SRI PADMAVATHI SCHOOL OF PHARMACY

Mohan Gardens, Vaishnavi Nagar, Tiruchanoor (PO), Chittoor (Dist.), AP - 517503 (Accredited by NAAC "A" Grade, Accredited by NBA (for UG-Pharmacy up to 2025), Approved by AICTE & PCI, New Delhi, Affiliated to JNTUA, Ananthapuramu, Recognized Under 2(f) &12(B) of UGC Act.)



SPSP-DARPANAM

(OCTOBER 2024- DECEMBER 2024)

QUARTERLY COLLEGE MAGAZINE



From the Chairperson's desk....



Our vision is based on hard work, open communication, a strong emphasis on team work and a high level of responsibility. This visionary culture allows and emphasizes our wards not only to adopt the present-day challenges but also individual responsibilities to the society and our nation at large. Learning should be based on doing things and not merely knowing things. Until and unless learning solutions relate to real life and motivate the learner to acquire and apply the knowledge, the whole process will remain superficial. Our institution has set specific objectives and planned activities for achieving excellence in all spheres of technical education.

I take this opportunity to express that every effort is made to improve the existing best services to bring out the best for the welfare of our institution and the growth of our students. With best wishes

Yours Smt. P. Sulochana

From the Director desk...



We cannot always build the future for our youth, but we can build our youth for the future."

I am quite pleased to learn about the forthcoming issue of the college magazine

Dear students, "You are the nation-builders. You are the movers of technology. You are the agents of change." It is our STRONG BELIEF that the years that you spend in SPSP would enable you to equip with leadership and managerial skills.

"You don't have to be great to start, but you have to start to be great."

With best wishes

Yours Mr. P. Praneeth

From the Principal desk....



The prestigious, Sri Padmavathi School of Pharmacy, since its inception in 1997 has made remarkable progress by following the mantra of student centric approach, whether it is in academics or in extra co-curricular activities. The institute possesses a state of art infrastructure with equipped laboratories, well stocked library and highly qualified faculty. We at, SPSP introduce our students to the Outcome Based Education and trained with skills in various disciplines.

In addition to developing excellent scientific and clinical based skills, the students are motivated not only to dream big but also encouraged to think unconventionally to face the challenges of the future and provide platform for Entrepreneurship.

Sports and other co-curricular activities are encouraged and the students are given every form of support to develop their talents in all fields. Our brand of education does not have narrow horizons, we believe in exposure. Our students are encouraged to widen their knowledge base and study beyond the confines of the syllabus.

With best wishes

Yours Prof. D Ranganayakulu

Editor's message



A thought that has been enduring in mind when it becomes real; is truly an interesting and exciting experience. This news letter was one such cherished work that had its roots in the persuasion.

"Good leaders create a vision, articulate a vision and passionately owns a vision and turn it into a reality" - Jack Welch.

Coming to the collage magazine, I expect full cooperation from my fellow students and peers. New ideas, new sections in the issue of 2021 are always welcome by the Editorial Board. The editorial board is looking forward to make this magazine a vehicle for students to express their innermost thoughts.

I would like to thank all my editorial team members for helping me pull this through. I These contributions have required a generous amount of time and effort. It is this willingness to share knowledge, concerns and special insights with fellow beings that has made this magazine possible.

Thank you all!!

Dr. A. Sreenivasa Charan

Vision

Promote holistic learning, nurture ethically strong and highly competent pharmacy graduates to serve the global healthcare system.

Mission

M1: To provide innovative and contemporary educational experiences of the highest quality.

M2: To instill ethics, sense of professionalism, communication and leadership skills.

M3: To promote and nurture the research and scholarly activities.

M4: To foster entrepreneurship and life-long learning.

Program Educational Objectives (PEOs)

PEO1: To produce competent pharmacy graduates with adequate knowledge and technical skills in the core and allied areas of pharmaceutical sciences & technology and to serve the needs of the health care system.

PEO2: To promote research and scholarly activities to identify, assess, formulate problem and execute solutions for the betterment or advancement of pharmaceutical sciences.

PEO3: To develop communication skills, leadership qualities, team building skills and instill the sense of professional ethics and social responsibilities in graduates.

PEO4: To prepare the graduates for life-long learning through their effective participation in professional and societal activities, integrate their knowledge and skills with contemporary needs of the society and for their highly productive career.

* Institutional achievements and recognitions

 Prof. D. Ranganayakulu was invited by Krishna Teja pharmacy college and honored during national pharmacy week celebrations- November 2024.





❖ The newly constituted IPA, Tirupati Local Branch members had taken oath in the presence of immediate past president of IPA Dr.TV.Narayana. Prof.Dr.D.Ranganayakulu, immediate past president of IPA, Tirupati local branch conveyed his best wishes to newly elected president Dr. A. Sreenivas Charan and IPA Tirupati local branch members. The IPA Tirupati branch members felicitated the Dr.TV.Narayana for his impeccable service to IPA and pharmacy profession.











❖ Institutional collaborations

- * MOU with Mohana's diabetics specialties center, Gopalpuram, Chennai
- An MOU with Raghavendra institute of pharmaceutical sciences.





❖ Visit to the campus by JNTU Anantapur director of evaluation Prof. V. Naga Prasad Naidu





❖ Glimpses of institution animal ethical committee meeting held on 14/12/2024



Patents and Copyrights

- ❖ Dr.P. Balaji was registered patent on (06-09-2024) a "a method for colon-targeted drug delivery of rabeprazole using polysaccharide-based compression coated tablets".
- ❖ Dr. P. Lakshmi was registered patent (04-10-2024) on "Multi-Layered Drug-Loaded Microneedle Patch for Hormonal Therapy".
- ❖ Mr P. Prakash was registered patent (25-10-2024) on a "validated RP-UPLC method for simultaneous pharmaceutical estimation of tipiracil and trifluridine".
- ❖ Dr. TS. Durga prasad registered copy right on "immune oncology breakthrough in cancer treatment".

❖ Publications (July 2024-December 2024)

- Dr. Kishore Bandarapalle published an article on "Formulation and evaluation of Metoprolol succinate buccal tablets in hypertension treatment" in future journal of pharmaceuticals and health sciences on 18th June 2024. The research aims to formulate and evaluate the Metoprolol succinate buccal tablets in hypertension treatment. The Fourier transform infrared (FTIR) results depict no incompatibility between the drug and excipients. The study results of pre-compression parameters have excellent flow qualities and compressibility. The post-compression parameters show that the results are within the specified standard deviations. The swelling index reveals that the formulation F6 shows that the complete drug was released and the tablet integrity was maintained during the expected duration. Formulation F6 chitosan and Carbopol 934 were used in a ratio of 1:1, resulting in the release of the drug up to the 10th hour and completely. Therefore, formulation F6 was optimized and compared with the marketed product. Formulation F6 exhibited better drug release performance than the marketed product.
- Dr.Balaji Pendakur published article on "Anticancer, Antidiabetic, Antioxidant Properties and Phytoconstituents of Efficacy of Methanolic Extract of Euphorbia milii Leaves" in African journal of biological sciences on 29 june 2024. The current work emphasize on ornamental plant Euphorbia milii leaves to determine biological properties and phytoconstituents in methanol extract. The anticancer activity found potent in in vitro proliferation MTT assay using A375 human melanoma cell lines by showing IC50 value 199.45μg/ml when compared to that of Cisplatin standard. Antidiabetic studies carried out by α-amylase inhibitory assay and found potent by showing IC50 value 171.28 μg/ml and in antioxidant activity was assessed by DPPH and found potent by showing IC50 value 63.06 μg/ml. These biological properties were due to rich phytochemicals in the methanolic extract positive for glycosides, alkaloids, steroids, flavonoids, phenols and saponins. The investigation concludes that E. milii leaves exhibited very good anticancer, antidiabetic, and antioxidant activities which are highly appreciable and further studies by pure molecule isolation and characterization may use it as novel biological remedies against various diseases.
- K. Ramesh Reddy published article on "clobetasol-loaded solid lipid nanoparticles topical gel for psoriasis: imiquimod induced mice psoriatic plaque model" in African journal of biological sciences on 9th July 2024. The aim of the current investigation was to prepare and investigate the potential of Clobetasol (CP) loaded solid lipid nanoparticles based gel (SLN-gel) for the dermal delivery and to evaluate its anti-psoriatic efficacy by comparing with conventional ointment formulation. This study will provide an insight about the use of nanocarriers. SLNs loaded with CP for the effective treatment of psoriasis. Clobetasol-loaded SLNs were formulated by emulsification-homogenisation method and were characterized for particle size, polydispersity and percentage entrapment efficiency using DLS technique. Optimized SLNs attains a particle size of 133.3±3.66 nm, polydispersity index (PDI) 0.179±0.081, percentage entrapment efficiency of 78.1±1.11% and Zeta potential of -36.2±0.11mV. The prepared SLNs gel was then compared with conventional ointment for drug release, and efficacy. Topical application of CP-loaded SLNs gel on

IMQ induced psoriatic plaque model reduced the symptoms of psoriasis which was assessed by both Psoriasis area severity index (PASI) scoring and enzyme-linked immunosorbent assay. To conclude CP-loaded SLNs gel enhances dermal delivery and was efficacious in management of psoriasis when compared to conventional ointment.

- Dr. Durga Prasad Thammisetty published article on "Clinical profile, drug therapy in patients with complications of hypertension, Type 2 diabetes mellitus and coexistence of both conditions- A prospective observational study" in Indian journal of pharmacy and pharmacology on 31st July 2024. Hypertension (HTN) and Type2 Diabetes Mellitus(T2DM) are the leading causes of various complications in the elderly population. Clinical profile plays a key role in assessing the health conditions of a patient, based on the severity of the complications appropriate drug therapy will be recommended, thus improving the health and quality of life of a patient. This study aimed to assess the clinical profile and drug therapy in patients experiencing complications with HTN and T2DM and the coexistence of both conditions. A prospective observational study was carried out at the inpatient general medicine department of a tertiary care hospital, for 6 months among 180 patients. The most common complications are seen in males (62.96%). The most common complications among the patients were found to be Cerebrovascular Accidents 81(33%), chronic kidney disease 53(22%), and Heart Failure 43(18%) with a significant p-value at 0.0007, 0.0032, 0.0164respectively obtained by using Linear Regression analysis. As a clinical pharmacist, the prime responsibility is to provide information regarding the complications and their risk factors to improve the quality of life of a patient with chronic diseases.
- Smt. Sirisha chukka published an article on "enumeration of lactobacillus acidophillus in curd at different storage conditions" in international journal of biology, pharmacy and allied sciences on 12th august 2024. The Human gut microbiota plays a significant role in Gut health. The concept of Probiotics has led to wide spread consumption of food preparation containing pro biotic microbes such as curd and yogurt. Most of the peoples in Southern India consume home made curd which is prepared from cow milk, buffalo milk or commercial milk. The main aim of the study was to determine the best storage conditions for the curd. In this study we found that the samples having adequate pH (6.8) in buffalo milk. In this study Lactobacillus acidophillus in different curd samples was enumerated at different storage condition by using Pour plate method and found that the curd sample was cow milk, buffalo milk, commercial milk was maintaining adequate count of Lactobacillus acidophillus and organoleptically acceptable. Hence the homemade curd can be stored at 4–5°C in refrigerator after fermentation for 2 days with good probiotic value.
- Dr. Lakshmi puligundla published article on "A study on utilization of antibiotics for prophylaxis in post operative wards at a tertiary care teaching hospital" in African journal of biological sciences on 25th august 2024. Surgical antibiotic prophylaxis is a very brief course of antibiotics initiated closely before the start of operative procedures to reduce postoperative SSI's. Antibiotic prophylaxis has been shown to be an effective measure for preventing SSIs. This study is to analyse the utilization of antibiotics prescribed for prophylactic treatment among post operative patients. The data were collected by using a

pre designed patient proforma. Out of 151 patients 102 were males (67.5%) and 49 (32.5%) were females. The most performed procedure was Appendectomy 24 (15.8%), followed by hernioplasty 19 (12.5%). The total number of antibiotics prescribed were 341, from which Metronidazole was frequently prescribed 102 (29.7%) followed by Ceftriaxone 73 (21.2%) and Amoxicillin-Clavulanic acid 58 (16.9%). Only 30 patients received antibiotics for 24 hours. SSI was developed in 1 out of 151 patients. ADRs were determined in 5 patients. The outcomes underscore the difficulties in integrating evidence-based protocols seamlessly into everyday clinical practice. Addressing this challenge requires collaborative efforts to establish evidence-based guidelines with surgeons.

- Dr. Ramesh Reddy published article on "Evaluation of the medication prescribing trends for individuals with mild to severe chronic renal disease at a tertiary care hospital" in African journal of biological sciences journal. 15 Aug 2024. Chronic kidney disease (CKD), which is marked by a gradual fall in glomerular filtration rate (GFR), is a significant global public health concern that is linked to high rates of morbidity and death. Prospective observational research was conducted for six months. 151 patients' demographics, risk factors, phases, GFR, and medication prescription patterns were gathered using a proforma that was specifically created for this purpose. 151 instances in all were evaluated for the research, with a prevalence of 28.3% female and 72.2% male. The WHO's drug prescribing indicators show that, on average, 12.45 percent of encounters were prescribed; 63.35% of drugs were prescribed by generic name; 86.75% of encounters involved the prescription of an antibiotic; 100% of encounters involved the prescription of an injection; and 73.9% of drugs came from the EML. The study highlights the necessity of focused interventions in CKD patient prescription practices, with an emphasis on utilizing costeffective strategies and managing risk factors. Patient outcomes might be greatly enhanced, and healthcare expenses could be decreased by using customized prescription guidelines and continuous evaluation models.
- Dr. T.S Durga Prasad published article on "Helicobacter Pylori: Gastric Carcinoma and Other Gastrointestinal Neoplasms" in International Journal of Trends on OncoScience on 16th august 2024. Gastric cancer (GC) remains a critical global health issue, with rising morbidity and mortality rates. Recent epidemiological studies have deepened our understanding of the correlations between GC and other gastrointestinal illnesses, enhancing diagnosis and treatment options. This review highlights key developments in the use of "serological biopsy" for cancer risk assessment, focusing on biomarkers such as pepsinogen, gastrin, and Helicobacter pylori (H. pylori) antibodies. The bacteria's potential role in gastric and esophageal cancers remains debated, as conflicting studies have presented varying degrees of correlation. Similarly, the relationship between H. pylori and colorectal cancer, as well as its association with other gastrointestinal malignancies, requires further exploration. This review covers key epidemiological insights into GC, preventive strategies for colorectal cancer, and emerging diagnostic and treatment indicators for both gastric cancer and lymphoma. It also discusses the evolving understanding of H. pylori's role in gastrointestinal carcinogenesis and its potential impact on future cancer prevention strategies.

- Dr. Balaji Pendakur published article on "formulation and development of gel with essential oils and effect of polymer on their antimicrobial activity" in biochemical and cellular archives in 2 September 2024. This study made a gel from plant extracts and essential oils to assess its germ-killing power. Plants were collected and extracted with the correct solvent. Distinct polymer and extract amounts produced distinct gels. Both the cup plate and twofold dilution methods were used to measure the zone of inhibition and minimal inhibitory concentration. A minimum bacteria-killing amount was discovered. The study examined how bacteria react to store-bought products. To determine how plant items and essential oils affected antibacterial activity when mixed with polymer gel, the minimum inhibitory concentration was tested before producing the gel. Best results were obtained with propylene glycol as the fluid and carbopol 940 as the gelling agent. Physical qualities examined included gel colour, clarity, pH, stability, spreadability, and viscosity. Adding plant components to the gel didn't boost its effectiveness.
- Dr. Srinivasa Charan. Archakam*, Dr. Keerthisikha Palur, H. Neelofar and Saila Sree Devarala published article on "Multivariate Ultraviolet Spectrophotometric Methods for the Simultaneous Analysis of Phenazone and Lidocaine in Ear Drops" in Indian journal of pharmaceutical sciences in 24 October 2024. Analysis of multi component dosage forms poses a greater challenge for the precise and accurate determination of individual concentrations of the drugs in the mixtures without prior separation steps if conventional ultraviolet spectrophotometric methods are applied for the analysis. In this research, similar problem was identified where the estimation of lidocaine and phenazone by conventional ultraviolet methods is quite difficult because of their spectral overlapping. This problem is solved by applying the chemometric models like principal component regression and partial least squares for the analysis of individual drugs in ear drops dosage form. The calibration set serves to optimize the model and whereas the validation serves to affirm the model accuracy. Both the developed models showed accurate predictive abilities for the determination of these drugs which was evident from the results obtained for these models. One-way analysis of variance was performed to prove that there are no significant differences in these two models for the assay determination of the drugs in the ear drops. Greenness was evaluated for this analytical method and the score indicates that the method relatively much greener which encourages the analysts to use more often than not.
- Dr. Sai Koteswara Sharma published an article on "Design Approach in RP-HPLC Method Development and Validation of Nirogacestat in its Pure and Pharmaceutical Dosage Form" in Journal of Chemical Health Risks on 4th November 2024. Nirogacestat is a selective γ-secretase inhibitor approved by the USFDA for the treatment of Desmoid Tumour. In this study, a reversed-phase high performance liquid chromatography (RP-HPLC) method was designed to analyze the concentration of Nirogacestat in both bulk and dosage forms. With a 30 % Trifluoroacetic acid pH3:70 % Acetonitrile (30:70 ml) mobile phase, 1.2 ml/min flow rate, 338 nm detection wavelength, 10 μl injection volume, and 12-minute run time, a SPURSIL C18-EP (4.6 x 250mm, 5μm) column was utilized. The experiment was designed using the Box-Behnken design (BBD), and the chromatographic conditions flowrate, buffer pH and buffer ratio were optimized by applying the response surface methodology (RSM). After evaluating separation response metrics such tailing factor and retention time to develop an optimization model, the desirability was assessed.

The model indicated that a composite desirability of 0.9943 could be attained with a flowrate of 0.80 mL/min-1, a buffer pH of 4, and a buffer ratio of 30. The theoretical plate and tailing factor of the improved HPLC settings were all within acceptable limits. The current research was found to be observed with less Rt and this method can be a suggested approach for the development of new techniques in pharma industries.

- Dr. M. Himasaila published article on "Artificial Intelligence in Green Organic Chemistry: Pathway to Sustainable and Eco-Friendly Chemistry" in Asian journal of chemistry on 30 November 2024. Artificial intelligence (AI) is playing an increasingly critical role in advancing green organic chemistry by optimizing chemical processes to minimize environmental impact. From predicting reaction outcomes to designing eco-friendly synthetic pathways, AI tools are contributing to sustainable chemical research. This review explores the application of AI in areas such as reaction optimization, solvent selection and waste reduction, all key aspects of green chemistry. Moreover, AI-driven approaches allow for the development of catalysts and reagents that reduce harmful byproducts and energy consumption. Despite these advancements, challenges remain in terms of data availability, integration with experimental workflows and ensuring the interpretability of AI models for chemists. This review also highlights the potential of AI to accelerate green chemistry innovation while maintaining alignment with the 12 principles of green chemistry. By addressing these challenges, AI can further enhance the sustainability of organic synthesis, paving the way for a greener chemical industry.
- Dr. Pothula Sai Sunil published article on "Identification of risk factors in Polycystic Ovary Syndrome and to provide awareness: A community-based survey study" in African journal of biological sciences on 4th december 2024. Polycystic Ovary Syndrome (PCOS) is a prevalent chronic reproductive and metabolic endocrine disorder affecting 4%-21% of women in their childbearing years, characterized by irregular menstrual cycles due to erratic egg release from the ovaries. The study aims to identify risk factors for PCOD in unmarried and married women, educate them on early diagnosis, identify pregnancy complications, and improve lifestyle changes adherence. A community-based survey was conducted from September 2023 to February 2024 in and around Tirupati; involving 427 women aged 18-45, with a questionnaire-based cross-sectional study. A study of 427 participants found that 19% were aged 15-20, 31% were aged 21 25, and 13% were aged 26-30. The majority were married women (51%), from rural areas (62%), and had no family history of PCOS (75%). The community-based survey study on Polycystic Ovary Syndrome (PCOS) offers insights into its complex determinants, highlighting the need for further research, including longitudinal studies and specific subtypes, and the importance of hormonal evaluation.

List of programs organized

Sri padmavathi school of pharmacy in association with APTI- AP state branch under the aegis of Internal Quality Assurance cell (IQAC), A one day workshop organized with the theme of "Pharmaceutical innovation, Incubation & Intelligence Skills.



"Pharmaceutical Innovation, Incubation & Intelligence Skills" 5TH October, 2024

Internal Quality Assurance Cell (IQAC), Sri Padmavathi School of Pharmacy In Association with Association of Pharmaceutical Teachers of India (APTI), AP-State Branch

Chairperson, SPEI, Tirupati.

Co-Patron Prof.D.Ranganayakulu Principal, SPSP, Tirupati. Director, SPEI, Tirupati.

Chief Guest Dr. K. Venkata Ramana, President, APTI-AP State Branch.

SRI PADMAVATHI SCHOOL OF PHARMACY

SPEAKERS

We cordially invite you to a One Day National Workshop on

"Pharmaceutical Innovation, Incubation & Intelligence Skills" 5[™] October, 2024

Organized by

Internal Quality Assurance Cell (IQAC), Sri Padmavathi School of Pharmacy In Association with

Association of Pharmaceutical Teachers of India (APTI), AP-State Branch

Or.J.Surya Kumar CEO,SSIIE-TBI SPMVV, Tirupati.

Dr.Y.V.Manohar Reddy Senior Safety Operations Specialist, Global Safety Monitoring Center-

Bangalore

Mrs.K.Jhansi Reddy

Associate Project Manager Global Data-Hyderabad.

Product Specialist Team Chromatography Division Spincobiotech Pvt.Ltd. Chennai, India









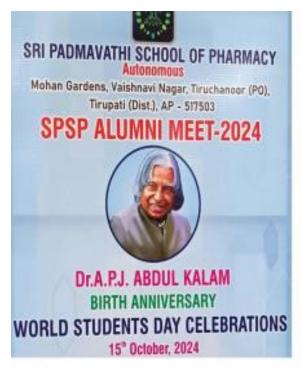








• On the birth anniversary of Dr. A P J Abdul kalam, the World student's day celebrations organized. All the students are actively participated in sports and cultural activities.













• On 15th October, the SPSP alumni meet 2024 conducted. All the alumni students from first batch to till date are participated in the event. some of the alumni students who are best in their positions are honored with mementoes.

















• The SPSP career guidance cell conducted Career Guidance Program and demo session on SAS by CliniPro company on 08/11/2024.





• In commemoration of World Diabetes Day - November,14, 2024, SPSP organized an awareness session on diabetes, themed Breaking Barriers, Bridging Gaps. Dr. K. Mahesh Kumar, Senior Consultant in Diabetes at MM Hospital.





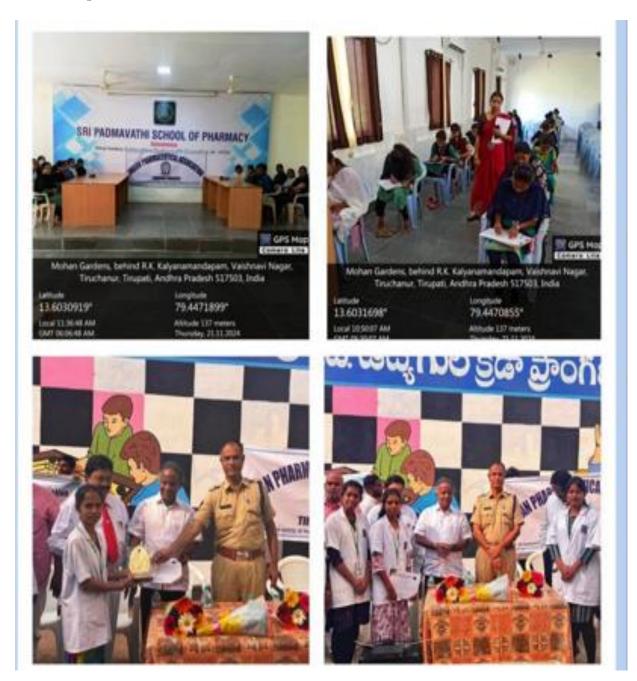




• On the occasion of national pharmacy week celebration-2024 the rally organized on new born week with a theme "Optimizing antimicrobial use to prevent antimicrobial resistance (AMR) in new borns" at SVRRGG hospital Tirupati on 19-11-2024.



• On the occasion of national pharmacy week celebration-2024 the debate and essay writing competitions were conducted on 20/11/2024 and 21/11/2024 in our college. The winners were congratulated with certificates.



On the occasion of 63rd national pharmacy week celebrations a pharma awareness rally organized by all local pharmacy colleges in association with IPT local branch Tirupati. The Tirupati SP, Dr.P. Prasanth, MD, SVICCAR, Prof.D. Ranganayakulu, all local pharmacy college principals, Tirupati branch, IPT members inaugurated the program.





• The cancer awareness program was organised in view of national pharmacy week celebrations 2024. Dr.P. Prasanth, MD, SVICCAR and team members have enlightened with cancer information and awareness.



• In association with Praneeth foundation, a blood donation camp organised at campus. The theme of this noble initiative was "donate blood - save life".



• In association with Vivekananda Kendra, Tirupati, a comprehensive certified programme conducted in campus. Yoga guru Sri Pavithra conducted the training guiding 45 students through various yogasanams and medication techniques. Dr. Rajendra prasad, former executive of Srinivasa ayurveda pharmacy graced the occasion as chief guest.



• Induction program conducted for B pharm and pharm D first year students on 20-12-2024



➤ Students and faculty participated in two-day national conference titled as "a new horizon in pharmaceutical industry, manufacturing technology and regulatory aspects" (NAPICON-2024) organized by Sri Venkateswara college of pharmacy, Pondicherry on November 29th and 30th 2024.







• Extra-curricular activities conducted on occasion of student's day 2024









* New pharma innovations in 2024(Oct- Dec)

- New drugs will create a revolution for obesity treatment. Despite years of effort to treat obesity through lifestyle changes, surgery and other interventions, the disease's health and economic burden continues to rise: Around 800 million people are estimated to be living with this chronic disease. GLP-1s and GLP1/GIPs approved for obesity have shown remarkable clinical results—weight loss as high as 25%, compared with 7% for earlier drug classes—dramatically altering the treatment landscape for patients and providers. Using a combination of drugs, technology, coaching and more, there's finally a credible pathway to overcoming obesity.
- Innovation in cardiovascular disease treatment will expand to new realms. Despite a wealth of effective treatments, CVD remains one of the most common causes of global mortality. This highlights the need for additional focus on early diagnosis and intervention as well as continued innovation, especially in tailored therapies. Four CVD trends will emerge or accelerate in 2024: better use of digital health and AI for preventive and primary care; continued use of precision medicine to deliver customized treatments; identification of new molecular drug targets, such as Lp(a) levels for CVD, to detect disease earlier; and drug repurposing, as exemplified by early trials showing clinical benefits for GLP-1s beyond obesity and diabetes.
- Drug companies will continue to shift toward personalized cell and gene therapies. Precision medicine, with its more than 3,500 drugs in development, will remain a focal point for pharmaceutical innovation. Germany's ambitious project to leverage whole-genome sequencing in routine healthcare, the rise of mRNA vaccines and next-generation therapeutics incorporating CRISPR technologies hint at where the field is headed.
- Lifestyle and environmental factors affect health and aging more than our genes. A new study led by researchers from Oxford Population Health has shown that a range of environmental factors, including lifestyle (smoking and physical activity), and living conditions, have a greater impact on health and premature death than our genes. Environmental factors explained 17% of the variation in risk of death, compared to less than 2% explained by genetic predisposition (as we understand it at present); Of the 25 independent environmental factors identified, smoking, socioeconomic status, physical activity, and living conditions had the most impact on mortality and biological ageing.
- Novel bone marrow transplant can cure sickle cell disease, study suggests. A bone marrow transplant process is safe and curative for adults with sickle cell disease, according to results of a trial completed at about 20 cancer centers. During this type of transplant, called reduced-intensity haploidentical bone marrow transplantation, bone marrow is given by a "half-matched" donor, such as a parent, sibling, child, niece, nephew, aunt, uncle or cousin of the patient. This means the proteins that help the body's immune system function, and which are present on a donor's marrow cells, must match at least half of those proteins on the recipient's cells to be a good fit and to not attack the recipient's body after the transplant.

* FDA NEWLY APPROVED DRUGS 2024 (October - December)

No.	Drug Name	Active Ingredient	Approval Date	FDA-approved use on approval date*	
1	<u>Itovebi</u>	inavolisib	10/10/2024	To treat locally advanced or metastatic breast cancer	
2	<u>Hympavzi</u>	marstacimab-hncq	11/10/2024	To prevent or reduce bleeding episodes related to hemophilia A or B	
3	Vyloy	zolbetuximab-clzb	18/10/2024	To treat gastric or gastroesophageal junction adenocarcinoma	
4	<u>Orlynvah</u>	sulopenem etzadroxil, probenecid	25/10/2024	To treat uncomplicated urinary tract infections (uUTI)	
5	Revuforj	revumenib	15/11/2024	To treat relapsed or refractory acute leukemia	
6	Ziihera	zanidatamab-hrii	20/11/2024	To treat unresectable or metastatic HER2-positive (IHC 3+) biliary tract cancer	
7	Attruby	acoramidis	22/11/2024	To treat cardiomyopathy of wild-type or variant transthyretin-mediated amyloidosis	
8	<u>Rapiblyk</u>	landiolol	22/11/2024	To treat supraventricular tachycardia	
9	<u>Iomervu</u>	iomeprol	27/11/2024	For use as a radiographic contrast agent	
10	<u>Bizengri</u>	zenocutuzumab-zbco	04/12/2024	To treat non-small cell lung cancer and pancreatic adenocarcinoma	
11	Unloxcyt	cosibelimab-ipdl	13/12/2024	To treat cutaneous squamous cell carcinoma	
12	Crenessity	crinecerfont	13/12/2024	To treat classic congenital adrenal hyperplasia	
13	Ensacove	ensartinib	18/12/2024	To treat non-small cell lung cancer	
14	Tryngolza	olezarsen	19/12/2024	To treat familial chylomicronemia syndrome	
15	Alyftrek	vanzacaftor, tezacaftor, and deutivacaftor	20/12/2024	To treat cystic fibrosis	
16	Alhemo	concizumab-mtci	20/12/2024	For routine prophylaxis to prevent bleeding episodes in hemophilia A and B	

REPORTED ADRS TO AMC UNDER PVPI

S.NO	Report ID	AMC Report No.	World wide unique No.	Patient initials
1	Oedema: Rifagut	SVMC/Oct-2024/462	IN-IPC-301004032	TS
2	Cough: Cefixime	SVMC/Oct-2024/463	IN-IPC-301004036	С
3	Loose stools: Ceftriaxone	SVMC/Oct-2024/464	IN-IPC-301004455	AB
4	Loose stools: Ceftriaxone	SVMC/Oct-2024/465	IN-IPC-301004483	CCS
5	Loose stools: Ceftriaxone	SVMC/Oct-2024/466	IN-IPC-301004520	SK
6	Hyperglycemia: Aldactone	SVMC/Oct-2024/467	IN-IPC-301004567	VC
7	Facial puffiness: Nodosis	SVMC/Oct-2024/468	IN-IPC-301004685	PL
8	Hypotension: Amlodipine	SVMC/Oct-2024/469	IN-IPC-301004741	D
9	Headache: Ringer lactate	SVMC/Oct-2024/470	IN-IPC-301004764	DS
10	Itching: Antisnake venom	SVMC/Oct-2024/477	IN-IPC-301005832	NN
11	Shortness of breath: Antisnake venom	SVMC/Oct-2024/478	IN-IPC-301005843	EP
12	Loose stools: Levofloxacin	SVMC/Oct-2024/479	IN-IPC-301005858	Y

S.NO	Report ID	AMC Report No.	World wide unique No.	Patient initials
1	Loose stools: Clindamycin	SVMC/Nov-2024/493	IN-IPC-301011270	GN
2	Pedal oedema: Amlodipine	SVMC/Nov-2024/494	IN-IPC-301011290	MR
3	Vomiting: Augmentin	SVMC/Nov-2024/495	IN-IPC-301011307	L
4	Stomach pain: Piptaz	SVMC/Nov-2024/496	IN-IPC-301011328	M
5	Breathlessness: Cefoperazone+Sulbactum	SVMC/Nov-2024/497	IN-IPC-301011619	AR
6	Hypotension: Telmisartan	SVMC/Nov-2024/498	IN-IPC-301011635	G
7	Vomiting: Ceftriaxone	SVMC/Nov-2024/499	IN-IPC-301011654	GS
8	Loose stools: Ceftriaxone	SVMC/Nov-2024/500	IN-IPC-301011669	YS
9	Loose stools: Ceftriaxone	SVMC/Nov-2024/501	IN-IPC-301011698	KS
10	Vomiting: Tramadol	SVMC/Nov-2024/502	IN-IPC-301011708	KS
11	Constipation: Pantop	SVMC/Nov-2024/503	IN-IPC-301011734	GP
12	Gastric irritation: Metrogyl	SVMC/Nov-2024/504	IN-IPC-301011734	AN
13	Loose stools: Piptaz	SVMC/Nov-2024/505	IN-IPC-301011742	JN
14	Optic neuritis: ATT	SVMC/Nov-2024/506	IN-IPC-301011750	PR
15	Itching: Lasix	SVMC/Nov-2024/519	IN-IPC-301012997	PC

S.NO	Report ID	AMC Report No.	World wide unique No.	Patient initials
1	Dizziness: Amlodipine	SVMC/Dec-2024/552	IN-IPC-301021282	GS
2	Dyspnoea: Cifran	SVMC/Dec-2024/553	IN-IPC-301021285	VB
3	Constipation: Metrogyl	SVMC/Dec-2024/554	IN-IPC-301021304	PB
4	Tonic seizures: Tramadol	SVMC/Dec-2024/555	IN-IPC-301021314	MV
5	Burning micturation: Azithromycin	SVMC/Dec-2024/564	IN-IPC-301022678	PS
6	Gastritis: ATT	SVMC/Dec-2024/570	IN-IPC-301023777	K
7	Strieae: Clobatasol	SVMC/Dec-2024/571	IN-IPC-301023783	SK
8	Nose bleeds: Lasix	SVMC/Dec-2024/582	IN-IPC-301026574	RS
9	Fever:Amoxyclav	SVMC/Dec-2024/583	IN-IPC-301026585	KP
10	Dizziness: Metoprolol	SVMC/Dec-2024/584	IN-IPC-301026600	BA
11	Allergic reaction: Loperamide	SVMC/Dec-2024/585	IN-IPC-301026632	DJ
12	Black stools: Cefotaxime	SVMC/Dec-2024/586	IN-IPC-301026642	SN
13	Loose stools: Ceftriaxone	SVMC/Dec-2024/587	IN-IPC-301026650	NS
14	Swelling: Acitrom	SVMC/Dec-2024/588	IN-IPC-301026651	KM
15	Gastritis: ATT	SVMC/Dec-2024/589	IN-IPC-301027405	NS
16	Loss of appetite: ATT	SVMC/Dec-2024/590	IN-IPC-301027420	N
17	Constipation: ATT	SVMC/Dec-2024/591	IN-IPC-301027447	KN

DO U KNOW??????? FACTS....

