



UMT

School of Pharmacy Newsletter

Volume 4, Issue 1, January - March 2025



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EDITORIAL

Dear readers,

As we embark on another exciting quarter, I am delighted to present to you the latest edition of the School of Pharmacy (SPH) quarterly Newsletter. This issue marks the completion of three successful years of SPH that is defined by our commitment to academic excellence and innovation built on the outstanding contributions of our students, faculty and staff.

I would like to extend my gratitude to all who have played a key role in the growth of SPH, and I look forward to seeing even greater accomplishments as we move forward.

Thank you for your continued engagement and support, and I hope you find this issue both informative and inspiring.



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

News in Brief

- SPH proudly celebrates three successful years of academic growth and achievement, marking a remarkable journey of excellence, innovation and progress in pharmacy education.
- SPH feels proud to complete two successful years of its peer reviewed journal "Currents in Pharmaceutical Research" (CPR), publishing two volumes and earning HEC Y-Category recognition.
- SPH community and civic service has completed over 200 community service projects since the launch of the service in August 2023. These projects include health awareness camps, blood donation drives, visit to orphanages and old homes, Iftar drives and food drives in collaboration with various NGOs aligned with the UN SDG goals; Zero Hunger (Goal#2), Good Health and Well-being (Goal#3), Quality education (Goal#4) and Partnerships for goals (Goal#17). The active participation of SPH in multiple plantation drives demonstrates our strong commitment to upholding the standards of Health, safety and Environment (HSE).

SPH Journey

The Journey of UMT School of Pharmacy: A Legacy of Excellence

UMT SPH proudly marks three years of excellence, a journey defined by research advancements, academic innovation and an unwavering commitment to shaping the future of pharmacy education.

The SPH embarked on its journey three years ago. A significant milestone was achieved in January 2022 when the school secured the NOC from the Pharmacy Council of Pakistan, marking the official recognition of Pharm D program. Shortly thereafter, in February 2022, the first batch of students was welcomed, laying the foundation for a thriving educational institution dedicated to shaping the future of pharmacy professionals.

The SPH as per its vision and mission aligned with the evolving role of pharmacists is committed to producing knowledge, competent, professional and above all ethical pharmacists to serve the national and international healthcare needs. Since the inception of school over three years ago, SPH has adopted innovative teaching and learning pedagogies for the students including flipped classroom, Problem based learning, simulation-based teaching, Interprofessional education (IPE) and peer observation to promote the culture of continuous learning and ensure teaching excellence at the school. As a result of the introduction of innovative teaching and learning methods at school, the school has consistently achieved excellent student feedback score in all semesters since the launch of Pharm.D program.

The SPH is the first school in Pakistan that has introduced simulation-based teaching using a virtual pharmacy teaching tool (MyDispense) in pharmacy practice and clinical pharmacy teaching. Likewise, the school has also taken lead in conducting the Objective Structured Clinical Examination (OSCE) to prepare students for the international pharmacy licensing exams. SPH is the only school of pharmacy in Pakistan that has fully implemented Outcome based education (OBE) in the Pharm.D program to ensure student centered learning. OBE is objective and outcome driven, where every stated objective and outcomes is assessed and evaluated.

The school strongly believes in the globalization of its programs and is actively facilitating its students in securing international scholarships and placements. Last year two of our 8th semester students were selected out of the 36,000 applicants from all over Pakistan for the highly competitive and prestigious UGRAD scholarship. These two students are currently completing their spring semester in the University of Toledo, OHIO and in Indiana University of Pennsylvania in Indiana US. Furthermore, the school arranges international webinars for students more or less on monthly basis to diversify their learning experience. The school has maintained a strong focus on research and has launched its first peer-reviewed and open access international journal "Currents in Pharmaceutical Research" (CPR). CPR has now successfully published the first two volumes and has also received recognition by HEC in the Y category.

The school firmly believes in developing strong linkages with leading pharmaceutical industries, hospitals, retail pharmacies and academic institutions. The organisation of the first International Conference on Healthcare and Innovation (HCIC 2025) in collaboration with our partners from Pharmaceutical Industries including Highnoon, Hospitals including Evercare hospital and retail pharmacies including clinix pharmacy and green pharmacy is a testament of our strong academia industry linkage.

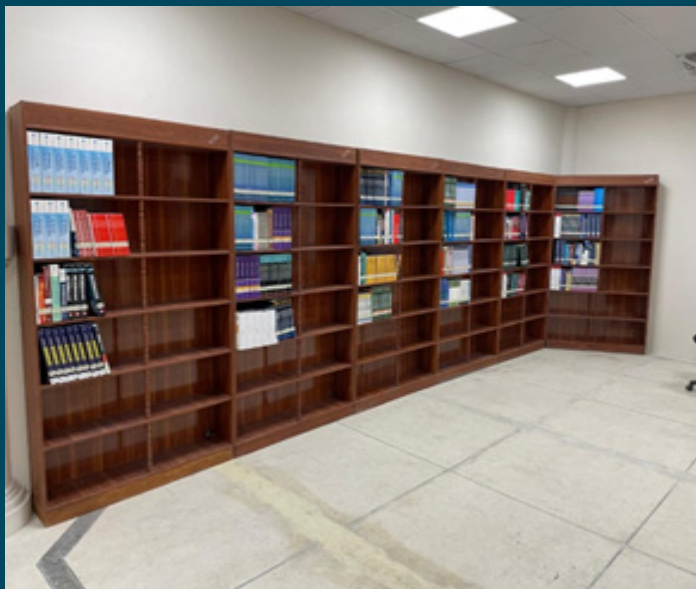
The UMT School of Pharmacy stands as a beacon of excellence, driven by dedication and perseverance. With a vision to lead in pharmaceutical education and research, it continues to inspire and empower the next generation of pharmacy professionals, setting new benchmarks of academic and professional distinction.

How It started



How it is Now

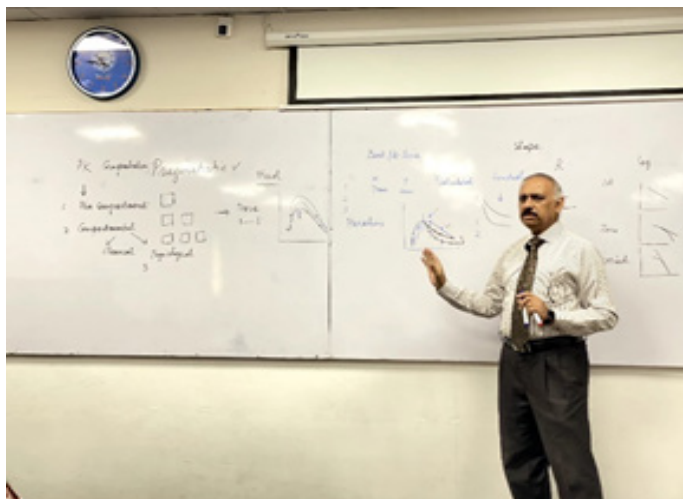




SPH Activities

Seminar on computational approaches for Pharmacokinetics: Applications and trade-offs in drug development and research

The School of Pharmacy recently organized a seminar on “Computational Approaches for Pharmacokinetics: Applications and Trade-offs in Drug Development and Research,” delivered by Professor Dr. Nadeem Irfan Bukhari. His talk focused on the significance of pharmacokinetic models in drug development, highlighting how computational tools are transforming the prediction of drug absorption, distribution, metabolism, and excretion (ADME). He discussed the advantages of these models in optimizing drug formulations, reducing experimental costs, and enhancing the precision of pharmacokinetic assessments. Additionally, he addressed the challenges associated with data accuracy, model validation, and regulatory acceptance. The seminar provided an insightful discussion on the balance between computational efficiency and experimental validation, emphasizing the growing role of technology in modern pharmaceutical research.



School of Pharmacy Exam

SPH successfully conducted its Exam Board Meeting for the Fall 2024 Semester, where faculty members presented and reviewed the results of their respective courses before the official declaration. This essential academic exercise not only ensures transparency and accuracy in grading but also serves as a platform to identify both high-achieving and struggling students.

The discussion further facilitated the implementation of necessary corrective measures to enhance academic performance in the upcoming semester. The Exam Board remains a cornerstone of SPH's commitment to academic excellence and continuous improvement.



Session on Upholding Ethical Standards in Research Supervision

Dean SPH, Dr Ejaz Cheema had the privilege to engage with PhD and MS supervisors in a stimulating session on “Ethical Research Practices” as part of the Advanced MS/MPhil/PhD Research Supervision Course organized by CTL UMT. This module probed the fundamental principles of ethical research, emphasizing Autonomy, Beneficence, Non-maleficence, Justice, Informed Consent, Confidentiality, Data Protection, and Integrity. The discussion reinforced the crucial responsibility of supervisors in fostering a research culture rooted in ethical impartiality and academic integrity. The session gave a take home message to reaffirm our commitment to upholding the highest ethical standards and ensuring the credibility and impact of scholarly research.



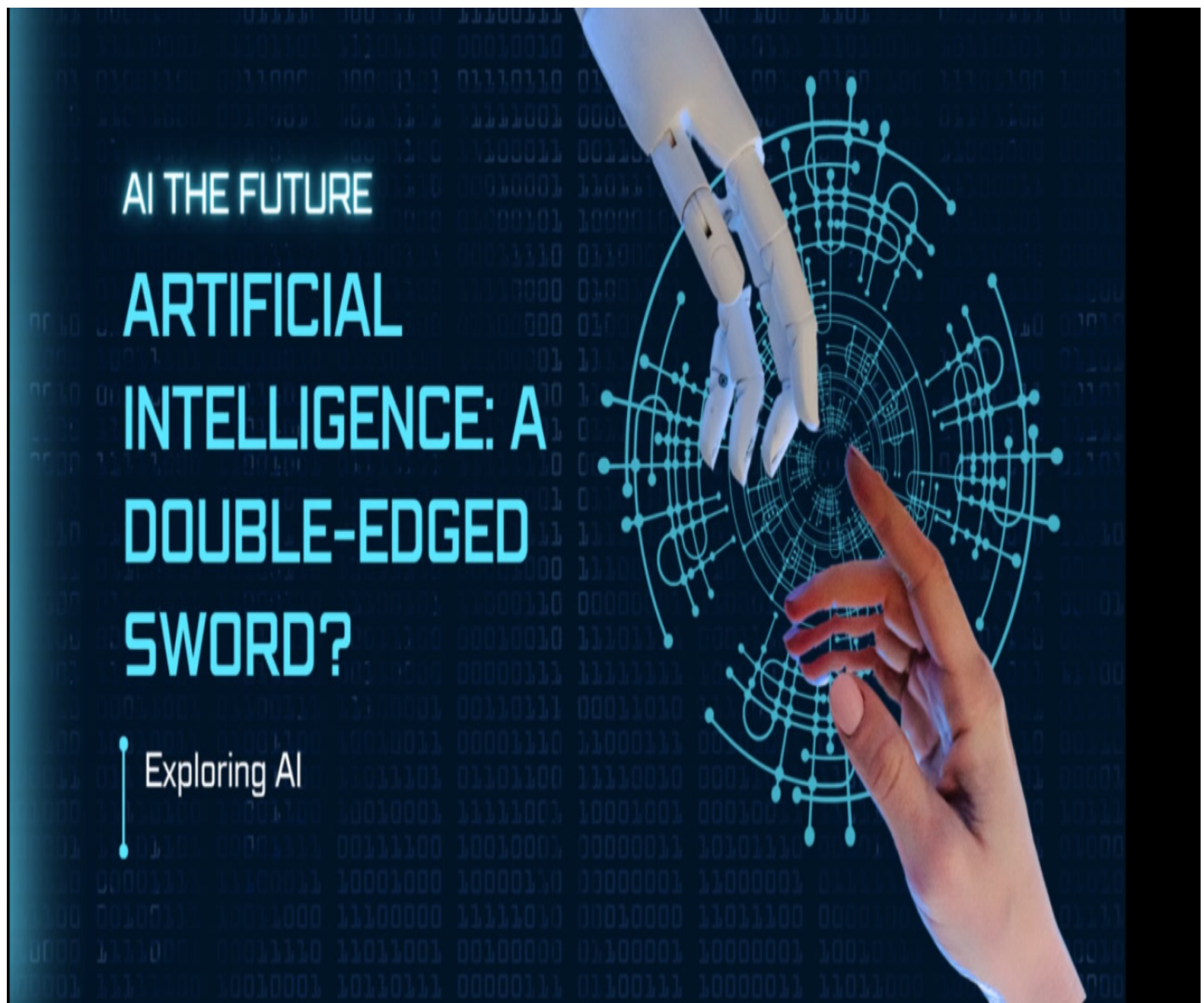
Dean SPH Highlights the Role of Virtual Simulation in Pharmacy Education

Dean SPH conducted an informative session at the Pak Pharma and Healthcare Expo, addressing the use of virtual simulation tools to enhance pharmacy practice skills. The session emphasized on the growing need for innovative teaching methodologies in pharmacy education. As the role of pharmacists continues to expand globally, academic institutions must integrate advanced simulation technologies to equip students with the necessary skills and competencies for future healthcare challenges. This approach ensures that pharmacy graduates are well-prepared to deliver high-quality, patient-centered care in an ever-evolving healthcare landscape.



Pre-Conference Workshop on Double-Edged Sword of Generative AI:

The Asia Middle East Africa (AMEA) Consortium, in collaboration with the University of Management and Technology organized a Pre-Conference Workshop Double-Edged Sword of Generative AI: Advancing Smart Research with Academic Integrity on December 17, 2024 at the School of Pharmacy, Health Sciences Campus, UMT Lahore. This workshop served as a precursor to the 2nd AMEA Conference. The workshop resource person Dr. Zaheer Ahmad, focused on equipping researchers with insights into the transformative potential of generative AI while addressing the challenges of maintaining academic integrity. Participants engaged in dynamic discussions and practical demonstrations, exploring strategies to integrate AI tools into their research responsibly. In the closing remarks, Prof. Dr. Ejaz Ullah Cheema, Dean, School of Pharmacy, UMT emphasized the critical role of ethical practices in leveraging AI for smart research. He also extended a warm invitation to all participants to attend the 2nd AMEA Conference on Academic and Research Integrity, scheduled to be held from February 13th to 15th, 2025, at the University of Lahore, Pakistan.



Best School Teacher Award: A well-deserved recognition

A heartfelt congratulations to [Dr. Sarah Rehman](#), who was honored with the Best School Teacher Award by UMT at the 27th Convocation of the University. This prestigious award recognizes her exceptional dedication to teaching, mentorship, and academic excellence. This well-deserved recognition is a testament to her outstanding contributions to the School of Pharmacy and an unwavering commitment to students.



Celebrating Excellence: UMT SPH Team Members Honored

Heartiest congratulations to our esteemed colleagues, Lab Assistant [Mr. M. Naveed Hussain](#) and Store In-Charge [Mr. M. Saleem](#), for receiving the Merit Award and Letter of Appreciation from UMT. Their unwavering dedication, hard work, and commitment to excellence have truly set a benchmark for others. SPH proudly acknowledges their invaluable contributions and hopes that this well-deserved recognition serves as an inspiration to continue their exceptional work. We celebrate their achievement and extend our best wishes for their continued success.



SPH Warmly Welcomes Dr. Hammad Ullah as new addition in SPH Family

Dr. Hammad Ullah is a distinguished academic and researcher specializing in pharmaceutical and food chemistry, with a focus on nutraceuticals and functional foods. He holds a PhD in Nutraceuticals from the University of Naples Federico II, Italy, and a Habilitation in Food Chemistry from the Ministry of University and Research, Italy. His research, focused on natural products and bioactive food components, has resulted in over 65 peer-reviewed articles, a book, and several book chapters. Dr. Hammad has received numerous honors, including Pride of Pakistan Award (2024), MEDWELL Award for Best PhD Thesis (2023), Dra. Mariola Macías Award (2023), and MONASH Young Research Award (2023). He is also an active member of prestigious organizations such as the American Chemical Society, the Royal Society of Chemistry, and the Phytochemical Society of Europe



Student Corner

Community Service Engagement by SPH students

Demonstrating a strong commitment to community and civic engagement, students of the School of Pharmacy (SPH), UMT, under the leadership of Dr. Amber Sharif, In-Charge Community Service, distributed ration bags containing essential food items to colleagues in need. While such acts of kindness are often carried out in a personal capacity without seeking recognition, they reflect the deep sense of social responsibility and compassion within our student community. This initiative highlights the importance of giving back and fostering a culture of empathy, reinforcing the values of service and harmony that define SPH.



UMT SPH Students Shine at Inter-University Pharmacy Poster and Debate Competition

Congratulations to our exceptionally talented students for their outstanding success at the Inter-University Pharmacy Poster and Debate Competition, organized by Pharma forum. Their remarkable achievement is a testament to their dedication, knowledge, and critical thinking skills, which set them apart in this prestigious competition. Competing against some of the brightest minds from various universities, our students showcased innovative research, compelling arguments, and eloquent presentation skills, earning well-deserved recognition.

The School of Pharmacy (SPH), UMT, takes immense pride in fostering an environment that nurtures academic excellence, creativity, and analytical reasoning, ensuring our students are well-equipped to excel in both scholarly and professional arenas. Well done, and may this be the first of many more victories to come.



Research Corner

We are pleased to present the abstracts of the outstanding research conducted by the faculty members of SPH, showcasing their commitment to advancing knowledge and contributing to the field of pharmacy.

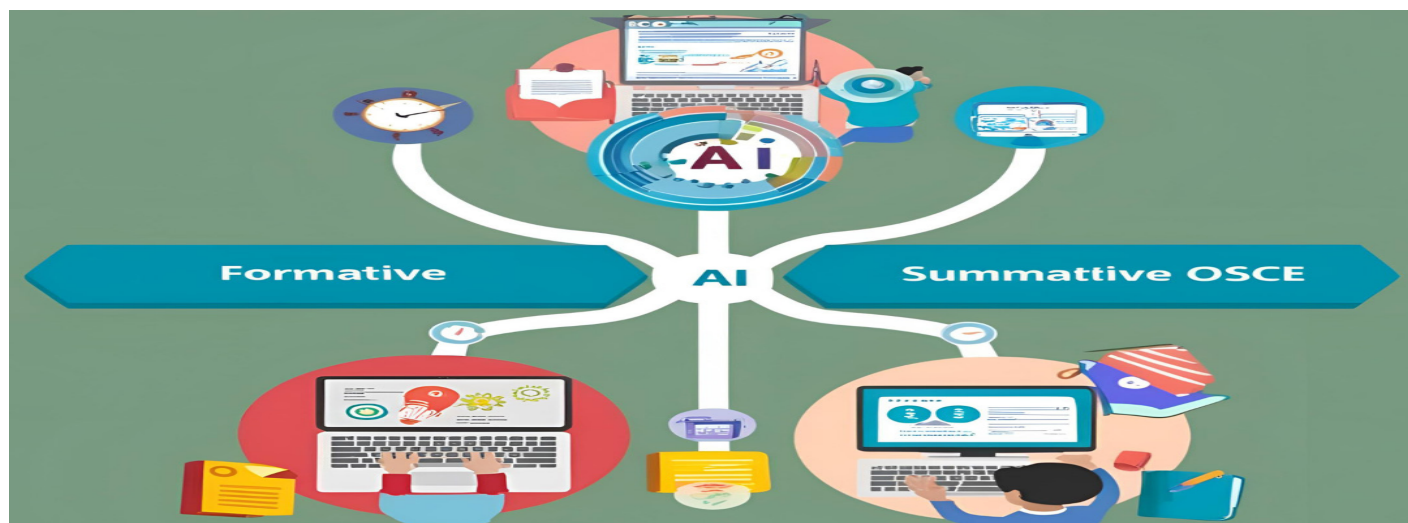
Title:

Exploring the perceptions and experiences of pharmacy students about formative and summative OSCE incorporating AI in preparatory process: A mixed-methods study

Sarah Rehman, Majid Ali , Ejaz Cheema ,* , Asra Shanzeh

Abstract

This study, using a mixed-methods approach, explored pharmacy students' perceptions and experiences of formative and summative OSCEs and their use of AI tools in OSCE preparation. Formative and summative OSCE marks were compared. Further quantitative data were collected from 82 students (89.13 %) via a post-OSCE questionnaire. Qualitative data were collected from 20 face-to-face semi-structured interviews that were audio-recorded, transcribed verbatim and thematically analyzed. Results showed improvement in marks from formative to summative OSCE, with mean marks increasing from 44.2 % to 56.0 %. Students generally perceived the OSCE process positively, with the majority rating their overall experience as excellent (65 %). The formative OSCE was viewed as particularly helpful in preparing for the summative. The integration of AI tools in OSCE preparation was well-received, with 58.5 % of students finding them helpful. However, challenges such as "lack of humanization" and occasional inaccuracies were noted. Themes generated from qualitative data endorsed the quantitative findings and were categorized into facilitators (briefing session, formative OSCE, feedback from role players and evaluators, AI tools) and barriers (challenges with the use of AI tools, anxiety, time management). The study highlights the importance of formative assessments prior to summative and the potential of AI tools in enhancing OSCE preparation, but emphasizes the need for structured training and guidance.



Title:

Efficacy and Satisfaction of a Chemically Characterized *Malva sylvestris* L. Extract-Based Food Supplement for Functional Constipation in Healthy Consumers: Preliminary Results of a Questionnaire-Based Survey

Lorenza Francesca De Lellis,..... Hammad Ullah, Maria Daglia

<https://pubmed.ncbi.nlm.nih.gov/39796510/>

Abstract

Malva sylvestris L. is rich in mucilage and is traditionally used for the management of numerous ailments including gastrointestinal disorders. Functional constipation (FC) is a gastrointestinal condition characterized by defecation anomalies such as infrequent stools, difficulty in stool passage, or both in the absence of pathological abnormalities. FC can be reduced through lifestyle factors and dietary intervention. This consumer-based survey aimed to assess the efficacy of a *M. sylvestris* extract-based food supplement on the improvement of FC. Healthy participants ($n = 56$), enrolled in a consumer-based survey, took a food supplement containing a chemically characterized *M. sylvestris* extract at a dose of 20 mL/day (containing 750 mg of *M. sylvestris* extract rich in food fiber and polyphenols) for 20 days on the advice of their pharmacist. The study evaluated bowel movement frequency (intestinal diary), stool consistency (Bristol Stool Form Scale, BSFS), and abdominal pain (Visual Analogue Scale, VAS), at baseline (T0), after 10 days (T1), and after 20 days (T2). Results showed a significant increase in bowel movement frequency and stool consistency ($p < 0.001$) with a significant decrease in abdominal pain ($p < 0.001$). Additionally, the food supplement was well-tolerated as no adverse effects were reported by the enrolled subjects. *M. sylvestris*-based food supplement showed promising effectiveness and satisfaction in improving FC in healthy subjects. However, randomized clinical studies are needed to confirm these preliminary results.

Title:

A Narrative Review on Plant Extracts for Metabolic Syndrome: Efficacy, Safety, and Technological Advances

Hammad Ullah,Alessandra Baldi, Maria Daglia

<https://pubmed.ncbi.nlm.nih.gov/40077747/>

Abstract

Metabolic syndrome, a global health concern, is characterized by visceral obesity, hyperglycemia, dyslipidemia, hypertension, and chronic low-grade inflammation. Current therapeutic options are limited by their varying efficacy and significantly adverse side effects, fueling interest in natural products, particularly plant extracts, as potential preventive interventions for high-risk individuals. This review examines the role of plant extracts in mitigating metabolic syndrome risk factors, addressing safety concerns and exploring associated technological advancements. The literature indicates that plant extracts hold promise for addressing the pathophysiology of metabolic dysfunction. However, challenges such as safety concerns, a lack of standardized regulation, and potential drug–plant interactions currently limit their clinical application. Rigorous, long-term clinical trials are necessary to confirm the efficacy and safety of plant extracts before they can be established as a preventive strategy for managing metabolic syndrome.

Health Corner

Never Too Late: 5 Science-Backed Nutrients to Age Well



BY
Dr. Hammad Ullah
PhD, Postdoc
Dr of Habilitation (Italy)
Assistant Professor, SPH

Aging is an inevitable biological process, but strategic nutritional interventions can promote longevity, preserve cognitive function, and enhance overall vitality. Scientific research has identified several key nutrients that effectively mitigate age-related decline. Below are five well-studied compounds proven to slow cellular aging and support optimal health:

Omega-3 Fatty Acids: Essential for Cardiovascular and Cognitive Health

Omega-3 fatty acids, primarily EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) are vital for reducing chronic inflammation, supporting brain function, and maintaining cardiovascular health. Found in fatty fish (e.g., salmon, mackerel), flaxseeds, and walnuts, these polyunsaturated fats are linked to improved lipid profiles, neuroprotection, and enhanced skin barrier function. For individuals with insufficient dietary intake, high-quality fish oil or algae-derived supplements can help bridge the gap.

Vitamin D: The Bone and Immunity Booster

Vitamin D, synthesized through sunlight exposure, plays a pivotal role in calcium absorption, musculoskeletal integrity, and immune modulation. Aging reduces cutaneous vitamin D synthesis, increasing the risk of osteoporosis, sarcopenia, and immune dysfunction. Clinical studies demonstrate that maintaining serum 25(OH)D levels within the optimal range (75–125 nmol/L) may lower the incidence of age-related chronic diseases, including cognitive impairment.

Coenzyme Q10 (CoQ10): A Mitochondrial Antioxidant for Cellular Energy

As a cofactor in ATP production and a potent free radical scavenger, CoQ10 is essential for mitochondrial efficiency and cardiovascular health. Endogenous CoQ10 levels decline with age, contributing to oxidative stress and reduced cellular energy. Supplementation has been shown to improve endothelial function, reduce markers of oxidative damage, and support skin health by mitigating UV-induced aging.

Resveratrol: A Senolytic Compound with Longevity Benefits

Resveratrol, a bioactive polyphenol in grapes, red wine, berries, and dark chocolate, activates sirtuins, proteins associated with lifespan extension. Preclinical and clinical evidence suggests it enhances endothelial function, reduces systemic inflammation, and may delay neurodegenerative pathologies like Alzheimer's disease by modulating amyloid-beta aggregation.

Collagen Peptides: Structural Support for Skin and Joints

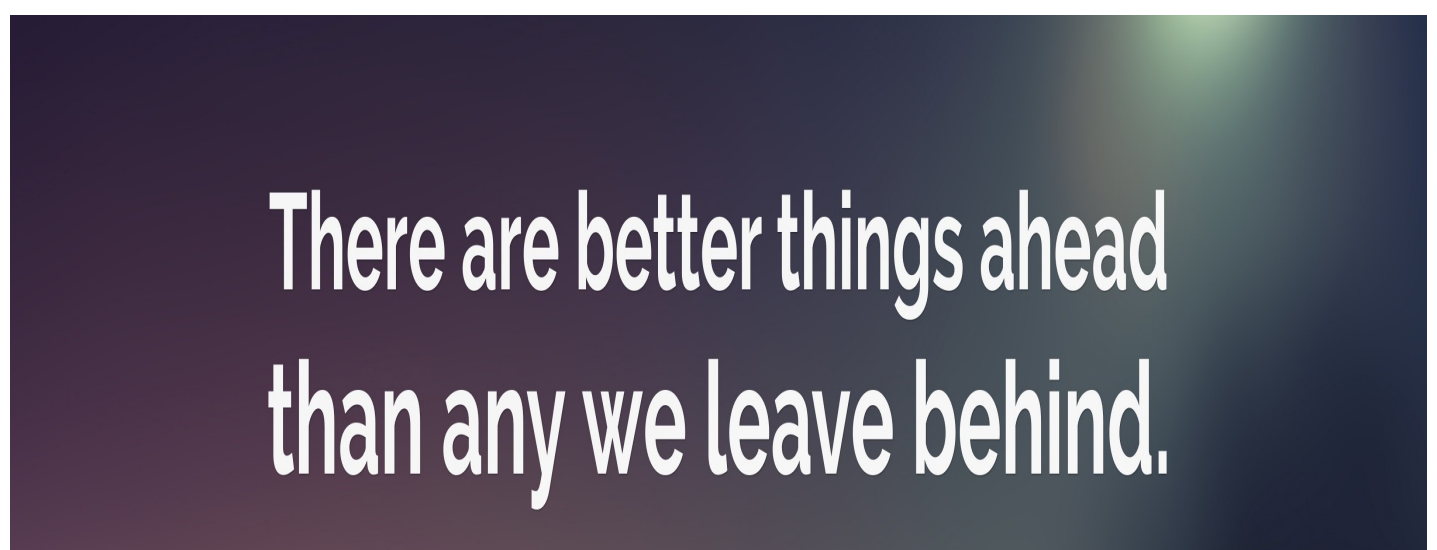
Collagen, the primary structural protein in connective tissues, degrades with age, leading to wrinkles, joint stiffness, and reduced skin elasticity. Hydrolyzed collagen supplementation stimulates fibroblast activity, increasing type I and III collagen synthesis. Randomized trials confirm its efficacy in improving skin hydration, elasticity, and joint mobility in aging populations.

Final Thoughts

While these nutrients show promise in promoting healthy aging, they should complement, not replace a balanced diet, regular exercise, and stress management. Individual needs vary, so consulting a healthcare provider before supplementation is advised. By integrating evidence-based nutrition with lifestyle modifications, one can optimize longevity and sustain vitality well into later life.

References

- 1.Ullah H, Khan A, Daglia M. The focus on foods for special medical purposes and food supplements in age-related disorders. *Food Front.* 2022;3(3):353-357.
- 2.Freemantle E, Vandal M, Tremblay-Mercier J, Tremblay S, Blachère JC, Bégin ME, et al. Omega-3 fatty acids, energy substrates, and brain function during aging. *Prostaglandins Leukot. Essent. Fatty Acids.* 2006;75(3):213-220.
- 3.Łudowski P, Kos-Kudła B, Walczak M, Fal A, Zozulińska-Ziółkiewicz D, Sieroszewski P, et al. Guidelines for preventing and treating vitamin D deficiency: a 2023 update in Poland. *Nutrients.* 2023;15(3):695.
- 4.Gasmi A, Bjørklund G, Mujawdiya PK, Semenova Y, Piscopo S, Peana M. Coenzyme Q10 in aging and disease. *Crit. Rev. Food Sci. Nutr.* 2024;64(12):3907-3919.
- 5.Drago L, Ciprandi G, Brindisi G, Brunese FP, Dinardo G, Gori A, et al. Certainty and uncertainty in the biological activities of resveratrol. *Food Front.* 2024;5(3):849-854.
- 6.Geahchan S, Baharlouei P, Rahman A. Marine collagen: a promising biomaterial for wound healing, skin anti-aging, and bone regeneration. *Mar. Drugs.* 2022;20(1):61.



There are better things ahead
than any we leave behind.