SAROJINI NAIDU VANITA PHARMACY MAHA VIDYALAYA

(Sponsored by the Exhibition Society, Hyderabad) (Approved by AICTE & PCI, Affiliated to Osmania University)

September 2018, Volume-2 Quarterly News Letter

Do's-e.age

...the right prescription

Editorial Desk

*Welcome to **Do's-e.age,** a new quarterly newsletter that makes an endeavor to exhibit the literary, innovative skills of faculty and the embryonic talent of our student community through write ups, poems, anecdotes. It also highlights the innovations and discoveries made globally. Though the college is a centripetal force for education, it also acts centrifugally making opportunities for students to learn, work, create opportunities. We at **Do's-e.age** would like to showcase this side of the college too. I express gratitude to my editorial team for their time and effort in exhibiting consistent teamwork. I congratulate and extend my appreciation to the authors of the articles in the newsletter. We hope this newsletter will impact and envision the readers into greater dimensions of the campus.*

Dr.V. Jyothi
Principal

OUR SPONSORS / EXHIBITION SOCIETY

1st Row L-R: Sri P Vasanth Rao; Sri V Veerender; Sri CH Rabinder Nath; Treasurer; Sri P Narotham Reddy, Vice President; Sri Kadiyam Srihari, Dy. CM; Sri Eatala Rajender, President and Hon'ble Minister for Finance; Sri Md. Mahmood Ali, Dy. CM; Dr. NVN Charyulu, Secretary; Dr. T.N. Vamsha Tilak, Jt. Secretary; Sri N. Surender. **2nd Row L-R:** Maj. Shiva Kiran; Sri N Vinaykumar; Sri B. Ravindra Sena; Sri T. Chandra Shekar; Sri Ashwin Margam; Sri V. Ajay Kumar.

We are ever great full to the EXHIBITION SOCIETY for their continued Patronage of our college. We wouldn't have been in the top position in both the Telugu States but for the support of our Exhibition Society. Bidding adieu to this Managing Committee which is going to lay down the office on 22nd September, 2018 and we also look forward for the continued patronage of the incoming Managing Committee.

Our partners in progress MaxCure Hospitals

If Excellence is the Buzzword around, it's natural that the two best institutions team up. Our Pharm D students after their academic rigours in the College Campus, it's time for them to move for an in-house and on-the-ground training in the Best Hospital and no wonder our students internships are at Maxcure Hospitals. Both have been accredited with Certifications and Awards.

EDITORIAL TEAM: Chairman: Sri V Veerender; Advisor: Sri R. Sukesh Reddy; Chief Editor: Dr. V Jyothi; Asst. Editor: Smt.RVS Latha Sree; Student Editors: K.L.HARIKA (Pharm.D –III year); P.SAI HARSHITA (B.Pharm V Sem.) P.SOMA YASASWI (B.Pharm V Sem.)

RECENTLY APPROVED DRUG FOR TREATING NEUROTROPIC KERATITIS

Neurotropic keratitis is a degenerative disease of cornea. It may occur in case of diabetes mellitus. OXERVATE is a drug recently by US FDA. It is generally known as “cenegermin” under the brand name of “oxalative“ which was approvred on 20th August 2018. It is generally administered parenterally. It consists of an active ingredient STIRIPENOL. It is also used to treat dry eyes,retinitis pigmentosa and glaucoma in a small dose. It is taken 6 times a day i.e 2 hours for 8 weeks. Effective therapeutic response is seen in men than in women. Side effects would be inflammation and redness of eye.

REFERENCE- Swcchatt M: Lcombiase.

-T. Vaishnavi (Pharm D 2nd Year)

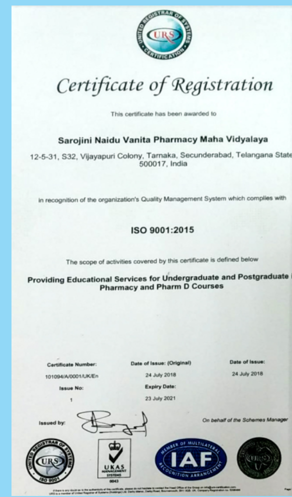
STANDING TALL AMIDST ALL

We are proud that the college has achieved 95% admissions in B.Pharmacy and Pharm.D. Had it not been clash of dates because of NEET and Court directions,we would have been 100% full. Our Management Quota are full and is the Barometer to measure the demand for a college.

Never,under any circumstances,ever take a laxative and sleeping pills on the same night!

The pharmacist has an old scale which has only two measuring weights-
30 gms and 5 grams.How can you divide 300 gms of powder medicine into 3 groups, one 150 gms, one 100 gms and the other 50 gms. You can only weigh 3 times.

ISO CERTIFICATION


Certificate of Registration

This certificate has been awarded to

Sarojini Naidu Vanita Pharmacy Maha Vidyalaya

12-5-31, 532, Vijayapuri Colony, Tarnaka, Secunderabad, Telangana State, 500017, India

in recognition of the organization's Quality Management System which complies with

ISO 9001:2015

The scope of activities covered by this certificate is defined below

Providing Educational Services for Undergraduate and Postgraduate in Pharmacy and Pharm D Courses

Certificate Number: 101094/A/0001/UK/En

Date of Issue: (Original) 24 July 2018

Date of Issue: 24 July 2018

Issue No: 1

Expiry Date: 23 July 2021

Issued by:

On behalf of the Schemes Manager

The above certification is a testimonial of our efforts to maintain the highest standards and this is a habit and not a task. We are in the process of seeking certification from National Board of Accrediation. Hope to share the news soon.

NANOTECHNOLOGY

“Nanotechnology”- (nano – Greece:dwarf). A nanometer (nm) is is one billionth of a meter, or 0.000000001 meters. A nanometer is about three to five atoms wide, or some 40,000 times smaller than the thickness of human hair. Nanotechnology can be defined as the science and engineering involved in the design, synthesis, characterization, and application of materials and devices whose smallest functional organization, in at least one dimension, is on the nanometer scale or one billionth of a meter. At these scales, consideration of individual molecules and interacting groups of molecules in relation to the bulk macroscopic properties of the material(s) or device(s) becomes important, as it has a control over the fundamental molecular structure, which in turn regulates the macroscopic chemical and physical properties. The interface between nano-systems and bio-systems is emerging as one of the broadest and most dynamic areas of science and technology, bringing together biology, chemistry, physics and many areas of engineering, biotechnology and medicine. Although the word nanotechnology is relatively new, the “natural version” of nanotechnology was already in pole position with procreation of life itself thousands of millions of years ago. All natural materials and systems establish their foundation at the nanoscale. Basically, the biological building blocks of life are nano-entities that possess unique properties determined by the size, folding and patterns at nanoscale. The development of nanotechnology started in 1958 and the Era of molecular nano technology started in 2011.

Classification of Nano Materials : They are classified based on dimensions as follows: Nano rods, nano wires have dimension less than 100 nm;Tubes, fibers, platelets have dimensions less than 100 nm; Particles, quantum dots, hollow spheres have 0 or 3 Dimensions < 100 nm and also Based on phase composition a) single phase solids : Crystalline, amorphous particles and layers are included in this class; b) multi-phase solids : Matrix composites and coated particles; c) multi-phase systems : colloids, aero gels, Ferro fluids, etc.

Pharmaceutical nanotechnology is divided in two basic types of nano tools viz. nano materials (nano-crystalline and nano-structured : polymers –carbon nanotubes,metallic nanoparticles, quantum dots,silica nanoparticles while under non-polymer nano structures-drug conjugates,dendrimers,nano-particles and miscelles are included) and nano devices [NEMS 9nano-electro mechanical systems) & MEMS (micro electro mechanical systems),respirocytes,micro-assays).

Applications of nanotechnology: a)Health and Medicine; b) Electronics; c)Transportation; d)Energy and Environment; e)Space exploration. With the help of nano medicine early detection and prevention, improved diagnosis, proper treatment and follow-up of diseases is possible. Certain nano scale particles are used as tags and labels, biological can be performed quickly, the testing has become more sensitive and more flexible. Gene sequencing has become more efficient with the invention of nano devices like gold nano particles, these gold particles when tagged with short segments of DNA can be used for detection of genetic sequence in a sample, damaged tissue can be reproduced or repaired. These so called artificially stimulated cells are used in tissue engineering, which might revolutionize the transplantation of organs or artificial implants. Nano devices can be used in stem cell research in tracking and imaging them. Two forms of nano medicine that have already been tested in mice and are awaiting human trials; use of gold nano shells to help diagnose and cure cancer, and the use of liposome as vaccine adjuvants and as vehicles for drug transport. Similarly, drug detoxification is also another application for nano medicine which has been used successfully in rats. Medical technologies can make use of smaller devices are less invasive and can possibly be implanted inside the body, and their biochemical reaction times are much shorter. As compared to typical drug delivery nano devices are faster and more sensitive.

- HER2-targeted gold nanoparticles potentially overcome resistance to trastuzumab in gastric cancer.
- Fabrication of hybrid scaffold based on hydroxyapatite-biodegradable nanofibers incorporated with liposomal formulation of BMP-2 peptide for bone tissue engineering.
- One-step preparation of nano-in-micro poly(vinyl alcohol) embolic microspheres and used for dual-modal T1/T2-weighted magnetic resonance imaging.
- Nano in nano: Biosynthesized gold and iron nanoclusters cargo neoplastic exosomes for cancer status biomarking.
- Rapid phenotyping of cancer stem cells using multichannel nanosensor arrays.
- Apigenin loaded nanoparticle delayed development of hepatocellular carcinomain rats.
- Dendritic PEG outer shells enhance serum stability of polymeric micelles.
- Synergistic tumor microenvironment targeting and blood–brain barrier penetration via a pH-responsive dual-ligand strategy for enhanced breast cancer and brain metastasis therapy.
- Switching cell penetrating and CXCR4-binding activities of nanoscale-organized arginine-rich peptides.
- Early detection of pancreatic cancers in liquid biopsies by ultrasensitive fluorescence nanobiosensors.
- DNA-loaded nano-adjuvant formed with a vitamin E-scaffold intracellular environmentally-responsive lipid-like material for cancer immunotherapy.
- Blood–brainbarrier disruption dictates nanoparticle accumulation following experimental brain injury
- An SPR based immunoassay for the sensitive detection of the soluble epithelial marker E-cadherin
- Fabrication of hybrid scaffold based on hydroxyapatite-biodegradable nanofibers incorporated with liposomal formulation of BMP-2 peptide for bone tissue engineering
- A33 antibody-functionalized exosomes for targeted delivery of doxorubicin against colorectal cancer.
- A highly integrated precision nanomedicine strategy to target esophageal squamous cell cancer molecularly and physically.

- K.L.HARIKA (Pharm.D, III year)

EMERGENCY MEDICINES:The following represent additions UpTo Date from the past six months that were considered by the editors and authors to be of particular use.

NEW

GENERAL ADULT EMERGENCY MEDICINE
Bicarbonate therapy for critically ill patients with metabolic acidosis (June 2018).

Intravenous thrombolysis in patients with an unknown stroke onset time (May 2018).

GENERAL PEDIATRIC EMERGENCY MEDICINE
Pediatric appendicitis risk calculator (pARC) for determining risk of appendicitis in children with abdominal pain (March 2018).

ADULT RESUSCITATION - Bag-mask ventilation versus endotracheal intubation for out-of-hospital cardiac arrest (March 2018).

NEW DRUG AGAINST NON SEVERE CASES OF MALARIA

Tulane University researchers have developed a new drug that is effective against non-severe cases of malaria, according to results from an FDA-supervised clinical trial published in the latest issue of The Lancet Infectious Diseases.

The results are significant as public health experts have long warned that the parasite responsible for most malaria cases, Plasmodium falciparum, is developing resistance to widely used treatments. New medications are needed to build up secondary defenses against drug-resistant strains of the parasite. The drug, called AQ-13, was able to clear the parasite responsible for the disease within a week, matching the effectiveness of the most widely used treatment regimen.

"The clinical trial results are extraordinarily encouraging," said Dr. Donald Krogstad, senior author and professor of tropical medicine at Tulane University School of Public Health and Tropical Medicine.

"Compared to the current first-line recommendation for treatment of malaria, the new drug comes out very well."

Mosquitoes infected by a parasite spread malaria, causing more than 200 million illnesses across the globe and more than 400,000 deaths annually. For decades, chloroquine was used to treat malaria until Plasmodium falciparum developed resistance. Now, a drug combination -- **artemether and lumefantrine** -- is the primary treatment for malaria although resistance is also developing to this drug combination in some countries.

Researchers recruited 66 adult men in Mali with uncomplicated malaria, which is defined as malaria that isn't life threatening. Half were treated with AQ-13 and the other half received artemether and lumefantrine. Both drug groups had similar cure rates.

However, five participants in AQ-13 group left the study or were lost to follow-up and two participants in the artemether/lumefantrine group had late treatment failures with recurrence of their original infections.

Researchers hope to expand testing of the drug to more participants, including women and children,

before it can be widely recommended as a new treatment. Krogstad said that the same biotechnology that helped the team develop the new drug has also identified similar drugs that also hold promise against drug-resistant parasites.

“The potential long-term implications are bigger than one drug," he said. "The conceptual step here is that if you understand the resistance well enough, you may be actually be able to develop others as well. We synthesized over 200 analogues and, of those, 66 worked against the resistant parasites.”

P Sai Harshita, B.Pharm., 5th Sem

PURIFIED CANNABIS EXTRACT TO TREAT THE SYMPTOMS OF PSYCHOSIS :

Cannabidiol (CBD) is one of the major chemical components of marijuana plant works in opposite to its other ingredient (THC – tetra hydro cannabidiol). THC is thought to be a significant risk for psychosis and other conditions like schizophrenia. Recent research from the team of UK researchers, of Kings' College, London have found that cannabis extract could treat symptoms of psychosis. People with psychosis experience episodes of acute hallucinations that can become distressing and put them and others at risk. Single dose of CBD could significantly reduce the abusive brain activity that causes these effects. There is an urgent need for a safe treatment for young people at risk of psychosis. The mainstay of current treatment for people with psychosis are drugs that were first discovered in 1950's and unfortunately don't work for anyone. One of the main advantages of cannabidiol is that it is safe and seems to be very well tolerated, making it ideal for the treatment. CBD is not psycho active and doesn't have opportunities for the abuse as it contains low THC.

CBD oil has been licenced for treating rare childhood epilepsy in US. While these findings are promising, they are now launching the first major clinical trial as it could be the alternative for conventional antipsychotics. If successful, this trial will provide a definite proof for CBD role as antipsychotic in the treatment of psychosis and it will pave the way for use in the clinic.

~ K.L.HARIKA (Pharm.D III year)

Behind-The-Scenes Secrets About Pharmacies Every Customer Should Know!

Pharmacists have a lot of responsibility—and they're well-prepared for it. After all, they are required to attend several years of specialized schooling and most receive their master's or doctoral degrees. And while we all know they're responsible for relaying information about drugs and side effects, it's easy to admit that we don't always know exactly what they do besides dispense our prescriptions.

As it turns out, there's quite a bit that goes on behind the scenes in a pharmacy. These next facts just might change everything you know about the people you rely on for your medicine!

1. Pharmacists can save your life in situations where another doctor's carelessness could kill you. What you may think is slow service might actually be your pharmacist working hard to clarify errors with the information that your doctor provided.
2. They also need to work fast. Pharmacists are only given around 15 minutes to catch any errors in your prescription and handle your needs.
3. On top of that, doctors are notorious for their poor handwriting; figuring out a prescription is like cracking a code.
4. In an effort to keep orders moving quickly, pharmacists often don't get lunch breaks.
5. Electronic prescriptions aren't much better than paper prescriptions just because they're more legible. They're still just as prone to errors—especially because some doctors don't understand the technology—and pharmacists can be overwhelmed with the number of emails they get.
6. Pharmacists don't necessarily need prescriptions to help you out—at least, not a prescription pad. Technically, they have to honor anything that your doctor writes, even if it's just on a napkin. They might call to verify, though.

Hopefully this gives you a new appreciation for what pharmacists do and how hard they work. So the next time you visit the pharmacy, try to be a little more patient!

P Soma Yasaswi (B. Pharm. 5th Sem)

Do You Know!

Coco Cola was initially developed by pharmacists to help cure headaches.

GLIMPSE OF COLLEGE EVENTS AND ACTIVITIES

ORIENTATION DAY – 2018

"The future belongs to those who believe in the beauty of their dreams."

L-R : Smt. Sanghi Mitra garu (Dr. Reddy's Laboratories Pvt. Ltd., Hyderabad); Dr. Aravinda Babu garu (Former Senior Vice President, Wockhardt Pvt. Ltd., Aurangabad); Sri Gopal Krishna garu (Global Generics, Strategy and Planning, Dr. Reddy's Laboratories Pvt. Ltd.) ; Sri R. Sukesh Reddy garu (Hony. Secretary, SNVPMV) **Addressing** : Dr.Vemuri Jyothi (Principal – SNVPMV)

TEACHERS DAY CELEBRATIONS

"TEACHING is the one profession that creates all other professions."

Faculty visit to IndiaLabExpo (exhibition at Hitech city, on 7th September, 2018)

DONATION TOWARDS FLOOD VICTIMS – (KERALA)

"Giving is not just about making a donation. It's about making difference."

ETHINIC DAY

L-R: Sri P. Srinivas Garu, Hony. Treasurer, SNVPMV; Dr T.N. Vamsha Tilak Garu, Vice-Chairman, SNVPMV; Chief Guest - Sri. Ramesh Valluri Garu; Sri R. Sukesh Reddy Garu, Hony. Secretary, SNVPMV; Dr. Vemuri Jyothi , Principal SNVPMV. We were priviledged to have them.

FACULTY ACHEIVEMENTS

On the occasion of TEACHERS DAY, 5th September, 2018, LIONS CLUB INTERNATIONAL has felicitated our Principal Dr. V. Jyothi. She was awarded Ph.D. on the thesis 'Comparitive Pharmacological Study of Two Cuscuta Species

UP COMING EVENTS

1.FRESHER'S DAY: October 2018
2. NATIONAL PHARMACY WEEK:November 2018

ANSWER

First we use 300 gms of medicine and 30 gms of weight to split 300 medicine into 165 and 135 gms.
Then we use 165 gms of medicine and 30+5 gram weights to separate 165 gms into 100 and 65 gms.
Then we further separate the 65 grams into 50 grams and 15 grams. Finally, combine 135 and 15 grams to 150 grams.

STUDENT ACHEIVEMENTS

Our students P.Sai Harshita and Tanvi Mathur (B.Pharm 3rd year) attending CBIT Model United Nations 2017 (UNGA -DISEC) as the delegates of Haiti and Ireland.

Our Student M.MANASWITHA (PharmD II yr) has participated in the second and third International Kuchipudi dance convention in the year 2010 and 2016 respectively.

Our Student K.Manaswini (Pharm.D III yr) has created a record by writing 701 shlokas of Bhagvath Geeta in Telugu, Hindi and English, each taking a minute.

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