



# UMT

## School of Pharmacy Newsletter

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# EDITORIAL

Dear readers

I am pleased to share the latest edition of our School of Pharmacy quarterly newsletter. This edition encapsulates the school of Pharmacy activities, insightful research and highlights of community service initiatives. The regular publication of our SPH quarterly newsletter is a testament to the unwavering commitment and dedication of our faculty, students and staff in promoting quality education, research and practice.

Kind Regards

Dr Ejaz Ullah Cheema  
Founding Dean and Professor,  
School of Pharmacy, UMT



## News in Brief

- **School of Pharmacy (SPH) has established its animal house to conduct pre-clinical studies and to foster research collaborations with industry and other research institutes.**
- **SPH has launched MPhil Pharmacology program that aims to equip the students with advanced research skills and prepare them for further academic pursuits and professional growth.**
- **SPH has successfully completed 26 community pharmacy service projects in the first six months of launching this program.**
- **SPH has commenced Pharm D evening program**

# SPH Activities

## Seminar on designing community pharmacy services: Strategic and financial aspects

UMT School of Pharmacy in collaboration with Dr Hasan Murad School of Management (HSM) organized a seminar on designing community pharmacy services with the aim to instill entrepreneurship skills in pharmacy students. Dean HSM Professor Dr Naveed Yazdani provided the students an insight into basics of the financial management including investment, financing and dividend. He highlighted the importance of strategic financial decisions for growth and sustainability. It was an informative session for both faculty and students.



## Seminar on exploring the opportunities for Pharmacists in USA

A seminar titled “Exploring the opportunities for Pharmacists in USA” was organized by SPH. The guest speaker Dr Salman Riaz, president Azend Pharma, USA group of retail/specialty pharmacy highlighted the growing demand and opportunities for of pharmacists in patient care, public health and innovative practices in USA and other countries





## Community Pharmacy Service Projects Exhibition

SPH organized an exhibition to showcase students' community pharmacy service projects. Students presented details of their community pharmacy service projects including rationale, logistics, timeline, marketing and financial plan, competitors, role of pharmacist and SWOT analysis. The exhibition not only allowed students to pitch their project ideas to various stakeholders, but also highlighted the important role of community pharmacy in the promotion of public health. The school hopes that such exhibitions will go a long way in developing the entrepreneurial and business skills of pharmacy students and make them successful entrepreneurs.



## Dean's Merit Awards Ceremony

SPH conducts Dean's merit awards ceremony every year to recognize and celebrate the academic excellence of students. The ceremony not only rewards the students but also serves as an opportunity to highlight the efforts of school of pharmacy faculty members in the academic success of the award recipients.



# UMT participation in first Asia Middle East–(ACARI 2023)



Dean SPH Dr Ejaz ullah Cheema represented University of Management and Technology –UMT at the first Asia–Middle East–Africa Conference on Academic and Research Integrity (ACARI 2023) hosted by Middlesex University at their campus in Dubai UAE. While speaking and interacting with delegates from across the world, Dr Ejaz emphasized on the importance of highlighting the issue of academic and research integrity due to the evolution in the global educational landscape coupled with the emergence of various Artificial Intelligence tools.

## Improving pharmacy practice skills using virtual simulation tools by Dean SPH

Dean SPH gave a keynote speech at the annual conference organized by University of Lahore on sustainable development goals and pharmaceutical sciences. His talk titled “Improving pharmacy practice skills using virtual simulation tools” emphasized the need to make use of innovative teaching tools to equip pharmacy students with the skills and competencies required to cater the national and international healthcare needs.





## Breast Cancer Awareness Seminar

UMT School of Pharmacy organized a breast cancer awareness seminar on breast cancer, its early detection and support. The resource person Dr. Amber Sharif (Assistant professor, SPH) highlighted the risk factors, lifestyle choices and screening methods for breast cancer. Such kind of community engagement and education seminars are powerful tools in the fight against breast cancer.

The seminar was attended by female students, faculty and staff at SHS campus.



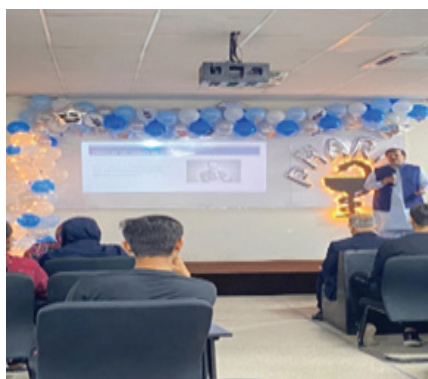
## Diabetes Awareness Seminar

UMT School of Pharmacy in collaboration with the Diabetes Center of Shalimar Hospital effectively organized diabetes awareness seminar along with a free medical checkup and consultation camp. The camp included diabetes specialists, general practitioners, and clinical dieticians. The purpose of this seminar was to educate the participants about diabetes prevention, management and overall well-being. Resource persons, Dr. Amber Sharif (In charge community pharmacy services, SPH), Dr. Hafeeza Naz, a consultant endocrinologist, and Miss Javeria Afzal, a clinical dietician delivered informative lectures to the participants.



# Orientation Ceremony for SPH Fall 2023

An orientation ceremony was organized at SPH for Fall 2023 batch students to provide them a platform to connect, learn and embrace new beginnings. New students were warmly welcomed by Dean, faculty and senior students of SPH. They were given an insight into university policies, support services as well as various clubs and extracurricular activities, health services and counselling resources. The ceremony served as a source of building new connections among students, fostering a sense of community and making new students feel at home.



## Batch Blood donation camp

Standing Together for Life!

UMT School of Pharmacy in collaboration with Sundas Foundation, orchestrated a Blood Donation Camp at SHS campus to foster altruism and community. Faculty, staff, and students enthusiastically participated in the event, thereby supporting the common cause of saving lives. This event gave the participants an opportunity to give back and create a positive impact.





# Student Corner

## Community engagements of SPH students

The School of Pharmacy at the University of Management and Technology is deeply committed to instilling a sense of social responsibility and community engagement within its student body and faculty. Over the past academic year, SPH has actively undertaken a range of community service projects, aiming to address local needs, foster sustainable community development, and contribute to the overall well-being of the society.

### Waduha Orphanage: Food Drive and Junk Food Awareness

#### Objective:

Provide nutritional support and promote healthy eating habits among orphanage residents.

#### Activities:

- Food Drive: Organize a community-wide effort to collect food items for the orphanage.
- Nutritional Workshops: Conduct workshops to raise awareness about the importance of a balanced diet and the risks of excessive junk food consumption.

#### Impact:

- Increased Nutrition: Provide essential food supplies, ensuring a well-balanced diet for orphanage residents.
- Healthier Habits: Educate residents on the benefits of nutritious eating, fostering long-term health and well-being.



### Aghosh Alkhidmat Orphanage: Health Checkup

#### Objective:

Enhance the health and well-being of orphanage residents through medical assessments.

#### Activities:

- Medical Checkup: Organize comprehensive health checkups for residents, including general health assessments.
- BMI Calculation: Provide individualized Body Mass Index (BMI) calculations for better health monitoring.
- Eyesight Checkup: Conduct eyesight examinations to identify and address any visual impairments.

#### Impact:

- Improved Health: Ensure early detection and intervention for health issues, promoting overall well-being.
- Individualized Care: Tailor health recommendations based on BMI results, fostering personalized healthcare.



## Govt. High School Raiwind: Health Awareness

### Objective:

Improve health and hygiene awareness, focusing on Pink Eye prevention.

### Activities:

- Eye Care Workshops: Address Pink Eye prevention and general eye health.
- Hygiene Sessions: Educate students on preventive hygiene practices.
- School Visit: Engage Government High School Raymond in hands-on health education.

### Impact:

- Health Promotion: Enhance overall hygiene awareness for disease prevention.
- Eye Health: Reduce instances of Pink Eye, contributing to students' well-being.
- Proactive Learning: Foster a health-conscious environment for optimal learning.



## Shifa Pharmacy: Diabetes Awareness

### Objective:

Promote diabetes awareness, prevention, and health education at Shifa Pharmacy.

### Activities:

- Awareness Sessions: Provide comprehensive information on diabetes prevention and management.
- Random Glucose Checks: Conduct on-site tests to assess diabetes risk among visitors.
- Dietary Guidance: Offer personalized diet charts to promote healthier lifestyles.

### Impact:

Informed Community: Disseminate essential diabetes awareness and prevention guidelines.

Early Detection: Identify potential diabetes risks through random glucose checks.

Healthy Living Promotion: Empower visitors with dietary guidance for sustained well-being.

Proactive Learning: Foster a health-conscious environment for optimal learning.



## Social Security Hospital Pink Eye Awareness:

### Objective:

Awareness of Pink Eye (conjunctivitis) and promote preventive hygiene at Social Security Hospital.

### Activities:

- Awareness Sessions: Conduct informative sessions on Pink Eye, emphasizing prevention.
- Hygiene Guidelines: Provide practical guidelines for preventive hygiene measures.
- Interactive Awareness: Engage hospital staff and visitors in discussions for hands-on learning.

### Impact:

- Preventive Knowledge: Disseminate essential information for Pink Eye prevention.
- Hygiene Promotion: Foster a culture of preventive hygiene practices among hospital staff and visitors.



## Aafiat Old Age Home Visit

### Objective:

Enhance well-being through regular visits, companionship, and mental health support at Aafiat Old Age Home.

### Activities:

- Regular Visits: Foster social bonds and alleviate isolation.
- Companionship Programs: Encourage interaction among residents.
- Mental Health Initiatives: Implement programs to boost morale

### Impact:

Community Connection: Strengthen social bonds among elderly residents.

Emotional Support: Provide companionship for improved mental health.

Positive Atmosphere: Contribute to a happier and healthier living environment.





# Research Corner

The research corner features an article abstract published by our faculty member and two abstracts published in the second issue of currents in the Pharmaceutical research, a journal published by school of Pharmacy.

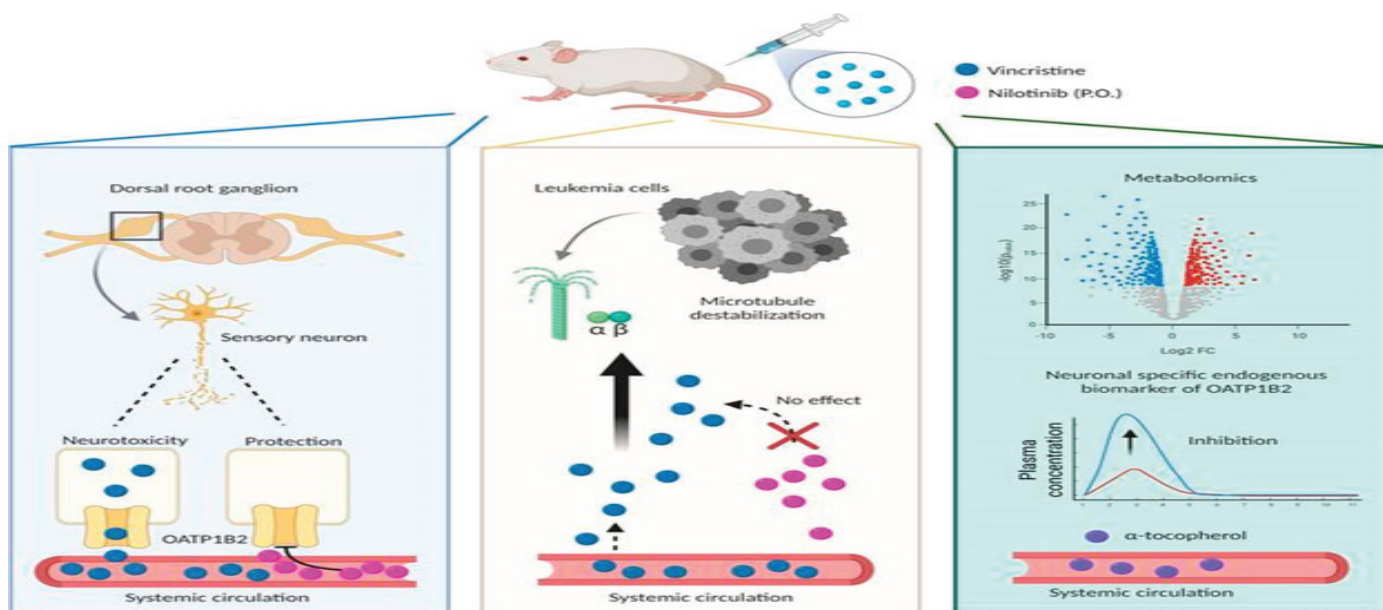
## Title:

**Targeting a xenobiotic transporter to ameliorate vincristine induced sensory neuropathy.**

## Abstract

Yang Li, Muhammad Erfan, F. DiGiacomo, Xihui Chen,..... Sobia Razzaq

Vincristine is a widely used chemotherapeutic drug for the treatment of multiple malignant diseases that causes a dose-limiting peripheral neurotoxicity. There is no clinically effective preventative treatment for vincristine-induced sensory peripheral neurotoxicity (VIPN), and mechanistic details of this side effect remain poorly understood. We hypothesized that VIPN is dependent on transporter-mediated vincristine accumulation in dorsal root ganglion neurons. Using a xenobiotic transporter screen, we identified OATPIB3 as a neuronal transporter regulating the uptake of vincristine. In addition, genetic or pharmacological inhibition of the murine orthologue transporter OATPIB2 protected mice from various hallmarks of VIPN – including mechanical allodynia, thermal hyperalgesia, and changes in digital maximal action potential amplitudes and neuronal morphology – without negatively affecting plasma levels or antitumor effects of vincristine. Finally, we identified  $\alpha$ -tocopherol from an untargeted metabolomics analysis as a circulating endogenous biomarker of neuronal OATPIB2 function, and it could serve as a companion diagnostic to guide dose selection of OATPIB-type transport modulators given in combination with vincristine to prevent VIPN. Collectively, our findings shed light on the fundamental basis of VIPN and provide a rationale for the clinical development of transporter inhibitors to prevent this debilitating side effect.



**Title:**

**Phytochemical Screening and Anti-dandruff Activity of Fruit Husk Extracts of *Cassia fistula* Linn.**

**Mariam Busharat, Faiza Azhar, Ahsan Iqbal, Zainab Waheed, Muhammad Nauman Jamil**

**Abstract**

Medicinal plants play a substantial role in treating various disorders. This study aims to evaluate the phytochemicals and anti-dandruff activity of a fruit husk of *Cassia fistula* Linn as a remedy for treating dandruff. Various extracts of fruit husk were extracted using sequential extraction methods, namely n-hexane, chloroform, and methanol. Primarily, the polyphenols and flavonoids of the various extracts were determined. The methanol extract contained the maximum number of polyphenols ( $48.97 \pm 0.27$ ), while the flavonoids were found in a large amount in the n-hexane extract ( $123.0 \pm 0.82$ ). Anti-dandruff activity was performed using a well-diffusion method against *Malassezia* species. At 1.0 g/mL concentration, n-hexane showed a zone of inhibition of 12.5 mm, while 18.50 mm and 20.50 mm at concentrations of 1.5 g/mL and 2.0 g/mL, respectively. At the concentration of 3000 mg/mL, the inhibition zone of 23.60 mm was observed. Extracts of *Cassia fistula* linn were effective for the treatment of dandruff. Therefore, in vivo studies are crucially required to explore the mechanism of action

**Title:**

**Medicine Related Problems (MRPs) in Adult Patients with Asthma and Chronic Obstructive Pulmonary Disease (COPD)**

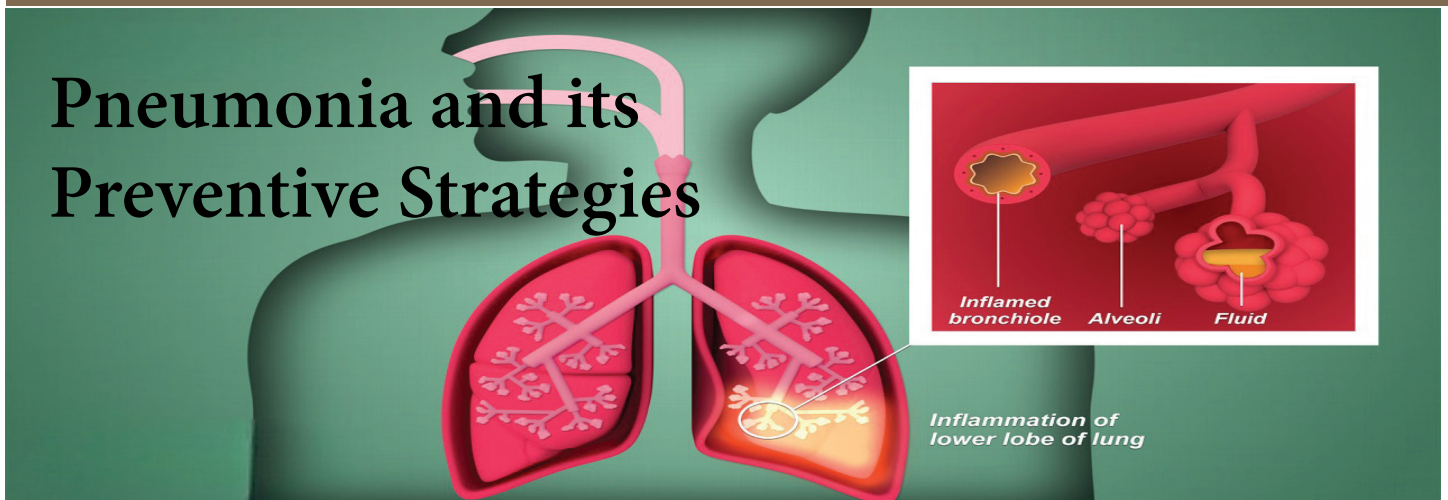
**E.S. Packer , Sulaf Assi , Abdullah Al Hamid**

**Abstract**

Asthma and Chronic Obstructive Pulmonary disease (COPD) have been classified as non-communicable diseases by the World Health Organization (WHO). These diseases contribute to the occurrence of around 4.2 million deaths globally. Medicine related problems (MRPs) refer to incidents associated with medicine therapy that interfere in the desired health outcomes. Patients with asthma and/or COPD are likely to encounter MRPs due to ineffective treatment, adverse drug reactions (ADRs), and/or medication errors (MEs). Therefore, the current study aimed to identify the prevalence, causes, and risk factors of MRPs among adult patients with asthma and/or COPD. A systematic literature review was conducted using 13 databases. These databases included PubMed, NELM, Embase, Scopus, ISI Web of Knowledge, ScienceDirect, PsycInfo, British Nursing Index, Global health, International Pharmaceutical Abstracts, PsycExtra, and Cochrane Library. 'Medicine related problems (MRPs)' 'adults' 'asthma' 'adverse drug reactions (ADRs)' 'drug related problems (DRPs)' 'adverse drug events (ADEs)' medication errors (MEs)', and 'Chronic Obstructive Pulmonary Disease' '(COPD)' were used as search items. Only quantitative studies, which investigated MRPs in adult patients with asthma and/or COPD, were included. The results of the review retrieved initially 1146338 titles that were considered. The analysis of the titles of these studies identified 55 relevant abstracts, of which, 15 were included in the review. The data extracted from these studies showed that the MRPs had a prevalence rate of 39.8%, ADRs 4.6%, while MEs had a prevalence rate of 66.9%. The comparison of these prevalence rates showed that MEs and MRPs had a higher prevalence than ADRs. Theophylline was reported to have the highest prevalence rate of MRPs which required special consideration to ensure its safe use by patients. The findings of the current study would potentially provide insights pertaining to the reduction of the high rate of MRPs.

# Health Corner

## Pneumonia and its Preventive Strategies



**By Dr Rabia Altaf (Associate Professor, SPH)**

Cool breezes passing through Lahore have created health hazards to the most vulnerable ones of society as children and adults. Clinics and healthcare centers are witnessing rise in patients with complaints of cough and cold, with few getting severe attacks of pneumonia and chest infections. Pneumonia often starts with the symptoms of flu and cough worsening every day and symptoms remain persistent for long if not treated properly. It is caused by either bacterial attack or viral and is the single largest infectious cause of death in children.

The diagnosis of pneumonia is carried out with the help of chest X-rays, blood tests, and a few other tests that may give an idea of the severity of the infection. Recently, butterfly iQ, a hand-held ultrasound scanner was introduced in the market for immediate diagnosis of pneumonia. Still, it needs a smartphone to function effectively making it a bit expensive choice for 3rd world countries. WHO and UNICEF have created a 3-step plan to combat the fatality of pneumonia including prevention, treatment, and protection.

A few steps must be taken to prevent the attack of pneumonia in such a cold-prone environment as keeping up-to-date vaccinations for children starting at 2 months to prevent any such nuisance. Children, adults, and all those bound to take exposure daily either for job or study must be taught to cover their noses and mouths either with a facial tissue or mask to prevent the entry of germs through their breath. Sneezing or coughing episodes must be taken as a serious issue and one must be taught to cover the mouth and nose while sneezing or coughing. Regular hand washing must be made a part of our norm and must refrain from touching any child unduly. Smoking-free zones must be enhanced to keep the air clean and prevent air-borne particles from entering our mouths or nose.

Pneumonia may be diagnosed later but immediate measures to combat high-grade fever by keeping one hydrated and covered must be adapted. Healthcare practitioners must immediately be consulted rather than using over-the-counter drugs to deal with the episode of pneumonia attack. Keeping a safe distance from others and staying at home maximum in peak hours of cold winds as directed by the government are the few adaptations we can hold on to until the weather declines back to normal.

### References:

- 1.<https://www.devex.com/news/opinion-preventing-pneumonia-must-involve-more-than-tech-tools-94918>
- 2.<https://www.nationwidechildrens.org/conditions/pneumonia>