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3rd World Congress on Pharmaceutics and Drug Discovery

Day :Dec 15th 2017

8.30am -9.00 am - **Registration**

9.00 am -9.15 am - **Inaugural session**

9.15 am -9.30 am - **Group photo**

Keynote Forum

9.30 am -10.00 am - **Dr Abdullah Ijaz Hussain**
GC University Faisalabad, Pakistan

Session chair

10.00 am -10.30 am - **Alessandra Piccitto**
Politecnico di Torino and Università di Torino, Turin – Italy

10.30 am - 10.45 pm - Coffee Break

Session Introduction

10.45 am -11.00 am --- Oral Presentation by *Dr. Fakhar-Ud-Din*
Topic: - Development and characterization of levosulpiride-loaded liquid suppositories with improved bioavailability and patient compliance.

11.00am – 11.15 am --- Oral Presentation by *Dr.Nitish Chauhan*
Topic: - Survey on awareness, perception and extent of usage of nutraceuticals and dietary supplement in local region of Uttar Pradesh, India.

11.15 am – 11.30 am	---	**Oral Presentation by *Dr. Anam Umar*** **Topic :- PHENOLIC ACIDS AND FLAVONOIDS FROM BIORESOURSES INHIBITS MELANOGENESIS IN MELANOMA CELLS**
11.30 am – 11.45 am	---	**Oral Presentation by *Dr. Tanveer Naveed*** **Topic :- Nutraceuticals – A niche for Global Market**
11.45 am - 12.00 pm	---	**Poster Presentation by *Dr.Ki Tae He*** **Topic :- Sialyllated oligosaccharides suppress cancer growth through inhibition of VEGFR-2-mediated angiogenesis**
12.00 pm - 12.15 pm	---	**Oral Presentation by *Dr.Swaiti Madan, Dr.Satyendra K Rajput*** **Topic :- Implications and Perspectives of Ecopharmacovigilance With Reference To India and UAE**
12.15 pm - 12.30 pm	---	**Oral Presentation by *Dr.Sailaja Rao*** **Topic: - Pharmacokinetic and Pharmacodynamics drug interactions of Metformin and herbal extract in streptozotocin induced diabetic rats.**
12.30 pm - 01.00 pm	---	**Poster Presentation by *Dr.Dongryeol Ryu*** **Topic :-Hepatic loss-of-Sirt7 promotes hepatocellular carcinogenesis in mice**
01.00 pm - 02.00 pm	---	**Lunch Break**
02.00 pm - 02.15 pm	---	**Oral Presentation by *Dr.Ramanpreet Walia*** **Topic :- Intellectual Property Rights(IPR)- Technical Know-How in India**
02.15 pm - 02.30 pm	---	**Oral Presentation by *Dr. Dibyajyoti Deka*** **Topic :- A COMPARATIVE STUDY OF GASTRIC ANTI-ULCER ACTIVITY OF THE LEAF EXTRACTS OF MURRAYA KOENIGII AND MORINGA OLEIFERA IN EXPERIMENTAL ANIMALS**

02.30 pm - 02.45 pm	---	**Oral Presentation by *Dr.Kibong Kim*** **Topic: - Effects of the Coptis Japonica and Glycyrrhiza Uralensis extract-based Hataedock treatment on Skin Fat Lipid Barrier Formation in infant mice.**
02.45 pm - 03.00 pm	---	**Oral Presentation by *Dr.Sireesha Kalva*** **Topic: - Pre-Clinical Evaluation of Citrullus Colocynthis roots: A promising herb to treat Type-2 Diabetes**
03.00 am -03.15 pm	---	**Oral Presentation by *Satyendra K Rajput*** **Topic :- Biostatistical Tool for Drug Discovery and Development**
03.15 pm- 03.45 pm	---	**Oral Presentation by *Dr.Maryam Sarwat*** **Topic :- Biotechnological Interventions to Formulate Anticancer Drugs from Crocus sativus**
03.45 pm -04.00 pm	---	**Coffee break**
04.00 pm - 04.15 pm	---	**Oral Presentation by *Dr. Nada Ahmad Al-Hasawi*** **Topic :- The in vitro anti-proliferative interaction of flavonoid quercetin and toxic metal cadmium in 1321N1 human astrocytoma cell line**
04.15 pm - 04.30 pm	---	**Oral Presentation by *Prof.Omobola Okoh*** **Topic: - Chemical composition, antibacterial and antioxidant properties of the flower and leaves essential oils of Bauhinia galpinii (N.E. Br) grown in South Africa.**
04.30 pm - 4.45 pm	---	**Feedback**
04.45 pm – 5.00 pm	---	**Vote of Thanks**

DAY END

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KEYNOTE FORUM

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3rd World Congress on Pharmaceutics and Drug Discovery

15th-16th , December 2017 at Dubai

Abdullah Ijaz Hussain

Natural Product & Synthetic Chemistry Lab, Department of Applied Chemistry, Government College University Faisalabad-38000, Pakistan.

CHEMICAL COMPOSITION AND PHARMACEUTICAL APPLICATIONS OF LAMIACEAE ESSENTIAL OILS: A COMPREHENSIVE STUDY

Abstract

The aim of the present study was to examine the effect of different environmental and agricultural parameters on the quality and biological activities of essential oils of Lamiaceae species. The essential oils contents from material collected from colder regions and at full bloom were higher than from temperate regions. The GC-MS analysis revealed that mostly quantitative, rather than qualitative variations were observed in the oil composition of each species with respect to harvest seasons. The principal chemical constituent determined in M. arvensis, M. piperita, M. longifolia, M. spicata essential oils from both the seasons were menthol, menthone, piperitenone oxide and carvone, respectively. The major chemical constituent of O. sanctum, O. gratissimum and O. basilicum essential

oils were eugenol, ß-caryophyllene, ß-elemene and linalool. The antiproliferative activity has been tested on breast cancer MCF-7 and prostate cancer LNCaP cell lines by the MTT assay. The antimicrobial and antioxidant activities were determined by using broth micro dilution, DPPH radical-scavenging and inhibition of linoleic acid oxidation assays. All the tested essential oils exhibited excellent antimicrobial, antioxidant, cytotoxic potentials. The significant ($p < 0.05$) variations in the contents of most of the chemical components and biological activities of seasonally collected samples were documented.

Biography

In 2009, I managed to obtain my doctoral degree in Analytical Chemistry from the University of Agriculture Faisalabad and the University of Ulster Coleraine, UK (Split Program). Availing TWAS-USM Postdoc Fellowship, I completed my one year Post-doctorate research at the School of Pharmaceutical Sciences, University Sains Malaysia, Penang, Malaysia in 2012. Currently I am working as Associate Professor of Chemistry and Director Hi-Tech Lab, GC University Faisalabad. I have so far supervising eighteen PhD/MPhil and 22 master students and I am PI of some research projects. I have published more than 80 research papers and secured > 80 IF.

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3rd World Congress on Pharmaceutics and Drug Discovery

15th-16th , December 2017 at Dubai

Alessandra Piccitto

Politecnico di Torino and Università di Torino, Turin – Italy

SynDiag – the new concept of prenatal diagnosis and therapy

Abstract

This work is a recently developed and patented algorithm for automatic extraction of a three-dimensional surface of fetus face from a registered stack of bi-dimensional ultrasound scans. It operates without human intervention, elaborating input data in the standard DICOM format with a two-steps statistical analysis based on volumetric histogram processing and 2D segmentation. It outputs a quantitative triangular mesh in PLY format, ready for further mathematical analysis.

By way of method validation and as an example of the application, we developed a diagnosis tool, based on the former elaboration, which succeeded in discriminating labio-schisis manifesting individuals from healthy individuals. The algorithm maps the individual's surface with geometrical descriptors

useful to identify the face's landmarks, i.e. pronasion and labrum superior, and compute a distance measure between each faces couple.
The algorithm correctly identifies left- and right-sided cleft lips, providing the physicians with a probability of pathology affection and supporting decision making. Since the method is fully automatic and pathology independent, it allows to easily populate large database of quantitative fetus' faces individuals, enabling objective pathologies to be characterized and normotypes defined. Finally, the fields of application of SynDiag are: gynecology and pregnancy, oral and maxillo-facial surgery, pediatrics, pharmacology and toxicology, tailored medicine, and surgery.

As antibiotic resistance continues to threaten the treatment of various infections – surgery wounds included, the following step of this work concerns the overcoming of the rise in antibiotic resistance by many bacterial pathogens (e.g. MRSA, P. aeruginosa). According to Prof P. Molan (Waikato University, NZ) studies and chemical analyses, in 2012 Jenkins and Cooper demonstrated that in vitro manuka honey with antibiotic agents have found a synergistic effect with oxacillin, tetracycline, imipenem and mupirocin against the growth of MRSA. In 2015 Roberts discovered that there was a down-regulation of proteins involved in flagellation in P. aeruginosa and the degeneration of its cell structural stability too. In addition, attempts to generate honey-resistant strains in the laboratory have not been successful and there have been no reports of clinical isolate with acquired resistance to honey (Blair et al. 2009 and Cooper et al. 2010). Nowadays hospitals and clinics using honey for wound care keep the honey in the wound by soaking it into a calcium-alginate or hydrofiber dressing, which forms a gel with the honey as it absorbs the exudate. In conclusion, the use of medical honey in wound care of patients, including the immunocompromised ones is now possible to eliminate infections caused by super bacteria.

Biography

Alessandra Piccitto is a registered Pharmacist in the United Kingdom. She received her MPharm degree from the University of Turin (Italy) after completing a research project at Durham University (UK) in 2010. She has been teaching human anatomy and chemistry in high schools of the north of Italy. She started her PhD at Politecnico of Turin (Italy) and she visited the University College London to develop a novel bactericidal surface with a strong activity against MRSA, S. mutans and P. aeruginosa. At present, she is currently continuing her studies on antibiotic resistant bacteria cooperating with high specialized universities and research institutes (e.g. Waikato University, NZ and University of New Haven, Connecticut, USA).

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ACCEPTED ABSTRACTS

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3rd World Congress on Pharmaceutics and Drug Discovery

15th-16th, December 2017 at Dubai

Anam Umer

Department of Forensic Science, GC University Lahore, Pakistan.

Abdullah Ijaz Hussain

Natural Product & Synthetic Chemistry Lab, Department of Chemistry, Government College University Faisalabad-38000, Pakistan

PHENOLIC ACIDS AND FLAVONOIDS FROM BIORESOURSES INHIBITS MELANOGENESIS IN MELANOMA CELLS

Abstract

Phenolic compounds constitute a group of secondary metabolites which have important functions in plants. Evidence suggests that people can benefit from plant phenolics obtained either by the diet or through skin application, because they can alleviate symptoms and inhibit the development of various skin disorders. Active compounds such as arbutin, aloesin, gentisic acid, flavonoids, hesperidin, and polyphenols were isolated from different plants. In this study, we investigated the effects of these compounds on melanogenesis, including the activation of melanogenesis signaling pathways. All the phenolic acids and flavonoids tested significantly inhibited melanogenesis without melanocytotoxicity by different mechanisms and significantly inhibited tyrosinase activity in a dose- and time-dependent manner, and decreased the expression of melanogenesis-related proteins, such as microphthalmia-

associated transcription factor (MITF), tyrosinase, tyrosinase-related protein-1 (TRP1), and dopachrome tautomerase (Dct). In addition, phenolic compounds and flavonoids also act by phosphorylating and activating melanogenesis inhibitory proteins such as Akt and mitogen-activated protein kinase (MEK)/extracellular signal-regulated kinase (ERK). Using inhibitors against protein, the hypopigmentation effect was suppressed, and the phenolic acids-initiated activation of MEK/ERK and PI3K/Akt was also revoked. These results suggest that activation of the MEK/ERK, PI3K/Akt, and inhibition of Wnt/ß-catenin signaling pathways is involved in the melanogenesis signaling cascade, and that activation by phenolic acids reduces melanin synthesis via down-regulation of MITF and its downstream signaling pathway. In conclusion, we found that polyphenols significantly suppressed melanin content and cellular tyrosinase activity through a decrease in the expression of melanogenic enzymes and microphthalmia-associated transcription factor (Mitf) in α-melanocyte stimulating hormone-stimulated mouse melanoma cells. Moreover, these compounds decreased cyclic adenosine monophosphate (cAMP) levels and cAMP-responsive element-binding protein phosphorylation, which downregulated Mitf promoter activation and subsequently mediated the inhibition of melanogenesis.

Biography

In 2015, I managed to obtain my Gradation degree in Chemistry from the Government College University Faisalabad Pakistan. Currently I am student of MPhil Forensic Science in GC University Lahore Pakistan and working in the area of Cosmetic Chemistry.

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3rd World Congress on Pharmaceutics and Drug Discovery

15th-16th, December 2017 at Dubai

Dr. Fakhar-ud-Din

University/Organization: Quaid-i-Azam University, Islamabad, Pakistan.

Development And Characterization Of Levosulpiride-Loaded Liquid Suppositories With Improved Bioavailability And Patient Compliance

Abstract

The purpose of this study was to develop and characterize levosulpiride loaded liquid suppository with improved dissolution and bioavailability. The levosulpiride-loaded liquid suppositories were prepared by cold method. The composition of levosulpiride-loaded liquid suppositories were optimized in a series of experiments using various weight ratios of P188, P407, Tween 80 and drug. Thee suppositories were liquid at room temperature, however, when rectally administered, they became gel at body temperature. Their rheological properties and release characteristics were determined in vitro while pharmacokinetic study was performed after its rectal administration to rats and compared with the drug powder. Poloxamer 188 and Twee 80 decreased the gelation temperature and gelation time, but increased the gel strength and mucoadhesive force of drug-loaded liquid suppositories. Thus, the liquid suppository composed of [Levosulpiride/P 188/P 407/Tween 80 (1/15/17/3 %)] with a gelation temperature of about 30.7 °C remained liquid at 25 °C, but converted to gel at 30-36.5 oC, resulting in

easy administration and rapid gelation inside the body. This liquid suppository gave a considerably increased dissolution rate of drug as compared to the drug suspension. Beside this, a meaningfully higher plasma concentration and 7.1-fold AUC values were exhibited by this liquid suppository in association to the drug suspension. Hence, this liquid suppository could alternatively be used for the enhanced bioavailability of levosulpiride-loaded pharmaceutical products.

Biography

Dr Fakhar-ud-Din is Assistant Professor in Department of Pharmacy, Quaid-i-Azam University Islamabad. He obtained his PhD degree from Hanyang University South Korea in the subject of Pharmaceutical Nanotechnology. His recent research is multidisciplinary and projects involve public health, nanoparticulate drug delivery systems, biomedical applications of stimuli-responsive materials, antitumor and anti-leishmanial drugs formulations, and intervention based Pharmacy. He has published and presented more than 50 papers in international journals and world renowned conferences. His work is cited in many reputable journals.

3rd World Congress on Pharmaceutics and Drug Discovery

15th-16th, December 2017 at Dubai

Dr Tanveer Naved
Joint Head, Amity Institute of Pharmacy, Amity University, Noida, India.

Nutraceuticals – A niche for Global Market

Abstract

Over the years nutraceuticals have attracted considerable interest due to their potential nutritional, safety and therapeutic effects. They possess a role in a plethora of biological processes, including antioxidant defenses, cell proliferation, gene expression, and safeguarding the regulation of cellular energy and apoptosis. They are considered to be healthy sources for prevention of life threatening diseases such as diabetes, renal and gastrointestinal disorders, as well as different infections. In global marketplace nutraceuticals and functional foods have become a multi-billion dollar industry and estimates within Canada suggest that the Indian nutraceutical and functional food industry has potential to grow to $30 billion US. Currently we focused nutraceuticals from an Indian perspective to identify the potential for distinctive niche markets and growth of Indian industry and it's potential in international markets. The limitations to growth in this area are due to paucity in proper labelling and assessment in the health effects by nutraceuticals. Deprived data in Food safety, quality (FSSAI) and a an understanding of interactions among foods, medicines and dietary supplements are central requirements in India for development of less restricted access to our national markets and expansion into the international. Exploitation of genetic and ecotype variability associated with natural populations of nutraceutical and functional foods, has potential to develop niche markets distinctive to

India and global regions. Selection for consistent production of high and low productivity of active plant components within specific ecological regions will allow development of alternative nutraceuticals and functional foods with potent health benefits. These commodities have potential to stabilize economic return to local producers without having to compete with generic products being marketed. Development of better characterized and research proven products will help enhance consumer confidence in nutraceutical in India and in the globe.

3rd World Congress on Pharmaceutics and Drug Discovery

15th-16th, December 2017 at Dubai

Dr. P. Sailaja Rao

Associate Professor, Sri Venkateshwara College of Pharmacy, (Affiliated to Osmania University), Madhapur, Hyderabad, India.

Dr. Prakash V Diwan

Director,Maratha Mandal's Central Research Laboratory, Belgaum, Karnataka, India.

Pharmacokinetic and Pharmacodynamic drug interactions of Metformin and herbal extract in streptozotocin induced diabetic rats.

Abstract

The synthetic and herbal drugs are commonly used by the patients in chronic diseases. The present study was designed to investigate the possible drug- drug interactions between the methanolic extract of Momordica dioica seeds and Metformin. Male Wistar rats weighing about 180-250 gms were selected for the study. The type II diabetes was induced in animals by a single intra peritoneal injection of streptozotocin (30 mg/kg body weight). The animals were divided into 8 groups of 6 rats each (n=6). Metformin was administered orally as – 20, 40 and 80 mg/kg, and metformin in combination with herbal extracts were administered in same doses. The effect of combination of both drugs on the pharmacokinetic parameters was studied in experimental animals after the treatment for

a period of 21 days. The pharmacodynamic effect of combination of both the drugs was studied on the serum glucose levels of diabetic rats after multiple dosing. It is evident from the study that the serum glucose levels with metformin in the dose of 40 mg/kg along with the herbal extract was significantly decreased (*p<0.05). The bioavailability in treated groups was also analyzed and was found to be significant increase in the bioavailability of metformin (*p<0.05).The results proved that pharmacokinetic and pharmacodynamic interactions between the Metformin and Momordica dioica extract are significant. The study concludes that the dose of metformin, can be reduced in combination with herbal drug, to minimize the adverse effects in long term use in diabetes. The study undertaken has clinical significance of such drug combinations in therapy.

Key Words:

Streptozotocin, diabetes, Pharmacodynamic, interaction

Biography:

Dr. P. Sailaja Rao, Pharmacologist, obtained her Ph.D degree in Pharmaceutical Sciences from JNTUH (Jawaharlal Nehru Technological University – Hyderabad), India. Presently, working as Associate Professor in reputed Pharmacy college and has 15 yrs of experience in teaching and Research. She was awarded "GUFIC prize" for her contribution in herbal medicines at Indian Pharmacological Society, IPSCON Conference 2015 at Rajkot, India and Certificate of Award "Outstanding Oral Presentation " for paperat International Conference at Bhopal for her contribution in indigenous plant research. She has research publications in national and international journals of repute to her credit and many more in the pipeline.Her areas of interests are diabetes, drug-drug interactions etc and has made significant contribution in herbal medicines. She is member secretary, for IAEC (Institutional Animal Ethical Committee) and CPCSEA nominee, nominated by CPCSEA (Government of India), New Delhi. She is an excellent teacher and popular among student as best teacher and researcher.

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Ki-Tae Ha
School of Korean Medicine, Pusan National University, Korea

Sialyllated oligosaccharides suppress cancer growth through inhibition of VEGFR-2-mediated angiogenesis

Abstract

The oligosaccharides in human milk have various biological functions. However, the molecular mechanism(s) underlying the anti-angiogenic action of sialylated human milk oligosaccharides (HMOs) are still unclear. Here, we show that sialyllactose (SL) and sialylgalactose (SG) found in human milk can inhibit the activation of vascular endothelial growth factor (VEGF)-mediated VEGF receptor-2 (VEGFR-2) by binding to its VEGF binding site (second and third IgG-like domains), thus blocking downstream signal activation. SL and SG also inhibits growth of VEGF-stimulated endothelial cells. In endothelial cells treated with VEGF, SL and SG diminished tube formation, migration, and the arrangement of actin filament. In addition, SL and SG clearly suppressed VEGF-induced neovascularization in an in vivo Matrigel plug assay. Notably, SL and SG prevented the growth of tumor cells, and angiogenesis on tumor tissues in in vivo mice models allotransplanted with Lewis lung carcinoma, melanoma, and colon carcinoma cells. Taken together, we have demonstrated

that the sialylated milk oligosaccharides functions as an inhibitor of angiogenesis through suppression of VEGF-mediated VEGFR-2 activation in endothelial cells.

Biography

Educated in Deptartment of Korean Medicine, Dongguk University, South Korea (BS, MS, and Ph.D.; from 1992 to 2004). Assistant Professor (2010 – 2014) and Associated Professor (2014 – Current) of School of Korean Medicine, Pusan National University. Chair of Department of Korean Medical Science, School of Korean Medicine, Pusan National University at 2014 – 2016. Director of Korean Medicine Research Center for Healthy Aging (HAKMRC), Pusan National University from 2014. Research fields is Cancer biology, Female infertility, Glycobiology, and Herbal medicine.

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15th-16th, December 2017 at Dubai

Dr Ramanpreet Walia

Amity Institute of Pharmacy, Amity University Noida,India.

Intellectual Property Rights(IPR)- Technical Know-How in India

Abstract

In the present scenario Intellectual Property Rights (IPR) play a vital role in Pharmaceutical domain, Intellectual Property Rights (IPR) or Patents are the exclusive rights given to a person for an invention in any branch of technology whether products or processes which is patentable if they meet the Criteria of being NOVEL, involving an INVENTIVE STEP and being capable of INDUSTRIAL APPLICATION. The laws which govern the intellectual property in India are well established at all levels- statutory, administrative and judicial. India is in agreement with World Trade Organisation (WTO) and also member of various treaties like Paris convention, PCT, Budapest Treaty. India is also part of Trade Related Aspects of Intellectual Property Rights (TRIPS) which came into force from 1st January 1995 which governs with minimum standards for protection and enforcement of intellectual property rights in member countries sufficiently required to promote effective and adequate protection of intellectual property rights.

The IPR are segregated into 5 different types of following areas:-

- Patents
- Trade Marks
- Copyrights
- Geographical Indications
- Industrial Designs

Looking at the latest amendment 2016, in Indian Patent act it is more focussed in Timelines in terms of Grant of Patent to inventor in a judicial manner

Reduction in time period for filing response to FER, Remote Hearing, Claim deletion at National Phase Entry, No extension of 31 months for NP entry, New Rules categorically deny any possibility of condonation of delay for NP entry beyond 31 months, Sequence Listing Maximum Official fees fixed, Refund of Examination Fee, Expedited Examination , Regular Examination, Pre-Grant Opposition rules , Foreign Filing License request to be disposed of within 21 days, and some procedural changes such as Power of Attorney in 3 months ,Reference to deposition of Biological Material to be made within 3 months from the date of filing of the application, Electronic Submission mandatory for Agents, and new favours in case of New Entity: "Startup"

Biography

Current Job Profile:- Associate Professor at Amity Institute of Pharmacy, Amity University, Noida since April 2017

Total Teaching experience after M.Pharmacy - 16.5 Years, Industry Experience-1.5 year

PROFESSIONAL ENHANCEMENTS

- Trained and certified in IPR
- Trained and certified in Entrepreneurship skills development
- Appointed as Ambassador for the year 2016 by Asian Council of Science Editors
- Delivered a Guest Lecture on Herbal Drugs – A Boon to Mankind .in National Seminar on Futuristic Approach in Pharma Education & Research held on 10th April 2010.
- Co-chairperson of Volunteer committee of INDIA PHARMA CONVENTION held at DIPSAR, Delhi ,dated 12th Feb 2012
- Registered pharmacist under Punjab Pharmacy Council.
- Awarded with the "BEST TEACHER AWARD" in Nov 2005 at HIMT college of Pharmacy, Greater Noida, U.P.
- Awarded with the "BEST TEAM LEADER AWARD" in Nov 2011 at HIMT college of Pharmacy, Greater Noida, U.P
- Awarded with the "BEST CO-ORDINATOR AWARD" in Nov 2008 at HIMT college of Pharmacy, Greater Noida, U.P

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Dr. Dibyajyoti Deka

Gauhati Medical College, India

A Comparative Study Of Gastric Anti-Ulcer Activity Of The Leaf Extracts Of Murraya Koenigii And Moringa Oleifera In Experimental Animals

Abstract

Objectives:

To evaluate the gastric anti-ulcer activity of the aqueous extracts of Murraya koenigii (AEMK) and Moringa oleifera (AEMO) in wistar rats

Material and Method:

Study animals were divided into 2 groups, and gastric ulcers were induced using pyloric ligation and cold restraint stress models. Two doses of AEMK and AEMO were used (200 mg/kg and 400 mg/kg per orally), in each model. Ranitidine 20 mg/kg per oral (R20) was used as a standard. Ulcer index, free acidity, total acidity, volume of gastric juice and pH were studied and analyzed.

Results:

The mean ulcer index in AEMK 400 mg/kg (p=0.059) and AEMO 400 mg/kg (p=0.231) treated groups was comparable with R20. The mean gastric juice volume was significantly lower in the R20, AEMK 400 and AEMO400 groups than disease control (DC) group. The mean pH in R20, AEMK200, AEMK 400, AEMO200 and AEMO400 groups was significantly higher than the DC group. The mean free acidity in R20, AEMK 200, AEMK400, AEMO200 and AEMO400 groups was significantly lower than the DC group. The mean total acidity in R20, AEMK200, AEMK400, AEMO200 and AEMO400 groups was significantly lower than the DC group.

CONCLUSION: The present study provides scientific evidence in support of gastric ulcer protective activities of AEMK and AEMO. Thus both plants can be suitable natural sources in treating gastric ulcers.

Biography

I am a final year post graduate trainee in Pharmacology in Gauhati Medical College & Hospital , Guwahati. I was born in Assam, which is a beautiful state located in North-Eastern part of India. I graduated from the same Medical College, which is a premier Govt. Medical College in North-East India.

I am always curious to know about latest discoveries, latest modalities of treatment and new ways of curing human sufferings. This is the main reason behind choosing my career as a Pharmacologist. My hobbies and interests are watching movies, listening to music, travelling etc. I love photography and painting and got few awards in these. I believe, God is present in every creation by him, either living or non-living.

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Sireesha.Kalva

Assistant Professor, Sri Venkateshwara College Of Pharmacy (Affliated to Osmania University), Madhapur, Hyderabad, India.

Dr.N Raghunandan

Principal, Balaji Institute Of Pharmaceutical Sciences, Narsampet, Telangana, India.

Pre-Clinical Evaluation of Citrullus Colocynthis roots: A promising herb to treat Type-2 Diabetes.

Abstract

Diabetes is a metabolic disorder of multiple etiologies characterised by chronic hyperglycemia with disturbances of carbohydrate, fat and protein metabolism. Diabetes also leads to the development of oxidative stress in the body by generating free radicals. Findings also indicate that it is associated with atherosclerosis and coronary hear disease. The use of herbal medicine for the treatment of diabetes mellitus has gained importance through out the world. Citrullus colocynthis which is commonly known as bitter apple belonging to the family cucurbitaecea is mainly native of Asia and

Europe. The present study was designed to evaluate the anti hyperglycemic, anti hyperlipidemic and anti-oxidant efficacy of aqeous and ethanolic root extracts of C.colocynthis. Diabetes was induced by giving STZ (35mg/kg) intraperitoneally, rats which showed >250mg/100ml of blood were selected for the study. Both aqueous and ethanolic extracts of C. colocynthis were prepared and administered at a dose of 100,200,300 mg/kg oraly for a period of 15 days. Metformin was taken as a standard drug at a dose 50mg/kg orally. The extract showed controlled intestinal absorbtion of monosaccharides by inhibiting Alpha – amylase enzyme and antidiabetic activity by lowering blood glucose levels in-vivo significantly ($p<0.001$). The extracts showed effective anti-oxidant activities by scavenging the free radicals like SOD, Catalse and LPO. It also lowered plasma CH, TG's, LDL and VLDL levels significantly as compared to controlled group. Thus C. colocynthis root extracts has been proved to be a promising herb in type II diabetes and its complications.

Keywords
Anti-diabetic, Alpha-amylase, SOD, Catalase.

Biography:
Sireesha.Kalva, Pharmacologist, submitted her dessertation for Ph.D degree in Pharmaceutical Sciences from (Acharya Nagarjuna University- Guntur), India. Presently, working as Assistant Professor in reputed Pharmacy College and has 10 years of experience in teaching and research. She was awarded "Best poster award" for her passionate delivering in herbal medicine at 'RAPID', a two day National Seminar held at JNTU, 2017, Hyderabad sponsored by NSERB. She has review and research publications in national and international journals of repute to her credit and more to add on to the list. Her areas of interest are herbal medicine and its utilisation in health aspects, Oxidative stress related health complications etc. She is a member secretary, for IAEC (Institutional Animal Ethical Committee). She also holds the Executive member post in the Indian Pharmacological Society. She has ouststanding teaching skills and extreme dedication towards research.

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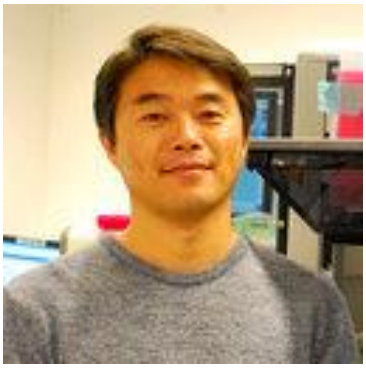

Dongryeol Ryu, PhD
Pusan National University, Yangsan, South Korea

Hepatic loss-of-Sirt7 promotes hepatocellular carcinogenesis in mice

Abstract

Sirt7 is one of seven mammalian NAD+-dependent protein deacetylases. Although growing evidence implies Sirt7, which is a nuclear sirtuin, has oncogenic function, its oncogenic potential in vivo is only partially explored. Early studies insist Sirt7 as an oncogenic factor maintaining oncogenic transformation, however, recent studies demonstrate Sirt7 is crucial for DNA repair and genomic stability. Here we demonstrate hepatic loss-of-function of Sirt7 accelerates hepatocellular carcinoma (HCC) formation by genotoxic drug N-diethylnitrosamine (DEN) injection. We, first, observed bigger and more hepatic tumor colonies from the micro-computed tomography of Sirt7-deficient liver. Furthermore, liver histology, qRT-PCR, and immunoblotting assays revealed the feature of hepatic

cancer encompassing increased hepatic alpha-fetoprotein (AFP), Ki67, and Pcna. In serum, we also found increased cytokines including IL-6, TNFα, and AFP, which is a well-established HCC marker. In addition to in vivo studies, Bioinformatics analysis using hepatic transcriptomes of BXD mouse genetic reference populations and human transcriptome of hepatic tumors indicates Sirt7 expression positively correlated with DNA repair gene-set. Based on our observation, here we propose hepatic loss-of-Sirt7 promotes hepatocellular carcinogenesis unlike the early studies reported Sirt7 as an oncogenic factor. Targeting Sirt7 activity could be a potential therapeutic strategy against liver cancer.

Biography

Prof. Dongryeol Ryu is an assistant professor in Pusan National University, South Korea. His research interest is in understanding the molecular mechanism behind age-associated and metabolic diseases, which would bring a chance to identify novel drug and its cellular target. He received his PhD degree from Sungkyunkwan University School of Medicine South Korea, followed by a postdoctoral training at EPFL, Switzerland with Prof. Johan Auwerx.

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Nada Ahmad Al-Hasawi

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The *in vitro* anti-proliferative interaction of flavonoid quercetin and toxic metal cadmium in 1321N1 human astrocytoma cell line

Abstract

Quercetin (QE) is a natural flavonoid widely distributed in plants and is a part of human diet. Many studies demonstrated the in vitro multi-therapeutic properties of QE. Cadmium (Cd) is a

toxic heavy metal occurring in the environment as an industrial pollutant. The biological half-life of Cd in the human body is approximately 30 years where Cd accumulation may lead to many toxic effects. Several studies have demonstrated the protective effect of QE against Cd-induced toxicity in healthy intact animals. The aim of our study was to investigate the effect of QE and Cd on a proliferation of human astrocytoma 1321N1 cells. The simultaneous exposure of the cells to QE and Cd (16 µM) significantly reduced cell viability to 21.4 ± 1.4 % and 6.9 ± 1.6 % at 100 and 200 µM QE, respectively. Other experiments with QE pre-treatment then Cd exposure or co-exposure with QE were performed. The observed effects were time- and concentration-dependent. These experiments showed the ability of QE to induce cytotoxicity in an in vitro model of cancer cells that may undergo further carcinogenic transformation due to exposure to Cd, compared to Cd alone which was less cytotoxic in 1321N1 cells. In general, our study demonstrates a synergetic anti-proliferative interaction of Cd and QE in 1321N1 cells. This may be a novel explanation of QE protective effects on organisms by removal of any cell that is undergoing genotoxic or epigenetic changes due to exposure to a toxic agent, in our case - Cd.

Biography:

Nada Al-Hasawi graduated from the Faculty of Science at Kuwait University in 1995 with a degree in Biochemistry and subsequently an M. Sc. In 1999. She worked first as Scientific Assistant, then as Department Technician and then for 5 years as a Teaching Assistant in the Faculty of Pharmacy at Kuwait University before taking up a scholarship to study for a Ph. D. at the Institute of Cancer Therapeutic at Bradford University, England. Following its completion in 2008, she was appointed to her present position as Assistant Professor in Department of Pharmaceutical Chemistry, Faculty of Pharmacy at Kuwait University. Dr. Al Hasawi's current interests focus on the discovery of anti-progressive and anti-metastatic agents of cancer.

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Kibong Kim

School of Korean Medicine, Pusan National University. Department of Korean Pediatrics, Korean Medicine Hospital, Pusan National University, South Korea

Effects of the Coptis Japonica and Glycyrrhiza Uralensis extract-based Hataedock treatment on Skin Fat Lipid Barrier Formation in infant mice.

Abstract

The Hataedock is an orally administered treatment for infants using herbal extracts in Korean medicine to remove fetal toxic elements and meconium. This study is done to evaluate the effect of Coptis japonica and Glycyrrhiza uralensis extracts as a Hataedock treatment on the skin fat barrier formation. The 5-week-old NC/Nga mice were randomly divided into 3 groups assigned as (1)

the control group (Ctrl), (2) the first Hataedock-treated group administrated the Coptis japonica and Glycyrrhiza uralensis extract (CGT), and (3) the second Hataedock-treated group with Bifidobacterium (BBT) and treated either the control solution, CGT extract or BBT. After 5 weeks of the treatment, the effect of each Hataedock treatment has been evaluated by histopathological tissue analysis. We observed, in the CGT group, the loricrin-positive reaction has been increased by 2.3 folds, along with involucrin-positive reaction by 0.9 folds, the filaggrin-positive reaction by 1.4 folds, and ASM-positive reaction by 3.4 folds in the stratum corneum.

Hataedock treatment, using the Coptis japonica and Glycyrrhiza uralensis extracts, increased the expression of proteins promoting keratinocyte differentiation. These observation leads us to conclude that Hataedock treatment has a clear potential to improve the keratinocyte formation as well as function augmenting the formation of the skin barrier.

Biography

Prof. Kibong Ha is an associate professor in Pusan National University School of Korean Medicine, South Korea. His research interest is the Hataedock treatment to understand the mechanism behind and to improve treatment for fragile infants. He believed the Hataetock treatment could be mediated by the colonization of gut microbiota at least in a part. He received his KMD and PhD degree from Dongkuk University School of Medicine, South Korea and is the Direct of Medical Clinic at the Pusan National University Korean Medicine Hospital.

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Implications and Perspectives of Ecopharmacovigilance With Reference To India and UAE

Abstract

Ecopharmacovigilance (EPV) is emerging as a research hotspot especially for the developing countries including India and UAE. World is witnessing a paradigm shift in global vigilance as approximately 60-70 % abnormalities associated with pharmaceuticals or other environmental hazards can be prevented. Therefore the role of Pharmacovigilance for pharmaceuticals, materiovigilance for medical devices, herbavigilance for herbal products and hemovigilance for blood products is increasing day by day. Above all Ecopharmacovigilance is playing a central role for assessment and management of Environment. Referring decline of vultures from Asia due to exposure of declofenac causing imbalance in biodiversity. Similarly due to oil spillage around Arabian countries cause environmental deterioration as significant flora and fauna is lost. In this study we had proposed the emerging

importance and implications of EPV to the environment of progressive countries like India, UAE etc. The biggest and greatest challenge concerns the signal detection in the environment and the difficulty of identifying its cause. Some of the important practical measures that should be taken to assess environmental risks like product life cycle. Particularly after launch of a new product it is important to ensure that risk assessments and scientific understanding of pharmaceuticals in the environment should be assessed. Some of the measures need to be addressed include: Tracking environmental risks after launch of the product, via literature monitoring for emerging data on exposure and effects; Using Environmental Risk Management Plans (ERMPs) as a centralized resource to assess and manage the risks of a drug throughout its life cycle; Further research, testing or monitoring in the environment when a risk is identified; Keeping a global EPV perspective; Increasing transparency and availability of environmental data for medicinal products. Following such an important steps we can identify any environmental risk due to pharmaceuticals in timely way, and same can be managed subsequently.

Biography

Dr. Swati Madan is working in Amity Institute of Pharmacy since 8th March'2010 and involved in teaching as well in Research. She has completed her Ph. D in 2009 from Indian Pharmacopeial Commission, Laboratory, (I.P.C.L), Govt. of India, Ghaziabad, U. P. Technical University, Lucknow in the field of Pharmacognosy & Phytochemistry. Her Ph. D work was "Studies on Phytochemical Investigation & Biological Evaluation of Indian Medicinal plants. Dr. Swati Madan has published more than 25 publications in peer reviewed International and National journals. She has filed a patent on "A SYNERGISTIC HERBAL DIETARY HEALTH SUPPLEMENTS". She has published Chapters in International Books entitled Cancer Treatment Strategies, Parkinson Disease and Stevia rebaudiana: Chemical Composition, Uses and Health Promoting Aspects. She did M. Pharm in Pharmacognosy & Phytochemistry from Jamia Hamdard University, New Delhi in 2004 and worked on Tissue Culture and Pharmacological Studies on Silybum marianum Gaertn. She did B. Pharm from S.B.S. Institute of Biomedical Science and Research, Balawala, Dehradun in 2001.She has guided 09 M. Pharm students and currently guiding 04 Ph. D students.

Dr Satyendra K. Rajput, alumni of National Institute of Pharmaceutical Education and Research (NIPER), Sec-67, S. A. S. Nagar, one of the India's best research institutions. Before Joining Amity, he was associated with Chitkara University, Punjab. He had earned his doctorate in Pharmacology and Toxicology during that he with co-investigators had filed patent for around 100 Newer Thyrotropin Releasing Hormone Analogs for their Neuroprotective Potential in different CNS diseases. He had strong academic profile evident from honours in M. Pharm., B. Pharm., Intermediate and High School. Besides 07 patents, he had more than 35 research publications in reputed journals including Scientific Reports, Journal of Material Sciences B, RSC Advances, Neuroscience, Current Topics in Medicinal Chemistry, Biomedicine & Pharmacotherapy, Epilepsy Research, Peptides, Pharmacology Reports, Epilepsy and Behaviour, ChemMedChem, Journal of Epilepsy Research, Journal of Heterocyclic Chemistry etc. He had presented his research findings in Experimental Biology 2010 at USA. He is consistently working on CNS degeneration, Safety pharmacology, got training in GLP regulations and cell culture based investigations.

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Phenolic Profile, Lycopene Contents, and Inhibition of Tyrosinase Activity and Melanine Pigmentation by Some Newly Grown Tomato (Lycopersion Esculantum) Varieties

Abstract

The present research work was conducted in order to evaluate the phenolic profile, lycopene contents, antioxidant attributes and tyrosinase inhibition and melanine pigmentation propertied of some locally grown approved and lined varieties of tomato (Lycopersion esculantum). Reverse phase

high performance liquid chromatography method was developed and validated for the simultaneous quantification of phenolic acids and flavonoids from tomatoes extracts. The RP-HPLC analysis of tomatoes extracts revealed the presence of ferulic acid, vanillic acid, p-coumeric acid, gallic acid, p-hydroxy benzoic acid and chlorogenic acid being the major phenolic acids and quercetin, myricetin and catechin being the most prominent flavonoids compounds. Ripe tomatoes also contained considerable amounts of lycopene (up to 49 mg/100g dry weight). The different samples analyzed showed different contents of lycopene, flavonoids and phenolic acids. The amount of TPC and TFC extracted from different varieties of tomato were ranged from 6.75 to 9.63 and 0.76 to 2.69 g/100g, respectively. Tomatoes extracts also exhibited a good antioxidant (53.7-87.2 %) and free radical scavenging potential (IC50 16.7-50.0 µg/mL). The lycopene isolated from tomatoes was found to inhibit mushroom tyrosinase. The results of the present analytical study revealed that all the newly grown varieties of tomatoes exhibited better antioxidant potential and tyrosinase inhibition than the control variety. Significant variation in the antioxidant activity was observed with respect to approved and line varieties. The results suggest that the tomatoes extracts are rich sources of phenolic antioxidant and could be used in pharmaceutical, nutraceutical and cosmetics products.

Biography:

In 2016, I managed to obtain my Gradation degree in Chemistry from the Government College University Faisalabad Pakistan. Currently I am student of MPhil in Analytical Chemistry in GC University Faisalabad Pakistan and working in the area of Cosmetic Chemistry.

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Maryam Sarwat

Amity Institute of Pharmacy, Amity University, Noida,India.

Biotechnological Interventions to Formulate Anticancer Drugs from *Crocus sativus*

Abstract

Cancer continues to represent the largest cause of mortality in the world claiming more than 8 million people each year. Considerable interests have been developed on the role of plant products and spices to diminish tumor development. An important element of chemopreventive drug development using plants is the accumulation and analysis of pertinent experimental data and folklore uses of plants. It is also important to note that suitable chemopreventive natural agents should have no or negligible toxicity, a high efficacy, to be orally administrable, and with a known mechanism of action and low cost. There are many compounds from natural products that demonstrated tumor-

suppressing activity, thus being potentially useful in the treatment of cancer. Extracts of some spices were found to inhibit the growth of transplanted tumors in mice as well as being cytotoxic to cells in tissue culture. Saffron, a spice and food colorant present in the dry stigmas of the plant Crocus sativus L., was used to treat various diseases, particularly cancer, by Arabian, Indian and Chinese people in ancient times. Saffron possesses a rich source of carotenoids in addition to riboflavin. Saffron and its derivatives particularly crocetin have demonstrated significant anticancer activity in breast, lung, pancreatic and leukemic cells

Keywords:
Anticancer plants, Saffron, Crocus sativus, Crocetin

Biography
Dr. Maryam Sarwat is working in Amity Institute of Pharmacy as Senior Assistant Professor 2010 till date. She has completed her Ph.D. in 2007 from Jamia Hamdard University. Later she joined International Centre for Genetic Engineering and Biotechnology (ICGEB) as postdoctoral scientist. She worked there on her independent project from DBT for more than three years. She has more than 30 international publications (impact factor ranging from 2 to 9.6). The cumulative impact factor of her publications is 80.37 and total citations till now is more than thousand. The h-index of her publications is 14 and i-10 index is 19.
She has visited Prague, Germany, and France to present her research work. Govt. of India and Amity University has finacially supported her trips. She has got SCIENTIST OF THE YEAR award by National Environment Science Academy (NESA) in 2015.
She has guided 2 Ph.D. and 9 Masters students for their research work.
She has published 2 books from Springer Nature and 13 book chapters, all are scopus indexed. She is the reviewer and editorial board member of various national and international journals. She is the life member of Society of Experimental Biology, U.K., National Environment Science Academy, Asian Polymer Association and Society of Pharmaceutical Education and Research.

Research Projects Completed:
•DBT project on Stress Signalling by an ER chaperone Calnexin (Total grant Rs. 15 Lakhs For 3 years)
•DST project on Crosstalks in ER-Stress and Abiotic Stress (Total grant Rs. 25 Lakhs For 3 years)

Research Projects Ongoing:
•AYUSH project on Anticancer activity of Saffron preparations (Total grant Rs. 37 Lakhs For 2 years)

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Prof.Mrs.Omobola Oluranti Okoh
University of Fort Hare, Alice, Eastern Cape Province, South Africa.
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AI Okoh
University of Fort Hare, Alice, Eastern Cape Province, South Africa.

Chemical composition, antibacterial and antioxidant properties of the flower and leaves essential oils of Bauhinia galpinii (N.E. Br) grown in South Africa.

Abstract

Background: Reactive oxygen species (ROS) and infectious diseases, particularly those due to multi-drug resistant bacterial strains are almost impossible to combat globally. Besides challenges posed by microbial resistance to synthetic antibiotics, these drugs are known to exhibit side effects. There is paucity of information of the composition and bioactivity of most indigenous plants such as Bauhinia galpinii claimed potent in folk medicine for management of diseases including diabetes, cancers, cardiovascular in Africa.This study aimed to investigate the bioactive compounds, in vitro antioxidant, antibacterial and cytotoxicity properties of B. galpinii essential oils (EOs). Methodology: The EOs

obtained using modified Clevenger apparatus were characterized by high resolution GC-MS, while the radicals scavenging and antibacterial effects were examined spectrophotometric and micro-dilution techniques respectively. Results: Phytol (25.61%), azulene (12.63 %), and α -ionone (10.38 %) were the dominant compounds found in the leaf EO (LEO), while α -guaiene (13.23 %), α -ionone (5.81%) and azulene (11.46 %) were the prominent compounds in the flower EO (FEO). The EOs exhibited strong antibacterial activity against five reference bacterial strains and one laboratory confirmed multi-drug resistant bacterial strain. The FEO exhibited more activity than LEO against the test bacteria with MIC value of 0.125 - 0.25 mg /mL and 0.20-0.35 mg / mL for the LEO. The IC50 value for FEO (0. 52 mg/mL) showed higher antioxidant property than LEO (3.30 mg/ mL) and the reference compounds in reducing lipid peroxyl radical to neutral molecule. Conclusion:The study indicates that the EO has potent bioactive compounds, noteworthy antioxidant strength, significant antibacterial property and the EO could be use as natural medicine and food preservative upon further investigation.

Keywords:

Bauhinia galpinii, Phytol, azulene, antibacterial, antioxidant

Biography

Professor (Mrs) Omobola Oluranti Okoh holds a PhD degree in Chemistry and is a Professor in Pure and Applied Chemistry Department, University of Fort Hare, South Africa. Her research interests are in the fields of Natural Products, Analytical, Nanotechnology, Environmental Chemistry and Renewable Energy (Biomass gasification and biogass digesters). She has published about 50 articles in DHET accredited journals and has presented several articles in national and international conferences. She has supervised several PhD, MSc and several honours students and currently supervising 9 PhD, 5 MSc and several honours students. She collaborates with several researchers within and outside the University of Fort Hare. She represents the faculty of Science and Agriculture and the University in a number of platforms and has been invited to be a speaker in several scientific conferences both locally and internationally. She currently has several grants from GMRDC, NRF Thuthuka, Water Research Commission Medical Research Council of South Africa and Eskom. She has also received many awards and scholarship from NRF. She is a member of South African Institute of Chemists, Nigeria association of Chemists and Society for Global Change in Africa. She is also member of review panel for NRF Free-standing , Scarce Skills, Innovation and TWAS Masters, Doctoral and Postdoctoral fellowships. She is a member of the water and renewable energy research niche areas of the University. She is the Leader of Synthetic, Environmental, and Applied Chemistry Research Group at the University of Fort Hare.

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Survey on awareness, perception and extent of usage of nutraceuticals and dietary supplement in local region of Uttar Pradesh, India

Abstract

In recent years there has been growing interest in nutraceuticals which provides health benefits and is providing preventive options for the ageing population worldwide for keeping them away from

various lifestyle diseases. Along with the growing healthcare industry in India there is an emerging trend in growing consumerism for 'Fast Moving Healthcare Goods (FMHG)'; worldwide known as Nutraceuticals, which are by definition, ingredients with human health benefits beyond basic nutrition. According to available estimates, nutraceuticals market in 2007 was INR 18.75 billion and expected to grow at 20% CAGR to achieve a market size of INR 27 billion in 2009. Global nutraceuticals market is estimated at USD 120 billion in 2007 growing at 7% (CAGR). The US has been the major market for nutraceuticals with India and China becoming fastest growing markets. Indian nutraceuticals market in 2008 was USD 1.0 billion and globally this market is expected to reach USD 180 billion in 2013 growing at a CAGR of 7% driven by the fastest growing dietary supplement category. Nutraceuticals are gaining acceptance globally for their ability to address several diseases. Vitamins, Minerals and Nutrients constitute about 85% of the global market while antioxidants and anti-agents account for 10% other segments such as herbal extracts occupy 5% of the market. To actualize the growth rate and the demand of nutraceuticals in the local region of Uttar Pradesh like Ghaziabad, Noida and Greater Noida. The present survey study has been conducted and the survey data was portrait and presented in the pictorial & graphical manner for better understanding.

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Rana Osama Mohamed Desouki

German University in Cairo, Egypt

Application of Bioadhesion to Increase Bioavailability of Clozapine

Abstract

The aim of the study is to formulate and evaluate bioadhesive buccal tablets containing the anti-psychotic drug clozapine in order to bypass first pass metabolism and as a result increase its bioavailability and lower the dose dependent adverse effects. The tablets were prepared by direct compression using bioadhesive polymers such as Hydroxypropyl methylcellulose (HPMC), Sodium carboxymethylcellulose (NaCMC) Methyl cellulose (MC) and chitosan. In order to improve drug release, polyvinylpyrrolidone K30 (PVP K30) was added. Different permeation enhancers such as fatty acids, polyethylene glycol 6000 (PEG 6000), bile salts, surfactants and dimethyl sulfoxide were used to improve the drug permeability across buccal mucosa. Chicken pouch membrane was used as the model membrane in drug permeation and bioadhesion time as well as strength studies. Sodium lauryl sulfate (SLS) was found to be the most effective permeation enhancer with an enhancement ratio of 7.31. CLZ permeation was further improved by increasing the concentration of PEG 6000.The formula of choice (F27) contained CLZ, M.C M.V, PVP K30,PEG6000 and SLS. The selected formula had a drug release

of 92.3% in 120 min, drug permeation of 10mg in 120 min with permeation flux (Jss) of 0.0664 mg/cm2/min, ex-vivo bioadhesion strength of 4.9 g, and bioadhesion time of 2 h. The mechanism of drug release was found to super case II transport according to korsmeyer-Peppas model. To evaluate in-vivo relative bioavailability, six health volunteers were given the selected formula, and the marketed oral tablets (Clozaril®, Novartis) as the reference formula. The in-vivo pharmacokinetic study showed relative bioavailability of 135%, and there was a positive correlation (r2=0.9998) between fractions permeated ex-vivo and fractions absorbed in-vivo, as well as a positive correlation (r2=) between fractions released in-vitro and those absorbed in-vivo.

Keywords:
Clozapine; Buccoadhesive disc; Relative bioavailability.

Biography

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2.Srinivas BM, Pattanaik C., Naik P., Brahma R. (2011) Design and in-vitro evaluation of muco-adhesive buccal tablets of salbutamol sulphate. Int. J. Pharma. Bio Sci. 1(3): 240-5.

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Validation of traditional claims of Indian Evolvulus species through in-vitro antiradical activities and estimation of neuroprotective hydroxycinnamic acids using HPTLC

Abstract

Free radicals generation is the major cause of neurodegenerative disorders and phyto-phenolic regularly being checked for Neuroprotection. There are two Evolvulus species viz. E. alsinoides L.

(EA) and E. nummularius L. (EN) of the family Convolvulaceae, found in India and traditionally being used as nerve tonic. Therefore, the current study was designed to evaluate antioxidant potential by several in vitro methods viz. DPPH radical, ß carotene bleaching, hydroxyl radical and ABTS radical scavenging, Anti-lipid peroxidation, NO scavenging on human macrophage cell J774A., Intracellular ROS generation, cell viability assay and to estimate total phenolic content and two hydroxycinnamic acids viz. caffeic and ferulic acid in aforesaid Evolvulus species. The results showed more phenolic content (968.527 and 342.465 mg), caffeic (415.59 and 185.56mg/100g) and ferulic acid (286.5 and 235.3mg/100g) in EN than EA respectively. Both the Evolvulus species have significant antioxidant potential, with IC50 for DPPH (86.75 and 49.46µg/ml), ß carotene bleaching (550.09 and 307.41 µg/ml) for EA and EN respectively, which showed better antioxidant potential of EN. However, other in vitro and cell line assays gave varied results for EA and EN extract. The cell viability assay showed ethanolic extract of EN was safer at higher concentration. Hence, it is concluded that EN and EA may be explored for the treatment of several different neurological disorders.

Biography

1 Dr. Saba Irshad, PhD in Botany from University of Lucknow and CSIR-National Botanical Research Institute Lucknow, India. I have 7 year of research experience in standardization of herbal drugs, development of quality control markers of pharmaceutical importance. I have technical experience in Macro-microscopy, Physico-phyto chemical analysis, HPTLC, Spectrophotometry, antioxidant activity evaluation as well as DNA based molecular marker development of medicinal plants. I have published around 11 research paper in the peer reviewed journals, 3 book chapters and delivered oral and poster presentations in several national and International conferences/seminars.

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Saima Rasool
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Memory Enhancing Activity of 70 % Ethanolic Extract of Portulaca oleracea L. against Scopolamine hydrobromide Induced Memory Impairment in Rats

Abstract

Memory, one of the complex and the most important functions of the brain, is defined as the storage, retention and recall of information including past experiences, knowledge and thoughts. Dementia is a syndrome of gradual onset and continuing decline of higher cognitive functioning invariably involving impairment of memory. Approximately 10% of adults 65 years and older and 50% of adults older than 90 years have dementia. The most common cause of dementia is Alzheimer disease (AD), which is a progressive neurodegenerative disabling organic brain disorder associated with loss of neurons in distinct brain areas and spinal cord (Dhingra D, 2004). The central cholinergic pathway

plays a prominent role in memory processes (Nabeshima, 1993). Currently, AChE inhibitors (AChEI), e.g., tacrine, donepezil, rivastigmine and galantamine are the first group of compounds for treatment of AD. However, because of their short half-lives and excessive side effects, natural products with medicinal value are garnering a lot of attention in treating memory impairment.
Portulaca oleracea L. (PO), commonly known as "Purslane" (Nunar in Kashmir), is used widely throughout the world not only as an edible plant, but also as a folk medicine to treat various ailments. It has a wide range of pharmacological effects, including analgesic, anti- inflammatory (Chan et al., 2000), skeletal muscle-relaxant and wound-healing activities (Parry, 1993) etc

Biography

1. Dhingra D, Parle M, Kulkarni SK. Memory enhancing activity of Glycyrrhiza glabra in mice. J Ethnopharmacol 2004;91:361-5.

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Tariq Al-Qirim

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Synthesis and Lipid Lowering Properties of Novel N-(4-Benzoylphenyl) Pyrrole-2-Carboxamide Derivatives

Abstract

Vyperlipidemia is involved in development of atherosclerosis and coronary heart disease. We synthesized two novel pyrrole carboxamide derivatives N-(4-Benzoylphenyl)-4-bromo-2,5-dihydro-1H-pyrrole-2 carboxamide (1) and 4- Amino-N-(4-benzoylphenyl)-1-methyl-1H- pyrrole-2carboxamide (2) and test them as antihypelipidemic agents. The synthesized compounds were characterized using I.R. and NMR. Biological evaluation of compound 1 and 2 showed that compound 1 significantly decreased TG, LDL-C, TC and mild increase in HDL-C in plasma. Contrarily, compound 2 appeared to be less potent compared to 1; it moderately decreased TG, LDL-C and TC with mild increase of HDL-C. The NH pyrrole mediates H-bondinteraction of 1 with the backbone of the target(s) protein(s) and this corresponds to the high potency of 1. The lower activity of 2 confirms that the presence of H-bond is essential to induce high activity. The finding of this work suggests that this scaffold might be promising as antihypelipidemic agents for future work.

Biography

Al-Qirim is a professor and the Dean of Faculty of Pharmacy in Al-Zaytoonah University of Jordan he has completed his PhD from Aligarh University in Clinical Biochemistry and persue his research in Free radicals and Antioxidants field then he specialized in testing novel synthetic coumpounds which has a hypolipidemic activity and published more than 30 paper in reputed journals in this filed.

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Biostatistical Tool for Drug Discovery and Development

Abstract

Biostatistics is a pivotal component of drug discovery and development as it plays a fundamental role to design of research and getting meaningful conclusions. Biostatistical tool are responsible for the proper interpretation of scientific data generated in biology, public health and other health sciences including biomedical sciences, research and development. Indeed, it made tremendous advances the world over, backed by intensive research and data representation, but the basic knowledge and applicability of this important tool is still lacking in core researcher. Statistics includes two main strategies namely descriptive and inferential where former describe the summarisation of raw data for

meaningful information and latter reveals the meaningful conclusions. Targeting of population, collection of sample and then finding the variability is the basic tool for applicability of variance and biostatistical measurements. Thus, our focus is to simplify the concept of biostatistics by mapping the majority of its tools through variance. Variance is the raw material of biostatistics and can link all other aspects of statistical measurements which extended utility to researchers from varied fields including pharmacology, biotechnology, toxicology and regulatory policies.

Biography

Dr Satyendra K. Rajput, alumni of National Institute of Pharmaceutical Education and Research (NIPER), Sec-67, S. A. S. Nagar, one of the India's best research institutions. Before Joining Amity, he was associated with Chitkara University, Punjab. He had earned his doctorate in Pharmacology and Toxicology during that he with co-investigators had filed patent for around 100 Newer Thyrotropin Releasing Hormone Analogs for their Neuroprotective Potential in different CNS diseases. He had strong academic profile evident from honours in M. Pharm., B. Pharm., Intermediate and High School. Besides 07 patents, he had more than 35 research publications in reputed journals including Scientific Reports, Journal of Material Sciences B, RSC Advances, Neuroscience, Current Topics in Medicinal Chemistry, Biomedicine & Pharmacotherapy, Epilepsy Research, Peptides, Pharmacology Reports, Epilepsy and Behaviour, ChemMedChem, Journal of Epilepsy Research, Journal of Heterocyclic Chemistry etc. He had presented his research findings in Experimental Biology 2010 at USA. He is consistently working on CNS degeneration, Safety pharmacology, got training in GLP regulations and cell culture based investigations.