Oral route, Nasal route, Intravenous route, Topical route and also through Ophthalmic route. By transdermal or topical preparation cubosome mainly formulated to act on increased penetration and bioavailability. In recent advancement cubosome are also used in Diabetes and Anticancer preparation. Due to versatile structure and loading capacity for drug cubosome can be widely used as controlled release formulation as well as in sustained release formulation. It can also be used in drugs of different natures, Purposes and property.

Keywords: Cubosome, Top-down approach, Bottom- up approach, Glyceryl monooleate.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1336

3D QSAR STUDY OF THE HETEROCYCLIC ANALOGUES AS AN ANTI-MICROBIAL ACTIVITY

Dharmesh Sisodiya, Meena Bandiya, Kamlesh Dashora
Vikram University, Ujjain, Madhya Pradesh, India

dharmeshsisodiya@gmail.com

Abstract:
3D QSAR studies were performed on a Heterocyclic series of 4 –benzylidene-amino and 4-phenyliminomethyl-benzenesulfonamides analogues. The molecular structures of 31 diverse heterocyclic compounds are correlated by a quantitative structure– activity relationship (QSAR) to their minimum inhibitor concentrations (MIC expressed as log(1/MIC)), which produce anti-microbial activity. A novel QSAR development technique is utilized combining advantages of the two frequently applied methods. The topological, electronic, geometrical, and hybrid type descriptors for the compounds were calculated by V. life science software. KNN-MFA along with all the three Variable selection method viz. Stepwise Variable Selection (SW), Simulated Annealing (SA) and Genetic Algorithm (GA). The which were further evaluated for statistical significance and predictive power by internal and external validation. 3D QSAR models were evaluated using following statistical measures: n, (the number of compounds in regression); k, (number of variables); DF, (degree of freedom); optimum component, The q2, pred_r2, Vn and k value of kNN-MFA with SW, SA & GA were (0.8209, 0.7998) (0.7565, 0.7109) and (0.7264, 0.7098) respectively. Although there were no common descriptors among these three methods, SW kNN-MFA method has better q2 (0.8209) and pred_r2 (0.7998) than other two methods, model validation correctly predicts activity 82.09% and 79.9% for the training and test set respectively. So, model generated by SW kNN-MFA were best model. The results of the present study may be useful on the designing of more COX-2 Inhibitors analogues as an antimicrobial activity.

Keywords: 3D QSAR, 4 –benzylideneamino and 4- phenyliminomethyl-benzenesulfonamides; COX-2 inhibitors and k-nearest neighbor molecular field analysis (kNN-MFA).

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1337

REPURPOSED DRUGS PAVING THE WAY FOR CANCER TREATMENT

Supriya A. Unavane, Sabeena Syed
Vishwakarma University, Pune, Maharashtra, India.
supriya.unavane@yahoo.com

Abstract:

Drug repurposing involves utilizing an existing drug or drug candidate for a novel treatment or medical condition, diverging from its originally intended use. This approach often leverages the observed side effects of drug molecules as potential indicators of efficacy in different medical contexts. By avoiding the traditional drug development process, repurposing expedites drugs into preclinical and clinical trials, thereby mitigating risks and reducing costs. Cancer, a complex and devastating disease impacting millions globally, poses ongoing challenges in treatment despite significant advancements in oncology research. Many patients face the challenge of limited treatment options and exorbitant costs. Interestingly, numerous drugs initially assigned for specific diseases have been allocated for repurposing in cancer treatment. This article explores the varied methodologies employed in drug repurposing, elucidates the diverse categories of drugs repurposed for anticancer activity, delineates the characteristics of an ideal repurposing candidate, explores methods.

Keywords: Drug repurposing, Novel treatment, Devastation, Diverse categories.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1338

PHARMACOLOGICAL EVALUATION OF THE ANTIDEPRESSANT ACTIVITY OF THE *LAVENDER LATIFOLIA* LEAF EXTRACT

Piyush Chandra
Government Pharmacy College, Nalanda.
piyushchandra001@gmail.com

Abstract:

Depression is a mental illness characterized by negative emotions, lack of pleasure or satisfaction, feelings of guilt or worthlessness, lack of sleep or appetite, weakness, and difficulty thinking. In this study, phytochemical analysis showed that the presence of flavonoids has been reported to have many biological effects such as central nervous system irregularity. This study found that lavender leaf extract had anti-anxiety properties in rats, and further antidepressant studies showed that the dose of the extract had the best effect on depression. Lavender extract at a certain dose significantly inhibited MAO-A activity in rat brain. However, only 200 mg/kg body weight of *Tribulus terrestris* extract inhibited MAO-B activity. These results suggest that the anti-anxiety effect of the extract in sedentary test mice may be related to the inhibition of MAO activity, especially MAO-A activity. *Tribulus terrestris* extract administered orally to the mice showed anti-anxiety effects, possibly through modulation of central neurochemical axes and HPA in response to FST-induced stress. Therefore, this study recommends the use of lavender extract as an herbal supplement in the treatment of depression. In future studies, detailed studies are needed to complete the mechanism of action of the bioactive substances contained in lavender extract at the cellular level.

Keywords: Depression, anti-anxiety, MAO-A activity, *Tribulus terrestris*, Neurochemical.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1339

NEUROPROTECTIVE EFFECT OF α-MANGOSTIN IN WISTAR RATS: PROPIONIC ACID-INDUCED AUTISM MODEL IMPROVEMENT

Aarti Tiwari, Pradeep Kumar Samal
Guru Ghasidas University, A central University, Bilaspur, Chhattisgarh.
aartitiwarildh@gmail.com

Abstract:
Multiple studies have confirmed the involvement of excessive activation of extracellular signal-regulated kinases (ERK) in the development of Autism. Alpha-mangostin (AMG) is a phytoconstituent known for its antioxidant, anti-inflammatory, and ERK inhibitory activities in many disorders. We seek to study the neuroprotective impact of AMG in a rat model of intracerebroventricular-propionic acid (ICV-PPA) produced autism, while also confirming its effect on the ERK signaling. Autism was created in 36 Wistar rats (18 male and 18 female) by administering several doses of PPA through ICV injection over an 11-day period. Animals' motor abilities were assessed using actophotometer and beam walking activities, while cognition and memory were confirmed by the Morris water maze task. The trial involved the prolonged delivery of AMG100 mg/kg and AMG200 mg/kg from day 12 to day 44. Prior to that, animals were sacrificed, their brains were extracted, and morphological, gross pathological tests were conducted, followed by neurochemical analysis on the brain homogenates. Various cellular and molecular markers such as ERK, myelin basic protein, caspase-3, Bax, Bcl-2, neuroinflammatory markers, neurotransmitters, and oxidative stress markers have been examined across the brain. AMG decreases the excessive activation of the ERK signaling pathway and reverses autism-like behavioral and neurochemical changes.

Keywords: Autism spectrum disorder; ERK/mitogen activated protein kinase (MAPK); α-mangostin; Propionic acid; Neuroexcitation; Genetic dysfunction.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1340

NIGELLA SATIVA SEED DERIVATIVES BASED TRANSDERMAL PATCHES: EVIDENCE OF IMPROVED ANTIOXIDANT AND ANTI-INFLAMMATORY POTENTIAL

Deepika Bairagee[1], Poojashree Verma[2], Gaurav Saraogi[3]
[1]Acropolis Institute of Pharmaceutical Education and Research, Indore, Madhya Pradesh, India
[2]Modern Institute of Pharmaceutical Sciences, Indore, Madhya Pradesh, India
[3]Sri Aurobindo Institute of Pharmacy, Indore, Madhya Pradesh, India
bairagee.deepika@gmail.com

Abstract:
Herbal derivatives, particularly extracted from Nigella sativa seeds, renowned for their intrinsic antioxidant and anti-inflammatory properties, present promising prospects for incorporation into transdermal patch formulations. This investigative pursuit entails the extraction, formulation, and evaluation of four unique transdermal patches of Nigella sativa seeds utilizing the solvent casting methodology. Rigorous scrutiny encompasses physicochemical attributes, spanning parameters such as weight variation, thickness, drug content uniformity, folding endurance, in-vitro diffusion kinetics, ex-vivo permeation profiles. Infrared spectroscopy validates the compatibility between the drug and polymer components. The intricacies of in-vitro diffusion studies reveal drug release percentages ranging from 68.2% to 95.06% over a 21-hour temporal span. The zenith of ex-vivo permeation investigations for the optimized formulation (NS3) unveils a commendable 90.6% drug release culmination at the conclusion of 21 hours. Kinetic modeling elucidates a zero-order release pattern concomitant with a non-Fickian diffusion mechanism across all formulations. The NS3 formulation exhibited potent ABTS and DPPH scavenging activity (EC50 values of 21.32 ± 0.50 and 16.03 ± 0.43 µg/mL, respectively), as well as NO inhibitory assay (IC50 values of 14.16 ± 1.32 µg/mL) and anti-inflammatory activities (IC50 values of 11.25 ± 0.75 µg/mL for NO inhibitory assay). This study suggest that the transdermal patch of the chosen herbs have the potential to serve as abundant reservoirs of antioxidants and compounds that scavenge free radicals. The quantities of phenolic and flavonoid compounds in the herbal extracts were found to be directly linked to the antioxidant and anti-inflammatory properties exhibited by these extracts.

Keywords: Nigella sativa, Antioxidant activity, Anti-inflammatory activity, Transdermal Patch, MTT assay, DPPH, FRAP.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1341

A COMPREHENSIVE ANALYSIS OF NEOPTERIN AS A PROGNOSTIC MARKER FOR SARS-COV-2 PATIENTS

Roma Sharma[1], Surabhi Singh[2]
Career Point University, Kota, Rajasthan, India
romasharma09@gmail.com

Abstract:
The SARS-CoV-2 pandemic was a grave concern worldwide. It was posing a serious threat to mankind and was acting as a global threat with no effective treatment. There was no definite therapy available and globally it was a challenge to decide on ways to prevent it from spreading. The scientific community was working on all fronts to decide on a single solution to curb the situation at the earliest. The viral infection bourgeons and affects the life score in one form or the other. The biomarkers were limitedly studied as it was not established that they help in identifying poor prognosis in COVID-19 cases. The study of Novel Biomarkers was prioritized in those challenging times. During that time when the viral journey was exponentially increased studies were released on Neopterin (NPT) and it was established that neopterin is one biomarker that signals an active immune system and is a promising tool to detect the severity and prognosis of COVID-19. The objective of this review is to find Neopterin's utility for the diagnosis and prognosis of SARS-CoV-2 infection. The research was comprehensively performed by using databases like Cochrane, PubMed, Scopus, and EMBASE. A total of six out of seven research literature were included for the initial screening of this review. Captivatingly, all studies reported that serum NPT levels were high in all severe cases and the NPT levels were positively correlated with the COVID-19 infection. This study provides the existing evidence through a meta-analysis of relevant studies where it provides a detailed analysis of Neopterin as a potential biomarker. For the best results, PRISMA guidelines were followed. This implies that makeshift can be done using serum NPT levels before hospital admission to determine the severity and prognosis of the disease which helps in close monitoring of such cases with risk stratification for better management in a highly populated country.

Keywords: Neopterin, SARS-COV-2, ACE 2, Prognosis, Biomarker

ICERIPLST/PH/2024/1342

IN-SILICO STUDIES OF PHENYL PIPERAZINE DERIVATIVES AS SEROTONINE REUPTAKE INHIBITOR

Shrestha Sarkar
Kumaun University, Bhimtal, India
shresthasarkara@gmail.com

Abstract:
Reuptake of the Serotonin neurotransmitter is one of the main causes of depression. A piperazine is a six-membered heterocyclic ring with two opposing nitrogen atoms and is used for various therapeutic activities including depression. The phenyl piperazine derivatives have a potent antidepressant effect. They showed great potential in in silico studies and proved to be good seratonine reuptake inhibitors. Crystal structure of receptor was imported from protein data bank. Various phenyl piperazine derivatives were designed and docked at the respective active sites of the receptor using various docking softwares (autodock vina, pyrax etc.) and was evaluated for their drug likeness (using the software SwissADME) and bioactivity scores (using the software Molinspiration). Few of those derivatives showed good docking and bioactivity scores and displayed drug-like characteristics, including blood-brain barrier permeability. Derivatives with best docking score were selected for synthesis and animal studies. These derivatives show potent anti-depressent effect in their in-silico studies thus, these derivatives can be further synthesized and carried out for in vivo evaluation to show potent anti-depressant activity.

Keywords: Depression, Piperazine, Serotonine reuptake inhibitors, Docking.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1343

ANDROGENETIC ALOPECIA IN A MOUSE MODEL

Sourabh Kumar Sharma
ITS College of Pharmacy, Ghaziabad, Uttar Pradesh, India.
Sourabhsharma141@gmail.com

Abstract:
Both men and women can experience androgenetic alopecia (AGA), also referred to as male pattern baldness. AGA is linked to a hereditary predisposition through features related to androgen synthesis/metabolism and androgen signalling mediated by the androgen receptor (AR), even if the actual origin of the condition is unknown. The effectiveness of the current AGA therapy is limited, and they frequently have unfavourable side effects. A significant obstacle in the development of novel treatments for AGA is the scarcity of small animal models to facilitate drug discovery studies. In this article, we present the first AGA rodent model. Based on earlier research indicating that the interaction between β-catenin and androgen-bound AR might suppress Want signalling, we investigated the possibility that androgen-dependent interference with hair growth could arise from AR expression in hair follicle cells. Transgenic mice were created with the keratin 5 promoter controlling the overexpression of human AR in the skin. When exposed to elevated amounts of 5α-dihydrotestosterone, hair regrowth in Keratin 5-human AR transgenic mice was slowed, emulating the AGA scalp. Because treatment with the AR antagonist hydroxyflutamide decreased the effect of dihydrotestosterone on hair growth, this action is AR mediated. These findings imply that AR and β-catenin mediate this impact and support the theory that androgen-mediated hair loss is AR dependent these.

Keywords: Androgenic alopecia, transgenic mice, Keratin.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1344

SYNTHESIS OF ZNO/CUO NANOCOMPOSITES VIA GREEN ROUTE FOR PHOTOCATALYTIC APPLICATIONS

Falguni S. Bhavsar, Erum Gull Naz
Career Point University, Kota, Rajasthan, India.
falguni59.bhavsar@gmail.com

Abstract:
Paper & food industries continuously releasing waste effluents in water bodies which contains contaminants like various dyes namely methyl orange (MO) and methylene blue (MB). Binary nano composites of Zn and Cu found to have tunable properties in photocatalysis as compared to other metal oxides. The synthesis involves one step solvothermal method which is simple, convenient, cost effective. Blending ZnO and CuO shows various applications such as optoelectronic, photocatalytic and biosensor. The resultant binary nanostructures were characterized by using X ray diffraction, TEM and UV visible spectroscopic techniques. Band gap of metal oxides and absorption wavelength as well as photocatalytic degradation for various dyes were identified by UV visible spectroscopy. This research study is important in view of environmental aspect as the dyes MO and MB degraded effectively by these binary nanocomposites due to their small size, high surface area, simple fabrication methods. Catalytic reaction mechanism is analyzed by using zero and first order kinetic studies.

Keywords: Nanomaterials, Methylene blue dye, Methyl orange dye, ZnO-CuO nanocomposites.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1345

DEVELOPMENT AND VALIDATION OF A ROBUST RP-HPLC METHOD FOR SIMULTANEOUS QUANTIFICATION OF DOMPERIDONE AND CINNARIZINE IN BULK AND TABLET DOSAGE FORMULATIONS

Vijendra Singh Chauhan[1], Pramoda Swathi Valiveti[2], B. Krishnamoorthy[3]
[1,3]Sanjivani College of Pharmaceutical Sciences, Khetri, Rajasthan, India.
[2]MSSIST-College of Pharmacy, Mylavaram, Andhra Pradesh
8209138382v@gmail.com

Abstract:
A novel and efficient Reversed-Phase High-Performance Liquid Chromatography (RP-HPLC) method has been successfully developed and validated for the simultaneous quantification of Domperidone and Cinnarizine in tablet dosage forms. The analytical procedure utilized a Kromasil ODS RP-18 column (250×4.6mm ID, 5µm) and employed a mobile phase comprising mixed phosphate buffer (KH2PO4+K2HPO4) and acetonitrile in a well-optimized ratio of 55:45 (v/v). The flow rate was maintained at 0.8 ml/min, and detection was performed at 268 nm. In the developed method, the retention times for domperidone maleate and cinnarizine were found to be 2.553 minutes and 5.087 minutes, respectively. The linearity of the method was established over the concentration range of 18-42 µg for domperidone and 24-56 µg for cinnarizine, with correlation coefficients (r2) of 0.999 and 0.9998, respectively. The quantification of both drugs using this method exhibited excellent agreement with the label claim. The robustness and reliability of the method were validated through a comprehensive assessment of precision, accuracy, sensitivity, robustness, and ruggedness. The results of these validations confirmed the suitability of the developed RP-HPLC method for routine analysis of domperidone and cinnarizine in combination within tablet formulations. This approach offers a valuable tool for quality control laboratories in ensuring the accuracy and precision of pharmaceutical formulations containing these two active ingredients.

Keywords: RPHPLC, Domperidone, cinnarizine, acetonitrile, Kromasil ODS RP-18 column.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1346

NEUROPROTECTIVE EFFECTS OF PANTOTHENIC ACID AGAINST KAINIC ACID-INDUCED STATUS EPILEPTICUS AND SPATIAL MEMORY DEFICITS: INSIGHTS INTO OXIDATIVE STRESS, NF-KB MODULATION, AND NEUROINFLAMMATION

Nitish Bhatia
Vishwakarma University, Pune, Maharashtra, India.
nitish.bhatia@vupune.ac.in

Abstract:
Epilepsy, affecting 65 million individuals globally, poses significant challenges, including discrimination, social stigma, and impaired quality of life. This study investigates the potential neuroprotective effects of pantothenic acid against kainic acid-induced status epilepticus (SE) and associated spatial memory deficits in rats. Kainic acid administration resulted in SE, spatial memory impairment, oxidative stress, and elevated NF-κB levels. Pantothenic acid treatment demonstrated dose-dependent prevention of SE, improved spatial memory, and mitigated oxidative stress, suggesting its neuroprotective potential. Additionally, histopathological evaluations revealed a protective effect against kainic acid-induced neuroinflammation and neurodegeneration. The study suggests that pantothenic acid, through anti-inflammatory and NF-κB pathway inhibition, may offer therapeutic benefits in mitigating epileptic events and associated neuroinflammatory conditions.

Keywords: Epilepsy, social stigma, Kainic acid, Pantothenic acid, anti-inflammatory.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1347

NANOROBOTS AIDED IN THE DETECTION OF CANCER AND TARGETED THERAPIES

Sandhiya
SBMCH campus, BIHER, Chromepet, Chennai, India.
sandhiyavaithi@gmail.com

Abstract:
The development of gadgets at the nuclear, sub-atomic, or cell level is the focal point of the discipline of nanorobotics, an arising subfield of nanotechnology. These speculative nanorobots would go through human blood and be little. Since these nanorobots will have explicit sensors to identify the objective particles, they can be worked to analyze and treat deadly sicknesses. The utilization of nanorobots to disease treatment is one of the most entrancing exploration subjects. Nanorobotics alludes to complex submicron machines made with nanocomponents, which are considered noble expected fate of medical care. It has a lot of likelihood as a drug conveyance innovation for malignant growth, which kills more people under the age of 85 than any other disease. Nanorobots could convey and appropriate a lot of anticancer medications into wiped out cells while saving ordinary cells, decreasing the results of current treatments, for example, chemotherapy harm. The possible improvement of this forward leap, which will be acknowledged by means of a nearby joint effort of specialists in mechanical technology, medication, and nanotechnology, will significantly affect sickness conclusion, therapy, and counteraction. This paper contains research on many ways to deal with disease treatment utilizing nanorobots.

Keywords: Nanorobots, Cancer detection, Medical nanorobots, Drug delivery system.

ICERIPLST/PH/2024/1348

CONTROLLED RELEASE FORMULATION OF ESMIPRAZOLE TO IMPROVE BIO AVAILABILITY AND BIO EQUIVALENCE

Pooja Bhati
B.R. Nahta College of Pharmacy, Mandsaur, Madhya Pradesh, India
poojabhati812@gmail.com

Abstract:
Most conventional oral drug products, such as tablets and capsules, are formulated to release the active drug immediately after oral administration, to acquire quick and entire systemic drug absorption. Such immediate release products result in comparatively rapid drug absorption and onset of associated pharmacodynamic effects. Although, after absorption of the drug from the dosage form is whole, plasma drug concentrations refuse according to the drug' s PK profile. Ultimately plasma drug concentrations reduce below the minimum effective plasma concentration (MEC), ensuing in loss of therapeutic activity. Before this point is reached, another dose is frequently given if a sustained therapeutic effect is required. A substitute to administer an additional dose is to use a dosage form that will afford sustained drug release, and hence maintain plasma drug concentrations, ahead of what is typically seen using immediate release dosage forms.

Keywords: MEC, Plasma drug concentrations, Dosage forms, Drug release.

ICERIPLST/PH/2024/1349

DEVELOPMENT AND PHARMACOLOGICAL EVALUATION OF PEGYLATED NANOPARTICLES FORMULATION FOR THE CONTROLLED DELIVERY AGAINST ALZHEIMER

Dev Sharan Chaturvedi[1], Barkha Chaturvedi[2]
[1]Madhyanchal Processional University Bhopal, Madhy Pradesh, India.
[2]Oriental University, Indore, Madhya Pradesh, India.
barkhachaturvedi1996@gmail.com

Abstract:
A growing number of people suffer from a variety of diseases that are referred to as neurodegenerative diseases of the brain. Some of these are caused by an infection, like HIV/AIDS, while others are caused by a person's age (like Alzheimer's and Parkinson's disease). Alzheimer's disease (AD) is a complex, multifaceted mental illness characterized by age-dependent memory loss and cognitive impairment in multiple domains. It is the most common type of dementia among people who are getting older because there is a significant loss of cholinergic neurons in a particular area of the brain. In traditional Ayurvedic and Chinese medicine, many plants have been used to treat cognitive impairments, including neurodegenerative diseases like Alzheimer's. New medications, including those for cognitive issues, have been discovered through an ethno pharmacological approach based on plants. The rapid development of drug nanocarriers has benefited from the surface hydrophilic polymers of particles, which has improved the pharmacokinetics of the drugs. Polyethylene glycol (PEG) is a kind of polymeric material with unique hydrophilicity and electrical neutrality. PEG coating is a crucial factor to improve the biophysical and chemical properties of nanoparticles and is widely studied. Protein adherence and macrophage removal are effectively relieved due to the existence of PEG on the particles. Due to their potential to be as effective as psychiatric medications, herbal treatments that have demonstrated anti-Alzheimer effects should receive more attention in future research.

Keywords: Alzheimer’s disease, Neurodegeneration, Cognitive impairment, Clinical trial, Herbal medicine.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1350

FORMULATION, CHARACTERIZATION AND OPTIMIZATION OF CURCUMIN BASED NANOEMULSION FOR THE TREATMENT OF PSORIASIS

Deepa Lashkari[1], Vikram Kumar[1]
Amity University Rajasthan, Jaipur, Rajasthan India
deepalashkari008@gmail.com

Abstract:
Psoriasis is a deep-rooted, lifelong autoimmune and non-infectious provocative disorder of skin and joints. Traditional, topical, and systemic treatments improve patient compliance, addressing comorbidities and side effects. Biologics offer targeted therapy for Rheumatoid arthritis and Psoriasis, with potential risks, while promising phototherapy has associated adverse effects in emerging treatments. A variety of innovative Psoriasis treatments, offered in diverse formulations with drug particles spanning from micro to nano sizes, ensures a balance of safety and efficacy, enable easy skin penetration, enhancing patient compliance for improved outcomes in treatment approaches. The objective of this study is to enhance Curcumin solubility and long-term stability through different oil nanoemulsions (NEs) for potential efficacy against Psoriasis. Curcumin extracted from Turmeric Curcuma longa rhizomes via Soxhlet extraction was authenticated by HPLC. Subsequently, it was optimized into nanoemulsions, their optimal wavelength for analysis was determined to be 425nm, falling within the range of 400-450nm. The absorbance displays linear over the concentration varies from 2-12 µg/ml. With no physical separation, a non-irritant pH of 6.5, and absence of color change or specific odor, the long-term stability of formulations was assessed for three months, demonstrating stability within this period. HPLC purity was determined for checking of extract purity. In-vitro release using dialysis was found to be maximum in F12 formulation with sustained release of drug and zeta potential was found to be under ±30mV, low particle size and PDI. The study underscores the utility of olive oil nanoemulsions, Tween 80 and ethanol as an effective delivery system for curcumin, showcasing outstanding release properties and the ability to protect curcumin in aqueous environments.

Keywords: Psoriasis, conventional, systematic treatments, biologics, phototherapy, novel dosage form, nanoemulsion.

ICERIPLST/PH/2024/1351

EVALUATION OF IMMUNOMODULATION THROUGH LEAVES EXTRACT OF *SPINACIA OLERACIA*

Namrata Singh
Shaheed Bhagat Singh College of Pharmacy, Palampur, Himachal Pradesh, India.
singh.nam8@gmail.com

Abstract:
Spinacia oleracea (Chenopodiaceae) commonly known as Spinach. Its useful in diseases of blood-brain, asthma, leprosy, biliousness; causes “kapha” (Ayurveda). However, to prove its efficiency for the clinical utilization, more experimental data will be beneficial. The present study involved the investigation of immunomodulatory activities of dichloromethane extract of Spinacia oleracea. The present study involved the investigation of immunomodulatory activities of dichloromethane extract of Spinacia oleracea leaves. The immunomodulatory effect was studied in delayed type hypersensitivity response using SRBCs, phagocytic reponse using carbon clearance assay and cyclophosphamide induced myelosuppression. The evaluation of immunomodulatory potential by oral administration of dichloromethane leave extract of Spinacia oleracea (100 mg/kg) evoked a significant increase in the hypersensitivity response, produced a significant increase in the phagocytic index and protection against cyclophosphamide induced myelosuppression indicating its effect on cell mediated immunity. The results obtained in this study indicate that the dichloromethane extract of Spinacia oleracea has a significant effect on both cell mediated and humoral immunity.

Keywords: Spinach, Leaves, Myelosuppression, Immunity, Medical uses.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1352

ROLE OF NUTRACEUTICALS IN DIABETES MELLITUS

Vaibhav Singhal, Kavita Vijay
Career Point Universtiy, Kota, Rajasthan, India.
vaibhavagarwal5212@gmail.com

Abstract:
Recent years witnessed an upsurge in the use of nutraceuticals, herbal and natural products in therapeutics at global level. Conventional treatment options available as synthetic drugs do not meet the demands of therapeutic needs for treating various pathological states. Talking about diabetes and the herbal drugs, nutraceuticals provide a better therapeutic hope with lesser side effects. Nutraceuticals are discussed as non-specific biological therapies including botanicals, vitamins, antioxidants, minerals, amino acids and fatty acids, which are used to promote and maintain wellness, prevent malignant processes and control symptoms. Nutraceutical agents have multidimensional therapeutic benefits and have been claimed to have effective disease preventing, curative and health promoting virtues. Several nutraceuticals used in clinical practice have been shown to target the pathogenesis of diabetes mellitus which is a complex, chronic illness associated with a state of high blood hyperglycemia, occurring from a deficiency in insulin secretion, insulin action or both, diabetic metabolic syndrome and their complications favorably modulating a number of biochemical and clinical endpoints. Hypoglycemic drugs extracted and formulated from plants like Momordica charantia (Karela), Nigella sativa (Kalonji) and Cinnamomum cassia (Cinnamon) are widely used in several traditional systems of medicine to prevent, control and treatment of diabetes mellitus. These plant extracts found a promising clinical effect in maintaining normal blood sugar level and the lipid profile of body. This review attempts to display and remark some of the most popular nutraceuticals being use as anti-diabetic.

Keywords: Nutraceuticals, Diabetes Mellitus, Herbal Drugs, Hypoglycaemic, Vitamins.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1353

REPURPOSING DRUGS: REDISCOVERING POTENTIAL CURES IN EXISTING MEDICATIONS - AN OVERVIEW

B. Krishnamoorthy[1], Vivek Sharma[2] and Sumithira G[3]
[1,2]Sanjivani College of Pharmaceutical Sciences, Khetri, Rajasthan, India.
[3]The Erode College of Pharmacy, Erode, Tamil Nadu, India.
sharmavivek414@gmail.com

Abstract:
The practice of drug repurposing involves the exploration and identification of novel therapeutic applications for existing medications, offering a strategic and efficient approach to drug discovery and development. This review delves into the burgeoning field of repurposing drugs, emphasizing the significance of exploring the untapped potential within established pharmaceuticals. The traditional drug development process is often time-consuming, resource-intensive, and prone to high attrition rates. In contrast, drug repurposing capitalizes on the wealth of knowledge surrounding well-established drugs, aiming to uncover new therapeutic uses beyond their original indications. This strategy leverages existing safety profiles, known pharmacokinetics, and established manufacturing processes, significantly streamlining the path to clinical application. The review provides an extensive analysis of the methodologies employed in drug repurposing, ranging from computational approaches to experimental screening techniques. Computational methods involve the utilization of bioinformatics, data mining, and artificial intelligence to predict potential drug-disease associations, accelerating the identification of promising candidates. Experimental approaches encompass in vitro and in vivo screenings, validating the predicted associations and providing valuable insights into the mechanisms underlying repurposed drug efficacy. Several notable success stories in drug repurposing underscore its potential impact on diverse medical fields. The review discusses instances where existing medications have exhibited unexpected therapeutic benefits in conditions ranging from infectious diseases to neurodegenerative disorders. By harnessing the knowledge gained from these successes, researchers can further refine and optimize drug repurposing strategies. Additionally, the review addresses challenges and considerations associated with drug repurposing, including intellectual property issues, regulatory pathways, and the need for collaborative efforts across academia, industry, and regulatory bodies. Emphasizing the importance of a multidisciplinary approach, this review aims to contribute to the ongoing discourse on maximizing the therapeutic potential of existing medications through innovative drug repurposing strategies. Ultimately, the exploration of repurposed drugs offers a promising avenue for efficiently advancing new therapeutic options, bringing us closer to addressing unmet medical needs and improving patient outcomes.

Keywords: Drug repurposing, Computational Approaches, Artificial intelligence.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1354

PHARMACOGNOSTICAL AND PHYTOCHEMICAL EVALUATION OF ANTIHYPERLIPEDEMIC POLYHERBAL FORMULATION

Ankur Agrawal[1], Subodh Kumar Dubey[2]

ITM University, Gwalior, Madhya Pradesh, India.
ankur14agrawal@gmail.com

Abstract:
Cardiovascular diseases, particularly hyperlipidemia, remain a significant global health concern, prompting the need to investigate alternative therapeutic approaches. This research focuses on the pharmacognostic and phytochemical evaluation of an innovative polyherbal formulation developed for its potential antihyperlipidemic properties. The pharmacognostic assessment thoroughly examines the morphological, microscopic, and macroscopic characteristics of the individual plant constituents utilized in the formulation. Additionally, organoleptic properties were utilized to set quality parameters. Subsequent phytochemical analysis aimed to recognize and enumerate bioactive moities present in the formulation. Customary procedures were employed to levy the charisma of alkaloids, flavonoids, phenolic compounds, saponin, terpenoids, and other secondary metabolites recognized for their therapeutic potential. Antioxidant assays were conducted for both individual components and the herbal tablet. The study delves into the synergistic interactions among the constituents to pinpoint and quantify specific chemical compounds responsible for the antihyperlipidemic effects. The outcome of this analysis offers broad indulgence of polyherbal formulation's pharmacognostic and phytochemical traits, laying the groundwork for its therapeutic potential in managing hyperlipidemia.

Keywords: Hyperlipidemia, Pharmacognostic, Antioxidants, Polyherbal formulation.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1355

AUTOMATION AND ROBOTIC SYSTEMS IN PHARMACEUTICAL ANALYSIS FOR HIGH-THROUGHPUT SCREENING AND ANALYSIS

Akhilesh Tiwari
Indira Gandhi National Tribal University, Amarkantak, Anuppur
akhilesh.tiwari@igntu.ac.in

Abstract:

The advancement of automation and robotic systems has revolutionized the field of pharmaceutical analysis, enabling high-throughput screening and analysis of drug compounds. This review article explores the various applications of automation and robotics in pharmaceutical analysis, focusing on their role in enhancing efficiency, accuracy, and speed of analysis. We discuss the key technologies involved, including robotic sample preparation, automated sample handling, and data analysis. Additionally, we highlight recent developments, challenges, and future prospects of automation and robotics in pharmaceutical analysis.

Keywords: Automation, Robotics, High-throughput screening, Pharmaceutical analysis.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1356

FORMULATION AND PHARMACOKINETIC EVALUATION OF ACEBROPHYLLINE ORODISPERSIBLE TABLETS

Sripathi Srinivas, Pabba Parameshwar
Career Point University, Kota, Rajasthan, India.
srinivas47pharma@gmail.com

Abstract:
The novel approach for development of new formulations for avoiding the problems with conventional dosage forms is orodispersible tablets which are giving maximum bioavailability with the 20 min, we selected Acebrophylline 12 different formulations with different polymers blend in out of 12, 12th formulation had improved post formulation parameters and is subjected to in vitro evaluation and dissolution finally F12 showed optimal bioavailability.

Keywords: Acebrophylline, polymers blend, orodispersible.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1357

DEVELOPMENT AND CHARACTERIZATION OF TRANSDERMAL PATCH FOR MANAGEMENT AND TREATMENT OF MENTAL ILLNESS

Arpita Srivastava
Madhyanachal Professional University, Bhopal, Madya Pradesh, India.
srivastavaarpita810@gmai.com

Abstract:
Psychosis is a psychiatric condition that has significant overlap with neurologic disease. This article is intended to educate the neurologist on the psychiatric manifestations of psychosis and its evaluation, diagnosis, and treatment. To diagnose patients with psychosis, it is important for clinicians to be able to evaluate and assess the five domains of psychotic illness: delusions, hallucinations, disorganized thinking (speech), grossly disorganized or abnormal motor behavior (including catatonia), and negative symptoms. Oral route is the most preferred route fastens in patient fulfilment; though, oral administration is more prone to hepatic first pass metabolism required higher dose of drug. Hence the non-invasive, non-paining, non-irritating topical delivery of formulation is an alternate technique associated with several advantages such as delivery of drug to specific site of action with reduced systemic toxicity, avoidance of first pass metabolism and gastric irritation, increasing release rate of drug from formulation to get better percutaneous absorption and for a moment topical application related to increase bioavailability with sustained release profile. The primary mode of administering macromolecules is therefore via injection, which is not without limitations, such as the invasive nature of injections eliciting pain and lower acceptance/compliance by patients, in addition to the requirement for administration by a trained administrator, Logically, the conventional routes of medication delivery have many inherent limitations which could potentially be overcome by advanced drug delivery methodologies such as transdermal drug delivery (TDD). We may be improving the therapeutic effect of drugs via approaches as transdermal patch hold on to part of skin. The power of adhesion of patch creates good penetration ability of TDDs by using arrangement of different penetration enhancers

Keywords: Psychosis, Penetration enhancers, Topical, Transdermal Patch, Drug delivery.

ICERIPLST/PH/2024/1358

HYDROTROPHY: A GREENISH TOOL FOR EXTRACTION OF PHYTOCONSTITUENTS PHARMACOGNOSY

Meghna Singh, Guno Sindhu Chakraborthy, Tanvi Dodiya
Parul University, Vadodara, Gujarat, India
meghnasingh67620@gmail.com

Abstract:
Extraction of phytoconstituents is a crucial component for the development of plant-based biomarkers has been made significance strikes from past few decades. This aims to focus on innovative trends and breakthrough utilization of hydrotrophy. It is an organic solvent free approach. The term was 1ST used by Newberg in 1916 to refer to anionic salts that drastically boost water solubility of poor soluble solutes at higher concenterations due to organized assemblies formed inside the solution at critical concenterations. It occurs when the second solute (hydrotrope) is introduced in large amount; it increases the solubility of first solute. The solute is called 'salted in' by additives that makes it more soluble in solvent and called 'salted out' when becomes less soluble. It is said that the solubility of the solutes like acids, esters, alcohols, aldehydes, ketones, hydrocarbons and lipids is considerable increased by forming weal interactions with hydrotropes like sodium benzoate, sodium alginate, sodium acetate, urea, etc. Hydrotropes such as sodium alkyl benzene sulfonates and sodium butyl monoglycol sulfate were used for the selective extraction of water insoluble phytoconstituents by cell permeabilization. It holds the promise of reforming extraction of phytoconstituents through enhanced solubility. In conclusion the recent advances hydrotrophy will be promising way to extract major to minor phytoconstituents from herbal drugs without using excess heat and temperature.

Keywords: Hydrotrophy, Extraction, Solubility, Phytoconstituents, Cell permeabilization.

ICERIPLST/PH/2024/1359

PHYTOCHEMICAL SCREENING AND TLC ANALYSIS OF MADHUCA LONGIFOLIA EXTRACTS: UNVEILING BIOACTIVE COMPOUNDS

Dilip Kumar Chanchal, Satish Kumar Sharma
The Glocal University, Saharanpur, Uttar Pradesh, India.
chanchaldilip014@gmail.com

Abstract:
Madhuca longifolia, commonly known as Mahua, holds significant traditional and medicinal importance due to its diverse array of phytochemical constituents. The present study focuses on the phytochemical screening and Thin Layer Chromatography (TLC) analysis of Madhuca longifolia extracts, aiming to identify and characterize bioactive compounds present in this plant species. The phytochemical screening involves qualitative analysis to detect the presence of secondary metabolites such as alkaloids, flavonoids, tannins, terpenoids, saponins, and glycosides in Madhuca longifolia extracts. This comprehensive screening provides insights into the potential medicinal properties of the plant. Thin Layer Chromatography (TLC) serves as a powerful tool for the separation and identification of individual compounds within complex mixtures. The study employs TLC to profile the chemical composition of Madhuca longifolia extracts, allowing for the visualization and quantification of distinct compounds. The development of characteristic chromatographic patterns aids in the identification of specific bioactive molecules present in the plant. The findings from this research provide valuable information about the phytochemical composition of Madhuca longifolia, shedding light on its potential pharmacological and therapeutic applications. Furthermore, the identification of bioactive compounds through TLC analysis lays the foundation for future studies exploring the isolation, purification, and in-depth characterization of these compounds for pharmaceutical and nutraceutical purposes. Madhuca longifolia, with its rich phytochemical profile, holds promise as a source of natural products with diverse health benefits, and this study serves as a stepping stone towards unlocking its full potential.

Keywords: Madhuca longifolia, Phytochemical screening, Thin Layer Chromatography (TLC), Medicinal plants, Secondary metabolites.

ICERIPLST/PH/2024/1360

EXPANDING HORIZONS: EXPLORING THE BOUNDLESS SCOPES OF *MADHUCA LONGIFOLIA* IN DIABETES MANAGEMENT

Shahbaz Khan[1], Dilip Kumar Chanchal[2]
[1]SR College of Pharmaceutical Sciences Jhansi, Uttar Pradesh, India.
[2]College of Pharmacy, SR Group of Institutions, Jhansi-284419 Uttar Pradesh, India.
khandrshahbaz@gmail.com

Abstract:
Madhuca longifolia, the captivating Mahua tree, extends an invitation to embark on an exhilarating journey into the realm of diabetes management. Amidst the burgeoning challenges of this metabolic malady, the alluring potential of *Madhuca longifolia* beckons with promises of innovative solutions and novel therapeutic avenues. This review unveils the vast scopes awaiting exploration within the captivating world of *Madhuca longifolia*. With its diverse array of bioactive compounds nestled within its leaves, bark, flowers, and seeds, this botanical marvel presents an enticing landscape ripe for discovery. From flavonoids to terpenoids, each constituent whispers tales of healing potential, urging us to delve deeper into their intricate mechanisms of action. Venturing into uncharted territories, we uncover the expansive horizons of *Madhuca longifolia's* antidiabetic activity. Beyond mere glucose control, its multifaceted approach encompasses enhancing insulin secretion, improving tissue sensitivity, and orchestrating a symphony of antioxidant defenses to combat the ravages of diabetic complications. As we set our sights on the future, the allure of *Madhuca longifolia's* potential shines brightly. Clinical trials emerge as beacons of hope, illuminating pathways towards evidence-based validation and widespread adoption. Yet, the journey does not end there; it is but the beginning of a transformative voyage fueled by collaboration, innovation, and a shared vision of holistic health. In the grand tapestry of diabetes management, *Madhuca longifolia* stands as a vibrant thread, weaving together ancient wisdom and modern science into a seamless tapestry of healing. As we embrace its allure and chart new courses of discovery, let us seize the boundless scopes it offers, forging a path towards a brighter, healthier future for all.

Keywords: *Madhuca longifolia*, Diabetes, Clinical trials, Antioxidant.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1361

THE ROLE OF PHARMACOLOGICAL AGENTS IN MODULATING MITOCHONDRIAL FUNCTION AND METABOLISM

Vivek Tomar, Dilip Kumar Chanchal
College of Pharmacy, Jhansi, Uttar Pradesh, India.
vivek.tmr81@gmail.com

Abstract:
This review investigates the role of pharmacological agents in modulating mitochondrial function and metabolism, highlighting their significance in the context of various health conditions. Mitochondria play a pivotal role in cellular energy production, metabolism, and signaling, making them attractive targets for pharmacological intervention. Through a comprehensive analysis of recent literature, this review explores the diverse classes of pharmacological agents that exert effects on mitochondrial function, including mitochondrial uncouplers, antioxidants, and modulators of mitochondrial dynamics. It examines their mechanisms of action and their potential therapeutic applications in metabolic disorders, neurodegenerative diseases, and aging-related conditions. Furthermore, the review discusses emerging pharmacological strategies aimed at enhancing mitochondrial function and metabolic resilience, offering promising avenues for future research and therapeutic development.

Keywords: Pharmacological agents, Mitochondrial function, Metabolism, Therapeutic applications, Cellular energy, Health conditions.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1362

THE ROLE OF PHARMACOLOGICAL AGENTS IN MODULATING MITOCHONDRIAL FUNCTION AND METABOLISM

Neha Khan[1], Dilip Kumar Chanchal[1], Shahbaz Khan[2]
[1]College of Pharmacy, Gwalior Road, Ambabai, Jhansi, Uttar Pradesh, India.
[2]SR College of Pharmaceutical Science, Gwalior Road, Ambabai, Jhansi, Uttar Pradesh, India.
nehahashmi98@gmail.com

Abstract:
This review explores the recent advancements in nanoparticle-based drug delivery systems, focusing on their design strategies and diverse therapeutic applications. Nanoparticles offer a versatile platform for targeted drug delivery, enabling enhanced drug stability, bioavailability, and therapeutic efficacy. Through an in-depth analysis of current literature and cutting-edge research, this review discusses the principles of nanoparticle design, including the selection of materials, fabrication techniques, and surface functionalization approaches. It examines the role of nanoparticles in overcoming biological barriers, such as the blood-brain barrier and tumor microenvironment, for precise drug delivery to specific tissues and cells. Furthermore, the review highlights the therapeutic potential of nanoparticle-based formulations in various disease contexts, including cancer, infectious diseases, and inflammatory disorders. By synthesizing the latest developments in nanoparticle technology, this review aims to provide insights into the future directions of drug delivery research and its impact on clinical practice.

Keywords: Nanoparticles, Drug delivery systems, Design strategies, Therapeutic applications, Biomedical applications, Nanomedicine.

ICERIPLST/PH/2024/1363

INNOVATIVE STRATEGIES IN WOUND CARE - COMBINING ADVANCED DRESSING TECHNOLOGIES WITH NATURAL ANTIMICROBIAL AGENTS

Rohit Verma, Dilip Kumar Chanchal
College of Pharmacy, Gwalior Road, Ambabai, Jhansi, Uttar Pradesh, India.
rohit.pharma009@gmail.com

Abstract:
This review explores innovative strategies in wound care that capitalize on the synergistic benefits of advanced dressing technologies and natural antimicrobial agents. With a focus on enhancing wound healing and combating infections, the review discusses the integration of cutting-edge dressings with bioactive compounds derived from natural sources. By examining recent advancements and case studies, it elucidates the mechanisms underlying the effectiveness of such combined approaches. The review underscores the potential of these innovative strategies to revolutionize wound management, offering safer and more efficient solutions for promoting healing and preventing complications.

Keywords: Wound care, Advanced dressings, Natural antimicrobials, Innovation, Synergy, Healing.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1364

NANOSTRUCTURES AND NIOSOMES: A QUANTUM LEAP IN CLOTIMAZOLE THERAPEUTICS

Jitendra Singh Chaudhary
Smt. Vidyawati College of Pharmacy, Jhansi, Uttar Pradesh, India.
jeetu.ch7226@gmail.com

Abstract:
The aim of the present work is to evaluate extract of Carica papaya leaves.*Carica papaya* (Family: Caricaceae). *Carica papaya* leaf extract is utilized as a medicinal treatment for liver disorders, especially for those kinds that are parasitic. Alkaloids pseudocarpain, dehydrocarpaine I and II, choline, carposide, vitamin C, vitamin A, and vitamin E are found in 99 Leaves. The Chief vessel has papain in it (C6H14N4O3, MW-226.23). The young leaves are used medically in jaundice, urinary traits, gonorrhea, digestive conditions, bacterial infections, vermifuge, dengue fever, beriberi, abortion, asthmatic, malaria and issues with the skin. The green, yellow, and brown *Carica papaya* leaf included a variety of nutrients and supplements. The analysis showed that saponins, cardiac glycoside, alkaloids, vitamins, and mineral components are all present in the leaves. Antioxidant activity of the extracts was evaluated by using Diphenyl picryl hydrazyl (DPPH) radical scavenging. Hepatoprotective activity of the extracts was investigated by D-galactosamine induced liver damage model in rats. Hepatoprotective activity of the extracts was investigated by D-galactosamine induced liver damage model in rats.D-galactosamine significantly increased the levels of alanine aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase (ALP), total bilirubin and tissue TBARS levels. Pre-treatment of the rats with extract of Carica papaya leavesinhibited the increase in serum levels of ALT, AST, ALP, total bilirubin and tissue TBARS levels. The inhibition was comparable with silymarin (25mg/kg p.o). D-galactosamine induced significant decrease in tissue glutathione (GSH), superoxide dismutase (SOD), catalase (CAT), serum protein level, and serum albumin. Pre-treatment of the rats with aqueous extract of Carica papayleaves showed significant increase in tissue GSH, SOD, CAT, serum protein, and serum albumin level. The present study revealed that Carica papaya leaves have significant antioxidant and hepatoprotective activity.

Keywords: *Carica papaya*, DPPH, D-galactosamine, TBARS levels.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1365

EXPLORING THE THERAPEUTIC POTENTIAL OF MEDICINAL PLANTS IN WOUND HEALING

Neha Chaturvedi[1], Dilip Kumar Chanchal[2]
[1]SR College of Pharmaceutical Science, Gwalior Road, Ambabai, Jhansi, Uttar Pradesh, India.
[2]College of Pharmacy, Gwalior Road, Ambabai, Jhansi, Uttar Pradesh, India.
ch.nehass@gmail.com

Abstract:
Wound healing is a complex physiological process crucial for tissue repair and regeneration. Traditional medicinal plants have long been recognized for their remarkable therapeutic properties in promoting wound healing. This review critically evaluates the efficacy and mechanisms of action of various medicinal plants in wound management. Through an extensive survey of the literature, we identify key phytochemical constituents and biological activities of selected plant species known for their wound healing abilities. Furthermore, we discuss the underlying molecular mechanisms involved in the wound healing process, including inflammation modulation, antimicrobial activity, and promotion of tissue regeneration. Additionally, we highlight recent advancements in the utilization of medicinal plants as promising sources of novel wound healing agents, emphasizing their potential applications in modern medicine. By synthesizing current knowledge and research findings, this review provides valuable insights into the pharmacological basis and clinical relevance of medicinal plants in wound care, thereby facilitating the development of effective therapeutic strategies for improved patient outcomes.

Keywords: Medicinal plants, Wound healing, Phytochemicals, Biological activities, Tissue regeneration, Traditional medicine.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1366

COMPUTER AIDED PREDICTION OF ADMET PROPERTIES OF SELECTED PHYTOCHEMICALS FROM LEAVES OF *TERMENALIA CHEBULA*

Patil Adarsh Arun, Shailendra S. Suryawanshi
KLE College of Pharmacy, KLE Academy of Higher Education and Research, Belagavi, Karnataka, India
adarsharunpatilredmi@gmail.com

Abstract:
Terminalia chebula is a species of Terminalia, also referred to as chebulic myrobalan. Because of the plant's abundance of phytochemicals, it is well known for its biological properties, which include anti-inflammatory, anti-diabetic, and anti-cancer effects. Using computer-aided drug design tools, the primary goals of the proposed research project are to ascertain the properties of chosen phytochemicals from Terminalia chebula with regard to absorption, distribution, metabolism, elimination, and toxicity. Using computer and server-based techniques, an attempt has been made to investigate the ADMET properties of a few selected phytoconstituents from Termenalia Chebula in this work. Twenty-five have been chosen from the plant in total, and we are investigating ADMET. The canonical smiles are determined using the PubChem database server. Along with some toxicity investigations, the pharmacokinetic profile was determined using the admetSAR server. Information regarding the absorption, distribution, metabolism, and excretion profile of specific phytoconstituents, as well as some of their toxicity characteristics, have been made available by this work. The majority of the chosen phytochemicals exhibited good ADME profiling, according to the data. This study shows that computer and server-based screening are valuable tools for analyzing the ADMET of compounds from Termenalia chebula. The data collected from these screening methods can also be used to investigate phytochemicals for future research.

Keywords: ADMET, AdmetSAR Drug Design, Phytochemicals, PubChem, Termenalia Chebula.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1367

INVESTIGATION OF PHARMACOKINETIC PROPERTIES SOME PHYTOCHEMICALS FROM ALOE VERA USING COMPUTER AIDED DRUG DESIGN TOOLS

Ronak Dsouza, Shailendra S. Suryawanshi
KLE College of Pharmacy, KLE Academy of Higher Education and Research, Belagavi, Karnataka, India.
ronakdsouza8115@gmail.com

Abstract:
Aloe Vera is a well-known medicinal plant that is used to cure a wide range of illnesses and conditions. It is known to have beneficial phytochemicals. Therefore, it is crucial to research its pharmacokinetic characteristics. The primary goals of the proposed study are to use computational tools to ascertain the pharmacokinetic properties (Absorption, Distribution, Metabolism, Elimination, and Toxicity-ADMET) of certain phytochemicals from aloe vera. Using computer-aided drug design techniques, an attempt has been made to investigate the pharmacokinetic features of specific phytoconstituents from Aloe vera in the current study. We have chosen a total of 25 chemicals from the plant and investigated them using a study to predict their pharmacokinetic features. The canonical smiles are determined using the PubChem database server. Along with some toxicity investigations, the pharmacokinetic profile was determined using the admetSAR server. The investigation's findings have revealed details regarding the pharmacokinetic characteristics and various toxicity behaviors of particular phytoconstituents. The majority of the chosen phytochemicals exhibited good ADME profiling, according to the data. The current study suggests that data from admetSAR is helpful in exploring phytochemicals for future research, and that computer and server-based screening are key tools for screening the pharmacokinetic features of plant components. The results of the in-silico screening investigation show that the phytoconstituents that were examined are strong pharmacokinetic candidates.

Keywords: Aloe Vera, AdmetSAR, Computer Aided Drug Design, Pharmacokinetics.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1368

IN-SILICO PREDICTION OF PHYSICOCHEMICAL AND DRUG LIKENESS PROPERTIES OF SELECTED PHYTOCOMPOUNDS FROM LEAVES OF *MUNTINGIA CALABURA*

Siddhesh Bandekar, Shailendra S. Suryawanshi
KLE College of Pharmacy, KLE Academy of Higher Education and Research, Belagavi, Karnataka, India.
siddheshbandekar10@gmail.com

Abstract:

Muntingia Calabura is a well-known medicinal plant that has been shown to have various biological activity due to the presence of a large and complex variety of phytochemicals. The current research focuses on the computational prediction of drug similarity of chosen compounds from Muntingia Calabura plant leaves using a variety of software and services, including the PubChem database and Molsoft software. In this investigation, we used computer-aided drug design tools to screen the physicochemical parameters of around 20 phytoconstituents from the selected plant, including molecular weight, logP, hydrogen bond donor, and hydrogen bond acceptor. The findings of this inquiry demonstrated that the majority of the analyzed plant compounds followed Lipinski's RO5 and fell within the specified ranges of physicochemical parameters. The study concluded that the majority of the evaluated phytochemicals exhibited drug-like characteristics. As a result, this study provides thorough information on the drug-like properties of chosen phytochemicals, which may be useful for researchers in selecting suitable drug candidates for further drug development in the fields of drug discovery and design.

Keywords: In-Silico, Drug Likeness, Drug Design, MolSoft, Muntingia Calabura.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1369

QUALITY BY DESIGN ASSISTED DEVELOPMENT AND VALIDATION OF UV-SPECTROPHOTOMETRIC TECHNIQUE FOR QUANTIFICATION OF DAPAGLIFLOZIN: A METHOD OPTIMIZATION APPROACH BY DESIGN OF EXPERIMENT BASED CENTRAL COMPOSITE MODEL

Shailendra S. Suryawanshi, M. S. Palled
KLE College of Pharmacy, KLE Academy of Higher Education and Research, Belagavi, Karnataka, India.
shailendrasuryawanshi@klepharm.edu

Abstract:

Dapagliflozin is a well-known antidiabetic drug marketed in table dosage form. The main objective of proposed research work is to establish quality by design approach for development and validation of UV-Spectrophotometric method for quantification of Dapagliflozin in marketed tablets. In order to develop a UV method various steps involved in quality by design approach such as Defining Analytical Target Profile, Identification of Critical Quality Attributes, Identification of critical method parameters, Risk Assessment by employing fish-bone approach and Method optimization by Design of experiment (DOE) Software were followed. Method was developed by using Methanol: Distilled water (50:50%v/v) as solvent system in which Dapagliflozin showed maximum absorbance at 226 nm. Validation of method was performed as per ICH guidelines in terms of specificity, selectivity, linearity, range, sensitivity, precision, ruggedness and accuracy. The absorbance at 227 nm was taken into account as the response, while the solvent ratio and scanning speed were taken into account as independent variables. In order to predict responses within predefined ranges and optimize outcomes using mathematical modeling, we employed response surface plots and design space. These tools were instrumental in developing a framework for anticipating and enhancing responses within specified parameters. With r2 > 0.999 and % RSD <2, the technique demonstrated high linearity and good recovery. The established UV method can be concluded as a cost-effective quality control approach for routine and industrial level Dapagliflozin estimation in tablets.

Keywords: Quality by Design, Design of Experiment, Central Composite Model, Dapagliflozin, UV-Spectrophotometry.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1370

EXPLORING THE PROSPECTS FOR THE FUTURE OF HEALTHCARE: GENE-SPECIFIC MEDICINES

Pooja Uttekar, Hiralben Mehta, Kinjal Parmar
Parul University, Vadodara, Gujarat, India.
uttekarpooja955@gmail.com

Abstract:
This review explored the exciting future of healthcare by investigating the huge scope of gene-specific medicines. Gene-specific medicines provide an important change in healthcare, delivering specific treatment options to treat illnesses with underlying causes at the level of genetics. This specific approach assures precise therapy by targeting the underlying cause of diseases rather than symptoms. The individualization of treatment is a crucial distinctive feature since these medications have been modified to each patient's specific genetic composition. The benefits of gene-specific medications are numerous. Gene-specific medications work at the molecular level, focusing on specific genes that cause illness. By modifying treatment programs based on genetic information, improving patient tolerance, reducing side effects, and the risk of adverse responses is greatly decreased. This review explores the promises and possibilities of gene-specific medications, including their influence on healthcare delivery, therapeutic efficacy, and patient well-being.

Keywords: Gene-specific medicines, therapeutic efficacy, genetics

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1371

TO SYNTHESIZE THE SIMPLIFIED VANCOMYCIN ANALOGUE AND EVALUATION OF ITS ANALOGUE AS NOVEL ANTIBIOTICS

Prateek Porwal
FS University, Shikohabad, Firozabad, Uttar Pradesh, India.
prateekgupta2525@gmail.com

Abstract:

The issue of multidrug-resistant bacteria is a significant concern in the global healthcare landscape. While a wide range of medications exists for conventional therapeutic purposes, only a limited number of molecules has the ability to function as ultimate options for treating serious infections. Hence, it is essential to establish strategies for the management of multidrug-resistant microorganisms. In this study, we present a collection of newly synthesised vancomycin derivatives that include thiol- and disulfide-containing functional groups. The newly synthesised compounds demonstrated increased antibacterial efficacy against a diverse array of bacterial strains, including vancomycin-resistant microorganisms as well as Gram-positive bacteria. The synthesised conjugates exhibited significant antibacterial activity against vancomycin-resistant enterococci. In summary, the findings of this study illustrate the capacity of modifying the structure of existing antibiotics to provide strong molecules capable of effectively combating bacteria that have developed resistance to several drugs.

Keywords: Vancomycin, Antibiotics, Disulfide moieties, Microbes, Multidrug resistance.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1372

A REVIEW OF THE SYSTEM AND ITS WIDE RANGE OF THERAPEUTIC APPLICATIONS IN DIABETES FOR MICROPARTICLE DRUG DELIVERY

Gyan Singh, Prateek Porwal
The Glocal University, Saharanpur, Uttar Pradesh, India.
gspatel.singh320@gmail.com

Abstract:

Modern society gives great thought to the microparticulate drug delivery system (MDDS) because of its potential to solve the issues that have plagued conventional medicine for so long. Round particles with sizes between 10 and 1000 nm in diameter are called microparticles (MPs). MPs have the ability to encapsulate both soluble and insoluble substances. In clinical trials, MDDS were shown to be superior to conventional drug delivery methods in enhancing drug bioavailability, stability, targeting, and release control. By decreasing medication toxicity and dosing frequency, MPs also provide comfort, ease of administration, and enhanced patient compliance. This article discussed the production process, drug delivery, and potential therapeutic applications of MDDS. Drug release control via gastroretention, enhanced drug dissolution, reduced side effects, targeted drug delivery, mucosal drug delivery, natural products loaded with MPs, improved insulin stability, administration routes, andsustained drug release discussed in detail as therapeutic applications of antidiabetic drug-loaded MPs. The present scenario and potential future developments in creating MPs loaded with antidiabetic medicines also examined.

Keywords: MDDS, Stability, Drug release, Microsphere.

ICERIPLST/PH/2024/1373

PHYTOCHEMISTRY, MEDICINE, AND THE FLOWER OF *NYMPHAEA ALBA*'S (NYMPHAEACEAE) BIOLOGICAL ACTIVITY

Vinay Kumar Siroliya
P K University, Shivpuri, Madhya Pradesh, India.
vinaysiroliya@gmail.com

Abstract:

Traditional medicines derived from medicinal plants are used by about 60% of theWorld's population. Ayurveda is the traditional system of medicine prevalent inIndia since 2000 B.C. After thorough study.Most of the herbal preparations are free from side effects or reactions. Herbalmedicine provides rational means for the treatment of many internal diseaseswhichare considered to be obstinate and incurable in other system of medicines. The Anthelmintics activity of the Hydroachoholic extract of Nymphaea albaFlower was evaluated in vitro against earthworms, roundworms, and tapeworms atdifferent concentrations such as 25, 50, and 100 mg/ml. The activity of Hydroachoholic extract as an in vitro anthelmintic was assessedusing the technique. Because of their morphological andphysiological resemblance to human intestinal roundworm parasites, the activity of anthelminticswas tested on adult Indian earthworms, roundworms, and tape worms taken from Indian pigs.

Keywords: Nymphaea alba, Ayurveda, Nymphaeaceae, Phytochemistry, Medical uses.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1374

CURRENT SCENARIO ON NOVEL DRUG DELIVERY SYSTEM: MICROSPHERE

Mohit Saini, Jitender K Malik
P.K. University, Shivpuri, Madhya Pradesh, India.
mohitsainipharma@gmail.com

Abstract:
Targeted drug delivery aims to lower the relative concentration of the drug in the remaining tissues while increasing the concentration of the drug in the targeted tissues. The medication is thereby localized to the intended spot. Consequently, the medication has no effect on the tissues nearby. Thus, by attaching pharmaceuticals to carrier particles like liposomes, nanoparticles, microspheres, niosomes, etc., carrier technology offers a clever method of drug delivery by adjusting the release and absorption properties of the medication. Generally, proteins or synthetic polymers with a particle size of less than 200 μm are used to create free-flowing powders known as microspheres. These particles are biodegradable in nature. If modified, it can be a dependable method of delivering medications to the target location with specificity and of maintaining the required concentration at the place of interest without causing adverse effects. Microspheres have drawn a lot of interest for their ability to deliver anti-cancer medications to tumours and for their prolonged release. Microspheres will play a major role in the delivery of new medications in the future by combining a variety of techniques, particularly in the classification of diseased cells, diagnostics, genes, and genetic material, safe, targeted, and efficient in vivo delivery, and supplements in miniature versions of the body's diseased organs and tissues.

Keywords: Microspheres, Types of microspheres, Applications.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1375

RECENT DEVELOPMENTS IN HYDROGEL SYSTEMS: BIOMEDICAL APPLICATIONS DRIVEN BY BIOLOGICAL RESPONSE

Priyanka Ahirwar
Bhagwant Global University, Uttarakhand, India.
priyankaahirwar0107@gmail.com

Abstract:
Crosslinked polymer networks, or hydrogels, are able to absorb large volumes of aqueous liquids. Depending on whether the crosslink connections are chemical or physical, hydrogels can be classified into two groups. Permanent junctions are found in chemically crosslinked networks, whereas transitory junctions are found in physical networks due to physical interactions like hydrogen bonds, ionic interactions, or hydrophobic interactions, or polymer chain entanglements. Swellable polymeric polymers called hydrogels have been extensively studied as potential drug delivery system carriers. Due of their unusual properties, such as swelling in aqueous media, sensitivity to changes in pH and temperature, or sensitivity to other stimuli, these biomaterials have drawn interest. Because hydrogels are biocompatible, it has been established that they can protect drugs, particularly peptides and proteins from the in vivo environment. Furthermore, useful as targetable carriers for bioactive medications with tissue selectivity are these swelling polymers. An overview of the developments in hydrogel-based drug delivery, which have drawn the attention of most researchers, is provided in this article.

Keywords: Hydrogels, pH sensitivity, Temperature sensitivity, Glucose sensitivity.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1376

THERAPEUTIC POTENTIAL OF NATURAL BIOACTIVES FOR MANAGEMENT OF NEURODEGENERATIVE DISORDERS: INSIGHTS AND FUTURE TRENDS

Kushi Chouksey
Shri Rawatpura Sarkar University, Raipur, Chattisgarh, India.
Khushi2021chouksey@gmail.com

Abstract:

An important worldwide health issue is the gradual loss of neurons' structure and function caused by neurodegenerative illnesses. Current pharmaceutical therapies often provide symptomatic relief but don't stop the spread of illness. Therefore, it is vital to investigate cutting- edge therapy approaches. The therapeutic potential of natural bioactives is examined in this review, a promising area in the treatment of neurodegenerative illnesses. These bioactives, which come from a variety of sources including plants, fungus, and marine creatures, exhibit a wide range of neuroprotective benefits, such as anti-inflammatory, antioxidant, and anti-amyloidogenic qualities. In a thorough analysis of the available data on their molecular activity, we place special emphasis on how they interact with cellular pathways and receptors linked to neurodegeneration. Key data from pre-clinical and clinical trials examining the neuroprotective potential of these bioactives are also included in the review. Although there are still a number of difficulties, such as bioavailability problems and possible toxicity, new technical developments provide chances for the improvement of bioactive delivery. Offering a thorough introduction of this quickly developing profession, future views and trends are also covered, including personalised medicine and massive clinical trials. By highlighting the potential of natural bioactives as a frontier in the creation of cutting-edge treatments for neurodegenerative diseases, this review opens the door for further investigation in this field.

Keywords: Neurodegenerative disorders, Natural bioactives, Therapeutic potential, Mechanisms of action, Neuroprotection, Future trends.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1377

FORMULATION AND EVALUATION OF ACECLOFENAC MUCOADHESIVE MICROSPHERES FOR ORAL CONTROLLED DRUG DELIVERY

Ravi Rajput
Amardeep College of Pharmacy, Firozabad, Uttar Pradesh, India.
ravirjpt60@gmail.com

Abstract:

Drug delivery is a broad field of research on the development of novel materials or carrier systems for effective therapeutic delivery of drugs. The main purpose of delivering the drugs to mucosal membrane is lengthening of the residence time at site of drug delivery, followed by sustained release of the drug after the deposition. Aceclofenac is a non-steroidal anti-inflammatory drug that has a half-life of 4 h. The frequent administration of the drug irritates the gastric mucosa when it is given in conventional dosage forms. Controlled drug delivery systems (CDDS) are acquiring a significant position in the area of pharmaceutical research development sector. CDDS offer many advantages such as constant drug level at the site of action, prevention of peak-valley fluctuation, reduction in the dose of drug, reduced dosage frequency, avoidance of side effects and improved patient compliance. Mucoadhesive drug delivery systems has the potential to optimize both localized and systemic drug delivery by retaining a dosage form at the site of action and by intimate contact with the absorption site respectively. The advantage of using microspheres as oral mucoadhesive drug delivery system is that they can be trapped in the reductase of the stomach, and stay there longer. Besides, when poorly soluble drugs are loaded in the microspheres, they are either adsorbed at the surface of the microspheres or highly dispersed in the inner part of the microspheres which helps to enhance the solubility of poorly soluble drugs, results in reduction of drug dose, consequent minimization of side effects and improved bioavailability. Aceclofenac is a non-steroidal anti-inflammatory drug, a potent inhibitor of the enzyme cyclo-oxygenase (COX).

Keywords: Aceclofenac, Mucoadhesion, Microspheres, Permeation, Controlled delivery, Entrapment efficiency.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology
ICERIPLST/PH/2024/1378

PHYTOCHEMICAL AND PHARMACOLOGICAL STUDY ON THE LEAVES OF FICUS RELIGIOSA LINN FOR ANTILITHIATIC ACTIVITY

Shailendra Singh, Prateek Porwal
FS University, Shikohabad, Uttar Pradesh, India.
shailendrabhatiya@gmail.com

Abstract:
Herbal medicine is one of the oldest valuable gifts given to humanity. Many plants and herbs have a distinguished position in the medical field, including Ficus religiosa, which belongs to the Moraceae family. In Sanskrit, it is commonly referred to as "sacred figs", "bo trees", "peepals", and "Ashwattha". It is found in all parts of India and is one of the sacred trees worshipped by Hindus. The different parts of the tree of the species F. religiosa, i.e. bark, fruits, leaves, seeds and latex, are used as main indigenous drugs to cure various diseases. Recent studies have shown that F. religiosa is used in traditional medicine to alleviate about 50 types of diseases, including diabetes, diarrhea, epilepsy inflammation diseases, gastrointestinal disorders, sexual and infectious diseases. Green synthesis of nanoparticles (NPs) plays an important role in medicine, clinical applications, and in vitro diagnostics. This also facilitated the use of F. religiosa in the process of NP green synthesis. Applications of green nanotechnology using F. religiosa have shown that the phytochemical investigation of plant extracts includes flavonoids, tannins, phenoids, alkaloids, saponins, and terpenoids. Studies also show that extracts demonstrate therapeutic effects such as antioxidants, antibacterial, antiglycemic, antilipid, wound healing, antihelmintics, immune modulators, anticonvulsant and anti-ucerin in humans. The present study attempts to summarize and summarize the chemical and pharmaceutical applications of F. religiosa.

Keywords: Ficus religiosa, Phytochemistry, Pharmacology, Ashwattha.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1379

IN- SILICO CONSIDERATION OF ANTI- MICROBIAL PROSPECTIVE OF PLANT PHENOLIC AND FLAVINOIDS

Amit Kumar, Jitendra K. Malik
P.K. University, Shivpuri, Madhya Pradesh, India
amitsmdit011@gmail.com

Abstract:
Pathogenic microorganism infection poses a serious threat to human health. The need for innovative safe, and, efficient antimicrobial medicines has been driven by rising drug resistance case, unfavorable antibiotic side effects, and the development, such as drug –likeness and ADMET analysis, use computation to quickly and in this regard, the enzyme aminoacyl –tRNA synthetase (AaRS) has been the focus of recent research in the discovery of antibacterial agents. Docking studies were performed Molecular docking of aminoacyl-tRNA synthetize (AaRS) with chlorogenic acid, rutin, qurcetin andGallic acid was carried out by Auto Dock. Result: The molecular docking result revealed that chlorogenic acid, gallic acid, quercetin and rutin showed encouraging docking score. Hence from above finding it can be predicted thatphenolic and flavonoids found in the plant's extracts exhibited good inhibitor of lleRS enzyme.

Keywords: Chloroganicacid, Rutin, Quercetin, gallic acid and in-silico molecular docking.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1380

FORMULATION DEVELOPMENT AND EVALUATION OF CIMETIDINE FLOATING MICROSPHERES

Saurabh Savita[1], Prateek Porwal[2]
[1]MCS College of Science & Technology, Jhansi, Uttar Pradesh, India.
[2]FS University, Shikohabad, Uttar Pradesh, India.
saurabhsavi93@gmail.com

Abstract:
The floating drug delivery system (FDDS) appears to be one of the promising NDDS. FDDS be advantageous in improving the quality of gastric food and increasing the effectiveness of medical treatment. The oral dose actually moves from immediate to delayed, from sustained to specific to site delivery. The design of controlled oral drug delivery systems must primarily attain greater bioavailability. This is achieve by improved control of plasma drug concentration with a lesser amount of self-administration and continuous infusion of the drug. The intend of the current study is to prepare cimetidine floating microspheres using ionization techniques with different drug carriers. All Cimetidine formulas have been characterized by particle size, scanning electron microscopy, FTIR experiments, DSC, percentage yields, stability tests and have been found inside the limit. of all forms, F13 was chosen as an optimized form based on physicochemical and releasing studies. In the in vitro release of the F13 formulation, the control after 12 hours showed 96.10%, which is necessary for anti-inflammatory therapy. The pioneer of usual Cimetidine tablets showed a drug release of 96.15 percent within one hour. The release of F13 medication followed a zero order and Higuchi kinetics representing the distribution-controlled release of medication.

Keywords: Cimetidine, Floating microspheres, Chitosan, Gum kondagogu.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1381

DEVELOPMENT AND CHARACTERIZATION OF TRANSDERMAL PATCH FOR MANAGEMENT AND TREATMENT OF MENTAL ILLNESS

Arpita Srivastava
Madhyanachal Professional University, Bhopal, Madhya Pradesh, India.
srivastavaarpita810@gmail.com

Abstract:
Psychosis is a psychiatric condition that has significant overlap with neurologic disease. This article is intended to educate the neurologist on the psychiatric manifestations of psychosis and its evaluation, diagnosis, and treatment. To diagnose patients with psychosis, it is important for clinicians to be able to evaluate and assess the five domains of psychotic illness: delusions, hallucinations, disorganized thinking (speech), grossly disorganized or abnormal motor behavior (including catatonia), and negative symptoms. Oral route is the most preferred route fastens in patient fulfilment; though, oral administration is more prone to hepatic first pass metabolism required higher dose of drug. Hence the non-invasive, non-paining, non-irritating topical delivery of formulation is an alternate technique associated with several advantages such as delivery of drug to specific site of action with reduced systemic toxicity, avoidance of first pass metabolism and gastric irritation, increasing release rate of drug from formulation to get better percutaneous absorption and for a moment topical application related to increase bioavailability with sustained release profile. The primary mode of administering macromolecules is therefore via injection, which is not without limitations, such as the invasive nature of injections eliciting pain and lower acceptance/compliance by patients, in addition to the requirement for administration by a trained administrator, Logically, the conventional routes of medication delivery have many inherent limitations which could potentially be overcome by advanced drug delivery methodologies such as transdermal drug delivery (TDD). We may be improving the therapeutic effect of drugs via approaches as transdermal patch hold on to part of skin. The power of adhesion of patch creates good penetration ability of TDDs by using arrangement of different penetration enhancers.

Keywords: Psychosis, Speech, Transdermal drug delivery system, Macromolecules.

ICERIPLST/PH/2024/1382

GOOD AUTOMATED MANUFACTURING PRACTICES 5: UPDATES AND CHALLENGES

Simran Yadav, Sandeep Arora, Vikesh Kumar Shukla, Navneet Sharma
Amity University, Noida, Uttar Pradesh
ysimran877@gmail.com

Abstract:

This review article gives a comprehensive explanation of GAMP-5, which provides guidelines for various practices which are conducted in the pharmaceutical industries and focuses on the validation of computerised systems and moreover on the assurance of those computerised systems which will further be used by the end users giving them the required results and outcomes. GAMP is majorly operated by the automated users and the other manufacturers. Various software categories are described which build the basis of computerised systems and few can be tailored according to the need of the end users. GAMP- 5 is primarily designed for the pharmaceutical industries and limited to other fields and sectors which may not find these practice guidelines to be relevant. It is also complex as it requires appropriate investment of time and the resources and in case of small scale industries these practices are not applicable, keeping the guidelines up-to-date becomes challenging at some point of time, with various limitations there are several advantages like complying with the regulations becomes important aspect and can easily assuring, documenting and validating, various risk based approaches are considered which are effectively and efficiently applied to manage the risk factors as early as possible. It is a standardised approach which helps in reduction of errors (if any) enhancing the confidence of stakeholders. GAMP guides us to use the automated systems in such a way that the lifecycle activities provide the outcomes according to the needs and requirements of the individuals. GAMP is totally automated and can be complex in few areas. GAMP must be followed to enhance the global acceptance by the regulatory authorities.

Keywords: QbD, QMS, GAMP, SCADA, DATABASE.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1383

CURRENT STATUS OF PHARMACEUTICAL PRODUCTS BASED ON PHYTOMOLECULES

Abhishek Nagar
Career Point University, Kota, Rajasthan, India.
abhishek.seedling.nagar@gmail.com

Abstract:

Phytomolecules, derived from plants, have long been recognized for their therapeutic potential in traditional medicine systems worldwide. In recent years, there has been a resurgence of interest in phytomolecules due to their diverse pharmacological activities and perceived safety profile. This review provides an overview of the current status of pharmaceutical products based on phytomolecules, encompassing their extraction, formulation, pharmacological actions, and regulatory considerations. Firstly, the extraction methods of phytomolecules from various plant sources are discussed, highlighting advancements in extraction techniques aimed at maximizing yield and preserving bioactivity. Subsequently, the formulation strategies employed to enhance the bioavailability, stability, and therapeutic efficacy of phytomolecule-based products are examined. Emphasis is placed on novel drug delivery systems, including nano-based formulations and encapsulation techniques, which have shown promise in overcoming challenges associated with poor solubility and bioavailability of phytomolecules. Furthermore, this review addresses the pharmacological actions of phytomolecules across different therapeutic areas, such as anti-inflammatory, anticancer, antimicrobial, and neuroprotective activities. Notable examples of phytomolecule-based drugs currently in clinical use or undergoing clinical trials are discussed, shedding light on their potential as alternatives or adjuncts to conventional pharmacotherapy.

Keywords: Phytomolecules, Worldwide, Extraction, Solubility, Pharmacotherapy.

International Conference
On
Emerging Cutting-Edge Research & Innovations in Pharmaceutical, Life Sciences & Technology

ICERIPLST/PH/2024/1384

BIOLOGICAL AND CHEMICAL WASTEWATER TREATMENT PROCESSES

Musa Adamu Jajere
Yobe State University Damaturu, Yobe State, Nigeria.
musakuku84@gmail.com

Abstract:

This chapter elucidates the technologies of biological and chemical wastewater treatment processes. The presented biological wastewater treatment processes include: (1) Bio-remediation of wastewater that includes aerobic treatment (Oxidation ponds, aeration lagoons, aerobic bioreactors, activated sludge, percolating or trickling filters, biological filters, rotating biological contactors, biological removal of nutrients) and anaerobic treatment (anaerobic bioreactors, anaerobic lagoons); (2) phytoremediation of wastewater that includes constructed wetlands, rhizofiltration, rhizodegradation, phytodegradation, phytoaccumulation, phytotransformation, and hyperaccumulators; and (3) Mycoremediation of wastewater. The discussed chemical wastewater treatment processes include chemical precipition (coagulation, flocculation), ion exchange, neutralization, adsorption, and disinfection (chlorination/dechlorination, Ozone, UV light). Additionally, this chapter elucidates and illustrates the wastewater treatment plants in terms of plant sizing, plant layout, plant design, and plant location.

Keywords: Technologies, Treatment, Wastewater, Oxidation.