



Prime College of Pharmacy

Approved by PCI, AICTE New Delhi & Govt of Kerala, Affiliated to Kerala University of Health Sciences, Thrissur & Directorate of Medical Education, Thiruvananthapuram

Enter to Learn
Exit to Serve



Courses Offered

- **B. Pharmacy - 8 Semester (Bachelor of Pharmacy)**
- **D. Pharmacy - 2 years (Diploma in Pharmacy)**

Contact Us

Prime College of Pharmacy
 Prime Nagar, Near Govt. Polytechnic
 Erattayal, Palakkad, Kerala.
 Pin: 678 551 Ph: 0491 2571117
 Email: primecollegeofpharmacy@gmail.com
 Website: www.primecollegeofpharmacy.com



Prime College of Pharmacy

Approved by PCI, AICTE New Delhi & Govt of Kerala, Affiliated to Kerala University of Health Sciences & Directorate of Medical Education, Thiruvananthapuram

PHARMA NEWS LETTER
JUNE-2019

INTRUIZION
The Insight

“Enter to learn
Exit to Serve”

Chief editor's Message



DR. N. L. GOWRISHANKAR
PRINCIPAL

“A dream doesn't lie in victimization or blame; it lies in hard work, determination and a good education”.

I am delighted and privileged to bring to you the next issue of our college Newsletter INTRUIZION with information on academics and encompassing the events of professional activities, research initiatives and Pharma updates. I am sure that the Newsletter will give an ample opening to the contributors to bring their ideas and contribute significantly to the profession. This would definitely create an impact in the minds of readers, by way of providing larger visibility and dimension to the campus. I am pleased to say that the management & staff is exceptional & do not vacillate to put in their best in all college activities & upgradation. I take this opportunity to greet and congratulate all of you. Wish you success in all your endeavours.

Editorial Board

Dear Readers,

“The future depends on what you do today”

It gives us immense pleasure to introduce our next issue of Pharma Newsletter 2019, “INTRUIZION”. Prime College of Pharmacy has emerged as one of the leading and fast growing Pharmacy institute, delivering quality professional education and our continued efforts to achieve excellence has earned an enviable academic reputation. The inclusions of this issue are recent advances in Pharma field placement scenario and various college activities. We are indebted to our management, “Unlike other institutions, you allow us to initiate”. Thank you for supporting our efforts and celebrating our accomplishments. We owe our gratitude to all the contributors for their priceless inputs and hope that their contributions would fascinate and benefit the readers.

Regards, Editorial Board.

- | | | |
|--|-----------------------------------|----------------------------------|
| • Mrs. D. Deborah Evangeline, Assoc.Prof | • Mr. Ranjith Kumar. D Asst.Prof. | • Dr. Janarthanan .T, Asst Prof. |
| • Mrs. Sumathy. A, Assoc.Prof. | • Mr. Shyam. S. kumar, Asst Prof. | • Mr. Abhilash. N, IV-B. Pharm. |
| • Mrs. Aiswarya. A. T, Asst. Prof. | • Ms. Revathy. C, Asst Prof. | • Ms. Anamika. B, IV- B. Pharm. |

Pharma News

CustomFlex Artificial Iris

The CustomFlex Artificial Iris is a prosthetic iris (the colored part of the eye around the pupil) made of thin, foldable medical-grade silicone. This device is custom-made and can be sized and colored for each individual patient. It can be used to treat congenital (genetic disorder in which the iris is completely or partially absent) and traumatic aniridia. It can also be used to treat iris defects due to other reasons or conditions, such as albinism, or surgical removal due to melanoma. A surgeon makes a small incision and implants the Custom-Flex Artificial Iris under the incision. It is held in place by the anatomical structures of the eye or, if needed, by sutures, and mimics the function of the natural iris. The Custom Flex Artificial Iris creates an artificial pupil that reduces the amount of light entering the eye.



Mrs. Sruthi. T. P,
Asst. Professor.

Zenith Dissection Endovascular System



The Zenith Dissection Endovascular System is a flexible, metal tube covered with fabric (stent graft) with an optional bare stent (flexible, metal tube that is not covered with fabric) that are supplied on separate long, thin, tube-like devices (delivery catheters). It is intended for the treatment of patients who have a tear (dissection) in the inside lining of the large artery in their chest (descending thoracic aorta), which allows blood to flow between the layers of the aortic wall, causing separation of these layers.

How does it work?

The delivery catheter containing the stent graft is inserted into a blood vessel (femoral artery) in the groin through a small incision and is carefully guided within this artery to the location in the aorta where the tear begins (entry tear). The stent graft is then released and self-expands to seal off the entry tear and make a new path for the blood to flow. If needed, the bare stent is then inserted and placed below the stent graft in a similar manner to gently reinforce and hold the layers of the aorta together.



Ms. Revathy.C,
Asst. Professor.

Magtrace and Sentimag Magnetic Localization System

The system is a magnetic device system used to guide lymph node biopsies in patients who are undergoing mastectomy External Link Disclaimer for breast cancer. The system is a combination product that includes the Magtrace injectable magnetic tracer, and the Sentimag magnetic sensing probe and base unit. The system assists in sentinel lymph node biopsies, which are used to determine whether the cancer has spread beyond the initial tumor into the lymph nodes, by identifying the lymph nodes draining a tumor site.

How does it work? Magtrace is a solution of iron nanoparticles coated with a carboxydextran shell. These are injected into the patient's breast tissue and are absorbed into the lymph nodes. The surgeon then uses the Sentimag probe on the patients' skin near the tumor site to detect the magnetic particles located in the sentinel lymph node. That node is then removed and tested for the presence of cancer cells. Detection of the sentinel lymph nodes draining a tumor site may help direct further treatment.



Ms. Reshma Francis,
Asst. Professor.

Modified vaccinia virus shows potential in fighting sarcoma tumours

New research published in the Clinical Cancer Research has found that modified versions of the vaccinia virus have boosted immunotherapy in sarcoma tumours; a hard-to-treat cancer. The cancer-killing virus with immunotherapy could effectively treat the advanced cancers, which affect the limbs. The virus, which is a viral component of the smallpox vaccine, was able to switch on the immune system against cancer in rats with sarcoma tumours, leading scientists at the ICR, London, to believe that infecting tumours with vaccinia could make immunotherapies work in many more patients – since the immune system is hard-wired to recognise viruses. The ICR studied sarcomas using tumours in rats and human cells to see whether infection with a vaccinia virus modified to selectively attack cancer cells could uncloak the disease to the immune system, and found that all six animals who received the combination therapy followed by surgery for their sarcoma were cured. The virus and immunotherapy were given alongside chemotherapy using a procedure known as isolated limb perfusion, which delivers drugs into the bloodstream after cutting off the blood supply in the limb from the rest of the body.



Ms. Sony. S,
Asst. Professor.

NSS Activities



NSS DAY CELEBRATION

On September 24th, NSS unit celebrated the NSS day. The Inaugural ceremony began at 11.30am. Sreelakshmi of IInd year B.Pharm welcomed the gathering. The NSS flag hoisting was undertaken with the flag song. The Students of IInd and IIIrd year B. Pharm discussed about the history, motto, basic concepts of NSS. These serve as an awareness for students about the NSS day.



CLEANING DAY

Cleaning camp was conducted at Chemattiyapadam Anganwadi and surrounding area on 14-05-2019. The programme was inaugurated by the President of Kodumbu Panchayath Mrs. Shylaja and Mr. Dhanaraj has given the presidential address. Proceeding the program, students of NSS unit cleaned the surrounding areas of Anganwadi and separated the non-degradable and biodegradable waste.



WORLD ENVIRONMENT DAY

On behalf of Prime College of Pharmacy World Environment day was conducted in our campus. the programme was inaugurated by our beloved principal Dr. N. L. Gowrishankar by planting sapplings all over the campus. as a part of the theme "Air Pollution" the students created an awareness by giving a speech on this theme.



WORLD NO TOBACCO DAY

As a part of World NO TOBACCO Day 2019, the NSS Unit and Mobile Medical Clinic of Palakkad District Hospital conducted a camp at Meenakshipuram. Classes on the topic "Tobacco and Health Risks" was taken. Our students participated by distributing Leaflets and created awareness among the people in and around the locality. The skit and Anti - Tobacco oath influenced the crowd.

BLOOD DONATION CAMP

On behalf of World Student's Day 2018, we organised a blood donation camp with the help of Palakkad District Hospital- Blood Bank Unit. The camp was inaugurated by Dr. Radhika Sukethu. About 35 units of blood was donated from students, teacher and non teaching staffs. A speech emphasizing the life of Dr. A. P. J. Abdul Kalam was delivered by our students.



CANCER AWARENESS CAMP

The Cancer Awareness camp was at Taluk Head Quarters Hospital, Chittur. The inauguration was done by Medical Superintendent, THQH, Chittur. His talk on incidence of cancer in current society was very informative. Our students distributed leaflets and had given counseling to about 300 patients regarding awareness, prevention, detection and management of cancer.



WORLD BREAST FEEDING WEEK

To create an awareness on the importance of breast feeding, World breast feeding week was conducted in our campus by the health counselors of Kanjikkode. As a part of this activity, essay writing and drawing competition were conducted and our student Mr. Vysakh. C of IVth year B. Pharm won first prize in district level for essay



INTERNATIONAL YOGA DAY

In this current scenario, we the humans face stress, depression and anxiety due to advancement and fastness in life. To overcome this we are now trying to go back to Pre-Vedic Indian traditions which gives physical, mental, and spiritual disciplines. As a part of this day our NSS unit has organized a yoga session and our 4th semester B. Pharm students gave a demonstration.



National Pharmacy Week Celebration-2018

57th National Pharmacy Week celebrations started on 12.11.2018. Prof. Dr. N.L. Gowrishankar, welcomed the gathering by highlighting the objectives of the current year theme **"Pharmacist for a Healthy India"**. The Presidential address was delivered by Dr. C.I. Sajeeth, Executive Trustee, District Medical Officer, Palakkad, Dr. Rita. K.P inaugurated the function by emphasizing the actual role of pharmacist in public health care. Our Students involved themselves by participating in seminar and poster presentations. The First Newsletter of Prime College of Pharmacy **"INTRUIZION"** was released by the chief guest on this auspicious occasion.



Woven EndoBridge (WEB) Aneurysm Embolization System



The Woven EndoBridge (WEB) Aneurysm Embolization System is a permanent nitinol (nickel titanium) self-expanding mesh ball implant for the treatment of wide-neck intracranial aneurysms located at or near branching areas of arteries in the brain. The device system consists of the implant, the delivery wire, and the controller that is used to detach the device from the delivery wire.

How does it work?

The WEB Aneurysm Embolization System is introduced into the blood vessels typically near the groin region. The WEB implant is then detached from the delivery system and placed into the sac of the intracranial aneurysm. The WEB implant is designed to disrupt blood flow entering the aneurysm and help promote clotting (thrombosis).



Mr. Shyam S kumar,
Asst. Professor.

Characteristic compound found in broccoli stirs the capacity of intense tumor silencer



Since a long time ago connected with diminished danger of malignant growth, broccoli and different cruciferous vegetables - the group of plants that additionally incorporates cauliflower, cabbage, collard greens, Brussels sprouts and kale - contain a particle that inactivates a quality known to assume a job in an assortment of normal human tumors. Another investigation exhibits that focusing on the quality, known as WWP1, with the fixing found in broccoli stifled tumor development in malignant growth inclined lab creatures.



Dr. Janarthanan.T,
Assoc. professor.

What are superbugs, and how can be protected from its infection?

Superbugs are viral infections caused by bacteria that are resistant to common antibiotics. Superbugs is a term used to describe strains of bacteria that are resistant to the majority of antibiotics commonly used today. Misusing antibiotics (such as taking them when not needed or not completing the dose) is the single leading factor contributing to this problem. Resistant bacteria that cause pneumonia, UTI and skin infections are just a few of the dangers recently present.

Antibiotic-Resistant Superbugs:

Antibiotic resistance is a naturally occurring phenomenon that can be slowed, but not stopped. Over time, bacteria adapt to the drugs that are designed to kill them and change to ensure their survival. This makes previously standard treatments for bacterial infections less effective, and in some cases, ineffective. There are five common antibiotic resistance superbugs.

• Carbapenem-Resistant Enterobacteriaceae (CRE)

CRE is a family of bacteria that is typically found in our stomachs, but some of these bacteria can cause life-threatening blood infections and are resistant to all antibiotics.

• Multidrug-Resistant Acinetobacter:

Acinetobacter baumannii is the superbug strain of this bacteria and it can be found in soil, water and on the skin. It develops a resistance to antibiotics quickly than other bacteria and is common in hospitals.

• Neisseria gonorrhoeae:

This strain of bacteria causes the STD gonorrhea, which has previously been easily treated with antibiotics. However, Neisseria gonorrhoeae is becoming more and more resistant to them.

• MRSA:

MRSA or methicillin-resistant Staphylococcus aureus is a difficult to treat strain of staph infection. Although MRSA is antibiotic-resistant, there are still some antibiotics it responds to and the frequency of life-threatening MRSA has declined.

• Clostridium difficile (C.diff):

This type of bacteria is present in the intestines that can overgrow and cause severe diarrhea. It can be passed among individuals through spores in bathrooms and on clothing and is not always able to be treated with antibiotics. If not treated, C. diff can be fatal. Mode of transmission of superbugs: These superbugs can be spread in many ways, including blood transfusions, contact with bodily fluids, sexual intercourse, and even through skin-to-skin contact.

Prevention from superbugs:

- The best way to prevent is to limit contact with another person's blood or bodily fluids, and always wash your hands with soap and water, or alcohol-based hand sanitizer after coming into close contact with someone. Healthy lifestyle habits, such as eating a proper diet, proper food handling, getting enough exercise and establishing good sleeping patterns, also can minimize the risk of illness.

Antibiotic resistance can be tackled by:

- Using antibiotics as directed and only when needed
- Completing the full treatment, even if you feel better
- Never sharing antibiotics with others
- Never using leftover prescriptions



Mrs. Deborah Evangeline,
Assoc. Professor.

Topical Insulin may provide relief to patients with diabetes and dry eyes

At least 15 % of people with diabetes suffer from dry eye disease (DED), which blurs vision and causes pain, itchiness, and dryness. DED results from reduced corneal nerve density that impairs the lacrimal gland (main gland responsible for diluting tears) as diabetes progresses. Consequently, the eye releases hyperosmolar tears, which cause ocular irritation and dry eye. The American Diabetes Association recommends environmental and lifestyle changes in mild cases, including taking breaks while using technology such as a television, computer or smartphone for long periods, using humidifiers, and employing warm compresses. Clinicians have prescribed ocular lubricants including artificial tears as mainstay treatment for DED but are only used for symptomatic relief. Topical insulin helps acinar cells proliferate and speeds the repair and healing of the lacrimal gland by stimulating the insulin-like growth factor-1 receptor (IGF-1R). In a new study, researchers suggest that topical insulin 1 unit 4 times daily (dissolved in normal saline) may be an option for patients because it is inexpensive and readily available. Even though clinicians prescribe the treatments mentioned above often for DED, it is important to know when the patient should be referred. The ADA recommends seeing a doctor or ophthalmologist if symptoms persist or cause serious pain despite trying over the counter eye drops and anti-inflammatory medications. The ADA also warns that this disease is incurable, but can be managed effectively.



Mrs. Aiswarya. A. T,
Asst. Professor.

Boosting natural repair could help solve age related macular degeneration

Scientists are hopeful to boost the capacity for damaged tiny blood vessels in the back of the eye to repair themselves – helping prevent or slow down sight loss for patients with age-related macular degeneration. There are two types of late-stage AMD. One is called ‘wet’ AMD where abnormal blood vessels start to grow underneath the retina – there are injections available that can reverse this. The other more common form is called geographic atrophy where there is a gradual breakdown of light-sensing cells and supporting tissues within regions of the retina. Researchers are focused on the role of a network of fine blood vessels that underlie the retina in the development of the most common late-stage form of AMD. They recently discovered that problems with the mechanisms that repair damage to these tiny blood vessels as we age may contribute to the development of this form of AMD. Age related macular degeneration can have a huge impact on people’s lives. “This research means patients could benefit from exciting new treatments that repair damage to eye blood vessels, preventing their disease from progressing to later stages and helping to preserve their sight”. People with the early stages of AMD will usually have few symptoms – but those with later stages will experience severe sight loss that hugely affects their quality of life. AMD is the leading cause of blindness in the UK, and the number is set to more than double to 1.3 million by 2050.



Ms. Jyothi. A,
Asst. Professor

Cell type-dependent bimodal P53 activation engenders : A dynamic mechanism of chemoresistance

Tumors exhibit large variation in drug responsiveness due to both intratumoral and intertumoral heterogeneity. Drug resistance deals genetic mutation, and knows much less about phenotypic mechanisms of drug resistance, especially at a quantitative level. P53 is an important mediator of cellular response to chemotherapy. That the inhibitory strength between ATM and Mdm2 determined the differential modular output between drug-sensitive and drug-resistant cancer cell lines, showed that the combinatorial inhibition of Mdm2 and Wip1 was an effective strategy to alter p53 dynamics in resistant cancer cells and sensitize to their apoptotic response.



Mr. Ragavan. K,
Asst. Professor.

Immunotherapy for Non-Small Cell Lung Cancer

Immunotherapy is the use of medicines to stimulate a person’s own immune system to recognize and destroy cancer cells more effectively. Immunotherapy can be used to treat some forms of non-small cell lung cancer (NSCLC). Immune checkpoint inhibitors An important part of the immune system is its ability to keep itself from attacking normal cells in the body. To do this, it uses “checkpoints” – molecules on immune cells that need to be turned on (or off) to start an immune response. Cancer cells sometimes use these checkpoints to avoid being attacked by the immune system. But newer drugs that target these checkpoints hold a lot of promise as cancer treatments.

- Nivolumab (Opdivo) and pembrolizumab target PD-1, a protein on immune system cells called T cells that normally helps keep these cells from attacking other cells in the body. By blocking PD-1, these drugs boost the immune response against cancer cells. This can shrink some tumors or slow their growth.
- Atezolizumab blocks PD-L1, a protein related to PD-1 that is found on some tumor cells and immune cells.
- Durvalumab (Imfinzi) also targets the PD-L1 protein. It is used in people with certain types of NSCLC whose cancer has not gotten worse after they have already received chemotherapy along with radiation



Mr. D. Ranjith Kumar,
Asst. Professor

Parkinson’s UK to inject £1m into drug development

Parkinson’s UK has announced plans to invest £1 million to develop a treatment to slow down progression of the disease. It affects 148,000 people in the UK. Discover and develop a potential drug that could safeguard dopamine cells that are damaged by Parkinson’s and slow down the progression of the condition. Building on recent discoveries that show a direct link between mitochondrial dysfunction and the loss of dopamine cells, Parkinson’s UK will invest up to £1 million in NRG therapeutics to develop and translate this pioneering research into a potential therapeutic. The initial investment in NRG Therapeutics will support the identification of novel, small, molecules that are likely to enter the brain and protect the mitochondria within dopamine-producing cells.



Ms. Kaviya. N,
Asst. Professor.

Placement Drive 2019 Life Pharmacy, UAE

Prime College of Pharmacy has successfully completed a recruitment programme “Prime Pharma Placement Drive 2019”. The placement drive started with the welcome address by Prof. Dr. N.L. Gowrishankar. The programme was inaugurated by Prof. Dr.C.I.Sajeeth. The placement drive was opened for all our pass out & outgoing B. Pharmacy & D. Pharmacy students. The event witnessed a participation of around 65 students. The recruitment for the post of Pharmacist, Pharmacy Executive & Sales Associates was done by Suhail enterprises on behalf of Life Pharmacy, UAE, one of the biggest & fastest growing retail chain of pharmacies in the Middle East. Overall experience & feedback of the recruiters was very positive as the need of their organization to search the right talents to drive its objectives. The credit of this accomplishment goes to the placement cell of Prime College of Pharmacy and also to our management. We extend our heartiest gratitude to our recruiters for their esteemed presence & invaluable co-operation.



World Pharmacist Day

World pharmacist day was celebrated on 25th September in Prime College of Pharmacy. The program was organized by IVth year B.Pharmacy students of our Institution. The programme was inaugurated by our beloved Principal Prof Dr. N. L. Gowrishankar. He focused a note to the gathering regarding the theme of world pharmacist day 2018 “PHARMACISTS: YOUR MEDICINE EXPERTS”. As a part of the programme Essay writing (English, Malayalam), Pencil Drawing, Elocution (English, Malayalam), Quiz, Connectivity game and Magazine Making competitions were arranged for the students. Our students actively participated in all the events.



Sun Pharma launches Infugem injection for treatment of cancer in the US

Drug major Sun Pharmaceutical Industries announced launch of INFUGEM injection, used for treatment of cancer, in the US market. In July 2018, Sun Pharma had received approval from the US health regulator for INFUGEM injection. INFUGEM (gemcitabine in sodium chloride injection), for intravenous use, is now commercially available in the US, Sun Pharma said in a regulatory filing. INFUGEM, the first chemotherapy product that comes in a premixed, ready-to-infuse formulation, was approved by the US Food and Drug Administration (USFDA) in July 2018 in combination with other drugs for the treatment of breast, ovarian, non-small cell lung cancers, and as a single agent for the treatment of pancreatic cancer.



Ms. Nicy Rose.P,
Asst. Professor.

Prime Pharma Conclave - 2019

On behalf of Prime College of Pharmacy one day National Seminar "PRIME PHARMACONCLAVE-2019" was organized. Indian Association Colleges of Pharmacy Vice President Prof. Dr.TK. Ravi Inaugurated the programme. Around 501 delegates including Pharmacy students, Faculty, Research Scholars of various institutions from different states took part in the National Seminar on "Contemporary Advances in Pharmaceutical Sciences". Mr. Nishith. M. C, Drug Inspector, Palakkad Guest of Honor graced the occasion. On the occasion Dr. P. A. Mohammed Ashraf, Chairman, Mr. B. Rahim, Secretary, Dr. C. I. Sajeeth, Executive Trustee, Dr. K. Krishnakumar, KUHS Senate Member and Dr. N. L. Gowrishankar, addressed the gathering. The sessions of the seminar was led by eminent speakers and the first session was presented by Dr. Sam. T. Mathew, Head Clinical E Submission & Technical Compliance Delivery, Glaxo Smithkline Asia Pvt. Ltd. Bangalore on the topic "Ethics in Research Publishing". Followed by this was the Second session where Dr. K. Gowthamarajan, Professor, HOD of Pharmaceutics, JSS academy of higher education, Mysore spoke on the title "Future pharmaceutical for next generation". He emphasized on the usage of Artificial Intelligence in the field of Pharmacy, and the new innovations that can be established, which was very useful for the Pharmacy students to update the new entries in pharmacy field. Third Session was undertaken by Dr. S. Sriram, Professor, HOD of Pharmacy Practice, Sri Ramakrishna Institute of Pharmaceutical Sciences, Coimbatore, on the title "Pharmacists – in Improving in quality of healthcare". As a part of this Programme a Poster presentation was conducted. Out of 84 posters best three posters were selected and were awarded with Certificate, memento and cash award of rupees 5000, 3000, & 2000 for Ist, IInd and IIIrd Prize respectively. The first prize was bagged by Ms. Juna. K, Amritha School of Pharmacy, Ms.Helen Thomas, Nirmala College of Pharmacy, Moovatupuzha secured the Second Place and third prize was won by Ms. Aswathy. R. Devan of Mount Zion College of Pharmaceutical sciences and research.



Heat wave Kills 40 in Bihar in a Day

Heat wave killed more than 40 people in Bihar. Most heat wave deaths have been reported from Aurangabad, Gaya and Nawada. 27 people died in Aurangabad alone. The country is witnessing its worst heat wave this year with four cities in north India on a record high. Delhi, Churu in Rajasthan and Banda and Allahabad in Uttar Pradesh have witnessed temperatures of 48°C and above. Heat wave is declared when temperature remains at 45 °C and above for two days running. It gets a "severe" tag when mercury touches 47 °C. The state health department had cited hypoglycemia, as the main reason for the deaths. Heat waves happen when a system of high atmospheric pressure moves into an area. This high-pressure system forms what is best described as a "cap" over the region trapping heat that would otherwise escape into the atmosphere where it would otherwise cool off before coming back down to the surface. This environment of minimal heat circulation also reduces the chance of precipitation and rain, causing the heat to buildup, which we experience as a heat wave.

5 Ways to Keep Cities Cooler during Heat Waves

- 1) Bring Back the Trees
- 2) Let the Wind Blow
- 3) Paint Roofs White
- 4) Get People to Cooling Centers
- 5) Prepare for Deadly Blackouts



Mrs. Greeshma. S,
Asst. Professor.

FDA Approves Ruzurgi

FDA Approves Ruzurgi (amifampridine) for Children with Lambert- Eaton Myasthenic Syndrome May, 2019 -- The U.S. Food and Drug Administration today approved Ruzurgi (amifampridine) tablets for the treatment of Lambert-Eaton myasthenic syndrome (LEMS) in patients 6 years to less than 17 years of age. This is the first FDA approval of a treatment specifically for pediatric patients with LEMS. The only other treatment approved for LEMS is only approved for use in adults. Lambert-Eaton Myasthenic Syndrome is an autoimmune disorder. The clinical presentation is proximal muscle weakness. Lambert-Eaton Myasthenic Syndrome is a paraneoplastic syndrome and a percentage of patients are diagnosed or go on to be diagnosed with cancer.



Mr. D. Ranjith Kumar,
Asst. Professor.

FDA Approves Nayzilam

FDA Approves Nayzilam (midazolam) Nasal Spray to Treat Seizure Clusters. Brussels (Belgium) & Atlanta, Georgia (U.S.) – May 20 2019: UCB announced today that the F D A has approved the company's newest anti-epileptic drug (AED)Nayzilam (midazolam) nasal spray CIV, a benzodiazepine indicated for the acute treatment of intermittent, stereotypic episodes of frequent seizure activity that are distinct from a patient's usual seizure pattern in patients with epilepsy 12 years of age and older. Nayzilam now provides patients and caregivers with the first and only FDA-approved nasal option for treating seizure clusters. Nayzilam is contraindicated in patients with acute narrow-angle glaucoma.



Mr. D. Ranjith Kumar,
Asst. Professor.

Thyroid Carcinoma



- Cumulative Risk for Thyroid Cancer After Initial Benign Thyroid Biopsy.
- Once-Weekly Exenatide Treatment Does Not Increase risk for Medullary Thyroid Carcinoma.
- Complication Rates Low for High-Volume Pediatric Thyroid Surgery.
- Genetic Test Helps Differentiate Benign vs Malignant Thyroid Nodules.
- Preventing Unnecessary Thyroid Biopsies: A Comparison of 5 Sonographic Risk Stratification Systems.
- Obesity Not Associated With Worse Outcomes in Thyroid Cancer.
- Rates of Lobectomy vs Thyroidectomy for Low-Risk Differentiated Thyroid Cancer.
- Childhood Radiation-Induced Thyroid Cancer does not lower all-cause survival.
- Malignancy Rates Higher in Children With Indeterminate Thyroid Nodules.
- BABA Robotic Thyroidectomy Determined to Be Safe and Effective.
- Ethanol Sensitization May Improve RFA of Benign Thyroid Nodules.



Mrs. Sumathy. A,
Asst. Professor.

Precise Prognosis for thyroid cancer

Clinical trials for thyroid cancer include testing new medications, including drugs known as targeted therapy. Researchers are looking at new combinations of chemotherapy and other treatments.

Areas of research include:

- Radiolabeled antibodies are being tested for MTC. They are antibodies made in a laboratory that are attached to a radioactive substance.
- Researchers continue to study the drugs vandetanib and cabozantinib for MTC, including for use with children who have advanced hereditary MTC.
- For anaplastic thyroid cancer, clinical trials are studying combination chemotherapy. One study is comparing the results of either carboplatin (Paraplatin) and paclitaxel (Taxol) alone or with an experimental drug, combretastatin A4 phosphate (CA4P, fosbretabulin, Zybrestat).
- For later-stage differentiated thyroid cancer that does not respond to surgery or to I-131 treatment or stops responding, clinical trials are studying several targeted therapies called vascular endothelial growth factor (VEGF) inhibitors, which may block the creation of new blood vessels that are necessary for tumor growth. VEGF inhibitors being studied include axitinib (Inlyta), nintedanib (Ofev, Vargatef), and pazopanib (Votrient). Also, when a cancer has a genetic mutation known as BRAFV600E, the cancer responded better to the study drug. Dabrafenib (Tafinlar) and trametinib (Mekinist) are also being studied for those tumors with the BRAF genetic mutation.
- New approaches are being tested for thyroid cancer that doesn't respond to I-131. One drug being studied is called selumetinib (AZD6244), which is being tested to see if it helps boost I-131 absorption in treating advanced thyroid cancer. Other drugs being looked at include the combination of temsirolimus (Torisel) and sorafenib (Nexavar).
- For follicular and anaplastic thyroid cancers, valproic acid is being researched as a possible treatment.
- Researchers continue to investigate the best use of I-131, including different dosages, in treating Thyroid Cancer. In 1 study, researchers are looking at whether taking a drug called Sunitinib (Sutent) after I-131 is helpful to those with advanced disease.
- The genetic testing and the refinement of RET oncogenes is an ongoing area of active research. Further knowledge in this area will improve how treatment options are chosen and give more precise prognosis.

• Early studies on 2 targeted therapies called LOXO-292 and BLU-667 suggest they have less side effects and better response rates for people with metastatic MTC. Trial of sorafenib versus placebo in the treatment of locally advanced or metastatic differentiated thyroid cancer.



Sumathy, A,
Asst. Professor.

Human Protein that aids development of Malaria, Parasite Identified

Researchers in Japan have discovered that the Plasmodium parasites responsible for malaria rely on a human liver cell protein for their development into a form capable of infecting red blood cells and causing disease. The study, which will be published June 12 in the Journal of Experimental Medicine, suggests that targeting this human protein, known as CXCR4, could be a way to block the parasite's life cycle and prevent the development of malaria. According to the WHO, there were an estimated 219 million cases in 2017, resulting in the deaths of approximately 435,000. Infected mosquitoes transmit Plasmodium parasites to humans in the form of rod-shaped sporozoites that travel to the liver and invade liver cells. Once inside these cells, the Plasmodium sporozoites develop into spherical exoerythrocytic forms (EEFs) that eventually give rise to thousands of merozoites capable of spreading into RBCs and causing malaria. It seems likely that the transformation of Plasmodium sporozoites into EEFs is tightly controlled so that it only occurs in hepatocytes and not at earlier stages of the parasite's life cycle, says Research Institute for Microbial Diseases of Osaka University. We know very little about the host factors that regulate the differentiation of sporozoites in infected hepatocytes. In the new study, they discovered that a hepatocyte protein called CXCR4 helps Plasmodium sporozoites transform into EEFs. Depleting this protein from human liver cells reduced the ability of sporozoites to develop into EEFs. Moreover, mice pretreated with a drug that inhibits CXCR4 were resistant to malaria, showing reduced levels of parasites in the blood and significantly higher survival rates following Plasmodium infection. They also identified a cell signaling pathway that causes hepatocytes to produce more CXCR4 in response to Plasmodium infection and determined that the protein aids the parasite & development by raising the levels of calcium inside the cells.



Jyothi, A,
Asst. Professor.

Paper Publications

1. "Exploration of total antioxidant capacity of aqueous extract of Swietenia macrophylla leaves"; Deborah Evangelina. D, et.al Research journal of life sciences, bioinformatics, pharmaceutical and chemical sciences (2019).
2. "A prospective study to evaluate the rationality in fixed dose combinations among patients with cardiovascular disorders"; Aiswarya. A.T, et.al World journal of pharmacy and pharmaceutical research (2019).
3. "A prospective study on prevalence, risk factors, biochemical parameters, comorbidities and prescription pattern in coronary artery diseases"; Aiswarya. A.T, et.al International journal of pharmacy & pharmaceutical research (2019).
4. "Pharmacognostical evaluation and phytochemical analysis of Averrhoa carambola leaf"; Shantha Sheela.N, Dr. N.L.Gowrishankar, Farsena. A, Raheesul Mubashireen, Rameesa. K, Shahnna Sharin. V.P, Sinara. N.S, International journal of Pharmacognosy (2018).
5. A review on transdermal patches"; Shyam S Kumar, World journal of pharmacy and pharmaceutical research (2018).
6. "Primitive investigation on aqueous extract of Swietenia macrophylla leaves"; Deborah Evangelina. D, International journal of pharmacy and pharmaceutical analysis (2018).
7. "In-Vitro antioxidant and In-Vivo hepatoprotective activity of ethanol extracts from the bark of Shorea robusta (Dipterocarpaceae) against carbon tetrachloride- induced liver toxicity in rats"; Diptanu Biswas, Shivraj Gouda, Narayanaswamy Lachmanan Gowrishankar, Asian journal of pharmaceutical and clinical research (2016).
8. "Insignificant effect of ethanol extract of Dipterocarpus turbinatus (Dipterocarpaceae) bark on selected parameter in alloxan-induced diabetic rats" Diptanu Biswas, Shivraj T Gouda, Narayanaswamy Lachmanan Gowrishankar Journal of Pharmaceutical Negative Results (2016).
9. "Docking analysis of potent inhibitors of topoisomerase IV as potential antimicrobial agents" Sumathy.A, Palanisamy.S Arathi. K.N, Aswathi .U.P, Hamna Fathima.K Asian Journal of Pharmaceutical and Health Sciences (2016).
10. "Hepatoprotective and Antioxidant Activity of Ethanol Extracts of Dipterocarpus turbinatus (Dipterocarpaceae) from Tripura." Diptanu Biswas, T. Shivraj Gouda and Narayanaswamy Lachmanan Gowrishankar Journal of Natural Remedies (2016).
11. "Phytochemical investigation and anti-oxidants studies on the roots of solanum xanthocarpum linn" Archana C and Jessy Jacob, Asian Journal of Phytomedicine and Clinical Research (2015).
12. A brief review on 4-thiazolidinone derivatives for various Anti-cancer activity, A. Sumathy, Dr. N. L. Gowrishankar, Ilyas. A. K, Amana. P, Athira Pavithran, Anshara hasnu, C. Vidya; WJPLS, 5(3) (2019).
13. Synthesis and antioxidant study of thiazolidinone derivatives A. Sumathy, Dr. N. L. Gowrishankar, Ilyas. A. K, Amana. P, Athira Pavithran, Anshara hasnu, C. Vidya; IJPPR, 6(4) (2019).

Industrial Visit

Students of IVth year B. Pharmacy (2015-2019 batch) of Prime College of Pharmacy visited BioZEEN-Bangalore as part of their Industrial visit programme. BioZEEN is an exemplary industry which manufactures high grade Bioprocess Equipments like Fermentors, Bioreactors and allied upstream and downstream equipments. They enable companies and governments to make medicines and bio-therapeutics ranging from MABs to vaccines, insulin, plasma, enzymes and APIs.

The Industrial visit commenced with a two hour lecture by one of the senior staff from Biozeen, he explained the principles of microbiology and manufacture of various biological products developed in their own firm. In the next session they offered an in-depth tour of GMP modeled Bio-Pilot Laboratory where students understood the various process and concepts involved in the Biopharmaceutical manufacturing industry including upstream and downstream Processing.

