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7th World Conference on Pharmaceutical Science & Drug Manufacturing
18th-19th MARCH•2020•DUBAI

7th World Conference on Pharmaceutical Science and Drug Manufacturing

"Recent Advances and Innovations in Pharmaceutical Sciences and Drug Manufacturing"

Flora Creek Deluxe Hotel Apartments, Dubai
United Arab Emirates

18th - 19th March, 2020

Organized by:

BioLEAGUES Worldwide

In Association with:

ASSOCIATION OF PHARMACEUTICAL RESEARCH

ASSOCIATION OF PHARMACEUTICAL TEACHERS OF INDIA

Preface

This book reports the Proceedings of the ***"7th World Conference on Pharmaceutical Science and Drug Manufacturing"*** held at ***Flora Creek Deluxe Hotel Apartments, Dubai, UAE*** on the ***March 18th and 19th of Dubai – 2020***, organized by ***BioLEAGUES Worldwide***.

The publishing department has received more than 120 abstracts. After an initial review of the submitted abstracts, 43 papers were presented at the conference and were accepted for publication in the Conference Proceedings. The topics that are covered in the conference include Pharmaceutical research and development, Novel drug delivery system, Pharmacokinetics, Pharmacovigilance and clinical trials, Pharmaceutical nanotechnology, Monoclonal antibodies, Biotransformation of drugs, Prodrugs and their application, Bioavailability and Bioequivalence, Controlled release medication, Aspects of Pharmacotherapy, Clinical Pharmacology and Drug Development etc... We would like to thank all the participants for their contributions to the conference and the proceedings.

Reviewing papers of ***7th WCPSDM 2020*** was a challenging process that relies on the goodwill of those people involved in the field. We invited more than 20 researchers from related fields to review papers for the presentation and the publication in the ***7th WCPSDM 2020 Proceeding***. We would like to thank all the reviewers for their time and effort in reviewing the documents.

Finally, we would like to thank all the proceeding team members who with much dedication have given their constant support and priceless time to bring out the proceedings in a grand and successful manner. I am sure this proceeding will be a credit to a large group of people, and each one of us should be proud of its successful outcome…

7th WCPSDM 2020

From BioLEAGUES Director's Desk…

On behalf of **BioLEAGUES Worldwide**, I am delighted to welcome all the delegates and participants around the globe to the **7th World Conference on Pharmaceutical Science and Drug Manufacturing** which is going to be held at **Flora Creek Deluxe Hotel Apartments, *Dubai, UAE*** on **March 18th and 19th, 2020.** This conference will revolve around the theme ***"Recent Advances and Innovations in Pharmaceutical Sciences and Drug Manufacturing".***

It will be a great pleasure to join with Doctorates, Research Scholars and Academicians all around the globe. You are invited to be stimulated and enriched by the latest innovations in all the aspects in Pharmaceutical Technology and Biopharmaceutics, while delving into presentations surrounding transformative advances provided by a variety of disciplines.

I congratulate the Chairperson, Organizing Secretary, Committee Members, Coordinator BioLEAGUES and all the people involved for their efforts in organizing the **7th WCPSDM 2020** and successfully conducting the International Conference and wish all the delegates and participants a very pleasant stay at Dubai.

A. Siddth Kumar Chhajer
Director
BioLEAGUES Worldwide

ANNAMALAI UNIVERSITY
DEPARTMENT OF BIOCHEMISTRY & BIOTECHNOLOGY

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Dear Organizers, Scientists, Academicians, Industrialists, Research Scholars and Students

It gives me immense pleasure to deliver a keynote address to this International significant Scientific Program **7th World Conference on Pharmaceutical Science and Drug Manufacturing** with a theme **"Recent Advances and Innovations in Pharmaceutical Sciences and Drug Manufacturing"** to be held on **March 18th and 19th, 2020** at **Dubai, UAE** by BioLEAGUES Worldwide for the knowledge sharing and welfare of human beings. The delegates from clinical, academic and industry encouraged to address **"Recent Advances and Innovations in Pharmaceutical Sciences and Drug Manufacturing"** at this conference. Participants taking part in the various sessions will be afforded the opportunity to listen to learn and discuss with technical experts from around the world and from different backgrounds as they share their views and insights on how to catalyze local production of vital medicines in countries around the world. The conference has a lot of opportunities open for scientific research and development.

I once again welcome and thank the delegates for spending their precious time and energy to come over here to share the opportunity and enrich us with knowledge. Thanks a lot for the organizers for arranging such an amazing event of wonderful standard.

I wish all the delegates and participants a pleasant stay at Dubai and I believe that this International conference will bring constructive recommendations.

Dr. P. STANELY MAINZEN PRINCE
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Associate Professor
Department of Biochemistry & Biotechnology
Annamalai University, Annamalai Nagar - 608 002.

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Founder President: Shri. Rambhau Moze

WELCOME NOTE

"7th World Conference on Pharmaceutical Science and Drug Manufacturing"

18th & 19th March 2020, Dubai, UAE

On behalf of the Organizing Committee, we warmly welcome you to the **7th World Conference on Pharmaceutical Science and Drug Manufacturing** in the beautiful city of Dubai. The conference theme, ***"Recent Advances and Innovations in Pharmaceutical Sciences and Drug Manufacturing"*** has been carefully chosen to mark such a milestone of our society. We are privileged to be OCM of this important conference.

Over the last 10 years, Bioleagues members have made tremendous contributions in research, teaching and practice, resulting in impacts in many sectors of society. At this conference let us celebrate what we, as a professional community, have achieved. Additionally, our future vision is to create even greater value to all corners of the globe. This conference will be one for us to share our thoughts and exchange ideas on how to chart our journey forward to reach new heights.

We have an exciting program at this conference that will allow members to reflect upon and celebrate our past accomplishments, renew friendships and extend our networks, and jointly explore current and future research directions. We hope that you will have a productive and fun-filled time at this very special conference. We would like to thank all of the sponsoring organizations for providing their generous financial support. Lastly, we would like to thank all of the conference participants for their contributions which are the foundation of this conference.

G. S. MOZE COLLEGE OF PHARMACY PUNE-07 Wagholi

Prof. Nikhil S Bhujbal

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Dr. M. Sunitha Reddy,
M. Pharm, Ph.D,
FPGEE, NABP (Mem), R.Ph. USA
Assoc. Professor & BOS Chairperson

25/01/2020

Dear organizers, professionals of pharmacy and non-pharmacy, researchers and students.

It gives me immense pleasure and happy to give you welcome note on **7th World conference on Pharmaceutical Science and Drug Manufacturing** which is going to be held on **18th & 19th March 2020** at **Dubai**.

The scientific programs which are going to cover in conference are form basic scientific research to advance research in Pharma world. Without drug manufacturing there is no dosage form, the new techniques for preparation of dosage forms will give improved solubility and bioavailability of poorly soluble drugs. This conference has lot of opportunities open for scientific research and development.

I full heartedly welcome and thank you all delegates and organizers.

Dr. M. SUNITHA REDDY

From BioLEAGUES CEO's Desk…

It is indeed a privilege to acknowledge and thank all the supporters and organizers of the **"7th World Conference on Pharmaceutical Science and Drug Manufacturing",** who contributed greatly to organize the conference successfully.

I would like to acknowledge and thank the Chief Guest for his/her valuable contribution in the ***7th WCPSDM, Dubai, UAE.***

My special thanks to all of our Special Guests who so graciously accepted our invitation to participate in the conference. I also wish to acknowledge and thank the sponsors of the conference whose financial support was extremely grateful.

I would like to specially thank our Advisory Committee Members from various Organization whose continuous support have helped us plan and execute the conference successfully.

I am highly indebted to the contribution given by all the Scientists, Doctorates, Research Scholars, Academicians and students to the conference.

Mr. R. B Satapathy
Chief Executive Officer
BioLEAGUES Worldwide

Keynote Speaker

7th World Conference on
Pharmaceutical Science and Drug Manufacturing
18th - 19th March 2020, Dubai, United Arab Emirates

Drug Delivery Aspects of Phytomedicine

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Abstract

A phytomedicine or a phytopharmaceutical preparation can be defined as a medicine derived exclusively from a whole plant or plant parts and manufactured in a crude form or as a purified pharmaceutical formulation for the purpose of cure and mitigation of human ailments. The indigenous medicinal plants and plant-derived drugs are the potential source of alternative medicine and are extensively used to treat various health ailments for the first line of treatment. Use of the medicinal plants is a core component at primary health care level due to availability, acceptability, compatibility, and affordability. Dependency on these medicinal plants varies from country to country. Plant-derived drugs exhibit a vast array of biological activities and therefore, phytomedicines have been practiced worldwide since the ancient times for the prevention and treatment of various human diseases. Although modern medicine has taken over the lead from herbal medicines in the treatment of diseases in humans, the use of herbals has increased in recent years worldwide, as they are believed to be safer than modern medicines with little or no adverse effects. The World Health Organization emphasizes that between nearly 70% and 95% of the population residing in many developing countries still rely more on traditional phytomedicine for their primary medication against diseases. Further, all over the world there are around 35,000 species of plants that are currently being used in herbal therapies. The future of medicinal plant–derived drugs seems to have tremendous scope for discovering new and novel therapeutic strategies to identify a lead molecule so as to formulate a pharmaceutical product. The bioactive compounds (phytoconstituents) isolated from plants are also used as a therapy against various human infections and health disorders. In this context, we observed the strong anti-diabetic effects of plant extracts (Syzigium cumini seed extract,Tinospora cordifolia root extract, Aegle marmelos fruit extract, ,Enicostemma littorale extract, Trigonella foenum-Graecum extract) and phytoconstituents (rutin, D- pinitol) in experimental models. Futher, we established the potent cardiopreventive/protective effects of plant extracts (Aegle marmelos leaf extract) and phytoconstituents (Naringin, S- allyl cysteine, N-acetyl cysteine, rutin, quercetin,(-) epicatechin,(-) epigallocatechin gallate, vanillic acid, gallic acid, caffeic acid, sinapic acid, p-coumaric acid, zingerone)

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in experimental myocardial infarction. Our study revealed that the non-toxic nature of plant extracts and phytoconstituents as novel sustained delivery. A novel drug-delivery system can efficiently transport phytomedicines and be capable of increasing the therapeutic index as well as the bioavailability of the phytomedicines. Further, there are convincing evidences to suggest that consuming foods rich in phytochemicals may progressively reduce the risk of diabetes mellitus, cardiovascular diseases and many other diseases. Therefore, it appears that days are not far for the use of naturally occurring novel bioactive molecules shall become central part of all systems of medicine. The potency of herbal medicine in health care has been established by various phytochemical and pharmacological studies. Herbal drugs commonly administered as such or as extract of the whole herb or as herbal tea or fresh juice. Many times, the whole herb is consumed either fresh or in the dried and powdered form. The efficacy of a drug can be significantly affected by the method of drug delivery. The slowness in the efficacy of a treatment suggests a growing need for a specialty approach to the delivery of drugs to specific targets in the body. An efficient drug delivery system that can deliver an optimum amount of drug to the site of action that has to be developed for phytomedicine to make a successful bid in the treatment of various human ailments.

Biography:

Dr.P.Stanely Mainzen Prince obtained his M.Sc., M.Phil. and Ph.D. in Biochemistry from Annamalai University, Tamil Nadu, South India. He joined as a lecturer in the Department of Biochemistry in July 2000. He is currently the senior-most Associate Professor in the Department of Biochemistry and Biotechnology, Annamalai University from 10th July 2012. He has been actively engaged in teaching and research. He has 19 years of teaching and 23 years of research experience. He is involved in teaching M.Sc. Biochemistry and Biotechnology students and guiding M.Phil. and Ph.D. students. He has co-authored a chapter in a Book titledTraditional Herbal Medicines for Modern Times "Antidiabetic Plants" published by Taylor and Francis (CRC Press), New York, USA. He has organized 5 National Conferences in the Department of Biochemistry and Biotechnology. He has delivered invited lectures and chaired sessions in National and International conferences. He has delivered a keynote address in a Seminar. He is the author of more than 100 peer-reviewed international papers and has produced 9 Ph. Ds and 44 M.Phils. He has got h - index of 47 and i-10 index of 87 and overall citations of 6,500 to his credit. He has completed a Project under-Young Scientist Scheme sanctioned by the Department of Science and Technology (DST), New Delhi. He has served as Doctoral Committee member and Special Invitee, Board of Studies in Biochemistry at various Universities. Dr.P.Stanely Mainzen Prince is a member of the Board of studies in Biochemistry and Biochemical Technology (UG &PG) at Madurai Kamaraj University, Madurai, Tamil Nadu, South India. He is a member of the Departmental Research Committee and DST - FIST Implementing Committee. He was the Honorary Secretary, Society of Biological Chemists, Indian Institute of Science, Bengaluru, Karnataka. He is the Honorary Secretary of Society of Biological Chemists (India), Annamalai Nagar Chapter, Department of Biochemistry and Biotechnology, Annamalai University. Dr.P.Stanely Mainzen Prince is a Reviewer for numerous International and National Journals (Elsevier, Springer, Wiley, etc.). He is an Editorial Board Member in various Journals. He has been interested in the activities related to the identification of plant extracts and phytoconstituents for the treatment of type-2 diabetes mellitus. He is currently involved in the identification of cardioprotective natural products and dietary supplements for the prevention and treatment of myocardial infarction and heart failure. His research group observed the cardioprotective effects of certain plant extracts, flavonoids, phenolic acids, and phenolic alkanones and their mechanisms in myocardial infarction/ heart failure.

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7th World Conference on Pharmaceutical Science and Drug Manufacturing

" Recent Trends & Challenges in Nano Science and Nanotechnology "

ABSTRACTS

Dubai, United Arab Emirates

18th - 19th March, 2020

7th World Conference on
Pharmaceutical Science and Drug Manufacturing
18th - 19th March 2020, Dubai, United Arab Emirates

Development of Novel Herbal Spermicidal Film Formulation as an Immediate Contraceptive for Female

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Dr. Sandip S. Kshirsagar
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Abstract
The leaf extract of Azadirachta Indica has been reported to have effective spermicidal activity. This study was designed to evaluate the spermicidal and contraceptive activity, as well as the safety, of Azadirachta Indica (Neem). Using the Sander-Cramer test, the sperm-immobilizing activity of Neem was studied using highly motile human sperm. The sperm viability was assessed by fluorescent staining using SYBR-14 dye for living sperm and propidium iodide solution for dead sperm. The sperm membrane integrity was assessed by Transmission Electron Microscopy (TEM) and Scanning Electron Microscopy (SEM). The in vivo contraceptive efficacy was evaluated in rabbits using post-intrauterine application. Vaginal examinations were also performed to determine film induced vaginal inflammation. A dose-dependent effect of Neem leaf extract on the sperm motility and viability was observed. The maximum spermicidal effect was observed with a 0.40 mM concentration of Neem leaf extract. More than 98% of motile sperms was observed dead after Sander-Cramer test. TEM and SEM revealed significant damage to both the head and tail membranes of the sperm. It has been concluded that neem leaf extract with our developed formulation shows significant spermicidal activity that should be explored in further studies.

Key Words
Spermicidal, Contraception

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Biography:

Ms. Anuksha D. Jadhav is studying in Third Year B. Pharmacy as a student in Kasturi Shikshan Sanstha College of Pharmacy, Pune. She has participated in more than 10 national and 01 international seminars and conferences in the field of Pharmaceutical sciences including biomarking study. She is actively involved in college research activities and also she is member of college research and development committee.

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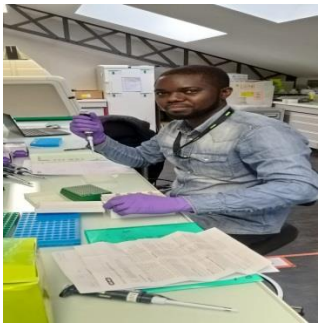

In vitro Inhibitory Activity against HSV and HPV of the Monoterpenoid Zinc Tetra-Ascorbo-Camphorate

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Laurent Bélec
Faculté de Médecine Paris Descartes, Université de Paris, Paris, France

Abstract
The zinc tetra-ascorbo-camphorate complex (or "C14" drug), a new monoterpenoid derivative, has demonstrated a potent anti-HIV-1 *in vitro* activity on both R5- and X4- HIV-1 infection of primary mucosal target cell and on HIV-1 transfer from dendritic cells to T cells, without significant *in vivo* toxicity in New Zealand White rabbit vaginal irritation model (Saïdi et al. *AIDS Res Ther*. 2008;5:10). We set out to explore the *in vitro* antiviral properties of "C14" against herpes simplex virus 2 (HSV-2) and 1 (HSV-1), and Human Papillomavirus (HPV). The antiviral activity of "C14" against the reference strain HSV-2-MS (ATCC® VR-540™) and acyclovir-sensitive clinical HSV-2 and HSV-1 isolates was further evaluated using plaque reduction assay on Vero (ATCC: CCL81) and human fibroblast MRC5 cells. Anti-HSV action was further approached by attachment (target cell exposed to the virus in the presence or absence of "C14") and penetration (viruses absorbed on pre-chilled cells) assays. "C14" inhibited both HSV-2 and HSV-1 replication with inhibitory concentrations (IC)50 ranging between 7.3 and 15.9 □M and selectivity indexes (SI) between 171 to 2577. The simultaneous treatment was more efficient that the post-infection treatment, suggesting that a direct inactivation of viral particles or inhibition of virus replication at the initial phases of the viral replication cycle could be involved. Anti-

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HPV activity of “C14” was assessed using inhibition assay of HPV16-virus-like particles (VLP) adsorption on Cos-7 cells. “C14” inhibited HPH16-VLP adsorption with IC50 ranging between 1.4 and 12.5 □M and SI between 51 to 1705. Pre-treatment of Cos-7 by “C14” before adding VLP-16 was associated more potent anti-HPV activity than simultaneous deposition on Cos-7 of mixture of VLP-16 and “C14”, suggesting that “C14” prevent more efficiently HPV attachment on target cells than HPV post-adsorption events. Overall, these preclinical studies suggest that the monoterpenoid zinc tetra-ascorbo-camphorate complex may be suitable for further testing as a broad spectrum candidate drug to prevent as possible microbicide male-to-female heterosexual acquisition of HIV-1 and associated cofactors of transmission such as HSV-2 and HPV, as well as to cure HSV-2 and HPV- associated lesions.

Key words
Zinc tetra-ascorbo-camphorate complex ; Terpenoid ; HSV-2 ; HPV ; In vitro antiviral activity

Biography
Prof Laurent Bélec, MD, PhD, MPH, is a professor of Medical Virology in Paris University, particularly involved in heterosexual HIV transmission and associated cofactors in sub-Saharan Africa. Dr Ralph-Ralph-Sydney Mboumba Bouassa, PhD, is a young researcher originating from Gabon, working on HPV-associated on cervical cancer in Africa. Dr Bernard Gombert, PharmD, and Aurèle Manarini are developing the monoterpenoid “C14” complex.

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Development of Stability-Indicating Spectrophotometric Methods for the Analysis of Zonisamide in Bulk and Dosage Form

Dr. Noon Noon Abubakr Abdelrahman Kamil
Fatima College of Health Sciences , Dubai, UAE

Abstract

The objective of this research was to develop simple, sensitive and stability-indicating zero (0D), first (1D) and second (2D) order derivative spectrophotometric methods for the analysis of zonisamide (ZON) in bulk and dosage forms. The original UV spectrum (zero-order) of ZON aqueous solution was measured at 284 nm against its blank. This spectrum was differentiated instrumentally to generate the first and second derivative spectra which were measured at 271+ 295 nm and 302+ 284 nm, respectively. The developed methods were validated as per ICH guidelines. Also the absorbance ratio between ZON absornance at 239 nm and 284 nm was determined. ZON degradation behavior in both acidic and alkaline media was investigated using first and second derivative spectroscopic methods. ZON obeyed beers law over the concentration ranges (10 – 60) µg/ ml for 0D and 1D and (20-100) µg/ ml for 2D. The correlation coefficient (r) was found to be (0.999 for 0D, 0.999 for 1D and 0.9989 for 2D). The detection and quantitation limits were found to be (LOD= 2.08 for 0D, 1.38 for 1D and 9.53 for 2D) µg/ ml; LOQ = 6.93 for 0D, 4.62 for 1D and 31.8 for 2D) µg/ ml. The precision of the developed methods were generally very good as RSD% values were ≤ 5%. The zero order derivative spectrum of ZON shows two sharp bands at 239 nm and 284 nm. The ratio between the absorbance at these wavelengths was found to be in the range (1.9 – 2.3) which can be used for qualitative analysis of ZON. Regarding ZON stability profile, it showed that the drug is unstable under acidic and alkaline conditions as it undergo degradation following the first order kinetics and it was found to be unstable in outdoor conditions also.The statistical validation at 95% confidence level proves the sensitivity, precision, accuracy and the stability-indicating properties of the developed methods.

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Biography

Dr. Noon Abubakr Abdelrahman Kamil, has her PhD in Pharmaceutical Chemistry from University of Khartoum, Sudan (August 2015 – May 2019). During that time, she managed to publish many publications and attend different International conferences in pharmacy field. Dr. Noon is working in Fatima College of Health Sciences pharmacy program, UAE. Her bachelor degree of pharmacy from University of Khartoum, faculty of pharmacy on April 2004 (First position, Excellent with degree of Honour). She also got her Master degree in Pharmaceutical Chemistry from the same University on August 2008. She has about three publications in peer-reviewed journals with high impact factor as well as he attending many international conferences. Furthermore, she obtained the prize of the best academic performance in Pharmaceutics University of Khartoum on 2004. She gave oral presentation in the 18th International Pharmaceutical chemistry Conference. Dubai, UAE, 18 October 2018.

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Development of Solvent-free Synthesis Method of Copper Nanoparticles and Evaluation for their Cytotoxic Activity

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Abstract
Various methods are available to prepare metal nanoparticles which are used in chemical as well as pharmaceutical industry. However, many of them are associated with problems. In order to minimize problems, there is need a to develop a method for the synthesis of metal nanoparticals. In this paper, we describe a new solvent free method to synthesize Cu/SiO2 nanoparticles. The synthesized Cu/SiO2 nanoparticles have been characterized by XRD, SEM and EDS analysis. Further, their catalytic activity was estimated by carrying out various chemical reactions. Antibacterial activity, cytotoxic activity against breast cancer cell lines, acute toxicity and blood biochemical assay were determined. Particles size of Cu/SiO2was found within 20-50nm range. Synthesized nanoparticles were catalytically active in the performed chemical reactions. Cu/SiO2 was found to function as an active antibacterial against gram positive and gram negative bacteria. Acute toxicity and blood biochemical assay results help us to conclude that the synthesized nanoparticles are non-toxic.

Key Words:
Nanoparticles, Copper, Antibacterial

ISBN: 978-93-89107-89-0

Biography

Dr. Sandip Sharad Kshirsagar is working as a Professor and Principal in Kasturi Shikshan Sanstha College of Pharmacy, Pune with the approval of Savitribai Phule Pune University (Former University of Pune). He has Published more than 50 national and international articles in the field of Pharmaceutical sciences including Cancer research. He has 4 Books in his credit.

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Simultaneous Quantification of Ibuprofen and Caffeine in Commercial Capsules by a Derivative Spectrophotometric Method

José Raúl Medina
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Abstract

Derivative spectrophotometry is a methodology used to identify drugs in a mixture of more than two compounds. These methods avoid the use of organic solvents that are involved in HPLC analysis. The aim of the work was the development of a method to quantify Ibuprofen (IBU) and Caffeine (CAF) in commercial capsules. Calibration curves of IBU were prepared at 7.5-15 µg/ml and CAF at 5-25 µg/ml in 0.1 M phosphate buffer pH 7.4. A Perkin Elmer Lambda 35 spectrophotometer was used with 1 cm quartz cells. Zero-order spectrum of IBU and CAF was determined from 200-300 nm for later to determine second-order derivative spectrum of each one. IBU was identify at 235.83 nm and CAF at 219.21 nm. Linearity of IBU was $y=0.043x+0.0186$, $R^2=0.9969$, $p<0.05$, $n=3$. Accuracy of IBU was $y=1.0981x-1.1433$, $R^2=0.9937$, $p<0.05$, $n=4$. Linearity of CAF was $y=0.0606x+0.0486$, $R^2=0.9993$, $p<0.05$, $n=3$. Accuracy of CAF was $y= 1.143x-1.7709$, $R^2=0.9998$, $p<0.05$, $n=4$. In all cases response factor was less than 4.5%. The proposed spectrophotometric method was selective enough to identify and quantify simultaneously IBU and CAF without mutual interference in Actron Plus® capsules (99.96±4.99 and 96.69±6.99, respectively, n=10) and Advil Max® capsules (98.84±9.78 and 97.81±6.45, respectively, n=10).

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Biography

M.Sc. José Raúl Medina is a Professor of Pharmaceutics at Biological Systems Department, Metropolitan Autonomous University-Xochimilco, Mexico City. He obtained his M.Sc. degree from Faculty of Pharmacy UNAM, Mexico City. In 1996 he joined Metropolitan Autonomouns University. Professor Medina has published more than 50 research papers in reviewed international journals and presented more than 90 oral and poster presentations. His research interests are in vitro evaluation of generic drug products as well as spectroscopic analysis to identify drug mixtures in commercial formulations.

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Dissolution Profiles of Furosemide Generic Formulations

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Abstract

Generic formulations are widely used for their low cost. Theoretically, they have the same efficacy than reference products. Furosemide is an oral loop diuretic used in treating hypertension and edema. The drug has low solubility and low permeability and therefore its absorption is erratic and highly variable. The aim of the study was to determine the dissolution profiles of three furosemide generic formulations (40 mg) using the USP Apparatus 2 and the flow-through cell method. Lasix® product was the reference. Dissolution profiles were obtained with automatic dissolution apparatuses (Sotax AT-7 Smart and CE6 model). Paddle apparatus was used at 50 rpm with 900 ml of dissolution medium and flow-through cell with 22.6 mm cells and laminar flow at 16 ml/min. Dissolution medium was phosphate buffer pH 5.8. Drug was quantified at 274 nm for 60 min. To compare dissolution profiles several parameters were calculated: f2 similarity factor, mean dissolution time and dissolution efficiency as well as t50% and t80%. Also, some mathematical models were used to adjust dissolution data. All parameters support the significant difference between dissolution profiles of all generic formulations and reference ($p<0.05$). Weibull model better described the in vitro release performance of furosemide from commercial formulations.

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Biography

M. Sc. José Raúl Medina is a Professor of Pharmaceutics at Biological Systems Department, Metropolitan Autonomous University-Xochimilco, Mexico City. He obtained his M. Sc. degree from Faculty of Pharmacy UNAM, Mexico City. In 1996 he joined Metropolitan Autonomouns University. Professor Medina has published more than 50 research papers in reviewed international journals and presented more than 90 oral and poster presentations. His research interests are in vitro evaluation of generic drug products as well as spectroscopic analysis to identify drug mixtures in commercial formulations.

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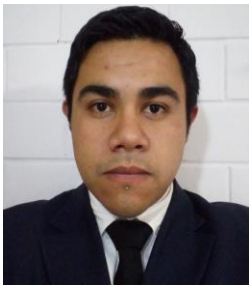

In vitro Release of Warfarin Sodium Tablets Using the Flow-Through Cell Method

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Abstract

Determination of *in vitro* release performance is required before carrying out bioavailability or bioequivalence studies. Several authors have reported that flow-through cell method is an alternative to commonly used basket and paddle apparatuses because it better simulates the gastrointestinal environment. Warfarin sodium is used to prevent thrombosis and thromboembolism and according to Biopharmaceutic Classification System is a class II drug (low solubility/high permeability). These compounds are candidates to establish a significant *in vitro*/*in vivo* correlation. The aim of the study was to determine the dissolution profiles of warfarin sodium reference formulation (Coumadin® 5 mg) using the flow-through cell method. Dissolution profiles were obtained with an automatic USP Apparatus 4 (Sotax CE6 model) with 22.6 mm cells and laminar flow at 16 ml/min. Distilled water, 0.1 N HCl, buffers pH 4.5 and 6.8 were used as dissolution media. Warfarin sodium was determined at 308 nm for 60 min. To analyze the rate and extent of dissolution performance Mean Dissolution Time (MDT), Dissolution Efficiency (DE) and $t_{80\%}$ were calculated. The better dissolution media was distilled water and phosphate buffer pH 6.8 with following results: MDT 69-77%, DE 46-51% and $t_{80\%}$ 53-64 min. A limited extent was found with other media (<20%).

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Biography:

Mr. Juan Manuel Contreras is an undergraduate student of QFB at Metropolitan Autonomous University-Xochimilco, Mexico City. Mr. Contreras has been involved in a research program of Biological Science Division of this academic institution since January 2019. He supports the in vitro evaluation of generic drug products sold in the local market as well as spectroscopic methods development to identify drug mixtures in commercial formulations.

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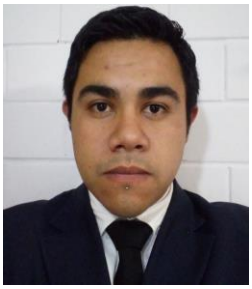

Spectroscopic Determination of Acetylsalicylic Acid, Acetaminophen and Caffeine in Fixed-Dose Solid Oral Dosage Forms

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Abstract

Many analytical methods are based on chromatography determination not only for its easy handling but also by the wide variety of compounds that can be determined however, chromatographic analysis uses a lot of organic solvents that are harmful to the environment. UV derivative methods are an alternative methodology to identify and quantify drug mixtures without the toxic waste that HPLC generates. The aim of this work was to develop an-UV derivative method to quantify Acetylsalicylic Acid (ASA), Acetaminophen (ACE) and Caffeine (CAF), without the simultaneous interference of each one, in Excedrin® (250, 250, 65 mg) tablets. Analysis was carried out in a PerkinElmer Lambda 35 spectrophotometer with 1 cm quartz cells. Drugs were dissolved in 0.1 M phosphate buffer pH 7.4 to achieve the following concentrations: ASA (5-25 µg/ml), ACE (2.5-20 µg/ml) and CAF (1-8 µg/ml). ASA and CAF were determined in first-derivative order spectra at 244.64 and 254.89 nm, respectively and ACE in second-derivative order spectra at 219.17 nm. Linearity, accuracy, precision, stability and influence of the filter were evaluated. All validation parameters fulfill the established criteria and the proposed method was applied to analysis of commercial tablets. A complete dose of each drug was found.

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Biography:

Mr. Juan Manuel Contreras is an undergraduate student of QFB at Metropolitan Autonomous University-Xochimilco, Mexico City. Mr. Contreras has been involved in a research program of Biological Science Division of this academic institution since January 2019. He supports the in vitro evaluation of generic drug products sold in the local market as well as spectroscopic methods development to identify drug mixtures in commercial formulations.

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Development of Novel Herbal Spermicidal Film Formulation as an Immediate Contraceptive for Female

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Abstract
There are many contraceptives are in market which can cause serious problems in females. Development of herbal aqueous formulation to avoid mispregancy, easy to use, without side effects, without decreasing their sexual passion and performance were our major objective of study. Out of all dosage forms, vaginal gel formulations present indubitable benefits for contraceptive administration but use of such contraceptive formulation may not reach 100% towards site of action. Therefore, this research has found herbal vaginal spermicidal films to avoid STD's during or after intercourse. During our formulation we have utilized herbal drugs and excipients to avoid toxic effect of synthetic drug material on females. Formulated product has been carried out for in vitro release study using USP grade dissolution test apparatus. Formulation were tested for thickness, content uniformity test, moisture uptake, flatness, Folding endurance, Tensile Strength, Microbial limits, Sterility, Rolling ball test, In Vitro Permeation studies, flow through diffusion cell. All results were found satisfactory with their readings.

Key words:
Spermicidal, Contraception

Biography:
Ms. Roshani R. Gawari is studying in Third Year B. Pharmacy as a student in Kasturi Shikshan Sanstha College of Pharmacy, Pune. She has participated in more than 10 national and 01 international seminars and conferences in the field of Pharmaceutical sciences including breast cancer

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research. She is actively involved in college research activities and also she is member of college research and development committee.

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A Minireview on Synbiotics , Alzheimer's Disease and Antibiotics

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Abstract

Probiotics are the living microorganisms give health benefits when ingested in adequate amount. Alzhimer's Disorder (AD) is a progressive neurodegenerative disorder which may lead to memory loss. Certain strains of probiotics influence central nervous system via microbeta-gut-brain-axis. Supplements of Alzheimer's disease influence gut bacteria composition. It also influence tryptophan mechanism. The intestinal flora influences brain activity. AD people when ingest antibiotics may lead to gut microbeta declination. The gut microbial activity is directly linked with the inflammation developed during the disease. The most common strains used are Bifidobacteria and Lactobacillus strains. These are found commonly in yogurt, fermented cheese and vegetables. Gut microbeta can release neurotoxic ingredients like D-lactic acid and ammonia. It may lead to pro inflammatory effects on brain. According to the study it indicates changes in microbeta effect neurological disease. If bacterial flora decreased due to antibiotics ingestion in AD patient Aß deposition decreases and inflammatory molecules increases as cytokines and chemokinins. Synbiotics are nothing but a combination of prebiotics and probiotics. Prebiotics are the nutrition fibres to probiotics that can influence the growth of flora. Synbiotics have capability for stabilizing digestive pH, reduce inflammation, increase neuroprotective molecules. It helps reduction of Aß plaque .

Biography

Mr. Simanchal Panda has completed his Post Graduate Degree (M. Pharmacy, Specialization Pharmaceutics) from Department of Pharmaceutical Sciences, Utkal University, and persuing Ph. D. from Lovely Professional University, Jalandhar, Punjab, India. He is an MBA in pharmaceutical management. presently working as Associate Professor Pharmaceutics, at Pratap University –School of Pharmaceutical Sciences, Jaipur, Rajasthan, India. He has 45 research and review papers published in reputed national and international journalsHe has won the achievement award title, "Distinguished Researcher in Pharmacy" Awarded by, "RULA Awards" Powered by, "World Research Council" &

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"United Medical Council". He achieved Young Scientist Award in 2019 by Doc Rosh at Hilton International at Mumbai. He has recieved Young Talent 2019 Award at Kualalumpur, Malaysia by Bioleague, APTI and SPER. He has been attached to a number of reputed institution with academic and research activities as in Utkal University, Andhra University, Lovely Professional University, Trinity W. University, UK. He is Doctorate of alternative medicine and P.I., International Forensic Sciences enrolling for A.I.C.

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A Review on Solid Dispersion Multilayered Cafeine- Curcumin Granulated Tablet

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Abstract

Caffeine is a diuretic, antihypertensive, analgesic component. Caffeine is widely used as popular analgesic in gradient. Curcumin is derived from curcuma longa belonging to family Zingiberaceae. It is one of the popular chemical constituent having antiulcer effect. Here it is an attempt to enhance bioavaibility by formulation as solid dispersion granulated tablets. The initial stage ulcer patients can relieve pain and with a herbal wound healing effect of curcumin may result in eradication of peptic wound. Curcumin can be extracted by cold percolation method with acetone. And caffeine can be extracted from Cofea Arabica plant with boiling with water followed by chloroform swirling in separating funnel. Organic part can be removed by evaporation and caffeine can be collected out. Solid dispersion can be prepared by different grades of polymers like HPMC , PVP with urea. The solid dispersion has a capability of high dissolution rate. Rate of release from formulation can be studied by dissolution. The drug polymer stability can be studied by keeping them at various humidity range and temperature. FTIR and XRD may confirm the formulation and fusion of drug in polymer.

Keywords

curcumin, peptic ulcers, X Ray diffraction , FTIR, percolation

Biography

Mr. Simanchal Panda has completed his Post Graduate degree (M. Pharmacy, Specialization-Pharmaceutics) from Department of Pharmaceutical Sciences, Utkal University, and persuing Ph. D. from Lovely Professional University, Jalandhar, Punjab, India. He is an MBA in pharmaceutical management. presently working as Associate Professor Pharmaceutics, at Pratap University –School of Pharmaceutical Sciences, Jaipur, Rajasthan, India. He has 45 research and review papers published

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Ethylene-Co-Vinyl Acetate (EVA) Copolymers-Poly Vinyl Pyrrolidone (PVP) Polymeric Hybrid-Lipid Nanoparticles for Oral Delivery of Amphotericin B

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University of Nottingham, Malaysia
Billa N
University of Nottingham, Malaysia
Tung W H
University of Nottingham, Malaysia

Abstract

Amphotericin B (AMB) is a polyene antifungal agent that is used as first line of treatment. Despite the therapeutic efficacy provided by AMB, its potentially toxic effects have limited its clinical use. Lipid-based preparations have been developed recently to ameliorate some of the toxic effects of AMB. The emergence of the newer forms of SLN such as polymer–hybrid lipid nanoparticles, nanostructured lipid carriers and long-circulating SLN may further expand the role of this versatile drug carrier. The morphological pattern of the formulated nanoparticles was evaluated using SEM and STEM studies. they were carried out to the formulation with different polymers i.e. AmB-loaded PVP nanoparticles, AmB-loaded EVA nanoparticles and AmB-loaded PVP–EVA hybrid nanoparticles. Among the formulations, the hybrid possessed the highest amount of encapsulated AMB. Also, the formulas were assessed with regards to physicochemical characteristics of size, Poly Dispersity Index (PDI) and Zeta Potential (ZP). The data obtained are expressed as mean ± Standard Deviation (SD). After that, mucoadhesive studies using Chitosan were obtained for higher absorption window as a targeted delivery system.

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Biography:

Amr Wahba was born on February 7, 1993 in Jedda, Saudi Arabia. At the age of six he moved back to Cairo, Egypt, He received his B.Sc degree (Pharmaceutical Science) from Cairo University School of Pharmacy in 2014 with honors, the M.Sc degree (Pharmaceutics) from the same College in 2016 and M.Pil degree (Drug Delivery) from University of Nottingham Malaysia School of Science and Engineering department of Pharmacy in Feb 2020.

He has worked as a Quality Control and Quality Assurance since then in Unipharma Egypt. SIMCO pharmaceuticals and recently as Methodological Analyst in Julphar Pharmaceuticals.

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Airborne Video Surveillance System

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Abstract
Most surveillance systems only contain CCTVs. CCTVs, however, provide only limited maneuverability against dynamic targets and are inefficient for short term surveillance. Such limitations do not raise much concern in some cases, but for the scenario in which traditional surveillance systems do not suffice, adopting a fleet of UAVs can help overcoming the limitations. In this paper, we present a surveillance system implemented with a fleet of Unmanned Aerial Vehicles (UAVs). A surveillance system implemented with a fleet of UAVs is easy to deploy and maintain. A UAV fleet requires little time to deploy and set up, and removing the surveillance is also virtually instant. The system we propose deploys UAVs to the target area for installation and perform surveillance operations. The camera mounted UAVs act as surveillance probes, the server provides overall control of the surveillance system, and the fleet platform provides fleet-wise control of the UAVs. In the proposed system, the UAVs establish a network and enable multi-hop communication, which allows the system to widen its coverage area. The operator of the system can control the fleet of UAVs via the fleet platform and receive surveillance information gathered by the UAVs. The proposed system is described in detail along with the algorithm for effective placement of the UAVs. The prototype of the system is presented, and the experiment carried out shows that the system can successfully perform surveillance over an area set by the system.

Keywords
Surveillance, UAV, Fleet Control, UAV Network

Biography
Prof. Dr. Anil Batta is presently Professor & Head with senior consultant in Govt. Medical College, Amritsar. He did his M.B.B.S. and M.D. in Medical Biochemistry from Govt. Medical College, Patiala in 1984 and 1991, respectively. His research interest is mainly in clinical application especially cancer and drug de-addiction. He has supervised more than 25 M.D., M.Sc. and Doctorate researches and published more than 130 international research papers. He is the chief editor of America's Journal of

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Biochemistry. He is also working as advisor to the editorial board of International Journal of Biological and Medical Research. He has been deputed member Editorial Board of numerous International & National Medical Journals of Biochemistry. He has also been attached as technical advisor to various national and international conferences in Biochemistry. He has been attached as hi-tech endocrinal, genetics and automated labs of Baba Farid Univ. of Health Sciences, Faridkot. He has chaired various sessions in the Biochemistry meets. He has been designated as member Editorial Board of various in US and other European Courtiers. He is also involved in various research projects at Govt. Medical, Amritsar. He has done superspecialisation in Drug-de-addiction from PGIMER, Chandigarh.

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D-α-Tocopheryl Polyethylene Glycol 1000 Succinate (TPGS) Conjugated Biotin Nanomicelles: Towards Enhanced Bioavailability and Synergized Active Targetability of Anticancer Fisetin

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Department of Pharmaceutics, Poona College of Pharmacy, Bharati Vidyapeeth (Deemed to be University), Pune, India

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Abstract

The aim of the study was to develop Fisetin (FS) loaded D-a-tocopheryl polyethylene glycol 1000 succinate (vitamin E TPGS1k or TPGS)-biotin conjugated nanomicelles (denoted as FSTBM) to achieve controlled and targeted delivery with synergized anticancer potency FS. FS loaded TPGS micelles without biotin conjugation (denoted as FSTM) and FSTBM were smaller in size and good encapsulation efficiency. The critical micellar concentration of TPGS-biotin micellar solution was 0.08 mg/ml. The micelles demonstrated sustained release and biocompatibility in hemolytic toxicity assay. Bioavailability of FS from FSTM and FSTBM was increased by 3 and 5 fold with long circulation time, slower plasma elimination and no sign of blood and tissue toxicity as compared to free FS. Moreover,

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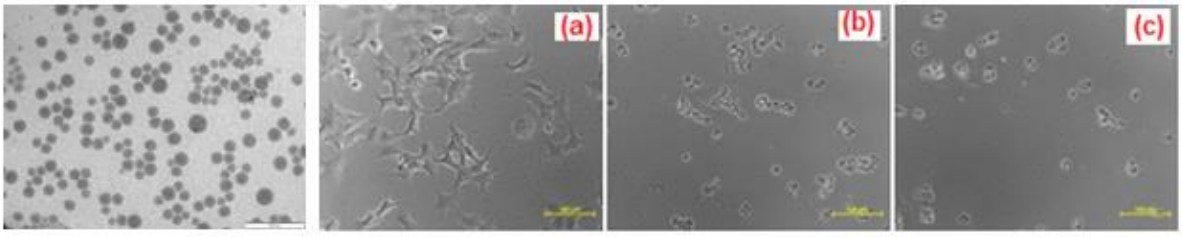
formulated micelles demonstrated higher in vitro anticancer activity in biotin over expressed human breast cancer MCF-7 cells. The targeting effect for the FSTBM was also demonstrated. The concentration of the drug needed for growth inhibition of 50% of cells in a designed time period (GI50) was decreased by 93.75% for the FSTBM (0.6 µg/ml) as compared to free FS (8 µg/ml). A synergistic effect of TPGS and FS was also achieved which reveals a new concept of a polymeric micellar drug delivery system where a carrier having therapeutic effects brings about a reduction in dose as well as cost.



TEM of FSTBM

(a) Breast cancer cell MCF, (b) FS treated MCF and (c) FSTBM treated MCF Cells

Acknowledgement:
The authors sincerely acknowledge Antares Health Products Inc, Jonesborough, USA for providing gift sample of D-α-Tocopheryl polyethylene glycol 1000 succinate (TPGS).

Biography:

Dr Bothiraja Chellampillai has expertise in the field of novel and targeted drug delivery systems. His rigorous research work has been dedicated in various research projects like nanoparticulate systems drug delivery, tumor targeting, solid dispersion and crystal engineering. He has 52 research papers published in various international and national journals depict quality, innovativeness and expertise achieved by him in mentioned research fields. He would also like to use his enthusiasm for science to involve students and help them to become successful and contributing members of the scientific community.

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Development and Validation of Stability Indicating HPLC Method for Estimation of Valganciclovir and Prediction of Possible Degradation Pathway by LC/MS

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Abstract
A specific, accurate, precise and sensitive stability indicating HPLC method was developed and validated for the determination of Valganciclovir hydrochloride in bulk drug and pharmaceutical dosage form in the presence of its degradation products. An isocratic HPLC method was developed with a X-Bridge, Waters C18 (250 X 4.6 mm i.d., 5µm) and Ammonium Acetate Buffer pH 3 (adjusted with glacial acetic acid) and methanol (55:45 v/v) as mobile phase. The flow rate was maintained at 1 mL min-1 and the detection was carried at 254 nm. The Retention Time (RT) of drug was 6.513 ± 0.10 min . The method was successfully validated according to ICH Q2 (R1) guidelines with respect to linearity, precision, assay, accuracy and robustness. The data of linear regression analysis indicated a good linear relationship over the range of 5-30 µg/ml concentrations with a correlation coefficient(R 2) of 0.9837. The drug was subjected to different stress conditions like acid, base hydrolysis, oxidation, thermal degradation and photolysis. The drug was found to degrade extensively under alkali hydrolysis. LC-MS spectra of alkali hydrolysis product was obtained and possible degradation pathway was proposed.

Biography:
Dr. Ayushi Gadekar, is highly motivated and positive individual with great organisational and communication skills. She has over 14 years of Academic experience as HOD, and PG teacher. She is fellow member of Society of Education and Research and life member of Association of Pharmacy Teachers of India. Recently she is been awarded with "Best Women Faculty" and "Young Researcher"

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Award. She has published about 15 Research papers and presented many in various conferences of national & International repute. She has guided 20 undergraduate and 4 postgraduate students.

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Development and validation of RP-HPLC Method for the Estimation of Niacin and Rosuvastatin Calcium in Combined Tablet

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Abstract
A simple, precise and rapid HPLC method has been developed and validated for the Estimation of Rosuvastatin calcium and niacin simultaneously in Formulation. Chromatographic Separation of the two drugs was performed on an Eclips XDB C8 column (150mm×4.6 mmid, 5µm particle size).The mobile phase used was a mixture of 0.2% v/v Aq.acetic acid: methanol: acetonitrile (50:25:25% v/v). At flow rate 0.8ml/min Detection was performed at 248 nm and sharp peaks were obtained Rosuvastatin calcium and Niacin at retention times of 3.43 min and.2.08 min respectively.
The calibration curve was linear in the concentration range 248-752µg/ml for niacin with recovery mean of 100.04% 5.20-15.20µg/ml for Rosuvastatin calcium with recovery mean of 99.82 % the correlation coefficients were 0.990 and 0.998 respectively. The optimized method showed good performance in terms of specificity, linearity, detection and quantitation limits, precision and accuracy in accordance with the International Conference on Harmonization (ICH) Q2 (R1) guidelines. This assay was demonstrated to be applicable for routine quantitation of Rosuvastatin calcium and niacin in Formulation.

Key Words
HPTLC, Niacin, Rosuvastatin Calcium

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Biography

Mrs.Dhamdhere R.B is working as an Assistant Professor in Kasturi Shikshan Sanstha College of Pharmacy, Pune with the approval of Savitribai Phule Pune University (Former University of Pune). She has published more than 07 national and international articles in the field of Pharmaceutical Sciences including QbD research. She has 1 Book in her credit.

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Growth Potential of Biosimilars in Emerging Countries

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Abstract

In view of the global changes in disease pattern, reduced health budget, patent expiry of some high valued products and side effects of chemical drugs, global pharmaceutical giants are concentrating on biotech products among which anticancer, cardiovascular, antidiabetic, antiasthmatic, antiarthritic products are specially important. However, developing a biotech product involved huge cost which is possible only by research based top companies. Realizing the fact, many pharmaceutical companies tried to imitate the original biotech products after patent expiry and became successful which bring a breakthrough in terms of health cost. These imitated products are termed as biosimilar products. Although the history of biosimilars started at European Union (EU) in 2006 with single product but currently it has been recognized everywhere in the world and EU have highest 19 biosimilar products. United States Food & Drug Administration (USFDA) was little conservative with biosimilars; nevertheless, they approved the first biosimilar 09 years after EU approval and presently they have three biosimilars which are playing significant role in price cutting of branded biologics. They also have so many biosimilars under pipeline. Emerging economies especially China & India are very aggressive with biosimilars. Considering easy regulation, cheap labor & related cost factors they are in little advantageous than others. Under Pharmaceutical Benefits Scheme Australian government is promoting biosimilars and they already approved 09 biosimilars. Japan, Korea, Canada, South Africa are also encouraging biosimilars. However, it is worth mentioning that in spite of enormous potentiality and rapid growth till to date biosimilar market is insignificant compared to total pharmaceutical market and success of biosimilars will depend on the acceptance by the physicians, treatment cost reduction, trust on manufacturer, proper information, drug substitution, efficacy, safety etc. Considering present stumpy growth in pharmaceuticals, geographical location, economic growth, drug policies, expertise etc emerging economies may be an impressive hub for rapid growth of biosimilar products.

Therefore, this study will concentrate to determine the growth potential of biosimilars in emerging countries.

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Biography

Md Abu Zafor Sadek is serving as a Marketing Manager of UniMed UniHealth Pharmaceuticals, one of the top tier pharmaceutical companies of Bangladesh having business connection with Johnson & Johnson (J&J), Abbott and other globally reputed companies.

Prior to joining UniMed UniHealth Pharmaceuticals, he worked for Popular Pharmaceuticals and Renata Limited as Manager and Senior Additional Manager, Product Management respectively. Being graduated in Pharmacy from Khulna University Mr. Zafor started his career as Product Executive. Thereafter, he completed his MBA in International Business from Dhaka University.

He has 14 years career in pharmaceutical management with excellent track record. His area of interests include launching time demanded new products, brand management, strategy formulation, business opportunity identification, international business, training, negotiation and diplomacy, presentation skills etc.

In addition to his regular job he has been awarded with Doctor of Business Administration (DBA) Degree from the Institute of Business Administration (IBA), University of Dhaka, the leading business school of the country and his thesis title is “Growth Potential of Biosimilars Products in Bangladesh”

He has 05 publications in different local & international journals including International Journal of Business & Management, Canada and Journal of Business and Economics, USA.

He has presented biosimilars and other topics at different conferences across the world including 5th European Biosimilars Congress, Valencia, Spain, 2nd Biosimilars Asia-Pacific Summit, Singapore and 10th International Exhibition on Biologics and Biosimilars, Orlando, Florida, USA.

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μ- opioid Receptor and ANO1 (TMEM16A) Inhibitors: A New Drug Discovery Agents for Cancer Therapy

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Abstract

Anoctamin-1(ANO1)/TMEM16A, a member of voltage-sensitive calcium-activated chloride channels (CaCCs), is highly expressed in human cancer cells and the ANO1 involvement in cell proliferation, cell migration, and cancer progression. CaCC currents are involved in multiple physiological processes, ranging from sensory transduction, epithelial secretion to smooth muscle contraction. CaCC opening in smooth muscle cells results in membrane depolarization due to Cl- efflux, since in contrast to skeletal muscle cells the intracellular Cl- concentration by Cl-/HCO3- exchange and Na+, K+, Cl- co-transportation. It is also well-known that ANO1 channels are overexpressed in cancer cells and to inhibit the dys- or overexpression of ANO1 receptors might be prevent the division of cancer cells. Many studies have showed that inhibition of TMEM16A may provide a new targeting approach for cancer therapy.

All opioid receptors μ-, δ-, κ) are present on immune cells, they couple to Gαi/o proteins and they influence immune cell function. In addition, all opioid peptides — ß-endorphin, enkephalin and dynorphin — their precursors, and necessary processing enzymes were identified in activated granulocytes, monocytes and lymphocytes suggesting an autoregulatory role.

Marine derived endophytic fungi in particular sponge-associated ones that can produce structurally unique and biologically active secondary metabolites. To date, there are many examples in the literature regarding the isolation, characterization and immense biological and pharmacological properties of distinct secondary metabolites from endophytic fungi.

Current studies investigating the regulatory activity of endophytic fungi derived natural products demonstrated that moderated μ-opioid receptor with over 80% radio ligand displacement. Results showed that μ-opioid receptors and ANO1 channel molecules might be useful for targeted cancer therapy.

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Biography

Dr. IDRIS ARSLAN has her expertise in natural compounds which are candidate for cancer therapy. He has identified novel compounds more than 10 from natural sources and most of them complex glycoconjugates. His PhD studies were about type –I RIPs (ribosome inactivating proteins) and their synergistic effects on cytotoxicity on cancer cell lines. Dr. Arslan's postdoc studies in Bonn University (Germany) are about natural receptor inhibitors in particular effective on cancer

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Formulation and Optimization of Silymarin Albumin Nanoprticles using Quality by Design Approach

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October University for Modern Sciences and Arts, Egypt

Abstract

Silymarin is a flavonolignans extracted from the milk thistle silybum marianum and is considered as an excellent hepatoprotective drug that can be used as an anti-inflammatory and anticancer agent. However; this drug suffers poor bioavailability owing to its poor solubility. Thus; encapsulating this drug into a nanovesicular structure could overcome this problem. One of the recent advances in nanotechnology is albumin nanoparticles, which have gained considerable attention being well tolerated and have high loading capacity for various drugs. Thus; the aim of this work is to investigate the potential of albumin nanoparticles in enhancing the solubility of Silymarin using Quality by Design (QbD) concept to develop a better quality product. A complete risk assessment study has been conducted, where the Critical Process Parameters (CPP), material attributes(MA) and critical quality attributes have been identified using the ishikawa diagrams. Selected variables were further screened using 26-3 fractional factorial design, which was further upgraded to a D-optimal design to develop the design space with the optimized formula. The most important CPP/MA were found to be the drug amount and the albumin content which were tested in the D-optimal design on each of the particle size, Polydispersity Index (PDI) and the Entrapment Efficiency (EE%). A comprehensive approach for albumin nanoparticles containing Silymarin has been conducted where the optimized formula showed 199.9 mg drug with 50 mg/ml albumin and showed a particle size of 134.7 nm with 0.2 PDI and EE% of 92.89%.

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Biography

a. Student at Faculty of Pharmacy, October University for Modern Sciences and Arts
b. lecturer at Faculty of Pharmacy, October University for Modern Sciences and Arts

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Synthesis & In-Vitro Screening of Novel Pyrrolidine & Piperidine Substituted Isooxazole as Anti Breast Cancer Agent

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Kasturi Shikshan Sanstha College of Pharmacy, Pratima nagar, Shikrapur, Pune, Maharashtra, India
Pratiksha Nikam
Kasturi Shikshan Sanstha College of Pharmacy, Pratima nagar, Shikrapur, Pune, Maharashtra, India

Abstract
A series of novel substituted chalcone analogs were synthesized & evaluated for anticancer activity against estrogen receptor positive MCF-7 breast cancer cell lines. Among the synthesized derivative 7a, 8a, 8b & 8d shows good antiproliferative activity as compare to standard tamoxifen. The study highlighted the advantage of introducing the amine side chain pharmacophore in substituted chalcone & isoxazole enhance the anticancer potential. The study also suggests that these analogues can serve as better therapeutic agents against breast cancer.

Key Words
Breast cancer, MCF-7, Isoxazole, chalcone

Biography
Mrs. Manjusha Chhabanrao Nevase is working as a Assistant Professor in Kasturi Shikshan Sanstha College of Pharmacy, Pune with the approval of Savitribai Phule Pune University (Former University of Pune). She has published more than 10 national and international articles in the field of Pharmaceutical sciences including Cancer research. She has 2 Books in his credit.

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Data Integrity & Patient Safety

Muhammad Naeem

Chief Operating Officer (Technical), Indus Pharma (Pvt.) Limited, Karachi, Pakistan

Abstract

Data integrity is fundamental to pharmaceutical quality systems which ensures that medicines are of the required quality. The data governance system is an integral part of the pharmaceutical quality system. During recent times data integrity breaches have increased the frequency of US-FDA warning letters, WHO Notices of Concern (NOC) and EU Statements of Non-compliance where false or misleading information has been identified during inspections. Failures in data integrity management can arise either from poor systematic control of the data management systems due to a lack of knowledge, human error or from intentionally hidden, falsified or misleading data. Increasingly complex regulatory environments have forced Pharmaceutical manufacturers to adopt a new mindset to compliance and auditing of data, regardless of the data collection and management systems. In all these systems data must hold high levels of integrity to assure compliance. To understand the pressing ramifications of the data integrity issue, we must remind ourselves that data is the backbone of cGMP compliance. Now a days various approaches are being utilized to reduce risk in pharmaceutical lifecycle processes. Most of times, data integrity failures are a result of misleading practices. But commonly all these failures indicate lack of management responsibility towards site operations particularly compliance to data integrity. In all cases, lapses in data integrity are regarded as a risk to patient safety. So, having clear policies & guidelines for companies on data integrity lapses is an important step to protecting patient safety. A key way companies can ensure product quality and patient safety is to create work cultures that emphasize the importance of data integrity and promote data integrity as a core value.

Biography

Muhammad Naeem has 20 plus years diversified experience in Quality Operations, Regulatory Affairs, Research & Development and Operational Excellence. He is an RAC-Global certified from RAPS as well as an active member of ISPE, PDA and RAPS, USA. He has an extensive working knowledge of ICH, USP, and BP, WHO, FDA, EMEA and other global regulations for Pharmaceuticals.

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He has led several Investigational/Developmental and Technical/Analytical Projects at CMOs in USA, Europe and Pakistan. Some of the major pharmaceuticals he served are Pfizer & Takeda (USA), CCL Pharmaceuticals and Indus Pharma (Pakistan). He has strong scientific, analytical, planning, managerial and training skills. He has attended many national and international conferences as a speaker on multiple topics like Quality Risk Management, Data integrity, Pharmacovigilance, QMS elements, Validation, cGMP Guidelines, etc. Currently, he is serving as Chief Operating Officer (Technical) at Indus Pharma.

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Importance of Product Quality Reviews & its importance in Product Lifecycle

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Abstract

Product Quality Review (PQR) or Annual Product Review is core function of Pharmaceutical Quality System (PQS). Purpose of these review is to verify the consistency of manufacturing process adopted, verify the appropriateness of specifications adopted for the testing & analysis of both starting materials & finish good, highlight any adverse quality trends & identify any product & process improvement. As per current guidance the manufacturer has to perform these reviews annually and where small number (statistically invalid) number of batches are manufactured review may be extended up to 2 years. The contents of PQR shall be designed in such a way that these are able to capture product quality events, investigate and thoroughly document any potential impact on process or system as a whole. In order to identify the trends in process an appropriate statistical method shall be used in this regard use of control charts, process capability & other related statistical tools may help. WHO, USFDA, TGA Australia, EU & PICS have issued specific guidelines regarding product quality review & its content. More or less the requirement by all these guiding bodies regarding content of PQR are the same & focus of all these bodies is continuous improvement of process & product quality throughout the product lifecycle. So, PQR not only serves as a tool for reviewing the product quality in a specific time period but it also serves as a tool for continuous improvement throughout the product life cycle.

Biography

Muhammad Zubair is in profession of Pharmaceutical Quality for last 7 years, during his career he has served in different organizations at different levels exploring all the aspects of Pharmaceutical Quality System. He is currently associated with Indus Pharma Pvt., Ltd. as Associate Manager Quality Assurance and he is responsible for various QMS functions like QRM, PQR, Internal Auditing, Supplier Qualification etc.

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He has an extensive working knowledge of ICH, USP, and BP, WHO, FDA, EMEA and other global regulations for Pharmaceuticals. He has strong scientific, analytical, planning, managerial and training skills. He has attended many national conferences as speaker & as audience on multiple topics like Quality Risk Management, Data integrity, QMS elements, Validation, cGMP Guidelines, etc.

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In vtero Exposure to Bisphenol a Alters Prostatic Responses in Adult Male Rats: Protective Effects of Melatonin

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Abstract

Exposure to Bisphenol A (BPA), an Endocrine Disrupting Chemical (EDC), has been shown to result in a number of reproductive dysfunction. Melatonin (MLT) is a potent antioxidant known to protect against EDC-induced toxicity. We aimed at investigating the protective effects of MLT on prostate gland dysfunction in the F1 adult male Wistar rats exposed to BPA in utero. Pregnant rats were randomly assigned into five groups (n=5): Control: 0.2 ml 1% Dimethyl Sulfoxide (DMSO)/99% canola oil; BPA 25 µg/kg/day; BPA 250 µg/kg/day; BPA 25 µg/kg/day + MLT 1 mg/kg/day and BPA 250

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µg/kg/day + MLT 1 mg/kg/day. Blood sample was collected for serum hormonal and biochemical assays. Histopathology of the prostate gland was carried using standard methods. The BPA significantly increased prostatic index compared to control ($p<0.05$). Furthermore, BPA induced prostatic oxidative stress and caused significant decreases in the levels of serum T and LH while significantly increased the levels of PSA, PAC and TAC. BPA-exposed rats showed a number of histopathological features of the prostate gland including hyperplasia (functional, reactive and atypical). However, concomitant treatment with MLT offered protection. BPA induced marked prostatic alterations, while melatonin co-administration protected against BPA-induced alterations of prostate function.

Keywords
Bisphenol A; Melatonin; Endocrine disrupting chemical; Prostate gland; Pregnant rats

Biography
Dr S. G. Olukole, the corresponding author of this abstract, is a Senior Lecturer, Department of Veterinary Anatomy, University of Ibadan, Ibadan, Nigeria. He is a Veterinary Surgeon and Researcher focusing on Reproductive and Endocrine Biology. He is the lead author of several publications in reputable international journals and has been speaker in a number of international conferences. Dr Olukole is currently the Sub-Dean Postgraduate, Faculty of Veterinary Medicine, University of Ibadan.

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The Discovery of Advanced Computational Tool for Numerical Identification of the Keystones of Pharmaceutical Market, Challenges and the Way Out

Rahali Lawali
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Abstract

The Sole Objective of the Research Study is to apply the concept of computational mathematics to identify the keystones of pharmaceutical market numerically, challenges and the way out.
The Purpose of the Research Study is to find out the possible answers to the following research questions: what are the keystones of pharmaceutical market, challenges and the way out? What are various drug preparations available in our pharmaceutical markets across the globe? What are the typical therapeutic goals of a standard drug?
The Research Instrument used in conducting the research study is an innovative formula mathematically represented as:
Input = {OI X Q} A Slide Per Letter
The Methodology used is based on numerical recognition and word proximity. It is direct and concise.
The Research Findings obtained at the end of study include the following:
i-Realization of pharmaceutical master card
ii-Identification of 5 pharmaceutical codes encoded inside the pharmaceutical master card
iii-Verification of 6 keystones of pharmaceutical market, 3 major challenges and the way out
iv- Confirmation 7 typical therapeutic goals of a standard drug
Conclusively, one of the 5 pharmaceutical codes can be applied to achieve one of the following goals: standardization of the system of drug discovery, verification of the basic anatomical structures to be prioritized in clinical trial of new medicine and pharmacovigilance, clarification of the basic protein-binding structures for understanding the mechanism of action of a drug molecule.

Biography

I am a registered nurse; i obtained my general nursing certificate from Sokoto State College of Nursing and Midwifery in year 2010. from 2014 to date i have been working with Usman Danfodiyo University Teaching Hospital, Sokoto. Nigeria. From December 2018 to October 2019, I have published nearly 23 Ebooks and 4 Paperbacks via Amazon, Lulu and Scholars' Press .Two of my Ebooks were listed among

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the 100 most paid in two of the Amazon marketplaces, namely: Amazon Germany [Ebook Title: The Discovery Of Gravitational Master Formula] and Amazon Canada [Ebook Title: The Microbial Code For Immediate Control Of Microbial Outbreak]

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Interaction of Caffeine and Carbamazepine with Respect to Anxiety and Nociception in Mice

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Abstract

The carbamazepine (CBZ) is effective in pain and mechanism of action for CBZ is by the interaction with adenosine receptor, which leads to the inhibition of release of neurotransmitter. Caffeine has affinities for different adenosine receptors. The central actions of carbamazepine and caffeine is due to both adenosine A1 and A2 receptors. Hence present study is attempted to find the interaction between CBZ & Caffeine with respect to anxiety and nociception in mice. The result shows caffeine reverses the antinociceptive effect of carbamazepine by stimulating dopaminergic function. There may not be involvement of chloride ion channels, calcium ion channels & adrenergic mechanism in this interaction.

Biography

Myself Mrs Reshma Vishal Pawar working as assistant Professor at Genba sopanrao Moze College of pharmacy, Wagholi, Pune (Pune University). I have completed my M.Pharm in Pharmacology from Pune University, and I am having 7 years of teaching experience. Have 2 national and 1 international papers in my credit

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A Study on Local Therapy Technique that can be used in Treatment of Aids and Some Other Diseases

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Abstract

Introduction: Local therapy is treatment that is directed to a specific organ or limited area of the body. It can shorten the length of infection, reduce complications, and reduce the spread to other tissues or organs. In some cases, it may be more effective, more specific and better than systematic therapy, with fewer side effects. In this research, I tried to evaluate and develop the use and implementation of some of these local therapy medications in treatment of some diseases including Acquired Immunodeficiency Syndrome (AIDS).

Material and methods: I used in this research direct face-to-face questionnaires to get my answers and data from adult people who experienced these diseases and therapies before. They provided me with all required information without identification data and without the need of any consent or legal permissions. Also I collected retrospectively registered data as nominal data to be easier in calculation and evaluation with a probability value $p < 0.05$.

Results: I got some data and results with a significant difference, e.g. 103 (103 from 129 total sample = 79.84%) patients with minor superficial wounds, who have an experience with these diseases and both of local and systematic therapies before, said that they had a faster recovery (by 2-3 days) if using a combination of a systematic antibiotic with a local antibiotic cream than using the same systematic antibiotic alone. Also, 4 patients (from a total sample of 6 = 66.66%) with AIDS got a faster and better outcome in decreasing viral load if using a combination of systematic oral antiretroviral treatment with injectable intramuscular injection of antiretroviral treatment (oral zidovudine 300 mg + lamivudine 150 mg USP, one tablet once daily for 24 weeks and with injection (intramuscular dosing) antiretroviral therapy, as injectable cabotegravir 400 mg + rilpivirine 600 mg one vial dose every 4 weeks for 24 weeks).

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Conclusions: The study revealed that we can use and develop some medications as an effective therapy in treatment of some diseases, including human immunodeficiency virus. I have suggested in this research a new additional way for treatment of AIDS, taking into account the possible side effects.

Biography

During a period of about 18 years of experience, I worked, as a Community Pharmacist (6 years), also, I worked as a Hospital Pharmacist (6 years), and as, a Clinical Pharmacist and Research Manager (6 years) Also, I am a Researcher and an Expert Consultant.

I have experience in many fields like in: Healthcare service(75% Of my entire experience peroid), Drug Market(30%), Project and Business Development(10%), Quality Control(15%), Training(25%), Research Design and Development(35%), Inpatient(30%), Outpatient(25%), ER(45%), Nutrition Support(5%), Nephrology(15%), Psychiatry(5%) and Oncology(5%).

I got many awards from local and international institutions and conferences because of my researches, like awards from: KSA, USA, Australia.

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Taste Masking of Herbal Kurchi Bark Powder and Fenugreek Seeds by Using Ion-Exchange Resin

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Abstract
In the current research, taste masked herbal kurchi bark powder and fenugreek seeds with ion exchange resin were formulated. The objective behind the research was to examine the ion exchange resin for its efficacy to mask the bitter taste of herbal drug powder. The present study was carried out to mask the bitter taste of herbal kurchi drug powder and fenugreek seeds by complexing them with cationic resin, Kyron T114 separately. Drug resin complex was prepared by batch process and efficient drug loading was obtain with drug-resin ratio of 1:1.5 and 1:2 for kurchi drug powder and fenugreek seeds respectively with 30min activation of resin in 25ml dilute HCl. The drug resin complex will be evaluated for dissolution studies, spectral studies and human panel will be used for rating the taste masked.

Keywords
Kurchi bark, Ion exchange resin, Complexation, Taste masking, Kyron T114.

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Improving Level of Serotonin through Tryptophan Supplementation

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Abstract

Tryptophan, the natural amino acid precursor in 5-HT biosynthesis, increases serotonin synthesis in the brain. serotonin synthesis mostly will depend on numerous factors including the free plasma tryptophan levels, the plasma levels of tryptophan relative to the other large neutral amino acids, the activity of the system that transports the large neutral amino acids into brain, the gene expression of tryptophan hydroxylase, degradation of tryptophan hydroxylase, compartmentalization of tryptophan and tryptophan hydroxylase in brain cells. The best ways of mental health recovery and prevention is nutritional therapy through supplementing specific nutrients like tryptophan. Such supplementation can help for controlling and preventing mental illness like depression, bipolar disorder, schizophrenia, eating disorders and anxiety disorders, Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD), autism, and substance use disorder.

Biography

I am graduated my second degree in masters of public health nutrition from Haramaya University of Ethiopia. I was been working as a researcher in the area of mental health and nutrition. I do have more than 10 publications and now I am working as public health emergency officer at Ethiopian Public Health Institute, Ethiopia.

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Prevalence Associated Factors of Substance Abused Among Private College Students in Bahir Dar City, North West Ethiopia, 2019

Yordanose Melaku kume
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Abstract

Introduction: -substance abuse was practice in Ethiopia mostly at the adult age groups in most substance abuse researches, it has been revealed(focused on) that the vulnerable social groups to substance abuse practice and to all their negative effects and also the age group involved with those activated were to be the young and college students. Using substance had been lots of impacts on the individuals and groups of health.

Objectives: -To assess the prevalence and its associated factors of substance abuse among the private college students in Bahir Dar City.

Method and Materials: - Institution based cross-sectional study was conducted. Simple random sampling technique was used for selection and self- administered questionnaires used for data collection. Descriptive statistics like frequency tables and charts were used for presenting result. Chi-square test was used for checking association factors between dependent and independent variables. P value <0.05 was declared as significant.

Result: -The study revealed that the current prevalence of cigarette smoking, alcohol drinking and chat chewing were 15(5.2%) ,191(65.9%) and12(4.1%) respectively. of the total smoker ,males were 15(5.2%),.in alcohol drinking ,males were 119(62.3 %)and females were 72(37.7%)and also chat chewing, males were12(4,1%) whereas females were not chewing chat from the total smokers, drinkers, and chewers, (75.2%) of the respondents used three substances.

Conclusion; the current prevalence of males were(5.2%)and females were unsmoker in cigarette smoking and the current prevalence of males were(62.3%)and females were(37.7%)in alcohol drinking and also the current prevalence of males (4.1%)and females were not chewer in chat chewing. From the total substance user,(75.2%)were used all cigarette ,alcohol and chat.

Recommendation -Bahir Dar private college with responsible body should developed intervention strategies on cigarette smoking, alcohol drinking and chat chewing.

Keywords

Cigarette smoking, chat chewing and Alcohol drinking

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Irrational Use of Antibiotics in Different Hospitals of Karachi

Dr.Yumna Batool
Iqra University North Campus Karachi (IUNC), Pakistan

Abstract

Anti-microbial resistance is rapidly increasing worldwide problem. Irrational use of antibiotics is the major determinant in the development of resistance. Antibiotics additionally stated as anti-bacterial medications that inhibits or slow down the increasing of microorganism. From discovery of antibiotics, decade introduced to the life expectancy of individual. Irrational use of antibiotics can cause resistance closer to extensive range of pathogens and bacteria. The emergence of resistance is threatening the usefulness of antibiotics. There is an inadequacy of novel sellers to encounter the challenge of resistant strains. A pass-sectional method turned into use to gather facts from different hospitals of Karachi. According to my survey antibiotics are prescribed to 76% youngsters. Although many kids have no want of it. According to my survey it was recorded on two hundred 200 adults,19.5% use antibiotics frequently,23% purchase antibiotics without prescription,52.5% by no means are seeking advice from the fitness care professionals,17% adults no longer comply with the complete course of antibiotics,26.5% skilled extreme aspect outcomes from antibiotics,41% don't understand that misuse of antibiotics they use can be effective in destiny for the same contamination,39% adults proportion their prescription of antibiotic with others. We concluded that the primary element that ends in irrational use of antibiotic and its resistance is lack of knowledge and flawed prescription information through physicians as the major population of our city is using antibiotics without having awareness regarding its proper use. There is an urgent need of those measures that can be taken to solve the emergence of antibiotics resistance.

Biography

I Dr.Yumna Batool, I am a Pharmacist.I pursued my qualification from "Jinnah University for Women" Karachi, Pakistan. After the completion of my degree i.e. Doctor of pharmacy I served my internship and trainee ship in Pharmacy Department at Tabba Heart Hospital, Karachi. I served as a Pharmacist in Department of Pharmacy at Zia Uddin Hospital,Karachi.I served as a Lecturer in Dewan University,Karachi.I am the author of publication in the area of Pharmaceuticals and health sciences. My published paper is on the topic of "Anti-depressant effect of energy drinks in teenagers" which is published in World journal of pharmacy and pharmaceutical sciences. Currently I am working as a lecturer in Iqra University North Campus, Karachi and teaching undergraduates students of Pharm-D

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during my career I observed many irrational uses of antibiotics which indicates me to conduct this research. Lack of knowledge about the rational use of antibiotics and antibiotic resistance were the main findings of this in-depth qualitative study.

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Incidence of Influenza like Illness among Children during Period of 2018-2019 in Islamabad

Zainab Mehboob
Department of Biosciences, Fatima University Islamabad , Pakistan

Abstract

Respiratory Syncytical Virus is being given attention worldwide because of its crucial impacts over public health. Not all viral infections are viral in origin. Undiagnosed viral respiratory infection can lead to a big loss in form of viral outbreak and subsequently increased number of deaths in 5 years age's children. As respiratory illness is ignored by most of the people confusing with routine infection or seasonal flu, it can have serious outcomes especially among children and infants. This research data will highlight the presence of RSV virus in population of Pakistan and it will help in devising a strategy for immunization against this virus to prevent deaths and hospitalizations. This study is also important with respect to protection from viral pathogens and reducing the death rate eventually among children. The scope of the study is to provide epidemiologic and clinical information about Respiratory Syncytical Virus that circulate in Pakistan between November 2018 to February 2019 to better characterize the extent and variability of this virus in the region.

Biography

Zainab mehboob is well settled government teacher and student doing research in respiratory syncyial viruses and other infectious disease. She has graduated and doing a lot of work in educational field

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Laboratory Biosafety and Biosecurity Status in Private Medical Universities and Research Facilities in Karachi, Pakistan

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Baqai Institute of Pharmaceutical Sciences, Baqai Medical University, Pakistan
Aisha Noreen
Baqai Institute of Pharmaceutical Sciences, Baqai Medical University, Pakistan

Abstract

Objective: The purpose of the research conducted was to originate an interconnection between trained and untrained students on laboratory biosafety and biosecurity protocols and to assess its importance. The overall results obtained correlated from the statistical data obtained from researches conducted by other authors of western world.

Method: A research study was done for data collection from students of five professional years of pharmacy across the medical universities from 13th September 2017- 22nd March 2018.The data was obtained using percentage and statistical correlation about laboratory safety acquaintance, standard laboratory practices uses and approaches, appropriate utilization of Personal Prospective Equipment (PPE) and its accessibility, along with biosafety and biosecurity awareness.

Result: Two groups A and B were categorized having total 351 participants. Group A had 227 participants, given an inclusive training on biosafety and biosecurity whereas Group B had 124 participants who didn't received any training on biosafety and biosecurity guidelines. Percentage based results were obtained of Group A students aware of biosafety and biosecurity protocols showing significant response of almost 53% of the questioner. Remaining 47% of questions in survey included Utensil Cleaning Evolution by Isopropyl Alcohol (76.21%), Mouth Pipetting (62.55%), Splash or broken glass cleaning without protocol (92.51%), Laboratory Acquired Infections awareness (90.32%), need of vaccinations after animal bite (55.94%) and mask usage throughout patient's examination (84.58%). An

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evaluation was made from this research that more workshop trainings for Group A participants are needed for following the biosafety and biosecurity guidelines provided by WHO. Another apprehension made was that untrained students showed insignificant results ($p > 0.6$) in comparison to trained students ($p < 0.04$).

Conclusion: There is limited knowledge about laboratory biosafety and biosecurity, so there is a need of advanced training in Group A students and basic training in Group B students.

Key words
Biosafety, Biosecurity, Personal prospective equipment, Laboratory Acquired Infections

Biography
This is Dr. Zuneera Akram, currently a lecturer, Department of Pharmacology, Baqai Institute of Pharmaceutical Sciences, as well as enrolled in Ph. D program in the same department and institute. I have a keen interest in Pharmacological and Herbal Research activities, and have a number of national and international achievements in Research Conferences. Apart from that I'm a Rotaractor, currently serving as District Medical Chair for District-3271 as well as President for Rotaract Club of Karachi Karsaz for-the tenure 2019-2020

The presentor for this abstract is Maryam Inayat, currently enrolled in Pharm-D in 4th professional year at Baqai Institute of Pharmaceutical Sciences. She has also presented in multiple national research conferences under my supervision. She also has a considerable interest in research especially in the field of Pharmacology.

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In Vivo Anti-diabetic Effects of Ethanolic Fruit Extracts of Grewia asiatica in Streptozotocin Induced Diabetic Albino Rats

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Aisha Noreen
Baqai Institute of Pharmaceutical Sciences, Baqai Medical University, Pakistan
Maryam Inayat
Baqai Institute of Pharmaceutical Sciences, Baqai Medical University, Pakistan

Abstract

Introduction:Diabetes mellitus is an endocrinological and/or metabolic disorder with an increasing global prevalence and incidence. Conventional drug therapy though effective in the management of diabetes mellitus is expensive and has toxic side effects. Herbal medicine would thus provide alternative therapy if effective and less toxic.
Objectives:This study has been designed to investigate the role of Grewia asiatica extract in controlling of diabetes in Streptozotocin (STZ) induced type 2 diabetes male albino (Wistar) rats.
Study Design:Experimental.
Period: March 2018- Sep 2018.
Method: Ethanolic fruit extract of Grewia asiatica (200mg/kg) was administered to STZ induced type II DM rat. Glibenclamide (GLB) known oral hypoglycemic agent was used as standard drug. The approach of the study was to observe the effect of Grewia asiatica on blood glucose levels. Rats were divided in four groups i-e Control, STZ treated, STZ + GLB treated and STZ +extract treated group.
Results: Grewia asiatica significantly improve the blood glucose levels as compared to the standard drug GLB in STZ induced group.
Conclusion: It was concluded that edible herb Grewia asiatica has potentials to cure the diabetes

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Key words
Streptozotocin, Diabetes mellitus, Glibenclamide, Grewia asiatica

Biography
This is Dr. Zuneera Akram, currently a lecturer, Department of Pharmacology, Baqai Institute of Pharmaceutical Sciences, as well as enrolled in Ph. D program in the same department and institute. I have a keen interest in Pharmacological and Herbal Research activities, and have a number of national and international achievements in Research Conferences. Apart from that I'm a Rotaractor, currently serving as District Medical Chair for District-3271 as well as President for Rotaract Club of Karachi Karsaz for-the tenure 2019-2020

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