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Emerging New ventures in Pharma Generation

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Pharmacology

ROLE OF CLINICAL PHARMACIST IN HEALTH CARE

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ABSTRACT - 1

Health is the fundamental human right and proper quality of mediation, service by pharmacists help is a best patient care. We ahead towards the term of the century the pharmacy profession is facing major challenges with a nead to improve efficiency and patient care. Clinical pharmacy is a health science discipline in which pharmacist provide patient care that promotes health, wellness and disease prevention. Its primary objective is to ensure that most appropriate and sharp use of medicine .In this activity, the pharmacist uses that knowledge and skill relative to pharmacology, pharmacotherapy and communications with other health care professionals and patients in order to promote the effective use of medicine in hospitals and in primary care clinical pharmacist possess in-debt knowledge of drug interactions, drug food interactions. He also assumes the duty of suggesting alternate therapy when therapy fails and provide patient counseling. Due to free accessibility and friendly approach pharmacist are placed at first point of contact. In the health care system, clinical pharmacist should able to provide information about the drug (DIS), ward round participation, therapeutic drug monitoring services also to be provided.

OVER VIEW OF SKIN CANCER

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Dr.Samuel George Institute of Pharmaceutical Sciences, Markapur

ABSTRACT- 2

Skin cancer is a malignant growth on the skin, which can have many causes. The three most skin cancers are basal cell cancer, squamous cell cancer, and melanoma, each of which is named after the type of skin cell from which is it arises. Skin cancer generally develops in the epidermis. The ABCD guide lines are helpful for identifying dysplastic nevus and melanoma clinical diagnosis can only be confirmed with skin biopsy. The treatment for skin cancer is radiation therapy, topical chemotherapy and cryo therapy, can provide adequate control of the disease. MOHS micro graphic surgery (MOKS surgery) is a technique used to remove the cancer tumors.

MOLECULAR CANCER THERAPEUTICS

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Vikas college of pharmacy,Vissannapeta.

ABSTRACT- 3

Hepatocellular carcinoma is the fourth leading cause of cancer death worldwide. Novel treatment strategies derived from increased knowledge of molecular oncology are constantly being developed to cure this disease. Here, we used phage display to identify a novel peptide (SP94), which binds specifically to hepatocellular carcinoma cells. *In vitro*, the phage clone PC94 was shown to bind to

hepatocellular carcinoma cell lines by ELISA and flow cytometry analysis. *In vivo*, PC94 homed specifically to tumor tissues but not to normal visceral organs in severe combined immunodeficient mice bearing human hepatocellular carcinoma xenografts. This homing ability could be competitively inhibited by synthetic peptide, SP94. Immunohistochemical staining confirmed that PC94 localized to tumor tissues and that it could not be detected in SP94-competed tumor tissues. In addition, PC94 recognized the tumor tissue but not nontumor tissue in surgical specimens from hepatocellular carcinoma patients, with a positive rate of 61.3% (19 of 31). With the conjugation of SP94 and liposomal doxorubicin, the targeted drug delivery system enhanced the therapeutic efficacy against hepatocellular carcinoma xenografts through enhanced tumor apoptosis and decreased tumor angiogenesis. Our results indicate that SP94 has the potential to improve the systemic treatment of patients with advanced hepatocellular carcinoma.

CERVICAL CANCER

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ABSTRACT- 4

Now a day's cervical cancer is most commonly occurring disease in women. Nearly 75,000 women in India die every year of cervical cancer. It begins in the cervix is a part of uterus open into the vagina. Mainly it is caused by the continuous infection & contagious virus called human Papillion virus. Every 2 min a women dies of cervical cancer. Now a day's chemotherapy & radiation are more commonly preferred for the treatment of cervical cancer. Drugs used in chemotherapy are carboplatin ,cisplatin, Palcitaxel, flurouracil, cyclophosphamide, isosfamide .These drugs target fast dividing cells like cancer cells and causes these cells to die.

STEM CELLS IN CARDIOVASCULAR SYSTEM

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VIKAS COLLEGE OF PHARMACY, VISSANNAPETA.

ABSTRACT- 5

It is well established that cardiovascular repair mechanisms become progressively impaired with age and that advanced age is itself a significant risk factor for cardiovascular disease. Although therapeutic developments have improved the prognosis for those with cardiovascular disease, mortality rates have nevertheless remained virtually unchanged in the last twenty years. Clearly, there is a need for alternative strategies for the treatment of cardiovascular disease. In recent years, the idea that the heart is capable of regeneration has raised the possibility that cell-based therapies may provide such an alternative to conventional treatments. Cells that have the potential to generate cardiomyocytes and vascular cells have been identified in both the adult heart and peripheral tissues, and in vivo experiments suggest that these cardiovascular stem cells and cardiovascular progenitor cells, including endothelial progenitor cells, are capable of replacing damaged myocardium and vascular tissues. Despite these findings, the endogenous actions of cardiovascular stem cells and cardiovascular progenitor cells appear to be insufficient to protect against cardiovascular disease in older individuals. Because recent evidence suggests that cardiovascular stem cells and cardiovascular progenitor cells are subject to age-associated

changes that impair their function, these changes may contribute to the dysregulation of endogenous cardiovascular repair mechanisms in the aging heart and vasculature. Here we present the evidence for the impact of aging on cardiovascular stem cell/cardiovascular progenitor cell function and its potential importance in the increased severity of cardiovascular pathophysiology observed in the geriatric population.

STEM CELL THERAPY

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Dept. of PHARMACOLOGY

ABSTRACT- 6

Stem cell is an essentially building block of the human body which possesses self renewal and unlimited potency. Stem cells are of different types with different characteristics. Researchers are interested in using stem cells in several therapies, because they are less likely than other foreign cells to be rejected by the immune system, when they are implanted in the patient's body. Several sources & unique characteristics like – unspecialized- can gives rise to specialized cells- capable of dividing & renewing themselves for long periods make their significance in different therapies. Embryonic stem cells with pluripotency, adult stem cells with property of transdifferentiation, cord blood stem cells with several special properties are the different types of stem cells. Stem cell therapies include Parkinson's disease, diabetes, leukemia, cardiovascular problems, Alzheimer's etc... Remarkable progress has been achieved in studying stem cells & using these cultured cells in many diseases. Embryonic cells have the most capacity to differentiate into a variety of cells and their potentiating capacity is also unsurpassed by any other cell type, there are two major problems with this are ethical issues and some immunological rejections. So to bridge the debate scientists are exploring less controversial avenues of research in the future ideally as cells from the patient will be extracted, manipulated and then reintroduced into the same patient to cure debilitating diseases.

CORD BLOOD CAN SAVE LIVES

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ABSTRACT- 7

Cord blood is the blood that remains in the umbellical cord and placenta after delivery of the new born.cord blood contains all the normal elements of blood –RBC, WBC, PLATELETS AND PLASMA.colection of cord blood is a one time opportunity immediately after birth of a child. It is usually done with in ten minutes of giving birth.cord blood has been used in the treatment of more than 80 diseases so far.The most common disease category has been leukaemia.The umbellical cord blood contains a unique population of cd34+ naemopoietic progenitor cells which continue to generate cells through our lives. It is currently being used as an alternative to bone marrow transplantation.

Key words : Cord blood.cd34+ naemopoietic progenitor cells,transplantations.

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HEPATOPROTECTIVE ROLE OF FERULIC ACID

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ABSTRACT- 8

Alcohol is contributing to an unprecedented decline in life expectancy damage to the liver after ethanol administration is a well-known phenomenon. Free radical mechanisms have been proposed to play a part in ethanol-induced liver toxicity. Ingestion of diets rich in polyunsaturated fatty acids (PUFAs) along with alcohol is known to result in enhanced liver damage. The present work is aimed at evaluating the protective role of ferulic acid, a naturally occurring plant component, on alcohol- and PUFA-induced liver toxicity. The activities of these liver marker enzymes were increased in the alcohol, Delta PUFA, and alcohol + Delta PUFA groups but were decreased significantly on treatment with ferulic acid.The administration of ferulic acid to normal rats did not produce any harmful effects. Thus our results show that ferulic acid is an effective anti- hepatotoxic agent without side effects and may be a good candidate in the current search for a natural hepatoprotective agent.

VITILIGO LEUCODERMA

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ABSTRACT- 9

Leucoderma is a chronic disorder of the skin where the skin stops producing pigments that color the skin. Leucoderma is not a medical term. It is only a substitute name for vitiligo. Vitiligo is a more common name for this disease in the west where as in Asia leucoderma is used more. About 0.5% to 2% of the worlds population currently suffer from leucoderma. Leucoderma is not a contagious disease so there is no way a person can have leucoderma just by being around another person having it. As mentioned above, the reason for leucoderma is still not very clear. However some theories are present and are as follows. The first and most supported theory is autoimmune. The second theory suggests that the oxidant-antioxidant system of the body is, for an unknown reason, disturbed resulting in loss of melanocytes. Its very hard to find a proper cure for a disease, the reason to which is still unknown. There are many leucoderma treatment but none of them are proven, 100% successes full. Let us help you overcome distressful disorder by introducing our special Cure Vitiligo Oil. We know your pain and frustration, and thus have come up with our specially designed remedy.

SLEEP APNEA A SILENT KILLER

JAYASRAVANI.Y*

Siddhartha Institute of Pharmaceutical Sciences Jonnalagadda, Narasaraopet

ABSTRACT- 10

Sleep apnea is a common sleep disorder characterized by brief interruptions of breathing during sleep these episodes called apneas, last seconds or more and occur repeatedly throughout the night people with sleep apnea partially awaken in nights as they struggle to breathe, but in the morning they may not be aware of the disturbances in their sleep. Sleep apnea occurs in two main

types central sleep apnea and obstructive sleep apnea. Additionally some people have complex sleep apnea which is combination of both obstructive and central sleep apnea. Obstructive sleep apnea occurs 2-3 times more often in older adults and is wise common in mean as a woman. Doctors often recommend CPAP, there also surgical procedures that can be used remove tissue and widen the air way. Some efforts should also put on the design of medication for the complete treatment of sleep apnea as the available drugs are only for suppressing the disorder but not for complete cure.

Key words : CPAP, BiPAP

ARTIFICIAL BLOOD

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VIKAS COLLEGE OF PHARMACY

ABSTRACT- 11

Artificial blood is a product made to act as a substitute for red blood cells. While true blood serves many different functions, artificial blood is designed for the sole purpose of transporting oxygen and carbon dioxide throughout the body. Depending on the type of artificial blood, it can be produced in different ways using synthetic production, chemical isolation, or recombinant biochemical technology. Development of the first blood substitutes dates back to the early 1600s, and the search for the ideal blood substitute continues. Various manufacturers have products in clinical trials; however, no truly safe and effective artificial blood product is currently marketed. Hbco's and pcf's are the main components in this artificial blood. These blood substitutes do not mimic the blood's ability to fight diseases and clot. Consequently, the current artificial blood technology will be limited to short-term blood replacement applications. In the future, it is anticipated that new materials to carry oxygen in the body will be found. Additionally, longer lasting products should be developed, as well as products that perform the other functions.

TISSUE EROSION- ULCERS

K.R.SUSHAMA*, P. BHAVANI

A.M.Reddy Memorial College of Pharmacy, Narasaraopet.

ABSTRACT- 12

Ulcer is defined as an open sore on an external or internal surface of the body, caused by a break in the skin or mucous membrane that fails to heal. A site of damage to the skin or mucous membrane that is characterized by the formation of pus, death of tissue, and is frequently accompanied by an inflammatory reaction. An area of tissue erosion for example of the skin or lining of the GIT .due to the erosion an ulcer is concave. It is always depressed below the level of the surrounding tissue. Ulcers are mainly classified into different types. In my presentation I want give brief information regarding ulcers types and symptoms and treatment.

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SPERM MOTILITY EFFECTED BY ADVANCED TECHNOLOGIES (WIFI-LAPTOPS)

RAJASEKHAR.K*. SHABANA.SHAIK ,PROF .V.S.V.RAO, , SUBBA REDDY, VEENA.P

Sarada College Of Pharmaceutical Sciences.

ABSTRACT- 13

The main objective of the study is to evaluate the effects of laptop computers connected to local area networks wirelessly (Wi-Fi) on human spermatozoa and designed as prospective in vitro study. In this study semen samples from 29 healthy donors are collected. Motile sperm were selected by swim up. Each sperm suspension was divided into two aliquots. One sperm aliquot (experimental) from each patient was exposed to an internet-connected laptop by Wi-Fi for 4 hours, whereas the second aliquot (unexposed) was used as control, incubated under identical conditions without being exposed to the laptop through which sperm motility, viability, and DNA fragmentation was measured. The donor sperm samples, mostly normozoospermic, exposed ex vivo during 4 hours to a wireless internet-connected laptop showed a significant decrease in progressive sperm motility and an increase in sperm DNA fragmentation. Levels of dead sperm showed no significant differences between the two groups.
At last we conclude the study to evaluate the direct impact of laptop use on human spermatozoa. Ex vivo exposure of human spermatozoa to a wireless internet-connected laptop decreased motility and induced DNA fragmentation by a nonthermal effect. We speculate that keeping a laptop connected wirelessly to the internet on the lap near the testes may result in decreased male fertility.

Key words : Laptop computer; Wi-Fi; sperm quality; fertility; sperm DNA fragmentation

ANTIDIABETIC AND ANTIOXIDANT ACTIVITY OF METHANOLIC LEAF EXTRACT OF ASYSTANSIA GANGETICA

G.LAKSHMANA*, ASST PROFESSOR, V.CHITRA PH.D (HOD PHARMACOLOGY)

SRM UNIVERSITY, CHENNAI.

ABSTRACT- 14

Diabetes mellitus is a chronic disorder characterized by abnormalities as carbohydrate, lipid, lipoproteins metabolism which not only lead to hyperglycemia but also cause many complications such as hyperlipidemia,hyperinsulemia,hypertension,neuropathy,retinopathy and atherosclerosis. Plant contains a wide array of free radical scavenging molecules which possess both hyperglycemia and antioxidant activities. So the present study was planned to evaluation of methanolic leaf extract of asystansia gangetica at two different doses 100mg/kg and 200mg/kg. The anti diabetic and antioxidant activity was evaluated by using alloxon induced diabetic route model in which where treated with alloxon (100mg/kg and 200mg/kg0.the parameter monitored in the present study where serum glucose, triglycerine cholesterol (proteins, SGOT, SGPT) is into antioxidant parameters no scavenging and DPPH) *invivo* antioxidant parameter like elevates lipids, peroxidants and reduced glutathiones in pancreas. Our study clearly indicated significance anti diabetic activity with the leaf extract of asystansia gangetica at both doses as significant decreases in serum glucose, triglycerine cholesterol, SGOT, SGPT was observed

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Key words : Salloxon, anti diabetic, antioxidant, asystansia gangetica

NEUROTRANSMITTERS (DOPAMINE) MIGHT IMPROVE THE TREATMENT OF CANCER

I.MADAVESWAR RAO*, SHABANA.SHAIK,PROF .V.S.V.RAO,ANIL BABU,NAGA GOPI.N

Sarada College of Pharmaceutical Science

ABSTRACT- 15

Cancer is a breath taking disease which has spread like a web all around the world. So recent advances on cancer showed that doses of neurotransmitter might offer a way to boost the effectiveness of anti cancer drug and radiation therapy. Mainly animal models of human cancer and prostate cancers are used for research. Mainly, impaired blood flow in the tumor vascular bed caused by structurally and functionally abnormal blood vessels not only hinders the delivery of chemotherapeutic agents but also aggravates tumor hypoxia, making the tumor cells further resistant to antineoplastic drugs. Therefore, normalization of tumor blood vessels may be an important approach to increase therapeutic efficacy in the treatment of cancer patients. As blood vessels are supplied by sympathetic nerves containing dopamine (DA), and DA regulates functions of normal blood vessels through its receptors present in these vessels, we investigated the effect of DA on tumor vasculature. Loss of sympathetic innervations and endogenous DA in abnormal and immature tumor blood vessels in malignant prostate tumor tissues.

In contrast, exogenous administration of DA normalizes the morphology and improves the functions ofthese vessels by acting on pericytes and endothelial cells, the two major cellular components of blood vessels. Importantly, this vessel stabilization by DA also significantly increases the concentration of anticancer drug in tumor tissues. These results show a relationship between vascular stabilization and aneurotransmitter and indicate that DA or its D_2receptor-specific agonists can be an option for the treatment of cancer and disorders in which normalization of blood vessels may have therapeutic benefits.

Key words : Cancer, Neurotransmitters, Dopamine.

RHEUMATIC FEVER

SK.MAJIDA*

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ABSTRACT- 16

Acute rheumatic Fever is an inflammation that may affects many parts of the body. It can be a complication of STREPTOCOCCAL PHARYNGITIS, is a type f bacterial infection of the throat. single or repeated episodes of rheumatic fever can lead to chronic rheumatic heat disease. Heart inflammation affects about half the patients, it can cuse carditis it can lead to heart failure in some patients. Rheumatic Fever can also damage the heart valves, permanent heart damage caused by rheumatic fever is called rheumatic disease, about 75% of patients arthritis that affects multiple joints. About 15% experience in neurological abnormalities, often a type called Sydenham"s chorea in which the musules of the arms and legs fail uncontrollably. 10% of patients develop small pain less lumps or nodules on prominent bons at the elboms. Streptococcal infections can be prevented by very effectively with pencillin like erythromycin. Preventing of rheumatic fever is the most effective way to treat the disease. Treatment

consists of anti biotics, usvally penicillin, aspirin or steroids. Aspirin may reduse fever and reliene joint pain and swelling, conticosteroids may be used if aspirin is inadequate

NEW THERAPEUTIC AGENTS FOR THE TREATMENT OF TYPE -2 DIABETES

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Siddhartha Institute of Pharmaceutical Sciences, Jonnalagadda, Narasaraopet.

ABSTRACT- 17

Current treatment of type-2 diabetes is effective. But a substantial no of patients continue to have difficulty in achieving and maintaining satisfactory control of blood glucose. The available data suggest that enhancing of glucagon like peptide-1.By inhibition of dipeptidyl peptidase-4 may be useful therapeutic approaches for the treatment of type-2 diabetes. Both glucagon like peptide-1 receptors antagonist's and dipeptidyl peptidase-4 inhibitors represents the promising approaches for the treatment of type-2 diabetes. The long term safety and efficiency of these agents remained to these new drug classes will provide novel therapeutic alternatives for the management of diabetes.

PSORIASIS- PATHOPHYSIOLOGY AND CURRENT TREATMENT STRATEGIES

MANOJA L *, MADHURI K , UTTAM KUMAR B

K.G.R.L College of Pharmacy, Bhimavaram

ABSTRACT- 18

Psoriasis is considered as a T-cell-mediated inflammatory skin disease which is characterized by hyper proliferation and poor differentiation of epidermal keratinocytes. While susceptibility to psoriasis is inherited, the disease is influenced by environmental factors such as infections and stress. There are typically three options to treat psoriasis. First, topical treatments may be applied directly to the skin. Healthcare providers might also recommend light treatments (phototherapy), or medications taken by mouth or injection to treat the entire immune system. Since each option has different outcomes for different people, healthcare providers often use a trial-and-error approach to find a treatment for psoriasis that works.

The present study gives information about the different types of psoriasis and the current treatment options .It also shows the new delivery system and the traditional medicines which can be effectively used for treatment.

DIABETIES ASSOTIATED NERVE PAIN

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ABSTRACT- 19

Diabetes mellitus are many with the most common being type -1diabetes. The body produces little (or) no insulin. So those with this type of diabetes need to be on insulin therapy. Type -2 diabetes

the body produces plenty of insulin. But cells are unable to cure it diabetes in India 2.8% of the population are suffered from diabetes type-2 diabetes is the most common type in world wide. The symptoms include excessive thirst and appetite, increased urination, slow- healing sores diabetic nerve pain. The pain usually occurs in both feet and may seem to extend into the legs as time passes. Similarly both hands would be affected. This pair may travel in the arms. The pain can develop on its own (or) it may also be caused by light touch. Causes no one yet knows exactly what cause the nerve damage. Having high blood glucose levels time likely to involve and high blood pressure and overweight have a greater risk of developing diabetes related nerve damage. Cymbalta drugs are used for this pain and different treatments of the diabetes and how to manage diabetic nerve pain.

Key words : Diabetes types, description of diabetic nerve pain, causes, treatment.

NOVEL BIPHOSPHONATES FOR TREATMENT OF PERIODONTITIS

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ABSTRACT- 20

Periodontitis is a multifactorial disease involving bacterial biofilms and the generation of an inflammatory response. The latter causes the major part of the periodontal tissue breakdown. Alveolar bone resorption is a major component of the periodontal destruction observed in periodontitis. Novel treatment modalities of periodontitis intend to control and modulate the host response to bacterial aggression. Drugs such as bisphosphonates (BPs) are proven antiresorptive agents that can potentially inhibit the alveolar bone resorption. This review describes the potential use of BPs in periodontal treatment and could be said that BPs have an in vitro and in vivo capability of reducing bone resorption. Only a few studies have been carried out on the improvement of clinical periodontal parameters after the administration of BPs. Therefore, the published data are not sufficient to establish an evidence-based relevance for the use of these drugs in the treatment of periodontal diseases.

DIABETES OF HEART

N V.MANASA*, CH.SUMALATHA.

Siddhartha Institute of Pharmaceutical Sciences Jonnalagadda, Narasaraopet

ABSTRACT- 21

Too much glucose in the blood for a long time can cause diabetes problems. This high blood glucose, also called blood sugar, can damage many parts of the body, such as the heart, blood vessels, eyes, and kidneys. Heart and blood vessel disease can lead to heart attacks and strokes, the leading causes of death for people with diabetes. You can do a lot to prevent or slow down diabetes problems. *Keep your blood pressure under control.* Have it checked at every doctor visit. The target for most people with diabetes is below 130/80.. Narrowed and clogged blood vessels make it harder for enough blood to get to all parts of your body. This condition can cause problems. When blood vessels become narrowed and clogged, you can have serious health problems: A smaller opening in a garden hose makes the water pressure higher your reading might be 120/70, said as "120 over 70." For people with diabetes,

the target is to keep the first number below 130 and the second number below 80. Eating less salt and high-sodium foods losing weight if you need to being physically active not smoking

ROLE OF PROSTAGLANDINS IN DIFFERENT TYPES OF CANCER

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Dr.Samuel George Institute of Pharmaceutical Sciences, Markapur-523316

ABSTRACT- 22

Levels of COX-2 is enzyme and certain prostaglandins like PGE**2**, PGF**2**a and PGE**1** are found to be higher in certain cancers like colorectal carcinoma, squamous cell carcinoma of head and neck and certain types of breast cancer. They have been shown to aid carcinogenesis by altering cell proliferation, tumor angiogenesis, apoptosis, immunity and carcinogen metabolism. Decreasing the high levels of COX-2 and above-mentioned prostaglandins has shown to decrease carcinogenesis.Cyclopentanone prostaglandins like PGJ**2** and PGA**1** have been shown to have anti-tumor effects. These act directly by suppressing the oncogenes or indirectly by preventing efflux of anti-neoplastic agents from resistant cancer cells. COX-2 inhibitors, PGA**1** and PGJ**2** may be of vital importance in future cancer therapy.

AN OVER VIEW OF HANTA VIRUS

PULUSU. PRATHAP REDDY*.

Siddhartha Institute of Pharmaceutical Sciences, Jonnalagadda, Narasaraopet

ABSTRACT- 23

Hanta virus is a life threatening disease spread to humans by rodents that has symptoms similar to influenza. Hanta virus is carried by rodents especially deermice. The virus is found in their urine and feces. It doesn't spread between humans main symptoms are chill, fever, headache, dry cough, nausea & vomiting. The test performed for detecting the virus are complete blood count (CBC), complete metabolic panel, kidney & liver function tests , X- ray of the chest. The treatment include breathing tube or breathing machine in severe cases, a medication called RIBAVIRIN to treat kidney – related problems and reduce the risk of death. Complications of hanta virus may include kidney failure, heart & lung failure. It can be prevented by avoiding exposure to rodent urine and dropping, avoid rodent dens & by drinking disinfected water. These factories then facilitate transcription and subsequent translation of the viral proteins transcription of viral genes must be initiated by association of the well protein with the three nucleocapsid species. In addition to transcriptase and replicas functions, the viral L- protein is also thought to have an Endonuclease activity that cellular messenger RNA s (mRNAs) for the production of capped primers used to initiate transcription of viral mRNAs.

STEM CELL BANKING

PRIYANKA.M*.

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ABSTRACT- 24

Stem cells are the cells that able to differentiate into specialized cells types. Embryonic stem cells are comparatively more potent then adult stemcells.So stem cells of newborn baby are active.

There by preserving stem cells of newborns can solve some of major disorders. Exciting new research on new types of stem cells called mesenchymal Stem cells has enhanced potentially with stem cell therapy. Umbilical cord mesenchymal stem cells are collected and cryo preserved by cooling to low sub zero temperature in which biological activity and biochemical reactions are effectively stopped. These stem cells are perfect match for the baby. These umbilical cord tissue stem cells show rapid multiplication of stem cells and differentiate any other type of stem cells such as neural, bone, cardiac, cartilage and other. Hence preserving the cord tissue stem cells offer complete protection for child from a wide range of tissue degenerative aliments. Some of the potential therapeutic applications are cardiac arrythmiasis, crohn's disease, osteoarthritis, multiple sclerosis etc.

SWINE-FLU

RAJA KUMARI.CH

Sri Vani School Of Pharmacy

ABSTRACT- 25

Swine flu (swine influenza) is a disease of pigs. It is a highly contagious respiratory disease caused by one of many Influenza A viruses. Approximately 1% to 4% of pigs that get swine flu die from it. It is spread among pigs by direct and indirect contact, aerosols, and from pigs that are infected but do not have symptoms. In many parts of the world pigs are Most commonly, swine flu is of the H1N1 influenza subtype. However, they can sometimes come from the other types, such as H1N2, H3N1, and H3N2vaccinated against swine flu. Outbreaks of human infection from a virus which came from pigs (swine influenza) do happen and are sometimes reported. Symptoms will generally be similar to seasonal human influenzas - this can range from mild or no symptoms at all, to severe and possibly fatal pneumonia. We really don't know. Influenza viruses are adapting and changing all the time. If a vaccine was made, it would have to be specifically for a current strain that is circulating for it to be effective. The WHO says it needs access to as many viruses as possible so that it can isolate the most appropriate candidate vaccine. Independent third party laboratory tests confirm that the Verilux CleanWave® UV-C Sanitizing Wand eliminates up to 99.9% of H1N1 and MRSA(Methicillin-resistant Staphylococcus aureus) on surfaces. Two antiviral agents have been reported to help prevent or reduce the effects of swine flu. They are zanamivir (Relenza) and oseltamivir (Tamiflu)

ROLE OF THE INSULIN-LIKE GROWTH FACTOR FAMILY IN CANCER TREATMENT

G.V.V.RAMANA*, R.PRIYANKA

Sri Siddhartha Pharmacy College, Nuzvid, Andhra Pradesh, India.

ABSTRACT- 26

The insulin-like growth factor (IGF) family of ligands, binding proteins and receptors is an important growth factor system involved in both the development of the organism and the maintenance of normal function of many cells of the body. Laboratory studies have shown that IGFs exert strong mitogenic and antiapoptotic actions on various cancer cells. Many recent studies have identified new signaling pathways emanating from the IGF-I receptor that affect cancer cell proliferation, adhesion, migration and cell death; functions that are critical for cancer cell survival and metastases. Most

members of the IGF system are expressed by different cancer cells and may play an important role in the propagation of these malignancies. New therapies aimed at modulating various components of the IGF system could affect the progression and metastasis of cancer.

Key words : Insulin-like growth factor; Insulin receptor; Cancer.

DEVELOPMENT OF GAMMA (GAMMA)-TOCOPHEROL AS A COLORECTAL CANCER CHEMOPREVENTIVE AGENT.

RAMESH BABU.K*, AFROZ BASHA, S.ANEELA.

Dr Samuel George Institute of Pharmaceutical Sciences, Markapur

ABSTRACT- 27

Nutritional factors play an important role in the prevention and promotion of colorectal cancer. Vitamin E is a generic term that describes a group of lipid-soluble chain-breaking antioxidants that includes tocopherols and tocotrienols. Vitamin E occurs in nature as eight structurally related forms that include four tocopherols and four tocotrienols. Vitamin E is a potent membrane-soluble antioxidant. Antioxidants like vitamin E (tocopherols) may prevent colon cancer through several different cellular and molecular mechanisms. Vitamin E in the American diet is primarily available in plant-oil rich foods such as vegetable oils, seeds and nuts and these foods vary widely in their content of alpha-tocopherol and gamma-tocopherol. Vitamin E may help prevent colon cancer by decreasing the formation of mutagens arising from the oxidation of fecal lipids, by decreasing oxidative stress in the epithelial cells of the colon and by molecular mechanisms that influence cell death, cell cycle and transcriptional events. Recent epidemiological, experimental and mechanistic evidence suggests that gamma-tocopherol may be a more potent cancer chemopreventive agent than alpha-tocopherol. The differences in chemical reactivity, metabolism and biological activity may contribute to these differences in the effects of gamma-tocopherol when compared with alpha-tocopherol. The rationale supporting the development of gamma-tocopherol as a colorectal cancer preventive agent is reviewed here.

STENTS

G. SAI PRATHYUSHA* U.HYMAVATHI

Siddhartha Institute of Pharmaceutical Sciences, Jonnalagadda, Narasaraopet.

ABSTRACT- 28

A Stent is a small mesh tube that's used to treat narrow or weak arteries. Arteries are blood vessels that carry blood away from the heart to other parts of the body. A Stent is placed in an artery as part of a procedure called angioplasty_.Angioplasty restores blood flow through narrow or blocked arteries**.** STENTS May be used to treat coronary heart disease (CHD) In which a wary substance called plaque builds up inside the coronary arteries. These arteries supply the heart muscles with oxygen-rich blood. Plaques narrow the coronary arteries reducing the flow of oxygen rich blood to the heart. This will lead chest pain (Angina) or heart attack.Stents are also used to treat carotid artery disease**.** Plaques also can narrow other arteries such as in the kidneys and limbs. Narrow kidney arteries can affect kidney function and leads to severe high B.P.Narrow arteries in the limbs, which is called peripheral arterial

disease (PAD) Causing pain in the affected arm or leg. The aorta which runs through the chest and down to the abdomen. Some areas of areas of aorta walls can weaken. These weaken parts cause a bulge in this artery called areuryson. To treat various diseases of arteries of various places of the body, STENTS are (placed) at the affected places to restore the flow of blood normally.

DIAGNOSIS AND TREATMENT OF ASTHMA

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ABSTRACT- 29

Asthma is a chronic inflammatory disorder of the airways within the lungs. An asthma attack occurs when these airways narrow and the muscles around them tightly contract (this is called bronchospasm). The membranes lining the inner walls of the airways become swollen and inflamed , and the glands within these walls produce excess mucus. Causes and risk factors of asthma: The two main factors that contribute to asthma are inflammation of the airway passages and hyper reactive bronchi. Symptoms of asthma: Wheezing, cough- chronic or reoccurring (worse particularly at night and in the early hours of the morning, pain or tight feeling in the chest , shortness of breath , hyperinflation (appearance of hunched shoulders, hunching forward or preferring not to lie down).

Diagnosis of asthma:

1) Repeated careful measurement of how efficiently the patient can force air out of the lungs
2) Chest x- rays
3) Laboratory tests. Treatment of asthma: Asthma cannot be cured, but it can be controlled with, proper asthma management. The first step in asthma management is environmental control clean the house at least once a week and wear a mask while doing it.

THE GLOBAL IMPACT OF HIV/AIDS

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ABSTRACT- 30

The scale of the human immune deficiency virus (HIV) aids epidemic has exceed all expectations signs its identification on 20 years ago .Globally, an estimated 36millions people are have already died ,with the worst of the epidemic centered on sub-Saharan Africa. Just as the spread of HIV has been greater then predicted, so growth .Responding to aids on a scale commensurate with the epidemic is a global imperative, and the tools for an effective response are known. Nothing less than the sustained social mobilization is necessary to come back one of the most serious crisis facing human development.

MALE BREAST CANCER

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ABSTRACT- 31

Male breast cancer remains under diagnosed and, due to delays in diagnosis, is often also undertreated. The investigation and management of male breast cancer are based on studies on female

patients. At present there is a need for further research into male breast cancer. The symptoms, diagnosis and treatment for male breast cancer are all similar to female breast cancer.[1] It is estimated that more than 90% of male breast cancers are oestrogen receptor-positive, and an even greater percentage are progesterone receptor-positive. Male breast cancer tissue may also be positive for androgen receptors.

NEURODEGENERATIVE DISORDERS AND ITS TREATMENT

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ABSTRACT- 32

A NEUROLOGICAL DISORDER is a disorder caused by the deterioration of certain nerve cells called neurons. Changes in these cells cause them to function abnormally, eventually bringing about their death. In this paper we present a comprehensive database for neurodegenerative diseases, a first-of-its kind covering all known or suspected genes, proteins, pathways related to neurodegenerative diseases. This dynamically compiled database allows researchers to link neurological disorders to the candidate genes & proteins. It serves as a tool to navigate potential gene-protein-pathway relationships in the context of neurodegenerative diseases. The neurodegenerative disorder database covers more than 100 disease concepts including synonyms and research topics. The current version of the database provides links to 728 ABSTRACTs and over 203 unique genes/proteins with 137 drugs. Also it is integrated well with other related databases. The aim of this database is to provide the researcher with a quick overview of potential links between genes and proteins with related neurodegenerative diseases. Thus DND providing a user-friendly interface is designed as a source to enhance research on neurodegenerative disorders.

CERVICAL CANCER

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ABSTRACT- 33

It is a review article of cervical cancer. Cervical cancer is the term for a malignant neoplasm arising from cells originating in the cervix uteri. One of the most common symptoms of cervical cancer is abnormal vaginal bleeding. Human Papilloma Virus [HPV] infection appears to be a necessary factor in the development of all most all cases [90+_%] of cervical cancer. Cervix in relation to upper part of vagina and posterior portion of uterus. The cervix is the narrow portion of the uterus where it joins with the top of the vagina. It deals about the early stage of cervical cancer may be completely asymptomatic vaginal bleeding, contact bleeding, or (rarely) a vaginal mass indicate the presence of malignancy. This article deals about the etiology, cofactors responsible, diagnosis, the way of preventing, and the treatment available at different stages.

Key words : Cervical cancer, Human Papilloma Virus, uterus, Vagina.

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RISK FACTORS, SYMPTOMS & TREATMENT OF BREAST CANCER

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ABSTRACT- 34

Breast cancer is the 2nd most common cause of cancer death in women and accounts for about 1 % of all cancer deaths in men. Mainly tumors can be malignant, latter of which are cancerous. Breast cancer cells metastases commonly to bones, liver, lungs & brain. Breast cancers are described along four different classification schemes i.e. Pathology, Grade of tumour, protein & gene expression status & stage of tumour. Risk factors for Breast cancer include gender, aging, mutation of BRCA 1, BRCA2, ATM, CHEK2, P53, PTEN genes, race, Diethyle stilbestrol (DES) exposure and so on common symptoms noticed in breast cancer are , a change in feel and appearance of breast or nipples of nipple discharge screening tests for breast cancer are screening mammogram , clinical breast exam and breast self exam. The choice of treatment depends on staging of disease, stages can be enlisted as 0, I, II, III, IIIA, IIIB, IIIC, IV and re current cancer. The treatment methods are categorized into

1) Local therapy which includes SURGERY and RADIATION THERAPY.
2) Systemic therapy which includes CHEMOTHERAPY, HARMONE THERAPY & BIOLOGICAL THERAPY.

CANCER

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Dr. Samuel George Institute of Pharmaceutical Sciences Markapur

ABSTRACT- 35

Cancer is a problem of abnormal growth in any part of our body. There are no specific symptoms of cancer. Many causes behind such alternatives are still unknown. Nevertheless around 70% of the cancers are due to chemical, physical and biological carcinogens which cause cancer. It is important to identify not only the carcinogens but also the tumor promoters in our environment. In India, about 35% of all the cancers are in the oral cavity. Tobacco has strong cancer promoting activity. Research has shown that passive smokers have a much higher risk of getting cancer than people who are not exposed to smoke at all. If we can educate people to develop healthier habits we can perhaps nip the problem in the bud. Finding out the differences between normal and cancer cell is one of the major goals of cancer research one of the main aims of research in cancer has been to understand how cells divide and also what stops their division. Among all the breast cancer cases, only 5% may develop in the early thirties. Young patients tend to have a family history of breast cancer. Radiations used for the treatment of cancer mainly the X-rays and gamma rays. Cancer is becoming more and more curable with advances in medical sciences. But many cancers are preventable by changing our habits and lifestyles. Let's shed our ignorance and go towards the star.

BIO ARTIFICIAL HEARTROLE IN ORGAN TRANSPLANTATION

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ABSTRACT- 36

Bio artificial heart is a theoretical alternative to transplantation of heart. As once a heart is transplanted individual face lifelong immunosuppression, where drugs are used to prevent rejections,

often trading heart failure for high blood pressure, diabetes & kidney failure over the long term. "Decellularisation "process could be used to make new donor organs. Because a new heart could be filled with recipients cells, it's much less likely to be rejected by the body. And once placed in the recipient, in theory the heart would be nourished, regulated & regenerated similar to the heart that is replaced. "The main idea is to develop transplantable blood vessels or whole organs that are made from recipients cells". Technique involved is "Decellularisation" which is process of removing all the cells from an organ i.e. animal cadaver heart, leaving only the extra cellular matrix, the frame work between the cells .After removing all of the cells heart was injected with a mixture of progenitor cells that come from neonatal or new born animals and placed the heart in a sterile setting in lab to grow .The presentation emphasizes "Decellularisation technique "significance and limitations.

G-PROTEIN COUPLED RECEPTORS

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ABSTRACT- 37

GPCRs are essential to human life, involved in almost every physiological function. Located within the membranes of cells, these receptors detect arriving hormones, chemical neurotransmitters, odors and other signaling molecules, then activate internal G-proteins, which, behaving like molecular switches, initiate other events that affect everything from the senses and behavior to fundamental functions like heart rate and blood pressure. Malfunctions in these signaling pathways have been linked to dozens of diseases, including diabetes, blindness, asthma," The 800 or so known GPCRs do an incredible variety of things, which is why they're broadly considered the most important target for new drugs," said Virgil Woods Jr., MD, a professor of medicine at UCSD School of Medicine and a co-author on two of the papers. "But historically they've been very difficult to work with. We haven't had agrasp of their precise structure and functioning. A lot of drugs are based on targeting GPCRs, but they're hit or miss. Until recently, we have known little about how GPCRs actually work at the sub-molecular level." But crystallography has its limits. This is a prototype complex. There are hundreds of related protein complexes involved in a wide variety of disease processes. We are now implementing the next-generation of DXMS analysis at UCSD, and look forward to making this remarkable technology readily accessible to investigators studying them.

LEUKEMIA

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ABSTRACT- 38

Leukemia is a cancer of early blood forming cell. It is the second leading cause of death in children and it is account for1 out of 3 cancers in children. Leukemia starts in the bone marrow and invades the blood fairly quickly. In this presentation types, causes, classifications and prognostic factors are briefly discussed. The main symptoms of this disease are infections and fever, easy bleeding, bone and joint pains etc. The main treatment for childhood leukemia is chemotherapy. Surgery and radiation therapy may be used in special circumstances. By the transplants of blood forming stem cells or the patient's own stem cells are removed for his bone marrow these diseases also curd. The survival rate for

ALL in children is more than 80 percentages and AML range is 50 to 70 percentages. For the purpose of treatment antibiotics, blood growth factors and anti cancer drugs are used.

EVALUATION OF PURGATIVE ACTIVITY OF LEAVES OF *ANNONA SQUAMOSA LINN.*

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ABSTRACT- 39

*Annona squamosa linn. (*family:*annonaceae)* is an important medicinal plant whose leaves possess major therapeutic activity widely used for the treatment of Diabetes Mellitus, Antidiarrhoeal, hair tonic, antiovulatory, abortificient, antilice. so there is a scientific validation the present study was evaluation of purgative activity of aqueous leaf extract of *Annona squamosa linn* in rat. Purgative activity was assessed by increase in weight of fecal output at 8^{th}&16^{th} hour after the administration of extract. *Senna* was used as reference standard. The results of the study reveal that the aqueous leaf extract of *Annona squamosa linn.* exhibited significant purgative activity.

Key words : Annona squamosa linn, purgative activity, senna, aqueous leaf extract.

Dental/Oral Sciences

TREATMENT OF ROOT CANAL

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ABSTRACT- 40

When the decay goes undetected, it deepens and penetrates in to the pulp space of the tooth leading to pain. At this juncture, root canal treatment is done. It is a pulpectomy, removal of the pulp tissue, is advisable to prevent such infection. Usually, some inflammation and/or infection are already present within or below the tooth. To cure the infection and save the tooth, the dentist performs a procedure which is known as root canal therapy. With the removal of nerves and blood supply from the tooth, it is best that the tooth be fitted with a crown which increases the prognosis of the tooth by six times. After the root canal therapy it is followed by reinforcing the tooth with a crown.

AMAZING FACTS ABOUT THE GINKGO BILOBA

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ABSTRACT- 41

Ginkgo biloba is one of the oldest living tree species and its leaves are among the most extensively studied herbs in use today. Alternative names are fossil tree, kew tree, maiden hair tree. A combination of resistance to disease, insect resistant wood and the ability to form aerial roots and sprouts makes ginkgo's long lived, with some specimens claimed to be more than 2500 years

old.Recently it was reported that ginkgo biloba extract known to have anti oxidant property.Ginkgo's leaves contain two types of chemicals flavonoids and terpenoids believed to have antioxidant property. Flavonoids are plant based antioxidants and terpinoids are ginkgolides. Antioxidants are the substances that scavenge the free radicals compounds in the body.Antioxidants such as those found in ginkgo can help in neutralize free radicals. Ginkgo is used for the dementia and alzheimer's disease,intermittent caludacation,glaucoma,memory enhancement,macular degeneration,tinnitus.

Key words : Herbs, ginkgo biloba, antioxidants, glaucoma, alzheimers, tinnitus

FORMULATION AND EVALUATION OF SUSTAINED RELEASE BUFFERED ASPIRIN TABLETS

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ABSTRACT- 42

Aspirin is a non-steroidal Anti-inflammatory drug (NSAID) belongs to the group of salicylates. It is widely in treatment of rheumatoid arthritis, reduce risk of myocardial infraction. It has a short half-life and causes gastric disturbances, peptic ulcer and administration is necessary to maintain its therapeutic concentrations of Aspirin the physiochemical properties of drug, its short half-life and problems associated with gastrointestinal disturbances make it suitable candidate for preparation of sustained release microcapsules. Salt forms of drugs have an advantage of GI compatibility and also have a rapid absorption as the drug remains in un-ionized form. To have a salt form of drug molecular modification has to be made. As the molecular modification for Aspirin is not possible so, salt form of aspirin can be attained from dosage form modification (buffered aspirin tablet). Microcapsules were prepared with the polymer Hydroxy propyl methyl cellulose by emulsion solvent evaporation method in various ratios 1:1,2:3 and 2:1 (F_1,F_2,F_3).It is slightly soluble in water, freely soluble alcohol, chloroform, ether. The F_1 formulation was found to satisfy the hardness, friability, disintegration. The invitro drug release of F_1 is compared to that of the marketed drug. The release of F_1 is similar to that of the marketed drug. The data obtained from in vitro release profile of aspirin indicates F_1 batch of microcapsules showed sustained and prolonged drug release profiles and spread over an extended period of 12hrs.Aspirin release from microcapsules followed first order kinetics.

Key words : Aspirin, HPMC, Buffered Aspirin Tablets.

4. RP-HPLC METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF CINTAPRIDE AND PANTOPRAZOLE IN TABLETS

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ABSTRACT- 43

A simple reverse phase high performance liquid chromatographic method has been developed and subsequently validated for simultaneous determination of cintapride and pantoprazole in combination. The separation was carried out using a mobile phase consisting of Sodium buffer P^H 3: Acetonitrile (60:40). The column used was C_{18} (150 x 4.6 mm, packed with 5µm) in an isocratic mode.

The described method was linear in the range of 20 – 120 µg/ml with regression 0.992 and 0.9987, intercept– 9.7969and13.648 and slope 10.635 and 58.965 for Cinitapride and pantoprazole respectively. Cinitodac tablets containing 43 mg of (2mg cinitapride and 40 mg pantoprazole) was used as internal standard. The retention times of cintapride and pantoprazole were found to be2.507 and 4.933 respectively. Results of analysis were validated statistically and by recovery studies according to the ICH guidelines. The results of the study showed that the proposed RP-HPLC method is simple, rapid, precise and accurate, which is useful for the routine determination of cintapride and pantoprazole in bulk drug and in its pharmaceutical dosage form.

A PRELIMINARY REPORT ON ATTENTION DEFICIT HYPERACTIVITY DISORDER [ADHD] - FOUR GENES LINKED TO THE DISORDER

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ABSTRACT- 44

Health experts say that ADHD [attention deficit hyperactivity disorder] is the most common disorder that starts during childhood. However, it does not only affect children –people of all ages can suffer from ADHD. Psychiatrists say ADHD is a neurobehavioral disorder.Four gene variants, all members of the glutamate receptor gene family, appear to be involved in vital brain signaling pathways in a sub-set of children with ADHD, researchers from the center for applied Genomics at the children's Hospital of Philadelphia reported in the Nature Genetics. The authors add that their findings could help create drugs that target those pathways, offering potential therapies for ADHD patients with those specific gene variants. There are an estimated half – a –million American children with ADHD and this gene variant has reported in literature that "At least ten percent of the ADHD patients in our sample have these genetic variants. The genes involved affect neurotransmitter systems in the brain that have been implicated in ADHD, and we now have a genetic explanation for this link that applies to a sub-set of children with disorder".

Key words : ADHD, Behavioral disorder, Impulsive, Hyperkinetic disorder, CDC.

THE LOCATION AND FUNCTION OF NMDA RECEPTORS

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ABSTRACT- 45

The role of N-methyl-D- aspartate (NMDA) receptors in visual cortex was studied as a function of both layer and age by iontophoresis of the NMDA antagonist (D)-2-amino-5-phosphonovaleric acid (APV). Effects on both visual responses and spontaneous activity were observed. In superficial layers (II and III), D-APV reduced visual responses substantially at all ages. Iontophoresis of D-APV with 10 nA of ejecting current for 2–3 min was sufficient to reduce the response to approximately one third of control levels. The magnitude of the reduction did not vary with age. In granular and deep layers (IV, V, and VI), D-APV affected the visual response in young animals but only spontaneous activity in older animals. On average, visual responses were reduced to about half at 20–23 days of age and to about 75% at 4 weeks of age but in most cases were not significantly affected in adults. The rapid change in the

functional effect of NMDA receptors over the third and fourth week in granular and deep layers suggests a role in development. There was a reasonable age correlation between the change in effect and the period of geniculocortical afferent segregation. Further experiments will be necessary to determine whether NMDA receptors are necessary for segregation to occur. The presence of an NMDA component to the visual response in the adult in layers II and III argues either that these layers retain some form of plasticity in the adult or that NMDA receptors play a role in the transmission of normal visual input to these layers.

ANTI – AIDS

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ABSTRACT- 46

Acquired immune deficiency syndrome (AIDS) mainly caused by the HIV. AIDS was recognized in 1981. Mainly HIV's are two types, these are, HIV – 1 and HIV – 2. HIV – 1 has one genome and HIV – 2 has 2 genomes. HIV – 1 is more efficiency compared to HIV – 2. HIV life cycle involves 3 steps. These are invasion, maturation, release. HIV life cycle depends on the following enzymes. These are protease, integrase and reverse transcriptase enzymes are involved. All steps in cycle are essential; interference in step kills the virus. HIV initiate infection by attaching to extra cellular domain of CD4 receptor. Fusion of viral &cellular membrane is mediated by transmembrane glycoprotein gp 41. Infection of human cell involves making of DNA transcripts of viral transcripts using viral reverse transcriptase. Integrase catalyses the integration of double stranded DNA into host chromosome through processing &joining. Viral proteins are derived via proteolysis processing by proteases. Immune system contains many different cells but only helper T cell can be attacked by HIV.
Key words :CD4+ T Cells, protease, transcriptase, reverse transcriptase, Binding receptors.

ETHNOPHARMACOLOGICAL AND BIOTECHNOLOGICAL SIGNIFICANCE OF *VITEX*

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ABSTRACT- 47

Vitex (verbenaceae) is a large genus that has a plethora of ethno pharmacological uses. The various species of vitex have been used to treat a range of human ailments, particularly related to insects, fungi, bacteria, snakes and poisonous spiders and diseases associated with menstruation and gynecological problems. Several secondary metabolites like flavanoids, glycosides, and terpinoids have been reported in different species of vitex. Vitex trifolia and v.negundo can be propagated vegetatively for cultivation on desecrated lands to produce huge biomass for commercial applications. This review emphasizes the phytochemical, ethanobotanical knowledge on some species of vitex to highlight their traditional and modern usage.

NFIT-A PAIN FREE TRANS DERMAL DRUG DELIVERY SYSTEM

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ABSTRACT- 48

This review is mainly deals with the improved compliance by using needle free injections. The needle free injection technology offers very obvious benefit of reducing patient concern about the use of needle. The needle less injection system is one of the most recent advancement done in the administration of medicine. This invention is better for delivering medication and vaccinations through the skin. For some, especially those suffering from chronic diseases requiring injectable products two or three times a day, this process is an ongoing reality of daily life, for example diabetes-accepted, but always with the hope that something new will replace the use of conventional needle insertion to overcome the problems related to needle based injections. There is one technology that has received considerable attention during the past few years and that offers all of the sought after benefits are— Needle Free Injection Technology (NFIT). It is the system through which we can directly administer the drug through the skin without pricking. It is more efficient. The drug can be dispersed through the skin in the form of fine mist in which the drug is introduced with the burst of air to cross the skin and enters in to systemic circulation. The NFIT also useful to control the transmission of HIV through needles and also there is a need to develop drug therapy through the transdermal route for succeeding of NFIT.

MAGNETIZED CARRIER IN DRUG TARGETTING: A NOVEL APPROACH

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ABSTRACT- 49

This article focuses on various methods for targeted drug delivery by applying high magnetic field gradients within the body to an injected super paramagnetic colloidal fluid carrying a drug, with the aid of modest uniform magnetic field, the development of nanoparticles and missile drugs for active targeting drug delivery system. The non-specific distribution of drugs is wasteful and hampers the clinical usefulness of most of these agents after their systemic administration in the body and the controlled rate and mode of drug delivery to pharmacological receptor and specific binding with target cells as well as bioenvironmental protection of the drug and route to the site of action are specific features of targeting. So magnetic targeting of microspheres was developed to overcome two major problems encountered in the drug targeting namely reticulo endothelial system clearance and target site specificity. It is a challenging area for future research in the drug targeting so more researches , long term toxicity study, and characterization will ensure the improvement of magnetic drug delivery system. The future holds lots of promises in magnetic micro carriers and by further study this will be developed as novel and efficient approach for targeted drug delivery system.

Key words : Targeted drug delivery, magnetic field gradients, microspheres, receptors.

FORMULATION, CHARACTERIZATION AND IN VITRO EVALUATION OF CIMETIDINE FLOATING MICROSPHERES

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ABSTRACT- 50

The present study involves and evaluation of floating microspheres with cimetidine as model drug for prolongation of gastric residence time. The microspheres were prepared by solvent evaporation method using polymers hydroxyl propylmethyl cellulose and ethyl cellulose. The shape and surface morphology of prepared morphology were characterized by optical and scanning electron microscopy, respectively. In vitro drug release studies were performed and drug release kinetics was evaluated using the linear regression method. Effects of stirring rate during preparation, polymer concentration, solvent composition and dissolution medium on the size of microspheres and drug release were also observed. The prepared microspheres exhibited prolonged drug release (~8 hr) and reminded buoyant for > 10 hr. The mean particle size increased and the drug release rate decreased at higher polymer concentration. No significant effect of the stirring rate during preparation on drug release was observed. In vitro studies demonstrated diffusion controlled drug release from the microspheres.

Pharmaceutical Analysis

SUPER CRITICAL FLUID EXTRACTION

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ABSTRACT- 51

Super critical fluid extraction is the process of separating one component (the extractant)from another (the matrix)using super critical fluids as the extracting solvent.Carbondioxide is the most used super critical fluid sometimes modified by co-solvents such as ethanol or methonal.The extraction conditions for supercritical carbondioxide are above the critical temperature of 31digree centigrade and critical pressure of 74 bar. The advantages of supercritical fluid extraction are compared with liquid extraction it is relatively rapid because low viscosity high diffusivities associated with supercritical fluid extraction.chiral separations and analysis of high molecular weight hydrocarbons. Environmental improvement and reduce the product contamination, it is more selective process. It can be completed in 10-60minutes.The equipment contains pumps, pressured vessels, heating and cooling devices for subsequence extraction. It requires high cost when compared to the conventional extraction.

Key words : supercritical fluid extraction, procedure, advantages, limitations.

REVIEW ON ANALYTICAL METHOD DEVELOPMENT OF IRBESARTAN USING RP-HPLC METHOD

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ABSTRACT- 52

The main aim of this review is to calculate the quantity of the sample drug i.e. IRBESARTAN by using Reverse phase HPLC and then validation of the method. **Irbesartan** is an angiotensin II receptor antagonist used mainly for the treatment of hypertension. Irbesartan was

developed by Sanofi Research .It is jointly marketed by sanofi-aventis and Bristol-Myers Squibb under the trade names **Approval**, **Karvea**, and **Avapro**. Here we used Reverse phase HPLC because as the drug i.e. IRBESARTAN is polar and in order to estimate it needs non-polar stationary phase. In Reverse phase HPLC the stationary phase is non-polar and mobile phase is polar. It operates on the principle of hydrophobic forces. Irbesartan antagonizes angiotensin II at the AT1 receptor subtype. Angiotensin II is the primary vasoactive hormone of the rennin- angiotensin system and plays an important role in the pathophysiology of hypertension and congestive heart failure. Besides being a potent vasoconstrictor, angiotensin II stimulates aldosterone secretion by the adrenal gland. The most common side effects with Irbesartan are diarrhoea (occurring in 1 in 30 persons) and abdominal pain or heartburn (occurring in 1 in 50 persons).

Biotechnology

HUMAN GENOME PROJECT

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ABSTRACT- 53

The human genome project (HGP) is an international scientific research project. Its primary goals are to determine the sequence of chemical base pairs which make up (DNA) and to identify the more than 20,000 genes of the human genome. The project roots grew from early work on the objective of the human genome project is to understand the genetic makeup the human species. The project has also focused on several other non human organisms such as E.coli, The fruit fly, and the laboratory mouse. It remains one of the largest investigational projects in modern science. It is anticipated that detailed knowledge of the human genome will provide new avenues for advances in medicine and bio-technology. Goals of the original HGP was not only to determine more than 3 billion base pairs in the human genome with a minimal error rate, but also to identify all the genes in this vast amount of data. This part of the project is still ongoing although a preliminary count indicates about 22,000 - 23,000 genes in the human genome, [citation needed] which is fewer than predicted by many scientists. Another goal of the HGP was developed fast, more efficient methods for DNA sequence analysis and the transfer of these technologies to industry.

BIOSIMILARS- AN OVERVIEW

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ABSTRACT- 54

Biosimilar medicine is a medicine which claims to be similar to biological /biopharmaceutical medicine but not identical to an innovator biological product that is already marketed in which the innovators product is off patent. The active substance of a biosimilar is similar to the one of biological/ biopharmaceutical reference medicine are made up of huge molecular masses comprising of strands of polymeric chains with diverse chemical structures. Are manufactured by a second manufacturer with new cell line, new process and new analytical methods Undergo post-translational modifications (such

as glycosylation, methylation, acetylation & phosphorylation) that can affect their physicochemical behavior and most importantly, their pharmacological action on targeted tissues.
The main aim of this paper is discuss about the current scenario, the importance and the related guidelines.

GENE THERAPY

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ABSTRACT- 55

Gene therapy carries the promise of cures for many diseases and for types of medical treatment most of us would not have thought possible. With its potential to eliminate and prevent hereditary diseases such as cystic fibrosis and hemophilia and its use as a possible cure for heart disease, AIDS, and cancer, gene therapy is a potential medical miracle-worker. Gene therapy involves the manipulation of genes to fight or prevent diseases. Gene therapy is done only through clinical trials, which often take years to complete. After new drugs or procedures are tested in laboratories, clinical trials are conducted with human patients under strictly controlled circumstances. Such trials usually last 2 to 4 years and go through several phases of research. The most active research being done in gene therapy for kids has been for genetic disorders such as cystic fibrosis. Other gene therapy trials involve children with severe immunodeficiency's, such as adenosine delaminate (ADA) deficiency (a rare genetic disease that makes kids prone to serious infection), and those with familial hypercholesterolemia (extremely high levels of serum cholesterol). To cure genetic diseases, scientists must first determine which gene or set of genes causes each disease. The Human Genome Project and other international efforts have completed the initial work of sequencing and mapping virtually all of the 25,000 to 35,000 genes in the human cell.

SIRNA – AN EXCELLENT TECHNIQUE FOR DOWNREGULATION OF GENE EXPRESSION

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ABSTRACT- 56

RNA interference (RNAi) was originally described in the nematode worm Caenorhabditis elegans as a response to double-stranded RNA (dsRNA), in which target mRNAs are degraded in a sequence-specific manner. Short sermon molecules can be prepared by direct chemical synthesis or transcription driven by RNA polymerase promoters. After recent discovery the use of small interfering RNA (siRNA) has become a powerful tool in silencing highly over expressed oncogenes in cancer. Now siRNA technology holds promise as a novel therapeutic modality for targeted silencing of cancer genes especially for those proteins that cannot be targeted by small inhibitors. However, clinical applications of siRNA-based therapeutics relay on the successful delivery of primary and metastatic tumors and remains as a great challenge. Designing and then chemically stabilizing the siRNA and can stabilize and improve the drug properties of siRNA therapeutics by using specific chemical modifications. A chemogenomics approach towards novel target discovery combined with RNAi-based screening is facilitating the robust, improved discovery of new targeted therapies. These approaches have strong potential to provide better cancer drug targets using a combination of short interfering RNA (siRNA) libraries and pre-existing chemotherapies, as well as a combination of siRNAs and novel compound

libraries. RNAi is one of the most recent discoveries of a naturally occurring mechanism of gene regulation that is triggered by the introduction of double-stranded RNA into a cell. Designed to specifically knock down the expression of genes harboring a particular target sequence, and they represent an exciting therapeutic potential for inhibiting gene expression

Key words : siRNA, gene regulation

Pharmaceutics

Protein Formulation – Enzyme Stability in Liquid Detergents

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ABSTRACT- 57

Enzymes, such as proteases, is an important ingredient in most household detergents, providing both more efficient cleaning and at the same time allow a reduction of the temperature during wash. However, other components of the detergents often have a destabilizing effect on enzymes during storage. In powder detergents the problem has been partly solved by separating the various components into granulates. This is not possible in liquid detergents. Due to the complex composition of liquid detergents, the mechanisms behind destabilization of the enzymes in these are poorly understood. Proteolytic peptide bond cleavage, oxidation and denaturation followed by irreversible miss-folding and aggregation accounts for stability problems observed in some detergents but cannot explain the loss of activity seen in other detergents. This study aims toward establishing methods to determine covalent changes of the proteins in the detergent and denaturation, identifying specifically the parts of the protein molecules, which are involved in the initial inactivation processes. Enzymes are incubated in selected commercial or model detergent formulations at various temperatures. The observed loss in activity is correlated to chemical and/or physical changes in the proteins. Also, it is attempted to establish a suitable extraction procedure to circumvent the negative effect some detergent components impose on methodologies such as CD, FTIR and DSC. Furthermore, the detailed mechanism for inactivation of proteases by auto–proteolysis is examined in order to explain if it follows a direct attach of one protease molecule to another, or it is a two-step mechanism involving partial unfolding, allowing access of another, active protease molecule.

IMPROVING BIOAVAILABILITY OF POORLY SOLUBLE DRUGS CYCLODEXTRIN COMPLEXATION

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ABSTRACT- 58

Now a day's more than 80% of the drugs that are coming into the market are poorly soluble. Formulating such molecules into a suitable oral dosage form for a desired therapeutic response poses a challenge to the formulation scientist because of their poor bioavailability. So those, a number of methods are introduced to improve the dissolution and bioavailability of poorly soluble drugs. The methods include prodrug approach salt synthesis, particle size reduction, change in physical form, complexation, solid dispersions, spray drying, hot-melt extrusion. Among the methods Cyclodextrin complexation is the most efficient method to improve the solubility

of poorly soluble drugs. Cyclodextrin have lipophillic inner cavities and hydrophilic outer surfaces are capable of interacting with a large variety of quest molecules to form non covalent inclusion complexes. Cyclodextrins are capable of trapping lipophillic drugs into its cavity due to its large size. So that Cyclodextrin complexation is the most suitable method to increase the bioavailability of poorly soluble drugs. Cyclodextrins because of their continuing ability to find several novel applications in drug delivery are expected to solve many problems associate with the delivery of different novel drugs through different delivery routes.

EFFECT OF DISINTEGRANTS ON IN-VITRO RELEASE OF FENOFIBRATE ORODISSOLVING TABLETS

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ABSTRACT- 59

Fenofibrate is a drug of the fibrate class and used hypolipidemic drug. The poor aqueous solubility of the drug leads to variable dissolution rates. The present investigation was to develop and characterize mouth dissolving tablets of fenofibrate using direct compression technique. Mouth dissolving tablets of Fenofibrate were prepared using different concentrations of super disintegrating agents like Crospovidone, sodium starch glycolate using direct compression method. The prepared tablets were evaluated for general appearance, content uniformity, hardness, friability, wetting time, *in vitro* disintegration time, and *in vitro* dissolution studies The concept of mouth dissolving drug delivery system emerged from the desire to provide patient with more conventional means of taking their medication. It is difficult for many patients to swallow tablets and hard gelatine capsules. Hence they do not comply with prescription, which results in incidence of non-compliance and ineffective therapy. Such problems can be resolved by means of mouth dissolving tablets when put on tongue these tablets disintegrate and dissolve rapidly in saliva without need of drinking water. The faster the drug disintegrates in to solution, the quicker the absorption and onset of clinical effect. The present research aimed in formulating palatable orally disintegrating dosage form of fenofibrate .The oro-dispersible tablets have the advantage that they can be swallowed without water in the form of a dispersion. They increase the patient compliance as well as provide quicker onset of action.

Key words : Fenofibrate, orodissolving tablet, directcompression, superdisintegrants.

SOLVENT DIVERSITY IN POLYMORPH SCREENING

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ABSTRACT- 60

In polymorph screening it is imperative to maximize the physicochemical diversity of solvents used in crystallization experiments. This is done in order to increase the probability of finding as many crystal forms of the compound as possible. When setting up a complete solid form screening scheme it is common practice to work with solvent subsets of varying sizes, adequately spanning the chemical space. There exists a wide array of algorithms to perform this pre-experimental selection. Prior to the implementation of these methods, the impact on the physicochemical diversity observed in the selected subsets should be fully understood. In the current study subsets of 5, 10 and 20 solvents were selected from a database of 218 organic solvents times' 24 property descriptors. For this purpose four mathematically different subset selection algorithms were tested and compared: Federov D-optimal selection, Kennard-Stone selection, Principle Properties selection, and a Cluster Based selection. Federov D-optimal, Kennard-Stone and the Cluster Based selection primarily sampled in the outer regions of solvent space, whereas the Principal Properties approach represented more of a compromising

solution selecting solvents closer to the center. In conclusion, subset selection algorithms in crystallization experimental design should be used to guarantee physicochemical diversity, though it is recommended that the computed selection is supplemented with solvents selected based on chemical knowledge of the particular compound being screened.

NANOEMULSION-A METHOD TO IMPROVE THE SOLUBILITY OF LIPOPHILLIC DRUGS

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ABSTRACT- 61

`The design of effective formulation for drugs has been long major challenge, because drug efficacy can be severely limited by instability or poor solubility in the vehicle. One of the most promising technologies is the nanoemulsion drug delivery system, which is being applied to enhance the solubility and bioavailability of lipophillic drugs. Interest in lipid based drug delivery(LBDD) is relatively recent and relates to the development in the past 10-15 years. As pharmaceutical drug delivery systems, nanoemulsions have many advantages, including clarity, high stability and ease of preparation. The present review outlines the advantages and disadvantages of nanoemulsion with its preparation methods, and therapeutic applications published over the past decade. From the literature survey, it is realized that research activities on nanoemulsion systems containing various drugs for different therapeutic applications have increased at the rapid rate. Hence, it may be used as a new alternative and cheaper carrier in therapy for increased bioavailability, reduction in dose and there by dose related systemic toxicities.

Key words : Nanoemulsion, Lipid Based Drug Delivery, Bioavailability.

MEDICATED CHEWING GUMS

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ABSTRACT- 62

Chewing gums are mobile drug delivery systems. It is a potentially useful means of administering drugs either locally or systemically via, the oral cavity. The medicated chewing gum has through the years gained increasing acceptance as a drug delivery system. Several ingredients are now incorporated in medicated chewing gum, e.g. Fluoride for prophylaxis of dental caries, chlorhexidine as local disinfectant, nicotine for smoking cessation, aspirin as an analgesic, and caffeine as a stay alert preparation. In addition, a large number of chewing gum intended for prevention of caries, xerostomia alleviation, and vitamin/ mineral supplementation are currently available. Medicated chewing gums are solid, single dose preparations with a base consisting mainly of gums that are intended to be chewed but not swallowed. Today improved technology and extended know how have made it possible to develop and manufacture medicated chewing gum with predefined properties. Consequently today chewing gum is a convenient drug delivery system, which is appropriate for a wide range of active substances.

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FORMULATION AND EVALUATION OF CIPROFLOXACIN OCUSERTS

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ABSTRACT- 63

Ciprofloxacin hydrochloride is a fluoroquinolone anti infective agent useful in the treatment of eye infections such as conjunctivitis, Keratitis and keratoconjunctivitis. Ciprofloxacin hydrochloride ocuserts were prepared using different polymers in various proportions and combinations such as Poly vinyl alcohol (PVA), Hydroxy propyl methyl cellulose (HPMC), methyl cellulose (MC) and Hydroxy ethyl cellulose (HEC) by casting method with aim of increasing the contact time, achieving sustained release, reduction in frequency of administration, improving patient compliance and therapeutic efficacy. Here I am using hydroxyl methyl cellulose is 15cps grade, methyl cellulose is low viscosity and poly vinyl alcohol is warm water soluble. The physico-chemical parameters of the prepared ocuserts were evaluated for moisture absorption, moisture loss, thickness, weight variation, folding endurance, surface pH, sterility test and ocular irritation studies. The *In vitro* drug release were studied using bovine cornea (semi permeable membrane) Franz diffusion cell and check the absorbance maximum at 274nm. A zero order release formulation FD2 is sterilized by exposing UV radiation and subjected to *In vivo* studies. Ocular toxicity were also carried out for the formulation FD2. IR spectral observation show there is no interaction of drug with polymer which indicates the intactness of drug in formulation.

Key words : Ciprofloxacin, ocular inserts, hydroxy ethyl cellulose, poly vinyl alcohol, bovine cornea, Franz diffusion cell.

DESIGN & CHARACTERIZATION OF *TERMINALIA ARJUNA* EXTRACT IMPREGNATED COLLAGEN BASED DERMAL SCAFFOLDS FOR WOUND HEALING

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ABSTRACT- 64

The aim of this research work is to enhance the dermal wound healing process. Collagen was procured from Shevaroy's Health Care Products pvt Ltd. Salem, *Terminalia arjuna* obtained as a gift sample from Chemiloids, Vijayawada. The physicochemical compatibility between the collagen, cross linked collagen and the Terminalia arjuna extract was proved by FT-IR studies. Collagen & Cross linked collagen films containing Terminalia arjuna extract with various concentrations (1%, 1.5%, 2 %) were formulated (TAEICDS & TAEICCDS) and incubated at 37ºc in the biological incubator until completely dried. The obtained films were sterilized under uv radiation for a period of 18 hours. The formulated scaffolds were subjected to physical, biochemical and histopathalogical characterizations. Micro shrinkage temperature of scaffolds containing 1%w/v & 1.5%w/v & 2%w/v of TAEICDS & TAEICCDS were found to be 68ºC,69ºC,71ºC & 69ºC,72ºC,74ºC respectively indicating their hydrothermal stability. Wound healing studies on male Wister rats were performed for a period of 7 days and it was observed that the 1.5%w/v of both TAEICDS & TAEICCDS treated Wister rats possessed higher amount of Hydroxyl Proline content 71.56% & 72.08% when compared to that of the existing marketed formulation (Neu-skin^{TM}) (60.7%). Further better wound healing activity was

observed in the 1.5%w/v TAEICDS &TAEICCDS treated rats (77.02% & 79.01%). This study provides a rationale productive application of TAEICDS for the dermal wound healing process.

DEVELOPMENT OF ELECTROCHEMICAL TECHNIQUES TO STUDY AND CONTROL THE ADSORPTION OF BIOMACROMOLECULAR DRUGS

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ABSTRACT- 65

An increasing number of drugs are based on proteins and other biological macromolecules, which require different strategies in terms of development, production and analysis as compared to more traditional small molecule drug compounds. Significant drug delivery challenges include poor absorption through biomembranes and limited physicochemical stability. A common degradation pathway involves the adsorption to interfaces and surfaces. Adsorption is governed by both hydrophobic and electrostatic forces. Little is known about the relative importance of these two driving forces, even though protein adsorption is a problem reaching beyond the area of protein drug development. In this project we intend to use a newly developed electrochemical technique to study protein adsorption processes in more detail. First, we plan to use the technique to study fundamental aspects of protein adsorption at liquid-liquid interfaces, such as adsorption kinetics and the influence of surface charge and water phase composition. Subsequently, the technique will be developed further to include solid-liquid interfaces. The solid surfaces may be of pharmaceutical and/or chromatographical relevance. Third, the suitability of the technique to control protein adsorption and desorption, by externally controlling the potential at the interface, will be determined.

NANOEMULSION

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ABSTRACT- 66

Nanoemulsion is defined as a dispersion consisting of oil, surfactant, co-surfactent and an aqueous phase which has droplet diameter within range of 10-100 nm. Nanoemulsion shows great promise for the future of cosmotics diagnostics, drug therapies and bio technologies. In this review the attention is focused to give a brief regarding nano emulsion formulation aspect and method of preparation with special emphases on various application of nano emulsion in different areas such as cancer treatment, anti HIV treatment, drug targeting , as mucosal vaccine , as vehicle for transdermal drug delivery, as self-nanoemulsifying etc… nanoemulsions can be characterized using parameters like morphology of droplet , droplet size &distribution analysis, viscosity, surface charge, refractive index and invitro skin studies.

IMMUNO INFORMATICS

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ABSTRACT- 67

The immune system is a functional network indeed a network of networks, designed to maintain homeostasis with in the broad physiologic system that constitutes the organism. The immune system can

be characterized as a complex, adaptive system. Complexity provides a reservoir of options to the immune system, and conditional use of these options permits adaptations to change. This appears to involve trail and error fine tuned by 2 avenues of information: memory and feedback. Immunologic memory provides information on successful prior strategies where as feedback provides information on the success current strategies. Further more, feedback information must be generated as the immune response allows the immune system to determine whether it is making progress towards the implementation of its decision. Immune decision making strategy development and strategy appraisal are all important aspects of immuno informatics. Information transfer occurs via cell – cell communication during every phase of the immune responses. Communication can occur via a wide range of direct or indirect (cell contact with secreted mediators) mechanisms. The core element of immune response is the process by which the immune system evaluates and deals with an immune challenge at a specific site in the body. The networked nature of the immune system endows it with options, but little is known about how these options are exercised in the event of new or changing conditions. What constitutes immune information? And how is this information generated? How it is distributed, received and processed? These are questions that constitute the area that we have termed immuno informatics.

Key words : cImmuno informatics, Immune system, secreted mediators.

FORMULATION AND IN-VITRO EVALUATION OF SODIUM ALGINATE MICROBEADS DICLOFENAC SODIUM

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ABSTRACT- 68

An attempt was made to prepare sodium alginate micro beads of Diclofenac sodium for the treatment of rheumatoid arthritis. Diclofenac sodium is NSAIDs have shorter half life of 1.5hrs.Bioavailability of 75% of daily dose 40mg. Method of Microencapsulation by different formulations (1:0.5, 1:1, 1:2).Drug entrapment efficiency of Diclofenac sodium was between 73.2% to 78.7%. SEM photo showed particles are smooth & spherical. *In-vitro* release of Diclofenac sodium, to minimize side effects thus improving the patient compliance.

MICROCHIP AS A PROMISING DURG DELIVERY DEVICE FOR CONTROLED RELEASE

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ABSTRACT- 69

Advancements in an active drug-delivery technology holds promise for precisely controlled targeted treatments. Drug delivery devices are vehicles ensuring that critical treatments safely reach their destinations and their reliability is equally important because if these delivery systems fail, you may find yourself in a dire situation. Controlled release drug delivery systems have many applications, including treatments for hormone deficiencies and chronic pain. A microchip that has the ability to store a large number of drugs or chemicals, control the time at which release begins, and control the rate at which the chemicals are released controlled released microchips useful in a number of areas, including medical diagnostics, analytical chemistry, chemical defection, industrial process, monitoring and control, combinatorial chemistry, microbiology and fragrance delivery. The purpose of

the present review is to provide an overview of the field of controlled release and then briefly discuss the relevant work from the field of micro fabrication.

INFLUENCE OF COLLAGEN SCAFFOLDS CONCENTRATION ON *CENTELLA ASIATICA* IN DERMAL WOUND REPAIR

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ABSTRACT- 70

The aim of this work is to improve the quality of dermal wound healing. Collagen was isolated from bovine achillies tendon and subjected to FT-IR, DSC, Circular dichorism to prove its identity. *Centella asiatica* extract was obtained as a gift sample from Laila Impex laboratories, Vijayawada. Dermal scaffolds (CAEICDS & CAEICCDS) was formulated by impregnating *centella asiatica(*1.5%) in different concentrations of collagen (800 mg, 1000mg, 1200mg/40 ml). Crosslinked scaffolds were formulated by using 25% v/v Glutaraldehyde. The scaffolds formulated were characterized physically, biochemically and subjected to animal studies. Thickness, Folding Endurance was found to be increased with the increase in the concentration of the collagen. Microshrinkage temperature studies results for all the scaffolds were found to be above 69^0c which indicated that the films were hydrothermally stable. Equlibrium swelling ratio values and water vapor transmission values for the crosslinked scaffolds were predominantly less due to their tight intricate assembly network which opposed to swell and evaporate freely when compared to its collagen extract concentration at all levels. Highest percentage of the wound healing (79.99% &80.68%) was observed in 1.5% extract and 1000mg of collagen concentration CAEICDS & CAEICCDS was observed when compared to the other formulations including the marketed formulation and hence the 1000mg collagen concentration containing scaffolds were optimized. Thus this research work provides a productive approach for the optimized formulation i.e. 1.5% *Centella asiatica* impregnated 1000mg collagen scaffolds for hastening the wound healing activity.

CARBON NANOTUBES – A NOVEL DRUG DELIVERY SYSTEM

***Phooley Bhagath Singh, Sneha .M, Guide- S.R.V.Prassana.**

DONBOSCO PHARMACY

ABSTRACT- 71

This fascinating world is all new with nano. The carbon nano tubes take a high place in the world of nano. These compounds have become increasingly popular in various fields simply because of their small size and amazing optical, electrical and magnetic properties when used alone or with addition of metals. These are often described as a graphene sheet rolled up into the shape of a cylinder. The graphene cylinders are about 12nm in diameter and capped with end-containing pentagonal rings. Carbon nanotubes have potential therapeutic applications in the field of drug delivery, diagnostics, biosensing along with many important practical applications and with their resistance to highest temperatures add to its advantage with its tensile nature with encapsulating property. And the functionalized carbon nanotubes acting as vaccine delivery system is a boon to the new era. In general drug delivery system it is designated to improve the physiological and therapeutic profile of a drug molecule.

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ROLE OF PHARMACIST IN SPACE MEDICINE

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ABSTRACT- 72

Space medicine is the practice of medicine on astronauts in outer space whereas astronautical hygiene is the application of science and technology to the prevention or control of exposure to the hazards that may cause astronaut ill health. Several medical products have been developed that are space spinoffs. Different effects of space on the body like Decompres`sion sickness. Braotrauma have been explained. Medicine in space has a vital role. Different techniques of drug usage and drug insertions are discussed. Along with this it has various problems and side effects are being observed.

DESIGN AND INVESTIGATION OF NANOPARTICLES FOR TARGETED DELIVERY OF SMALL INTERFERING RNA (SIRNA)

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ABSTRACT- 73

Small Interfering RNAs (siRNA) can knock down expression of specific target genes by initiating mRNA degradation upon binding to the target transcript within the cell cytoplasm.This sequence specific regulation has great therapeutic potential, but successful clinical application depends on effective delivery systems to circumvent drug excretion and degradation, as well as to direct the siRNA carrier towards the target cells and the correct intracellular compartment. Dendrimers have been extensively studied as delivery systems for a variety of drugs, but little is known about the structure requirements for efficient dendrimer-based siRNA delivery. Dendrimers are synthetic polymers composed of multiple branched monomers that emanate from a central core. The dendrimer synthesis ensures a highly monodisperse size distribution, as opposed to traditional polymer synthesis, which is highly desirable for a therapeutic product. The low generation dendrimers typically have a flexible "floppy disc-like structure", properly enabling interaction with the interior space, while the larger particles have globular conformation with close charge density for siRNA interaction. The aim of the present study is to investigate the potential of Poly (propylene imine) (PPI) dendrimers as carriers of siRNA. Generation 2 and 5 dendrimers with a positively charged amino surface will be compared with an urea modified surface, to investigate the behaviour in solution and the effect, on complexation with siRNA. Data will be presented describing the influence of dendrimer and siRNA concentration, buffer pH, and ionic strength in relation to dendrimer behaviour in solution, using dynamic light scattering. For chosen delivery systems, the in vitro gene silencing is addressed using flow cytometry, by measuring protein knock down upon transfection of H1299 and HeLa cells expressing eGFP.

MICRONEEDLES IN TRANSDERMAL DRUG DELIVERY AN UNIQUE PAINLESS OPTION

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ABSTRACT- 74

The outer most layer of the skin ,the striatum corneum has developed uneving physical and immunological barrier properties that prevent infiltration of noxious chemicals and pathogens.Consequently

transdermal delivery of medicaments is currently restricted to a limited number of low molecular weight drugs to enter the skin at successful therapeutic rates.As a result there has been significant recent interest in providing strategies that disrupt the principal physical barrier.The striatum corneum for the efficient cutaneous delivery of macro molecular and nucleic acid based therapeutics.Recently the use of microns scale needles in increasing skin permeability has been proposed and shown to dramatically increased transdermal delivery especially for macro molecules using the tools of the micro electronic,micro needles has been fabricated with a wide range of sizes and shapes.A micro needle drug delivery system is pain free administration easy to use discrete continuous and control release system.

Key words : Micro needles, transdermal drug delivery, micro electro chemical system

TECHNOLOGY TRANSFER: THE NEW BUZZ WORD IN PHARMACEUTICAL INDUSTRY

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ABSTRACT- 75

The art and practice of transferring the technology to a commercial undertaking with the aim of exploiting the technology, so that new products can be available to the public is called as technology transfer. In the pharmaceutical industry, "technology transfer" refers to the processes of successful progress from drug discovery to product development, clinical trials and ultimately full-scale commercialization. It is the process by which an original innovator of technology makes its technology available to commercial partner that will exploit the technology. It can be extremely costly for a company if things go wrong during the transfer process, resulting in delays to launching a new product on the market and lost sales. Also, it can take increased resource, time and cost to make corrective actions following an unsuccessful transfer. Progressive pharmaceutical companies are therefore placing more attention to streamlining and optimizing their technology transfer process to ensure the rapid and successful introduction of a new medicinal product to market.

The purpose of this paper is to know about the technology transfer process in pharmaceutical industry, its importance, different agreements by which it takes place and the challenges faced by it.

TRANSDERMAL DRUG DELIVERY SYSTEM- DESIGN AND EVALUATION OF GLICLAZIDE

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ABSTRACT- 76

Transdermal systems are ideally suited for diseases that demand chronic treatment. Hence, an anti-diabetic agent of both therapeutic and prophylactic usage has been subjected to transdermal investigation. Gliclazide, a second-generation hypoglycemic agent, faces problems like its poor solubility, poor oral bioavailability with large individual variation and extensive metabolism. In the present work, transdermal matrix-type patches were prepared by film casting techniques on mercury using polymers like HPMC, Eudragit RL-100, and chitosan. Also an attempt was made to increase the permeation rate of drug by preparing an inclusion complex with hydroxypropyl β- cyclodextrin (HP β-CD). The possibility of a synergistic effect of chemical penetration enhancers (CPE) (propylene glycol and oleic acid) on the transdermal transport of the drug was also studied. Folding endurance was found

to be high in patches containing higher amount of the Eudragit. There was increase in tensile strength with an increase in Eudragit in the polymer blend. *In vitro* drug release profile indicates that the drug release is sustained with increasing the amount of Eudragit in patches. The patches containing inclusion complex of drug showed higher permeation flux compared with patches containing plain drug. The result of the synergistic effect indicates that the HP β- CD in conjunction with other CPE showed a higher permeation flux.

Key words : Gliclazide, inclusion complex, permeation enhancer, transdermal patch.

DISSOLUTION TESTING METHOD: ADVANCEMENTS

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ABSTRACT- 77

Dissolution method development for novel drug delivery systems plays a major role for drug product development. Dissolution testing is critical to measuring the performance of pharmaceutical products in tablet and capsule form. Dissolution testing is an important tool in quality control and developing of pharmaceutical formulations. The scope variety of special dosage forms such as suspension, chewable tablets, chewing gums, transdermal patches, semisolid preparations, suppositories and implants in the form of the test refered as 'drug release' test procedure. Even today Pharma industry is struggling to develop and appropriate dissolution method with the equipment available in pharmacopoeias .In fact, it is not possible to devise a single test system which can be used to study drug release properties of different dosage forms .Over the last couple of decades, there has been immense advancement in dissolution testing, both in the type of apparatus and in technology required to operate accurately ,consistently and with minimum man power.

FORMULATION AND EVALUATION OF ORODISPERSIBLE TABLETS OF PHENIRAMINE MALEATE

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ABSTRACT- 78

In the present study an attempt has been made to formulate Pheniramine maleate a selective H1 receptor antagonist into Orodispersible tablet. The tablets were prepared by direct compression method using super disintegrants like croscarmellose odium, crospovidone, sodium starch glycollate, low hydroxyl propyl cellulose and pre gelatinized starch in different ratios.The blend was examined for various pre compression parameters. Tablets were evaluated by measuring hardness, friability, content uniformity, weight variation and drug release pattern. All the tablets met the pharmacopoeial requirements for physical tests. Almost in all the formulations with increase in concentration of superdisintegrants, the drug release was rapid. Stability studies were also perfomed. Dissolution studies indicated that the tablets containing crospovidone and croscarmellose sodium showed rapid dissolution compared to other disintegrants releasing almost 100% of the drug in six minutes.

Key words : Pheniramine maleate, Orodispersible tablets, Super disintegrating agents, direct compression.

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CNS TARGETED DRUG DELIVERY

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ABSTRACT- 79

Brain drug delivery plays an essential role in modern drug development for the central nervous system. Drugs used in the treatment of diseases affecting the brain would be delivered directly to the site of action do not readily enter the brain from the circulating blood. Blood brain barrier (BBB) is highly efficient and makes the brain practically inaccessible to lipid insoluble compounds. The main challenge is to develop drug delivery strategies that will allow the passage of drug molecules through the BBB in a safe and effective manner. This article focuses on the review of drug delivery strategies developed to enhance drug delivery across the blood brain barrier by chimeric peptides.

FLOATING MICROSPHERES

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ABSTRACT- 80

Gastric emptying is a complex process, which is highly variable and makes in vivo performance of the drug-delivery systems uncertain. In order to avoid this variability,efforts have been made to increases the retention time of the drug-delivery systems for more than! 2hr.The floating or hydrodynamic ally controlled drug-delivery system is useful in such applications. The present review addresses briefly the physiology of the emptying process with reset to floating drug-delivery systems are used in the oral delivery of drugs. One of the approaches towards this goal is to develop the floating microspheres so as to increases the gastric retention time, such system have more advantages over the singles unit dosage forms. The development of floating microspheresinvolves differentsolvent evaporation techniques to create the hollow inner care. The present views address the preparation and characterization of the floating microspheres for the pre oral route of administration of the drug.

Pharmaceutical Chemistry

GREEN CHEMISTRY

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Dept: Ph. chemistry, Mode of presentation: Poster

ABSTRACT- 81

Medicinal chemistry requires the rapid synthesis of a large number of compounds. The driving force for solvent free synthesis is the approach of green chemistry which includes benign chemical synthetic scheme design in such a way that there is least pollution to the environment by minimizing the waste products. The solvent free extractions are developed by combination of microwave heating and dry distillation at atmospheric pressure. Green approach involved here is microwave enhancement. Microwave heating can reduce the time of chemical reaction from hours to minutes. It is observed that it reduces side reactions, percentage yield is increased and it improves reproducibility. This is the latest

technology for rapid optimization of reaction for the efficient synthesis of new chemical entities and also for discovering of new chemical reactivity.

Key words : Microwave heating, solvent free synthesis.

Design, synthesis and anti-inflammatory activity of novel 1-(4-substituted benzylidene)-4-(1-(substituted methyl)-2,3-dioxoindolin-5-yl)semicarbazide derivatives

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ABSTRACT- 82

A series of novel 1-(4-substituted benzylidene)-4-(1-(substituted methyl)-2,3-dioxoindolin-5-yl)semicarbazide derivatives were designed, synthesized and characterized by IR, ^{1}H-NMR, Mass spectroscopy and elemental analyses. All the derivatives were screened for anti-inflammatory activity. Anti-inflammatory activity was evaluated by carrageenan-induced paw oedema test in rats. Diclofenac sodium 10 and 20 mg/kg was administered as standard drug for comparison. The test compounds were administered at two dose levels (10 and 20 mg/kg). The paw volumes were measured using the mercury displacement technique with the help of plethysmograph immediately before and 30 min, 1, 2 and 3 h after carrageenan injection. The percent inhibition of paw oedema was calculated according to the following formula, (percent inhibition I = 100[1-(a - x)/(b - y)] where x is the mean paw volume of rats before the administration of carrageenan and test compounds or reference compound (test group), a is the mean paw volume of rats after the administration of carrageenan in the test group (drug treated), b is the mean paw volume of rats after the administration of carrageenan in the control group, y is the mean paw volume of rats before the administration of carrageenan in the control group. The anti-inflammatory activity results showed that isatin incorporated with trifluoromethyl substituent exhibited more anti-inflammatory activity than other substituents. Moreover, the results revealed that anti-inflammatory activity is proportional to lipophilicity.

DESIGN AND PHARMACOPHORE GENERATION OF SEROTONIN REUPTAKE INHIBITORS (SRIs) WITH DUAL ACTION:…. a novel approach towards autism treatment

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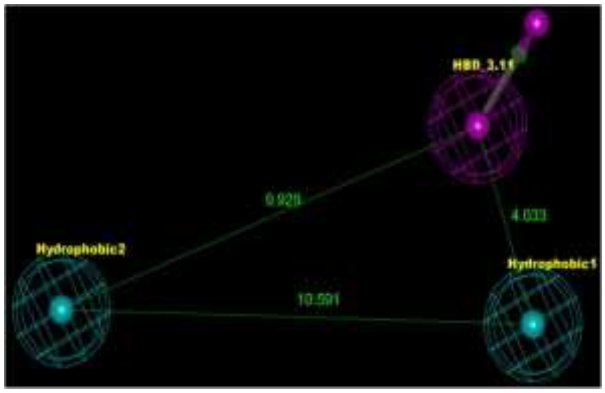
ABSTRACT- 83

Autism is a one of the major disorder of neural development characterized by impaired social interaction and communication, and by restricted and repetitive behavior. These signs all begin before a child is three years old. Autism affects information processing in the brain by altering how nerve cells and their synapses connect and organize; how this occurs is not well understood.Symptoms are currently modulated by Selective Serotonin Reuptake Inhibitors (SSRIs). SSRIs slow onset of action limits their efficiency. The established synergistic activity of SSRIs and $5HT_{1B/1D}$ autoreceptors antagonists motivated to incorporate SSRIs and $5HT_{1B/1D}$ antagonists in one 'hybrid' molecule. A library of virtual

'hybrid' molecules was designed using the tethering technique. A pharmacophore model was generated derived from 16 structurally diverse SSRIs (K_i = 0.013–5000 nM) and used as 3D query. Compounds with fit values were chosen for synthesis and subsequent in vitro biological evaluation. Our pharmacophore model is a promising milestone to a class of SRIs with dual action.

Graphical ABSTRACT



Key words : Autism; Selective Serotonin Reuptake Inhibitors (SSRIs); Pharmacophore.

DOCKING

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ABSTRACT- 84

Docking is the computational tool to investigate the interaction between macromolecular targets and potential ligand by which two molecules together in 3D space. This has direct application in the process of drug discovery and drug designing .Docking is analogous to ship maneuvering in a harbor, as placing reputed ligands in appropriate configuration for interacting with a receptor. This presentation gives insight into different types of docking methods, importance in QSAR studies homology versus docking and its importance in virtual screening. Drug design aims at developing a drug with high degree of chemotherapeutic index and specificity which is achieved by docking. Docking is used to identify new molecular entities. Docking is a cost and time effective investigational tool. Though it is employed by only fewer institutions, but has a bright future prospect and application in pharmaceutical industry for drug design.

NANO PARTICLE (ZnO) AS CATALYST FOR SYNTHESIS OF COUMARINS

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Siddhartha Institute of Pharmaceutical Sciences, Jonnalagadda, Narasaraopet.

ABSTRACT- 85

Green chemistry protocols with the reusability of the nano particle as catalyst in the synthesis of coumarins is described.Zinc oxide nano particles works as catalyst for synthesis for efficient green one-pot synthesis of coumarins through knoevenager condensation.The zinc oxide(ZnO) nano particles functions as highly effective catalyst for the reaction of various o-hydroxybenzoldehydes with 1,3-

dicarbonyl compound under microwave and thermal conditions to afford the corresponding coumarins in moderate to good yields. The catalyst is inexpensive,stable can be easily recycled and reused.

Key words : Knoevenager condensation, o- hydroxy benzaldehyde, zinc oxide, catalyst.

SYNTHESIS AND ANALGESIC ACTIVITIES OF SOME NOVEL QUINAZOLIN-4(3H)-ONE

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ABSTRACT- 86

In the present study, a novel quinazolin-4-(3H)-ones were synthesized by condensation of 2-amino-4-phenylthiazole/2-amino-3-carbethoxy-4,5,6,7-tetrahydrobenzothiophene with 6,8-(un/mono/di)-bromo-2-(methyl/phenyl)-4H-benzo-[1,3]-oxazine-4-ones. The 2-amino-4-phenyl thiazole and 2-amino-3-carbethoxy-4,5,6,7-tetrahydrobenzothiophene was synthesized from acetophenone and cyclohexanone respectively; whereas the 6,8-(un/mono/di)-bromo-2-(methyl/phenyl)-4H-benzo-[1,3]-oxazine-4-ones were synthesized from 3,5-(un/mono/di)-bromo anthranilic acid. IR, ^{1}H–NMR, mass spectra and elemental analyses of the synthesized compounds are in accordance with the assigned structures. The title compounds were screened for analgesic activity by tail–flick technique using Wistar albino mice at two dose levels i.e. 10 and 20 mg/kg were administered orally. Diclofenac sodium at a dose level of 10 and 20 mg/kg was administered orally as reference drug for comparison. The reaction times were recorded immediately before and 30 min, 1, 2 and 3 h after the treatment and cut–off time was 10 s. The percent analgesic activity (PAA) was calculated by the following formula. PAA = $[T_2–T_1/10–T_1]$ X 100; where T_1 is the reaction time (s) before treatment, and T_2 is the reaction time (s) after treatment. Results revealed that thiazole analogs exhibited more analagesic activity than corresponding benzothiophene analogs. In addition 2-methyl quinazolin-4(3H)-one derivative exhibited better activity than corresponding 2-phenyl quinazolin-4(3H)-one derivative.

Pharmacognosy

ISSR MARKER IN THE FIELD OF PHARMACOGNOSY

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ABSTRACT- 87

ISSR(inter simple sequence repeat) is one of the popular techniques of DNA finger Printing because of several reasons ISSR based markers have utility in the fields like genetic , taxonomy physiology , embryology etc. And recently the ISSR based markers have found wide applicability in pharmacognistric characterization of medicinal plants .As used of herbal medicines is increasing there is urgent need of New Year technologies and its proper applications. In recent years pharmacognosy has witnessed advent of such new technologies the review provides detailed list of plants which are studied

by ISSR marker and discussion of its important applications in medicinal plants research. Molecular markers such as random application of polymorphic DNA (RAPD). Inter simple sequence repeats (ISSR), simple sequence repeats (SSR) and amplified fragment length polymorphism (AFLP) have been successfully used to assess the genetic diversity in cultivars of many plant species. In this review we have focused on applications of ISSR markers. ISSR markers over come the short coming of the low reproducibility of RAPD; the high cost of AFLP, the complexity of SSR and represent a fast and cost efficient techniques. The differences that distinguish one plant from another or sequence in the deoxy ribonucleic acid (DNA).

AEGLE MARMELOS - A SACRED INDIAN TREE WITH PROMINENT PHARMACOLOGICAL ACTIONS

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ABSTRACT- 88

This review mainly deals about the importance and various activities of Bael (Aegle marmelos) in the field of pharmacy. The bael is one of the most sacred trees of Hindus, having an indigenous system of medicine. The aegle marmelos having lots of medicinal uses and pharmacological actions like antidiabetic, antidiarrhoeal, antiperoxidative, antiulcer, cardiotonic, hypoglycemic actions. This article reviewed about its antidiabetic, antiprotozoal, antifungal, antiulcer activities of bael. The bael is also having the proteinaceous food value. The maximum parts of bael plant are useful for the human beings. Aegle marmelos (100 and 200mg/kg) significantly ($p<0.01$ to $p<0.001$) reduced the severity and incidence of ulcers.

Key words : Aegle marmelos, Indigenous, Ulcer

EVALUATION OF DIURETIC ACTIVITY OF AQUEOUS LEAF EXTRACTS OF *ABRUS PRECATORIOUS* IN RATS

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ABSTRACT- 89

The plant *Abrus precatorious linn*. (family:fabaceae) is known to possess varied medicinal properties. The leaves are widely used as Analgesic, Antioxidant, Anti diabetic, anthelmintic etc. Aqueous extract of *abrus precatorious* leaves were administered to experimental rats at doses of 125 and 250 mg/kg p.o. Hydrochlorothiazide (10 mg/kg) was used as positive control in study. The diuretic effect of the extract was evaluated by measuring urine volume. Urine volume was significantly increased by the high dose of aqueous extract in comparison to control group. The diuretic effect of the extracts was comparable to that of the reference standard (Hydrochlorothiazide) from this study we can conclude that aqueous extracts of *abrus precatorious* produced notable diuretic effect which appeared to be comparable to that produced by the reference diuretic HCTZ. The present study provides a basis for explaining the folkloric use of *abrus precatorious* as a diuretic agent.

Key words : *Abrus precatorious linn*, Diuretic activity, Aqueous leaf extract, Hydrochlorothiazide.

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ANTIDIABETIC EFFECT OF NELUMBO NUCIFERA RHIZOME & FLOWER EXTRACT IN STREPTOZOTOCIN INDUCED DIABETIC RATS

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ABSTRACT- 90

The present study is aimed to evaluate the anti diabetic of NELUMBO NUCIFERA rhizome and flower extracts on serum glucose level in normal and streptozotocin in induced diabetic rats. Nelumbo nucifera, known by a number of names including Indian lotus, sacred lotus, bean of India or simply lotus, is a plant in the monogenetic family nelumbonaceae. This plant is an aquatic perennial .Under favorable circumstances its seeds may remain viable for many years. The various extracts was prepared and screened for their effects on serum glucose level in rats. In streptozotocin induced animals the various extracts showed significant antidiabetic property. Streptozotocin induced animals were allowed to drink 5% glucose solution to overcome drug induced hypoglycemia for two days.

Key words : Nelumbo nucifera, anti diabetic activity, streptozotocin induced diabetic rats.

AN EMPHASIS ON NUTRACEUTICALS

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ABSTRACT- 91

Nutraceutical is a food or food product that reportedly provides health and medical benefits including prevention and treatment of diseases. The use of nutraceuticals is as an attempt to accomplish desirable therapeutic outcomes reducing side effects. It is broadly classified into four types. These nutraceuticals are used in the treatment of hypercholestrolemia, type2 diabetics.

PHYTOCHEMICAL STUDIES AND BIOLOGICAL ACTIVITIES ON FRUITS OF *MOMORDICA COCHINCHINENSIS*

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ABSTRACT- 92

The methanolic extract of *Momordica cochinchinensis* was subjected to preliminary phytochemical studies. The results indicate the presence of glycosides, flavonoids, carbohydrates and phytosterols. Antimicrobial activity was screened by using agar well diffusion method. The results revealed that the methanolic extract exhibited significant anti-microbial activity at concentration of 100-500 µg/ml respectively against tested organisms, particularly more effective against gram(+)ve bacteria *Staphalococus aureus*, and gram (-) ve bacteria *Escherichia coli.* than the aqueous extract when compared to the standard drug (Ampicillin). Antioxidant activity by DPPH method shows better results for test drug when compared to the standard drug (ascorbic acid).

Key words : *Momordica cochinchinensis, anti-microbial activity,* DPPH method, phytochemical studies.

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CURRY POWDER - A BOON TO ALZHEIMER'S PATIENTS

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ABSTRACT- 93

This paper discusses the effects of Curcumin (Curry powder) on patients with Alzheimer's disease (AD). Curcumin (Turmeric), an ancient Indian herb used in curry powder, has been extensively studied in modern medicine and Indian systems of medicine for the treatment of various medical conditions, including cystic fibrosis, haemorrhoids, gastric ulcer, colon cancer, breast cancer, atherosclerosis, liver diseases and arthritis. Curcumin also has a potential role in the prevention and treatment of Alzheimer's disease (AD). Alzheimer's is one of the best known and important of all degenerative disorders and is the most common form of dementia in elderly. It is characterized by a progressive loss of memory, deterioration of virtually all intellectual functions and speech, disorientation etc. A growing body of evidence indicates that oxidative stress, free radicals, beta amyloid, cerebral deregulation caused by bio-metal toxicity and abnormal inflammatory reactions contribute to the key event in Alzheimer's disease pathology As oxidative damage appears to contribute to Alzheimer's to a great extent , anti-oxidant administration was found to reduce the prevalence of Alzheimer's. Curcumin as an antioxidant, anti-inflammatory and lipophilic action improves the cognitive functions in patients with AD. Due to various effects of curcumin, such as decreased Beta-amyloid plaques, delayed degradation of neurons, metal-chelation, anti-inflammatory, antioxidant and decreased microglia formation, the overall memory in patients with AD has improved. This paper reviews the various mechanisms by which curcumin act in management of AD.

Key words : Curcumin, Alzheimer's, Oxidative damage, Prevalence Beta-Amyloid, Tangles.

PHYTOTHERATEUTIC REMEDIES FOR KIDNEY STONE

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ABSTRACT- 94

Herbs and herbal drugs have created interest among the people by its clinically proven effects like immune modulation, adaptogenic and antimutagenic. A kidney stone is a solid piece of material that forms from crystallization of excreted substances in the urine. A small stone may pass the entire way out of the body, but a larger stone can get stuck in the urethra, the bladder or the urethra. kidney stones strike most people between ages of 20&40 .calcium is the normal part of a healthy diet and is used by bones and muscles . Struvite stones are a type of stones that contain the mineral magnesium and the waste product ammonia. It may form after an infection in the urinary system. Uric acid stones may form when there is too much acid in the urine. Cystine stones consist of cystine, one of the building blocks that make up muscles, nerves and other parts of the body .The best way to prevent kidney stone is to drink plenty of water and take a vegetarian diet high in magnesium.

Key words : Chemical constituents, herbal drugs, kidney stones

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ANTI-BACTERIAL ACTIVITY OF LEAF EXTRACT OF *TRIANTHEMA DECANDRA*

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ABSTRACT- 95

Methanolic extract of *Trianthema decandra* was investigated for its antibacterial activity against staphylococcus aureus (NCIM 2079), Escherichia coli (NCIM 2065), Bacillus subtilis (NCIM 2063), Pseudomonas aeruginosa (NICIM 2036) and Proteus vulgaris (NICIM 2027) at 100 and 200 µg/disc using disc diffusion method. The extract showed significant antibacterial activity and were comparable to Chloramphenicol (30/ µg/disc). Our findings confirm the traditional therapeutic claims for this herb.

LEUCAS ASPERA

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ABSTRACT- 96

Leucas aspera (family: Lamiaceae) commonly known as thumbai is distributed through out India from the Himalayas down to Ceylon. Sanskrit synonyms are grown up pushpin, Citra prathika and drona and its name in different languages in English: thumbi, Hindi: chota haluksha.the plant is used traditionally as an anti-pyretic and insecticide. The main useful parts are leaves, flowers. Bruised leaves are applied locally in snakebites. Height of herb is 15-60cms with stout stem and branches. T.S of young stem is quadrangular in out line with four distinct colenchymatous ridges covered with hairs. T.S shows an epidermis covered with thick cuticle transverse occasionally with stomata and bears simple multi cellular trichomes and sessile. Chemical examination of Leucas aspera revealed presence of triterpinoids in entire plant. Arial parts are reported to contain nicotine, sterols etc. It has anti fungal activity and anti oxidant activity. It is toxic to filarial vector of mosquito, quinquefasciatus and also has anti microbial activity.

Key words : Leucas aspera, description, laminaceae, phytocShemical study

Garlic- Traditional drug kills deadly cancer cells

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ABSTRACT- 97

Garlic (Allium sativum) has had an important dietary and medicinal role for centuries. It is now known that garlic contains chemical constituents with antibiotic, lipid-lowering, detoxification, and other medicinal effects in the body. The present study reveals some of the physiological characteristics of garlic and examines the relationship between garlic and cancer prevention and treatment. Hypotheses regarding the possible role of garlic in modulating mechanisms that may alter the carcinogenic process are discussed.

MIRACULOUS MEDICINAL HERB OF INDIA

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ABSTRACT- 98

A multipurpose herb Turmeric available as yellowish rhizome from family zinziberaceae also called botanically curcuma longa is a treasure of India. Abundantly available in India and knowingly or

unknowingly people are habituated to eat as spice of life in food preparations .Hence Indian people are less susceptible to many diseases than people of other parts around the world. Turmeric is used in the treatment of inflammatory conditions, skin diseases, arthritis, cardiovascular diseases, hepatic, digestive disorders and cancers etc.., India is the topmost country in the world to produce turmeric and exported 34500 tons of turmeric up to 2003 to 2004 worth of 125 crores. India's major trading centers are Nizamabad, Duggirala in Andhrapradesh. Hence present contribution of presentation of exploit its importance in national interest to increase export promotions, Society interest to use for the treatment of many diseases, industrial interest to establish small to medium size industries to increase its production, economical interest to produce herbal medicines affordable by poor of the poorest.

HOMEOPATHIC SYSTEM OF MEDICINE

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ABSTRACT- 99

The ever increasing rate and rate of technological and therapeutic advances in modern medicine raises expectations of care for all ill's among the general population. The complimentary practice that have considerable weight of support and many claims of success is Homeopathy .This article focuses on whatever its future. Homeopathy has contribution to patient care with orthodox medicine would do well strove to achieve in particular the personal attention and hals leaning era of the homeopathy. Homeopathy, also known as homeopathic medicine a whole medical system that originated in Europe. Homeopathy seeks to stimulate the body's ability to heal itself by giving very small doses of highly diluted substances that in larger doses would produce illness or symptoms.

ANTI DIABETIC, ANTI CANCER ACTIVITY OF *MOMORDICA* SPECIES

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ABSTRACT- 100

Fruits of Momordica charantia have been successfully used by diabetic patients and their crude extract has been shown to possess hypoglycaemic activity. Khanna and Jain isolated a hypo glycaemic peptide (poly peptide P) from seeds and other tissues of Momordica charantia . They reported that polypeptide is a very effective hypo glycaemic agent when administered subcutaneously to langurs and humans. Singh et al. have reported hypo glycaemic effect of acetone extract of whole fruit powder of Momordica charantia

ANTI MICOBIAL ACIVITY OF *OCIMUM TINUIFLORUM*

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ABSTRACT- 101

A vast rural Indian population is dependent on the supply of untreated water, which is the root cause of their ailments. The rural population is thriving on the contaminated water supply due to lack of financial resources and other pressing essentialities of life. Safe water is vital for improving the health and quality of life and for alleviating poverty. In the process of developing a plant based substitute for economical safe approach for water purification against conventional chemical constituents, plants were screened for evaluation of their efficiency for anti bacterial activity. *Ocimum tinuiflorum* is effective against Escherichia Coli, Salmonella typhi, Pseudomonas

pyocyaneus, Vibrio Cholerae, Shigella dysenteriae and Proteus Vulgaris within specified contact time. *O. tinuiflorum* is effective against Escherichia Coli with increase in specified contact time.

FLAVANOIDS AGAINST ANTI CANCER AGENTS

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ABSTRACT- 102

An exponential increase in the number of studies investigating how different components of the diet interact at the molecular and cellular level to determine the fate of a cell has been witnessed. In search for anticancer drugs compelling data from laboratories, epidemiologic investigations, and human clinical trials showed that flavanoids have important effects on cancer chemoprevention and chemotherapy. In many molecular mechanisms of action for prevention against cancer, flavonoids play a major role by interacting between different types of genes and enzymes. Many mechanisms of action have been identified, including carcinogen inactivation, anti proliferation, cell cycle arrest, induction of apoptosis, inhibition of angiogenesis, antioxidation, and reversal of multidrug resistance or a combination of these mechanisms. This review focuses on the anticancer activity of flavonoids as well as their molecular mechanisms, including the treatment of mammary and prostate cancer. This review also highlights some advanced derivatives of flavonoids, which play an important role against cancer.

EVALUATION OF ANTI SPASMODIC ACTIVITY OF *OCIMUM TENUIFLORUM*

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ABSTRACT- 103

Medicinal properties of Krishna tulasi (*Ocimum tenuiflorum linn.*) are known for thousand years to various civilization of the world. This medicinal herb is considered as a sacred plant by the Hindus in the Indian sub continent. Scientific explorations of traditional belief of medicinal properties of Krishna tulasi have got momentum mostly after the middle of the 20th centuary. Scientific evidence are available on various medicinal aspects i.e. antimicrobial, adoptogenic, antidiabetic,hepatoprotective,anti-inflammatory,anticarcinogenic, radio protective, cardio protective, common cold etc. Aim of the study was to explore the traditional anti spasmodic use of *Ocimum tenuiflorum* on scientific grounds. Crude aqueous extract of leaves of *Ocimum tenuiflorum* was studied for possible relaxant effects on spontaneous contraction of rat ileum preparation at the concentration of 1,2,4,8, and 16mg/ml
The aqueous leaf extract caused 100% relaxation of the spontaneous contraction of smooth muscle preparation at the dose of 16 mg/ml.

Key words : *Ocimum tenuiflorum Linn.*, anti spasmodic activity, aqueous leaf extract.

Drug Regulatory Affairs

AN OVER VIEW OF THE PHARMACOVIGILANCE

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ABSTRACT- 104

Pharmacovigilance abbreviated as pv or phv. It is the science relating to the detection, assessment, Understanding and prevention of adverse effects, particularly long term and short term side

effects of medicine. Generally speaking, Pharmacovigilance is the science of collecting, monitoring, assessing and evaluating information on from healthcare providers and patients on the adverse effects of medications', biological products, herbalism and traditional medications with view to identifying new information about hazards associated with medicines and preventing harm to patients. Pharmacovigilance is particularly concerned with adverse reactions or ADRS which are officially described as a response to a drug which is noxious and unintended and which occurs at doses normally used for prophylaxis diagnosis or therapy of disease or for the modification of physiological function. Because clinical trials involve several thousand patients at most less common side effects and ADRs are often unknown at the market. Even very severe ADRs such as liver damage are often detected.post marketing surveillance uses tools such as data mining of spontaneous reporting systems and patient registry and drugs and ADRs, risks of medical treatment.

Key words : Pharmacovigilance, ADRs, prophylaxis, diagnosis

PHARMACOVIGILANCE: AN ADOPTIVE APPROCH TO DRUG SAFETY ENVIRONMENT

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ABSTRACT- 105

The main objective of this preview is to emphasize on role of Pharmacovigilance in ensuring drug safety. Pharmacovigilance is a pharmacological science relating to detection,assessment,understanding and prevention of adverse effects of drugs.The etymological roots are,pharmakon(Greek)meaning drug and vigilare(Latin)meaning to keep awake or alert.hv is particularly concerned with adverse drug reactions which are officially described as responses to drugs which are unintended and noxious and which occurs at doses normaly used for prophylaxis,diagnosis or therapy of diseases or for modification of physiological functions. Many people believe pharmaceutical industries to be shady cartel producing poisonous concoctions with out any restriction from government or scientific community.ph V is now available to provide information on drug satety and also to explain procedurs and safety rules to be strictly followed by pharmaceutical companies.generaly speaking phv is the science of collecting,monitoring ,researching assessing and evaluation information from health care providers and patients on adverse effects to medications, biological products,herbals and traditional medicines with a view to 1)identifying new information about hazards associated with medicines2)preventing harm to patients .

Key words : A vigilant today about adr of drugs is safe for tomorrow.

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PRESCRIPTION AUDITING ANALYSIS

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ABSTRACT- 106

The main objective of the prescription audit is to improving the prescription practices and to generate information on the core prescribing indicators proposed by the World Health Organization .The professional and personal development for each GP helps to identify, analyze and plan future development needs and Every GP needs to demonstrate that they prescribe effectively and safely, by regularly analyzing and changing their practice where necessary.so by analyzing prescription audit it may leads to enhancement in the quality care and improve prescription practices.