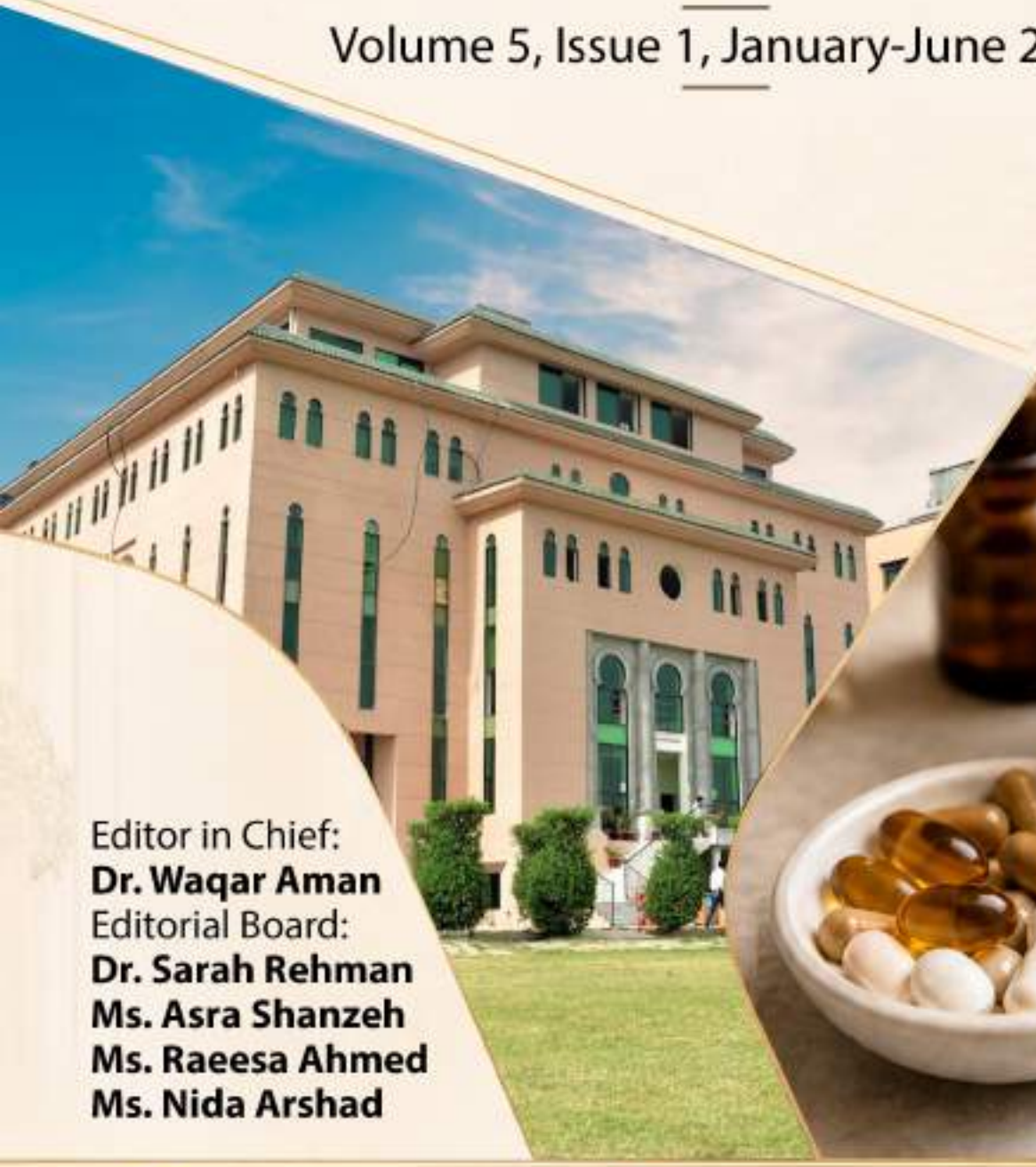
UMT | SPH
School of Pharmacy

SCHOOL OF PHARMACY NEWSLETTER

Volume 5, Issue 1, January-June 2026





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News in Brief

UMT School of Pharmacy organised the **2nd International Conference on Healthcare Challenges and Innovations in the 21st Century (HCIC- 2026)**, bringing together national and international experts to discuss emerging trends in digital health and pharmacy.

SPH signed a Memorandum of Understanding with the **University of Naples Federico II, Italy**, establishing a framework for collaborative research, academic exchange, and joint scholarly initiatives.

The Pharmacy Council of Pakistan carried out an **accreditation visit** to evaluate SPH's academic programmes, faculty, facilities, and infrastructure, reaffirming the School's commitment to quality pharmaceutical education.

SPH students represented UMT at the **4th AAU Health & Biomedical Postgraduate Symposium in Abu Dhabi**, where they secured first place in the Poster Presentation category at an international research forum.

Dr. Abdul Qayyum Khan was awarded the prestigious **Fulbright Postdoctoral Fellowship** at Vanderbilt University, reflecting SPH's growing contribution to high-impact research.

The UMT School of Pharmacy successfully conducted the **Objective Structured Clinical Examination (OSCE)**, providing a comprehensive assessment of students' clinical knowledge, communication skills, and professional competence through simulated patient-care scenarios.





Editorial

Dear Readers,

It is my pleasure to present the first 2026 edition of the School of Pharmacy Newsletter. In this issue, it reflects the progress our School made during this period and highlights our continued commitment to excellence in pharmacy education, research, and community engagement.

During the first half of 2026, SPH achieved several important milestones, including the successful organization of the 2nd International Conference on Healthcare Challenges and Innovations in the 21st Century (HCIC-2026), the signing of a Memorandum of Understanding with the University of Naples Federico II, Italy, the successful conduct of the Pharmacy Council of Pakistan accreditation visit and the Objective Structured Clinical Examination (OSCE). We also celebrate the remarkable accomplishments of our faculty and students, including the prestigious Fulbright Postdoctoral Fellowship awarded to Dr. Abdul Qayyum Khan and our students' first place success at the AAU Health & Biomedical Postgraduate Symposium in Abu Dhabi, U.A.E.

This edition also highlights our continued commitment to research, faculty development, student success, and meaningful industry collaborations that prepare our graduates to meet the evolving challenges of healthcare.

I extend my sincere appreciation to our faculty, students, industry partners, and the editorial team for their valuable contributions. I hope you enjoy reading this edition and thank you for your continued support of the School of Pharmacy.

Kind Regards,
Dr. Waqar Aman
Editor-in-Chief
Dean, School of Pharmacy



Editorial

Dear Readers,

It gives me great pleasure to share the latest issue of the School of Pharmacy's quarterly newsletter showcasing the achievements and experiences of our students and faculty. This issue highlights our students' academic and professional journey including their community engagement initiatives and valuable COOP experiences across pharmaceutical industries, hospitals and healthcare organizations.

I appreciate the dedication and commitment of our students, faculty and staff towards the continued growth and excellence of the School of Pharmacy. I hope you enjoy this issue and remain connected with us as we continue our journey of excellence, innovation and impact.

Warm regards,

Kind Regards,
Prof. Dr. Ejaz Cheema
Vice Rector Academic & Former Founding Dean SPH
University of Management and Technology (UMT)

SPH Activities

Fulbright Postdoctoral Fellowship Award

UMT School of Pharmacy is pleased to announce that Dr. Abdul Qayyum Khan (Associate professor at SPH) has been awarded a postdoctoral fellowship under the Fulbright Scholarship Program at Vanderbilt University, Tennessee. The Fulbright award is highly competitive, and this achievement reflects the calibre of research being conducted at SPH.



Meet the Dean Session

The SPH Participant Council convened a Meet the Dean session with Prof. Dr. Ejaz Cheema, thereby providing students, a direct platform to engage in open dialogue on academic matters, voice their concerns, and put forward recommendations for institutional improvement.



Road Safety Seminar in Collaboration with National Highway and Motorway Police

SPH, in collaboration with the National Highway and Motorway Police, organised a Road Safety Seminar to promote awareness among its students. Officers of the Motorway Police apprised participants of prevailing traffic regulations, the principal causes of road accidents, and the consequences of unsafe driving practices.





SPH Welcomes Its New Dean Dr. Waqar Aman

UMT School of Pharmacy welcomes Dr. Waqar Aman upon his appointment as Dean, marking a significant milestone in the school's continued pursuit of academic excellence. His appointment reflects considerable professional experience and visionary leadership that will further strengthen the institution's academic and administrative standing.



Launch of the SPH Journal Club

Ms. Amna Khalid, Lecturer at SPH launched a Journal Club aimed at strengthening students' ability to critically appraise published research. The club focuses on evidence-based medicine and peer-reviewed literature, encouraging students to question and interpret findings.





Pharmacy Council of Pakistan Delegation Visit to SPH

The Pharmacy Council of Pakistan (PCP) conducted an accreditation visit to UMT School of Pharmacy to evaluate its academic programs, faculty, facilities, and infrastructure against the prescribed standards. The school remains committed to maintaining and continuously enhancing the quality benchmarks required for excellence in pharmaceutical education.





Exam Board Meeting 2025 on Semester Result Review

SPH, under the leadership of Dean Dr. Waqar Aman, organized an Exam Board Meeting to comprehensively review examination results across all semesters, encompassing performance trends and subject-wise outcomes. The proceedings placed particular emphasis on transparency and equity throughout the evaluation process.





Session with the Dean Organised by the SPH Participant Council

The UMT School of Pharmacy Participant Council organised a session for final-year students with Dean Dr. Waqar Aman, centred on the transition from academic life to professional practice. Dr. Waqar Aman addressed concerns regarding examinations, skill development, and career preparedness, encouraging students to navigate this transition with confidence.



Training Session on High Performance Liquid Chromatography (HPLC)

SPH conducted a professional training session on HPLC for its faculty members, reaffirming its commitment to continuous professional development. The hands-on training encompassed calibration, method development, data interpretation, and instrument handling, equipping participants with practical analytical competencies.





Farewell Ceremony Held in Honour of Batch 2021

SPH convened a farewell ceremony in honour of the graduating Batch 2021, marking the culmination of their academic journey within the institution. Faculty and students gathered to reflect upon the milestones, achievements, and shared experiences of their academic journey.



2nd International Conference on Healthcare Challenges and Innovations in the 21st Century (HCIC-2026)

The UMT School of Pharmacy successfully organised the 2nd International Conference on Healthcare Challenges and Innovations in the 21st Century (HCIC-2026) on 10–11 June 2026 at UMT, Lahore, under the theme "Digital Health and Pharmacy." The conference brought together researchers, clinicians, academicians, and industry experts to exchange knowledge and discuss emerging advancements in artificial intelligence, drug discovery, genomics, and personalised medicine.



"Objective Structured Clinical Examination (OSCE) at SPH" .

SPH Conducted its Objective Structured Clinical Examination (OSCE), rigorously assessing students' clinical knowledge, communication skills, and professional judgement through a series of meticulously simulated healthcare scenarios. Examiners and role players participated alongside students to recreate realistic clinical conditions, thereby providing a comprehensive evaluation of their overall competence.

Guest Session on the Ethical Use of Technology

SPH organised a guest session on the Ethical Use of Technology, delivered by Dr. Abdullah Asif Mustafai. The session addressed data privacy, artificial intelligence, and the ethical responsibilities associated with the healthcare profession.











Session on Total Parenteral Nutrition: "Precision Beyond the Gut"

The UMT School of Pharmacy organised an academic session on Total Parenteral Nutrition (TPN), titled "Precision Beyond the Gut," delivered by Ms. Merium Fatima. The session provided a comprehensive overview of aseptic techniques, precision in TPN compounding, and the critical clinical responsibilities of pharmacy professionals in ensuring safe and effective parenteral nutrition therapy.





Guest Session on Regulatory Affairs

The School of Pharmacy organised a session on Regulatory Affairs for final-year students, delivered by Dr. Alamgir Rao and Dr. Umair Ikram Dar. The speakers provided valuable insights into the regulatory processes governing the development, approval, and post-marketing surveillance of pharmaceutical products.







Session on the Development of the Pharmacy Profession in Pakistan

The UMT School of Pharmacy expresses its sincere gratitude to Dr. Ayaz Ali Khan for delivering an insightful session on the evolution of the pharmacy profession in Pakistan. The session explored the profession's historical development, the challenges it has faced, and the opportunities available to the emerging generation of pharmacists.





Session on Nano Therapeutics: A Smart Medicine for Targeted Therapy

UMT School of Pharmacy organized a session on Nano Therapeutics delivered by Dr. Farah Rehan. The session highlighted targeted therapy as a significant direction for the future of pharmaceutical science.

Panel Discussion on "Learning Beyond Classroom: Insights from Pharma Leaders"

SPH hosted a panel discussion, "Learning Beyond Classroom: Insights from Pharma Leaders,". Panellists Dr. Zafar Mustafa Jajjah, Dr. Shahzad Khan, Mr. Mian Asad Shuja-ur-Rehman, and Mr. Sheraz Gulfam addressed career paths and industry expectations.



Session on "Turning Ideas into Scalable Start-ups"

SPH organized a session on transforming ideas into scalable start-ups, positioning entrepreneurship as a viable career trajectory within the pharmaceutical profession delivered by Dr. Muhammad Zaman, Associate Professor at the University of Central Punjab. The session offered practical insights substantiated by real-world examples rather than theoretical business constructs alone.





Guest Lecture: "Life, Medicine, Culture and Biology: How It All Comes Together"

UMT School of Pharmacy hosted Prof. Rui Pedro Boliqueime Martins Diogo of Howard University's College of Medicine at the SHS Campus for a lecture titled "Life, Medicine, Culture and Biology: How It All Comes Together." The lecture examined the intersections between biological science and the cultural and philosophical dimensions of medicine.



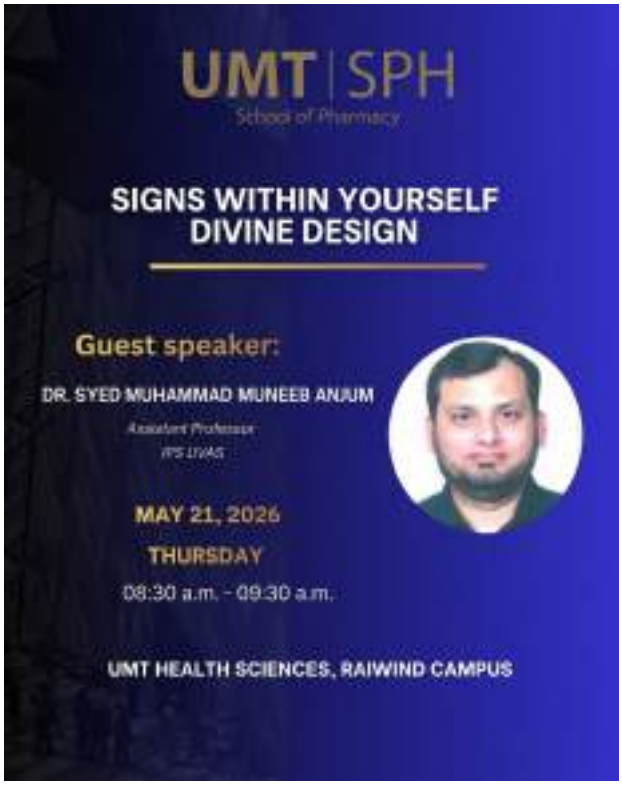




Guest Lecture on "Signs Within Yourself – Divine Design"

The UMT School of Pharmacy organised a lecture titled "Signs Within Yourself – Divine Design," delivered by Dr. Syed Muhammad Muneeb Anjum from IPS, UVAS. The lecture explored human biology through both scientific and reflective perspectives, thoughtfully linking the complexity of human anatomy with its broader philosophical and spiritual significance.





Industry Academia Linkages

Visit to CCL Pharmaceuticals

Dean Dr. Waqar Aman, accompanied by Ms. Asra Shanzeh and Mr. Muaaz Munir, visited CCL Pharmaceuticals and met with President Mr. Akram Mohammad to explore opportunities for academia–industry collaboration. Discussions focused on student development initiatives, internship opportunities, and other areas of mutual interest and benefit.



Industry Study Tour to OBS Pharma

SPH organised an industrial study tour to OBS Pharma, with faculty members accompanying students to provide firsthand exposure to pharmaceutical manufacturing processes and quality control practices. The visit enabled students to observe the practical application of theoretical concepts in a modern industrial environment





Hands-On Workshop on PowerLab Data Acquisition System at University of Lahore

MPhil students from SPH participated in a hands-on workshop on the PowerLab Data Acquisition System at the University of Lahore, facilitated by Dr. Amber Sharif. The workshop provided comprehensive training in data acquisition, recording, and analysis techniques relevant to pharmaceutical and biomedical research, enhancing students' practical and technical competencies.





MoU Signed Between SPH and University of Naples Federico II

The UMT School of Pharmacy has formalised a Memorandum of Understanding (MoU) with the Department of Pharmacy at the University of Naples Federico II, a globally renowned institution ranked 379th in the QS World University Rankings 2026 and 3rd worldwide for Pharmacy and Pharmaceutical Sciences in the Shanghai Ranking. The MoU establishes a framework for collaborative research, student and faculty exchange, and joint scholarly publications.





Student Corner

SPH Students Secure Bronze Medal at Pharma Nexus 1.0 Pharmacology Quiz Competition

The UMT School of Pharmacy team, led by Ms. Saba, secured third position and a Bronze Medal at Pharma Nexus 1.0, a PharmacologyQuizCompetition hosted by Forman Christian College. This achievement reflects the students' strong academic preparation, subject knowledge, and ability to perform with distinction in a competitive inter-institutional environment.



SPH Students Shine at 4th AAU Health & Biomedical Postgraduate Symposium

Students from the UMT School of Pharmacy represented the University at the 4th AAU Health & Biomedical Postgraduate Symposium, held at Al Ain University, Abu Dhabi, on 29 January 2026, under the UMT-URISE initiative and the supervision of Dr. Hammad Ullah.. In recognition of their outstanding research, the team comprising Laiba Nadeem, Javeria Rasheed, Shahroz Mehmood, and Mehak Riaz secured first position in the Poster Presentation category, marking a distinguished achievement at an international research forum.





Shining Stars of SPH

The Shining Stars of SPH initiative continues to recognise students who demonstrate outstanding academic commitment, perseverance, and exemplary character. This edition celebrates Abdul Hafeez for his consistent dedication to academic excellence and his positive contribution to the School of Pharmacy community.

Rector's and Dean's Merit Awards Distribution Ceremony

The UMT School of Pharmacy proudly celebrates the outstanding academic achievements of its students, who were honoured with Rector's and Dean's Merit Awards for the Fall 2025 Final Merit List. These recognitions reflect the students' dedication, academic excellence, and the School's continued commitment to fostering a culture of achievement.



From Medicinal Plants to Herbal Formulations

Under the mentorship of Ms. Tangina, fifth-semester students developed a series of plant-based herbal formulations as part of a Pharmacognosy project. The activity showcased their practical skills, understanding of medicinal plants, and application of theoretical knowledge in pharmaceutical sciences.



Anatomical Models Display: A Hands-On Initiative by Second Semester Students



Under the supervision of Ms. Amna Khalid, the UMT School of Pharmacy organised an Anatomical Model Display Competition. Students created detailed clay models of human anatomy, reinforcing classroom learning through hands-on, experiential practice.

Biochemistry Projects Presented by First Semester Students

SPH organized Biochemistry project display competition for first semester students. The projects demonstrated a sound understanding of foundational biochemical concepts, alongside the careful and diligent application of classroom learning.



Pharmaceutical Technology Project Exhibition: Tenth Semester PharmD Students

The UMT School of pharmacy organized an intellectually appealing Pharmaceutical Technology project display competition, conducted under the supervision of M. Zeeshan Shamshair. Each project reflected commendable technical proficiency, sound scientific understanding, and effective collaborative teamwork among participants.







Research Corner

Research Symposium on Apoptosis and Ferroptosis in Glioblastoma Cell Death

UMT School of Pharmacy organised a Research Symposium delivered by Dr. Ayesha Atiq, Assistant Professor, titled "Elucidation of Apoptosis and Ferroptosis Mediated Cell Death Induced by Synergistic Combinations of Chrysin and Lentinan in Human Glioblastoma." The session explored novel mechanisms of programmed cell death, offering valuable insight into emerging therapeutic strategies for glioblastoma.



ABSTRACTS

RECRYSTALLIZATION STRATEGIES FOR BIOPHARMACEUTICS CLASSIFICATION SYSTEM (BCS) CLASS II DRUGS: IMPACT ON DISSOLUTION RATE AND ORAL BIOAVAILABILITY

Waqas Ahmad, Mubeen Fatima, ... Amber Sharif, Muzammil Raza

For class II drugs of Biopharmaceutics Classification System (BCS), poor water solubility remained one the greatest challenge in modern pharmaceutical development. Notwithstanding, these drug can pass effortlessly through biological membranes due to their high permeability, their low dissolution in aqueous media prohibit them from absorption. Henceforth, dissolution rate emerges as rate limiting step for their absorption through oral route. Multiple formulation and particle engineering technologies, including solid dispersion, size reduction, lipid based delivery, complexation and recrystallization have been implemented for this purpose. Among them, recrystallization has emerged as a cos-effective, user friendly, and scalable method for refining dissolution by modifying crystal properties devoid of changing chemical structure. Although, it was considered purely as a refining method used during synthesis, recrystallization is now known as prevailing crystal engineering tool proficient for modifying the physical characteristics of active pharmaceutical ingredients without altering their chemical identity. The controlling factors

such as temperature, solvent selection and recrystallization condition can be carefully controlled to modify crystal shape, size, surface properties, wettability, and polymorphic form. Ultimately, these changes directly impact dissolution rate and bioavailability of a drug. Here, we explored the scientific basis of recrystallization and discussed about the contribution of the process to enhance dissolution of BCS Class II drugs. Furthermore, the mechanism behind dissolution enhancement has also been elaborated.

Development and validation of RP-HPLC method for simultaneous determination of metformin hydrochloride, Empagliflozin, and Pitavastatin

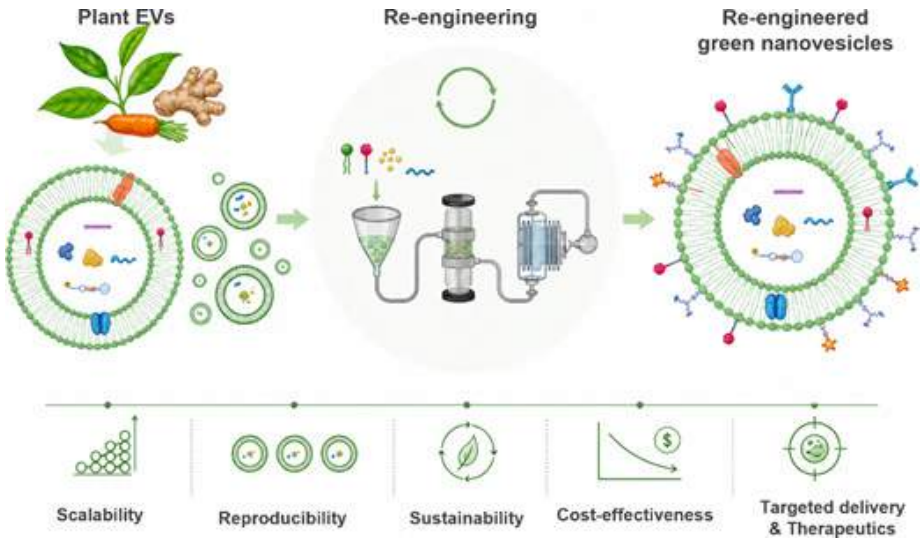
Mr. M Zeeshan Shamshair

HPLC is an analytical method that provides precise, accurate, and simultaneous quantification of one or more drugs in the formulation, ensuring an accurate dose of active ingredients. The current research work focuses on developing and validating a reversed-phase high-performance liquid chromatography (RP-HPLC) procedure that can quantify three drugs, i.e., Empagliflozin, Pitavastatin, and Metformin HCl, simultaneously. The validation of the developed method was performed as per the Q2 (R1) guidelines of the International Council for Harmonization (ICH). The analytical procedure was performed on a Shimadzu HPLC system, having an Agilent C18 column (250 mm × 4.6 mm, 5 µm). The chromatography method used an isocratic mobile phase comprising a solution A having pH 3.5 ± 0.05 (consisting of KH2PO4 solution with the ion-pairing agent i.e., sodium 1-heptanesulfonate), and acetonitrile mixed in a 55:45 V/V ratio, pumped at a flow speed of 1.20 mL min−1. Wavelength was set at 260 nm (3.4 min) and 220 nm (12 min) to detect the peaks of the drugs at column oven temperature maintained at 25 °C. The method was characterized by determining and evaluating different values, including linearity, precision, robustness, system suitability, solution stability, and specificity. The approximate retention time for Metformin HCl was 2.0 min, for Empagliflozin was 4.1 min, and for Pitavastatin was 8.5 min. The results of the research showed that all three drugs were effectively distinguished with excellent resolution. The value of linearity was determined by using concentrations ranging between 5 and 7.5 µg mL−1 for Empagliflozin, 0.4–0.6 µg mL−1 for Pitavastatin, and 100–150 µg mL−1 for Metformin HCl. The values of R2 were 0.9999, 0.9999, and 0.9991, for Pitavastatin, Empagliflozin, and Metformin HCl, respectively. The method was proven to be accurate, with recovery values of 99.70–100.08% for Pitavastatin, 100.55–101.23% for Empagliflozin, and 98.15–101.76% for Metformin HCl. The results of the study demonstrated that the developed procedure was linear, precise, rapid, accurate, robust, and found to be applicable for the simultaneous determination of Metformin HCl, Pitavastatin, and Empagliflozin.

From Paramural Structures to Re-Engineered Nanocarriers: Progress and Limitations of Green Nanovesicles in Drug Delivery

Asra Shazeh shabbir……. Haseeb Anwar Dad

Plant extracellular vesicles have taken decades to be established as genuine biological entities. The research, which was once solely of the concern of plant scientists, is now gaining immense attention among nanomedicine scientists because of their interking-dom communication role, resulting in a therapeutic action. In addition to this, their general biocompatibility, low observed toxicity in many systems, and appeal of plant-based sourcing have positioned them as attractive candidates for drug delivery. However, their translation is constrained by substantial source-dependent variability in vesicle composition and physicochemical properties along with ongoing inconsistencies in isolation, characterization, and nomen-clature. In this Review, we trace the field from early observations of paramural vesicle-like structures in plants to the current efforts that position plant-derived vesicles in drug delivery and nanotherapeutics. We discuss proposed biogenesis pathways and provide a summary of the recent progress in biomedical applications. Importantly, we also examine how unresolved issues in nomenclature, isolation, and formulation control continue to complicate interpretation across the field and shape the move toward reengineered vesicular systems. A central focus of this Review is how plant-derived vesicles are re-engineered into more uniform, controllable nanovesicles, with the goal of improving formulation consistency, scalability, and drug-loading performance while retaining favorable lipid-mediated attributes. Finally, we critically compare these systems with conventional liposomes, highlighting both opportunities and limitations in framing plant extracellular vesicles as green alternatives to complex therapeutic needs. Overall, this Review aims to update the field while explicitly outlining the key bottlenecks in reproducibility, standardization, and translational development that must be addressed for clinical translation and commercial development.



HEALTH CORNER

MYTH vs FACT
Unlearn Today → Practice Better Tomorrow
By Muhammaz Muaaz Munir (Lecturer SPH)

Why This Matters

Pharmacy education equips students with scientific knowledge, but real competence lies in applying that knowledge correctly. Surprisingly, many misconceptions persist even among students, influencing daily decisions and future professional practice. Misinformation in healthcare is not just misunderstanding; it can directly affect patient outcomes.

1: Antibiotics Cure All Infections

Myth: Antibiotics work for colds, flu, and all infections
Fact: Antibiotics are effective **only against bacterial infections**

Why it matters:
Misuse leads to **antimicrobial resistance (AMR)**—a growing global crisis.

Pharmacy Insight:
Rational antibiotic use is not optional—it's a professional responsibility.

2: Less Sleep = More Productivity

Myth: Staying up late improves performance
Fact: Sleep is essential for **memory, focus, and cognition**

Quick Tip:
- 6–8 hours of sleep = better retention
- All-nighters = poor recall + fatigue

3: Stop Medication When You Feel Better

Myth: Symptoms gone = treatment complete
Fact: Early discontinuation can cause **relapse & resistance**

Clinical Impact:
Incomplete therapy may allow pathogens to return—often stronger.

4: Natural Means Safe

Myth: Herbal products are harmless
Fact: Natural substances can cause **side effects & interactions**

Example Insight:
Herbal products may alter liver enzymes, affecting drug metabolism.

Remember:
"Natural" is a marketing term—not a guarantee of safety.

5: Caffeine Is the Best Study Tool

Myth: More caffeine = more focus
Fact: Excess leads to **anxiety, palpitations, poor sleep**

Better Alternative:
Hydration + sleep + balanced diet > energy drinks

6: OTC Drugs Are Completely Safe

Myth: No prescription = no risk
Fact: OTC misuse can cause **serious adverse effects**

Examples:
- NSAIDs → gastric irritation
- Overuse → organ/tissue damage
- Masking symptoms → delayed diagnosis

7: More Skincare = Better Skin

Myth: Multiple products give better results
Fact: Overuse damages the skin barrier

Best Approach:
- Minimal, Consistent & Evidence-based

8: All Side Effects Are Dangerous

Myth: Any side effect means stop the drug
Fact: Some are **expected and manageable**

Key Skill for Pharmacists:
Differentiate between:
- Mild/ tolerable effects & Serious adverse reactions



Final Reflection

Bridge the Gap: Knowledge alone is not enough. Many myths persist because of habits, not because of a lack of knowledge. True professionalism requires:

- Applying evidence in real-life scenarios (Question what you hear)
- Challenging misinformation (verify what you practice)
- Educating patients and peers (apply what you learn)

Remember: "True expertise lies not in knowing more—but in believing less of what is unverified."

