



School of
Health Sciences

INAUGURAL ISSUE

July-September, 2022



Editor in Chief

Prof. Dr. Ejaz ullah Cheema



M Pharm, MSc, PhD (Pharmacy practice)
University of Warwick, 2015
PGCERT in Higher Education for Healthcare
Professionals, 2020 (University of Birmingham
UK)
Fellow of Higher Education Academy (FHEA),
UK.
Registered pharmacist with General
Pharmaceutical Council, UK and Punjab
Pharmacy Council

Editorial Board

Afifa Tanweer (Member)



Rabia Jawa (Member)



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WELCOME NOTE BY THE Acting Director, SHS



Welcome to the inaugural issue of our newsletter. School of Health Sciences (SHS) has been successfully providing quality education since 2014. We are excited to launch the newsletter of SHS for highlighting the activities we do at our school. This newsletter is aimed at sharing the achievements, curricular and extracurricular activities of our students and faculty members. In addition, it will also serve as an opportunity to showcase some research activities being undertaken at our school. This newsletter will also include short communications on topics of general interest in health and well-being which may influence the lives of readers in a positive manner.

The inaugural issue of our newsletter provides an overview of SHS, its departments, provides an opportunity to meet our team and highlights some recent events and activities which took place at SHS. Furthermore, it includes a student's testimonial on her experience at SHS, besides featuring some achievements of our students and alumni. We hope that this newsletter would be of interest to our students, faculty members and colleagues.

Professor Dr Ejaz ullah Cheema
Acting Director, School of Health Sciences, UMT



DEGREE PROGRAMS OFFERED

- Doctor of Physiotherapy (DPT)
- BS Nutrition Science
(former Doctor of Nutrition Science)
- BS Medical Imaging and Ultrasonography
- BS Medical Laboratory Sciences

KEY HIGHLIGHTS ABOUT SHS

- Qualified, dedicated and relevant faculty
- On-campus University Medical Center for clinical exposure
- Clinical training in general hospitals like Surrayya Azeem Hospital, Jinnah Hospital, Punjab Institute of Cardiology, Indus Hospital, Central Pak Hospital and UMT University Medical Center, SHS campus
- Extracurricular and co-curricular activities
- Research opportunities
- Multiple international research publications per year
- Research Journal of SHS: IHR - International Health Review
- Active and explorative learning
- Academic excellence and leadership skills
- Supportive environment
- Several alumni won foreign scholarships for graduate degree programs
- Alumni employed in leading organizations



Prof Dr Muhammad Salman Bashir

Dean School of Health Sciences



PhD (TUMS- Gold Medalist)
MPhil (KEMU-Gold Medalist)
Post Professional Doctor of Physical Therapy
(RIU-Gold Medalist)
BSPT (KEMU- Gold Medalist)
CMP (Australia), CAHPE (UOL) PGD TM&PE
(RIU) MPPTA (PAK) Finance Secretary PPTA
Punjab (2011-15) General Secretary PPTA
Punjab (2018-2020) HEC Approved
Supervisor



MEET OUR TEAM SHS

DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION, SHS



Rabia Jawa

Assistant Professor and CoD
MPhil (King Edward Medical University)



Tamknat Ilyas

Assistant Professor PhD Scholar
No of publications: 8



Muhammad Ammar Akbar

Assistant Professor MS



Rahat Ayub, Lecturer

T-DPT

No of publications: 4



Anam Mahmood

Assistant Professor MS



Fizza Masood Lecturer

MS

No of publications: 2



Muqadas Chaudary Lecturer

TDPT, King Edward Medical University

No of publications: 4



Memoona Anwar, Lecturer

MS, Riphah University

No of publications: 4



Rabia Majeed, Lecturer
MS (Riphah International University)
No of publications: 2



Saba Riaz, Lecturer
MS, Riphah university
No of publications: 9



Maria Mustafa, Lecturer
T-DPT
No of publications: 3



Maham Khalid, Lecturer
MPhil, UVAS
No of publications: 6



Muhammad Muneeb, Lecturer
MS, Riphah International University
No of publications: 2



Maheen Shad, Demonstrator
M.Phil. Scholar, King Edward
Medical University
No of publications: 5



Amber Fayyaz, Demonstrator
DPT, King Edward Medical University
No of publications: 1



Maida Mushtaq, Demonstrator
MS
No of publications: 2



Fatima Tariq, Demonstrator
DPT, King Edward Medical University
No of publications: 2



Faiqa Mehmood, Demonstrator
MS (Riphah University)
No of publications: 1



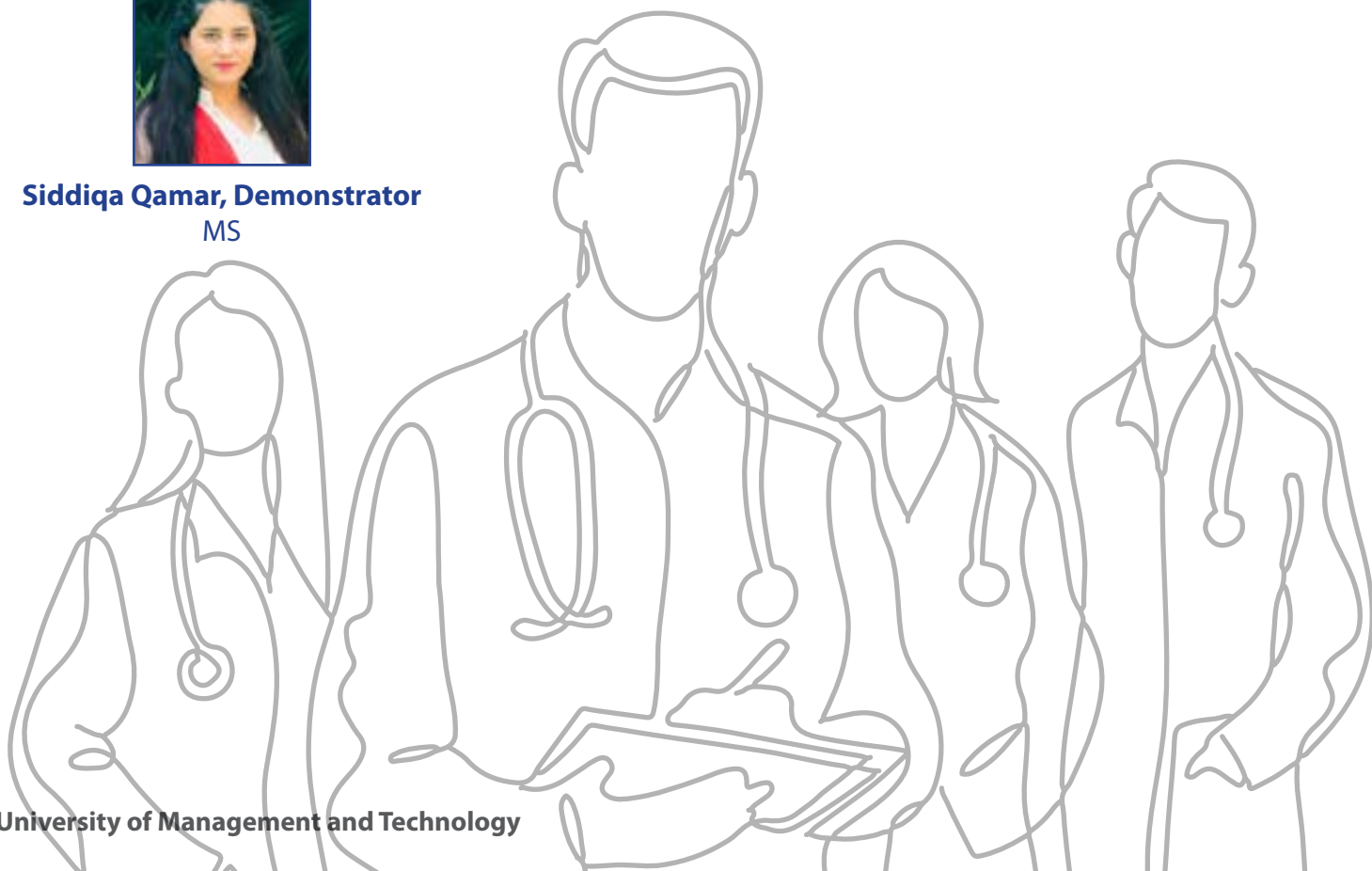
Asma Wadood, Demonstrator
DPT, Allama Iqbal Medical College



Bareera Asif, Demonstrator
Doctor of Physical Therapy,
Allama Iqbal Medical College,
Lahore



Siddiqa Qamar, Demonstrator
MS



MEET OUR TEAM SHS

DEPARTMENT OF NUTRITION SCIENCE, SHS



Dr Umar Bacha, Associate Professor, CoD

PhD - Food Science and Human Nutrition,
UVAS, Pakistan

Citations 45K+, H-Index 31+



Anam Tariq, Lecturer

MPhil Food Science and Human
Nutrition, UVAS, Lahore, Pakistan

No of publications: 1



Afifa Tanweer, Lecturer

PhD (Home Economics-Food and Nutrition),
University of Punjab, Pakistan

No of publications: 22



Faran Khan, Lecturer

MPhil Human Nutrition UVAS

No of publications: 10



Hafsa Tahir, Lecturer

PhD Scholar

Food & Nutrition, University of Lahore

No of Publications: 10



Faiza Kamal, lecturer

MS Community Health and Nutrition, AIOU
Islamabad

No of publications: 8



Sadia Rafiq, Lecturer

MS Hons Human Nutrition and Dietetics,
Agriculture University, Faisalabad

No of publications: 1



Saba Nadeem Dar, Lecturer

MPhil Food & Nutrition, University
of the Punjab



Mohsina Nasim, Lecturer

MPhil- Food Science and Human Nutrition,
KCWU, Lahore
No of publications: 5



Noor Younis, Lecturer

PhD Scholar
Food and Nutrition, AU, Faisalabad
No of publications: 3



Asma Khan, Demonstrator

MPhil Scholar



Faheem Mustafa, Demonstrator

BS Hons, UVAS
No of publications: 5



Aqsa Nadeem, Lecturer

MPhil Food and Nutrition, Govt College
of Home Economics, PU Lahore



Ammara Arshad, Lecturer

MSc Hons Human Nutrition
and Dietetics, AU, Faisalabad
No of publications: 3



Sania Khan, Demonstrator

MSc Home Economics- Food and Nutrition,
University of Peshawar, Pakistan

MEET OUR TEAM SHS

DEPARTMENT OF MEDICAL IMAGING AND ULTRASONOGRAPHY, SHS



Dr Ghulam Murtaza, Chairperson,
Department of Medical Imaging
Assistant Professor
PhD Medical Physics, International Islamic
University, Pakistan



Dr Muhammad Zaid Arif
Clinical Instructor
MBBS, Sheikh Khalifa Bn Zayed Medical
Collage, Pakistan



Mehwish Rauf, Lecturer
MS Health Administration,
PU Lahore
M Phil MIT



Sadaf Abdul Qadir
Assistant Professor
MS Information Technology,
University of Lahore



Qurat ul Ain, Demonstrator
MS MIT, Imperial College of
Business Studies, Lahore
No of publications: 2



Dr Muhammad Umair, Lecturer
MBBS, Xinjiang
Medical Univeristy, China



Furozan Baig, Demonstrator
BSc Hons Medical Imaging,
FMH College of Medicine and Dentistry, Lahore



Arifa Mobeen, Lecturer
MS - Diagnostic Ultrasound,
University of Lahore



Tamsal Hameed,
Demonstrator
BS MIT



Rida Zainab, Demonstrator
BS Medical Imaging
Technology, UHS, Lahore

MEET OUR TEAM SHS

DEPARTMENT OF BIOMEDICAL LAB SCIENCES, SHS



Dr Atika Umer,

Chairperson, Department of Biomedical Lab Sciences

Assistant Professor

PhD Molecular Biology, PU Lahore



Dr Naveed Munir

Assistant professor

PhD Biochemistry

No of publications: 76



Mouvez Zeshan, lecturer

M Phil (Micro Biology)



Almina Shafique, Lecturer

PhD scholar

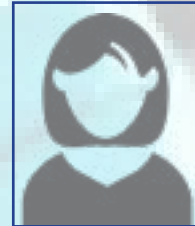
No of publications: 5



Madiha Asghar, lecturer

MS

No of publications: 10



Rabia Aslam, Lecturer

M Phil

No of publications: 5

MEET OUR TEAM SHS

DEPARTMENT OF CLINICAL SERVICES, SHS



Sajjad Ali Sajjad, Chairperson

M Phil (Riphah University)

No of publications: 12



Dr Shahzada Khurram Syed

Associate Professor, HEC Approved Supervisor

PhD - Pharmacology & Toxicology, UVAS

No. of publications: 31



Dr Uzma Naz

Assistant Professor

FCPS - Gynecology & Obstetrics,

Sir Ganga Ram Hospital



Dr Muhammad Awais Ibrahim Bajwa

Clinical Instructor

MBBS, Mohiuddin Islamic Medical College,

Pakistan



Dr. Nasiba Mumtaz Usman, Lecturer

Bachelors of Dental Surgery, University of

Health Sciences, Lahore

No of publications: 1



Sara Fatima, Lecturer

Bachelors of Dentistry (BDS), University of

Health Sciences, Pakistan

No of publications: 2



Dr Muhammad Aamir Rafique

Assistant Professor

M Phil Pharmacology, UHS, Lahore



Dr Aiman Javed, Lecturer

Bachelor of Dental Surgery, Sharif

Medical and Dental College, Lahore

No of publications: 1



Dr Savera Jabeen
Clinical Instructor
MBBS, Fatima Jinnah Medical
University, Lahore



Dr Sana Mehmood, Demonstrator
Bachelors of Dental Surgery, Islamic
International Dental College, Islamabad



Abid Ali, Demonstrator
MBBS



Dr Ghina Sahar, Clinical Instructor
MBBS, University of Health Sciences



Dr Ahmad Mujeeb Khan
Clinical Instructor
MBBS, Zia Ud Din University



Dr Sana Arif
Clinical Instructor
MBBS, Azra Naheed Medical College



Dr Awais Imdad Khan
Clinical Instructor
MBBS, University of Health Sciences, Lahore
No of publications: 1



Moeen Ahmad
Clinical Instructor
MS



Dr Rabiya Chughtai, Clinical Instructor
MBBS, Gujranwala Medical College



Dr. Amtullah Ansari
Teaching Fellow, BDS
No of publications: 1

MEET OUR TEAM SHS

ACADEMIC OFFICERS



Afnan Sahi

MPhil Scholar (Sociology), UMT
Senior Officer Academics



Arham Fatima

MBA (University of the Punjab)
Senior Officer Academics



Ms Zainab Masood

MS Biotechnology, UMT, Lahore; BS Hons
Biotechnology, GCU, Lahore
Lab demonstrator





UNIVERSITY MEDICAL CENTER, SHS, UMT

The inauguration ceremony of the University Medical Center (UMC) was held at the Health Sciences Campus of the University of Management and Technology (UMT) on 4th August, 2022.

UMC offers services in

1. General Medicine
2. Gynecology
3. Psychiatry
4. Diagnostic services
5. Physiotherapy
6. Diet and Nutrition

UMC is a project of the UMT and is a state of the art 100 bedded Out Patient Department (OPD) facility equipped with modern technology and recognized health care professionals. UMC is committed to providing effective, high-quality, cost-efficient healthcare. You can change your life with our state-of-the-art facilities and services as well as the dedicated team of medical experts and consultants.

MOU WITH INDUS HOSPITAL, JUBLEE TOWN, LAHORE

An MoU between the School of Health Sciences, UMT and Indus hospital, Jubilee Town, Lahore was signed on 15.09.2022. The memorandum is focused on collaboration between the two institutes for student exchange and clinical services. The students of SHS started summer internship at Indus Hospital in October, 2022.



RECENT EVENTS AND ACTIVITIES AT SHS 2022

COMMUNITY SERVICE

Mega Health Camp - Obesity (07th March 2022)

A Mega Health Camp along with a talk on obesity was conducted in collaboration with Ferozsons Laboratories to highlight importance of proper diet and its link with obesity and co-morbidities. Our guest speaker was Prof. Dr. Shaila Anwar



Nutritional Assessment and Screening Camp (11-03-2022)

Nutritional assessment and screening of the students of UMT SHS campus was done to seek the changes in diet and to put in action a better diet plan for them. The students studying community nutrition did all the assessment under the supervision of Ms Mohsina Nasim.

Blood Donation Camp (24-03-2022)

In a collaboration with Noor Thalassemia Foundation blood donation drive was conducted. Students were made aware of importance of blood donation and were encouraged to take part in this cause.



Nutrition Assessment Camp (31.5.22 and 2.6.22)

This camp was held to raise awareness about healthy eating practices and nutrition related problems among students of UMT. The students studying Public Health Nutrition (resource person: Afifa Tanweer) took part in doing assessment of other students applying their theoretical knowledge into practice.



COMPETITIONS AND PROJECT DISPLAY

Participation in Invention to Innovation Summit 2022 by ORIC (30.03.2022)

Students from all the departments of SHS participated in final year project display at Main campus, UMT. Students prepared poster presentations for their projects and were evaluated by ORIC.



Nutrition project display (20.7.22)

Project Display was conducted (Practical session) for course SHS.113 (Introduction to Nutrition Sciences) under supervision of Ms. Ammara Arshad on 20.07.2022. Food models and educational posters were displayed by the students.

My Plate Challenge (5.8.22)

This competition was held to highlight the importance of therapeutic diet. The students were required to prepare a therapeutic diet for the hypertensive patients which fits the budget too. This event was supervised by Ms Faiza Kamal.



Poster competition - Statistical Application in Health Sciences (1.9.22)

A poster Competition titled "Statistical Application in Health Sciences" was organized by the Department of Economics and Statistics, in collaboration with the School of Health Sciences. Students of SHS displayed and presented their projects. The participants learned how to achieve research objectives by using different statistical tools and techniques in the domain of Health Sciences

PARTNERSHIPS AND COLLABORATIONS

Meeting with College of Tourism and Hotel Management (COTHM) representatives (29.8.22)

A meeting of Nutrition Science faculty with COTHM representatives, to seek future opportunities of collaboration. The guests from COTHM were Ms Kalsoom Riaz and Ms Areena Asif. They conducted a talk with students to make them aware about opportunities awaiting them at COTHM.



SEMINARS AND INVITED LECTURES



Nutritional Management in Different Health Conditions (04-03-2022)

This seminar was conducted to focus on nutrition during various diseases and nutritional supplementation as and when required.

Our guest speakers were Abdul Raheem, Kamran Younus and Salman Arif from Nestle nutrition.

Freelance Dietitian Seminar (9.6.22)

In this technology ruling the era, we tried to create an impact on young nutritionists about scope of nutrition in freelance world. Guest speakers were Mr. Faheem Mustafa and Ms Rimsha.



SEMINAR
FREELANCE DIETITIAN

Thursday, 09th June 2022 AT 2PM - 4PM

Venue: 1C-10 SHS Campus

"Opportunities don't happen, you create them."

SPEAKERS

Mr. Faheem Mustafa
Miss. Rimsha Rasheed

Enteral Nutrition Support, its Need and Complications (10.6.22)

School of Health Sciences, in collaboration with the Nutritionists and Dietitians Society, organized a seminar on "Enteral Nutrition Support, its Need and Complications" to empower students with practical knowledge from our expert speakers from University of South Asia and Diabetic Management Center, Lahore.

One day's Nutrition Oriented Seminar

Jointly organized by School of Health Sciences,
University of Management & Technology and
Nutritionists & Dietitians Society-NDS

Topic: Enteral Nutrition, its need and complications

Our Guest Speakers
Dr. Sheeza Imtiaz
(HOD, Nutrition depart., University of South Asia)
Dr. Zartasha Khalid
(HOD, Nutrition depart., Diabetic Management
Center, Lahore,
Dietitian at Indus Hospital, Lahore)

Chief Guest Dr. Mehwish Niaz
Supervisor Dr. Umar Bacha
Organizer Mr. Faheem Mustafa
Collaborator: Dr. Husnain Muaviah
(Chairman NDS)

Venue: Room # 1C -07, UMT, health
sciences campus, Lahore.

Date: 10-June-2022
Time: 09:00AM-11:30AM

Basics of Sports Nutrition and Supplements and ergogenic aids (24.8.22)

Department of Nutrition Sciences organized a seminar regarding "Basics of Sports Nutrition, Supplements and Ergogenic Aids" at SHS campus, targeting audience to clarify their concepts about use of Nutritional Supplements and Performance Enhancing Drugs in today's world where modern sports and fitness world is negatively impacted by abuse of fancy formulations causing harm instead of any benefit to athletes. The session also included comprehensive discussion on macronutrients and micronutrients required to ensure athletic success.

Special thanks to UMT Nutrient club for organizing the events of nutrition Science, SHS

School of Health Sciences

**BASICS OF
SPORTS NUTRITION,
SUPPLEMENTS AND
ERGOGENIC AIDS**

Zareehan Mehmood Khan
MSc, Sports Nutrition and Exercise
International Guest Lecturer (South Asian Endorphinizing Professor)
Head Biochemistry and Physiotherapy (University of Health Sciences)
Certified Sports Nutritionist, International Sports Science Association, ISSN-USA
Certified (Elite Trainer), International Sports Science Association, ISSN-USA
Certified Personal Trainer (PT) by International Fitness Association (IFA), IFPA, Sharjah

Aysha Khan
Clinical Dietitian
(Consultant Nutrition Sciences, 2017-Present)

**WEDNESDAY,
AUGUST 24, 2022**

11:00 AM

SHS CAMPUS

Speaker at Continuing Nutrition Education session of Pakistan Nutrition and Dietetic Society (17.9.22)

Ms Affa Tanweer (Lecturer - Nutrition Sciences Department - SHS) successfully presented at the first hybrid continuing nutrition education session of Pakistan Nutrition and Dietetic Society (Lahore Chapter) on 17.09.2022 at Ittefaq Hospital Trust, Lahore.



Ultrasound workshop

A three days ultrasound workshop was conducted in collaboration with clinical application specialist of Toshiba Medequips. Prof. Dr. Mehfooz-ur-Rehman. Dr. Somia Sabeeh and Ms Arifa Mobeen were the guest speakers.



FACULTY DEVELOPMENT

Training on Outcome Based Education (OBE) and quality assurance

A training on Outcome Based Education (OBE) and quality assurance was organized on 2nd September, 2022 at SHS campus, UMT. Dr. Muhammad Usman Rashid (Acting dean SEN) and Mr. Asif Saeed Haider (Director AAQIC) explained the importance of OBE as well as conducted a hands-on training on developing and aligning institutional vision, mission and program objectives and course outcomes.



Employee of the Quarter Awards

Employee of the 2nd Quarter Award Ceremony was held on 17th Aug 2022. Employee of the quarter awards were distributed to the following out performing members of SHS under Office of Human Capital Management, UMT.

- Department of Physical Medicine and Rehabilitation: **Ms Muqadas Chaudry**
- Department of Nutrition Science: **Ms Afifa Tanweer**
- Department of Medical Laboratory Science: **Ms Almina Shafiq**
- Department of Medical Imaging and Ultrasonography: **Ms Furozan Baig**
- Academic Officer: **Ms Kaiynat Bukhari**



RESEARCH CORNER

Major impact factor publications of SHS faculty in HEC W-category (2022)

Title: Heavy Metal Contamination of Natural Foods Is a Serious Health Issue: A Review

<https://doi.org/10.3390/su14010161>

Faculty: Dr. Naveed Munir (Department of Biomedical Laboratory Sciences, SHS)

Journal: Sustainability

Abstract: Heavy metals play an important role in the homeostasis of living cells. However, these elements induce several adverse environmental effects and toxicities, and therefore seriously affect living cells and organisms. In recent years, some heavy metal pollutants have been reported to cause harmful effects on crop quality, and thus affect both food security and human health. For example, chromium, cadmium, copper, lead, and mercury were detected in natural foods. Evidence suggests that these elements are environmental contaminants in natural foods. Consequently, this review highlights the risks of heavy metal contamination of the soil and food crops, and their impact on human health. The data were retrieved from different databases such as Science Direct, PubMed, Google scholar, and the Directory of Open Access Journals. Results show that vegetable and fruit crops grown in polluted soil accumulate higher levels of heavy metals than crops grown in unpolluted soil. Moreover, heavy metals in water, air, and soil can reduce the benefits of eating fruits and vegetables. A healthy diet requires a rational consumption of foods. Physical, chemical, and biological processes have been developed to reduce heavy metal concentration and bioavailability to reduce heavy metal aggregation in the ecosystem. However, mechanisms by which these heavy metals exhibit their action on human health are not well elucidated. In addition, the positive and negative effects of heavy metals are not very well established, suggesting the need for further investigation



Title: Therapeutic potential of herbal medicine for the management of hyperlipidemia: latest updates

<https://doi.org/10.1007/s11356-022-19733-7>

Faculty: Dr. Naveed Munir (Department of Biomedical Laboratory Sciences, SHS)

Journal: Environmental Science and Pollution Research

Abstract: Hyperlipidemia, the most common form of dyslipidemia, is the main source of cardiovascular disorders, characterized by elevated level of total cholesterol (TC), triglycerides (TG) and low-density lipoprotein cholesterol (LDL-C) with high-density lipoprotein cholesterol (HDL-C) in peripheral blood. It is caused by a defect in lipid metabolism in the surface of Apoprotein C-II or a defect in lipoprotein lipase activity as well as reported in genetic, dietary and environmental factors. Several electronic databases were investigated as information sources, including Google Scholar, PubMed, Web of Science, Scopus, ScienceDirect, Springer-Link, Semantic Scholar, MEDLINE and CNKI Scholar. The current review focused on the risk factors of dyslipidemia, synthetic medication with their side effects and different types of medicinal plants having significant potential for the management of hyperlipidemia. The management of hyperlipidemia mostly involves a constant decrease in lipid level using different remedial drugs like statin, fibrate, bile acid sequestrates and niacin. However, this extensive review suggested that the consequences of these drugs are arguable, due to their numerous adverse effects. The selected parts of herb plants are used intact or their extracts containing active phytoconstituents to regulate the lipids in blood level. It was also noted that the Chinese herbal medicine and combination therapy is promising for the lowering of hyperlipidemia. This review intends to provide a scientific base for future endeavors, such as in-depth biological and chemical investigations into previously researched topics.

Title: Hedgehog Signaling: Linking Embryonic Lung Development and Asthmatic Airway

<https://doi.org/10.3390/cells11111774>

Faculty: Dr. Shahzada Khurram Syed

Journal: Cells

Abstract: The development of the embryonic lung demands complex endodermal–mesodermal interactions, which are regulated by a variety of signaling proteins. Hedgehog (Hh) signaling is vital for lung development. It plays a key regulatory role during several morphogenic mechanisms, such as cell growth, differentiation, migration, and persistence of cells. On the other hand, abnormal expression or loss of regulation of Hh signaling leads to airway asthmatic remodeling, which is characterized by cellular matrix modification in the respiratory system, goblet cell hyperplasia, deposition of collagen, epithelial cell apoptosis, proliferation, and activation of fibroblasts. Hh also targets some of the pathogens and seems to have a significant function in tissue repairment and immune-related disorders. Similarly, aberrant Hh signaling expression is critically associated with the etiology of a variety of other airway lung diseases, mainly, bronchial or tissue fibrosis, lung cancer, and pulmonary arterial hypertension, suggesting that controlled regulation of Hh signaling is crucial to retain healthy lung functioning. Moreover, shreds of evidence imply that the Hh signaling pathway links to lung organogenesis and asthmatic airway remodeling. Here, we compiled all up-to-date investigations linked with the role of Hh signaling in the development of lungs as well as the attribution of Hh signaling in impairment of lung expansion, airway remodeling, and immune response. In addition, we included all current investigational and therapeutic approaches to treat airway asthmatic remodeling and immune system pathway diseases.

Title: Verapamil attenuates oxidative stress and inflammatory responses in cigarette smoke (CS)-induced murine models of acute lung injury and CSE-stimulated RAW 264.7 macrophages via inhibiting the NF-κB pathway

<https://doi.org/10.1016/j.biopha.2022.112783>

Faculty: Dr. Shahzada Khurram Syed

Journal: Biomedicine and Pharmacotherapy

Abstract: Acute lung injury (ALI) and acute respiratory distress syndrome (ARDS), severe form of ALI, are characterized by overwhelming of lung inflammation, and no treatment is currently available to treat ALI/ARDS. Cigarette smoke (CS) is one of the prime causes to induce ALI/ARDS via oxidative stress. Despite extensive research, no appropriate therapy is currently available to treat ALI/ARDS. Hence, new potential approaches are needed to treat ALI/ARDS. Consequently, this project was designed to explore the protective effects of verapamil against CS-induced ALI by in vivo and in vitro method. In vivo data obtained from respiratory mechanics, pulmonary morphometric analyses and lung histopathology revealed that verapamil dose-dependently and strikingly decreased the lung weight coefficient, attenuated the albumin exudation into lungs, minimized the infiltration of macrophages and neutrophils into lungs, reduced the pro-inflammatory cytokines (tumour necrosis factor- α (TNF- α), interleukin-6 (IL-6) and keratinocyte chemoattractant (KC)) production, and improved the hypoxemia and lung histopathological changes. Similarly, verapamil also reduced the production of TNF- α , IL-6 and KC from cigarette smoke extract (CSE)-stimulated RAW 264.7 macrophage. Importantly, verapamil dose-dependently and remarkably suppressed the CS-induced oxidative stress via not only reducing the myeloperoxidase (MPO) activity of lungs, total oxidative stress (TOS) and malondialdehyde (MDA) content in the lungs and supernatant of RAW 264.7 macrophage but also improving total antioxidant capacity (TAC) and superoxide dismutase (SOD) production. Finally, verapamil strikingly decreased the NF- κ B expression both in in vivo and in vitro models. Hence, verapamil has positive therapeutic effects against CS-induced ALI via suppressing uncontrolled inflammatory response, oxidative stress and NF- κ B p65 signaling.

Title: Cubosomes: Design, Development, and Tumor-Targeted Drug Delivery Applications

<https://doi.org/10.3390/polym14153118>

Faculty: Ms Hafsa Tahir (Department of Nutrition Sciences, SHS)

Journal: Polymers

Abstract: Because of the extraordinary advancements in biomedical nanotechnology over the last few decades, traditional drug delivery systems have been transformed into smart drug delivery systems that respond to stimuli. These well-defined nanoplateforms can boost therapeutic targeting efficacy while reducing the side effects/toxicities of payloads, which are crucial variables for enhancing patient compliance by responding to specific internal or external triggers. Cubosomes are lipid-based nano systems that are analogous to well-known vesicular systems, such as lipo- and niosomes. They could be used as part of a unique drug delivery system that includes hydro-, lipo-, and amphiphilic drug molecules. In this review, we critically analyze the relevant literature on cubosomes regarding theories of cubosomes self-assembly, composition, and manufacturing methods, with an emphasis on tumor-targeted drug delivery applications. Due to the bioadhesive and -compatible nature of cubosome dispersion, this review also focuses on a variety of drug delivery applications, including oral, ophthalmic and transdermal.

Title: Correlation Between Previous Caesarean Section and Adverse Maternal Outcomes Accordingly With Robson Classification: Systematic Review and Meta-Analysis.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8795992/>

Faculty: Afifa Tanweer (Department of Nutrition Sciences, SHS)

Journal: Frontiers in Medicine

Abstract: Background: The increasing rates of Caesarean section (CS) beyond the WHO standards (10–15%) pose a significant global health concern.

Objective: Systematic review and meta-analysis to identify an association between CS history and maternal adverse outcomes for the subsequent pregnancy and delivery among women classified in Robson classification (RC).

Search Strategy: PubMed/Medline, EbscoHost, ProQuest, Embase, Web of Science, BIOSIS, MEDLINE, and Russian Science Citation Index databases were searched from 2008 to 2018.

Selection Criteria: Based on Robson classification, studies reporting one or more of the 14 adverse maternal outcomes were considered eligible for this review.

Data Collection: Study design data, interventions used, CS history, and adverse maternal outcomes were extracted.

Main Results: From 4,084 studies, 28 ($n = 1,524,695$ women) met the inclusion criteria. RC group 5 showed the highest proportion among deliveries followed by RC10, RC7, and RC8 (67.71, 32.27, 0.02, and 0.001%). Among adverse maternal outcomes, hysterectomy had the highest association after preterm delivery OR = 3.39 (95% CI 1.56–7.36), followed by Severe Maternal Outcomes OR = 2.95 (95% CI 1.00–8.67). We identified over one and a half million pregnant women, of whom the majority were found to belong to RC group 5.

Conclusions: Previous CS was observed to be associated with adverse maternal outcomes for the subsequent pregnancies. CS rates need to be monitored given the prospective risks which may occur for maternal and child health in subsequent births.

Title: Edible Mushrooms as Novel Myco-Therapeutics: Effects on Lipid Level, Obesity, and BMI

<https://doi.org/10.3390/jof8020211>

Faculty: Mr Faheem Mustafa (Department of Nutrition Sciences, SHS)

Journal: Fungi

Abstract: Obesity, usually indicated by a body mass index of more than 30 kg/m², is a worsening global health issue. It leads to chronic diseases, including type II diabetes, hypertension, and cardiovascular diseases. Conventional treatments for obesity include physical activity and maintaining a negative energy balance. However, physical activity alone cannot determine body weight as several other factors play a role in the overall energy balance. Alternatively, weight loss may be achieved by medication and surgery. However, these options can be expensive or have side effects. Therefore, dietary factors, including dietary modifications, nutraceutical preparations, and functional foods have been investigated recently. For example, edible mushrooms have beneficial effects on human health. Polysaccharides (essentially β -D-glucans), chitinous substances, heteroglycans, proteoglycans, peptidoglycans, alkaloids, lactones, lectins, alkaloids, flavonoids, steroids, terpenoids, terpenes, phenols, nucleotides, glycoproteins, proteins, amino acids, antimicrobials, and minerals are the major bioactive compounds in these mushrooms. These bioactive compounds have

chemo-preventive, anti-obesity, anti-diabetic, cardioprotective, and neuroprotective properties. Consumption of edible mushrooms reduces plasma triglyceride, total cholesterol, low-density lipoprotein, and plasma glucose levels. Polysaccharides from edible mushrooms suppress mRNA expression in 3T3-L1 adipocytes, contributing to their anti-obesity properties. Therefore, edible mushrooms or their active ingredients may help prevent obesity and other chronic ailments

Title: Anti-ulcerative potential of sweet potato (*Ipomoea batatas*) against aspirin-induced gastric ulcer in rabbit model

<https://doi.org/10.1016/j.nut.2022.111799>

Faculty: Ms Ammara Arshad (Department of Nutrition Sciences, SHS)

Journal: Nutrition

Abstract: Objectives: Sweet potato (*Ipomoea batatas*) is accredited as a functional food because of its nutraceutical compounds. These dietary components may help heal lesions and ulcer scars in the stomach. This research was designed to examine the antioxidant and antiulcerative potential of sweet potato (red skin, white flesh) against aspirin-induced gastric ulcers in a rabbit model.

Methods: Sweet potato samples were analyzed for in vitro analysis, such as 2,2-diphenyl-1-picrylhydrazyl assay, total phenolic content, and total flavonoid content. In a bioefficacy study, rabbits were divided into five groups (n = 6) in which G0 received the standard diet only, G1 150 mg/kg aspirin, G2 20 mg/kg omeprazole, G3 1000 mg/kg aqueous extract of sweet potato, and G4 1000 mg/kg ethanolic extract of sweet potato. After completion of the trial, the animals were decapitated and examined for antiulcer parameters, serum analysis, and hematologic parameters.

Results: The mean values for 2,2-diphenyl-1-picrylhydrazyl, total phenolic content, and total flavonoid content were 57%, 927 mg gallic acid equivalent/100 g, and 1901 µg quercetin equivalent/g, respectively. The values for gastric volume, acid output, ulcer scores and index, total oxidant status, white blood cell count, and lymphocyte count were increased significantly ($P < 0.05$) for the positive control group compared with G2, G3, and G4. Gastric pH and body weight at the end of the experiment were significantly reduced for the positive control group ($P < 0.05$) compared with G2, G3, and G4. Histology test results of gastric tissues in G1 depicted severe epithelial damage compared with G2, G3, and G4.

Conclusions: The results for the antiulcer parameters ascertained the antiulcer activity of sweet potato in aspirin-induced gastric ulcer models.



BOOK EDITED BY Dr. Umar Bacha

Rural health is the study of healthcare systems in rural settings. This book presents a comprehensive overview of rural health care and addresses such topics as human resources, maternal mortality in developing countries, safety of healthcare workers, zoonotic and veterinary diseases, and much more. Chapters include case studies and research in the field of rural health.



EXCLUSIVE JOURNAL

International Health Review (ISSN (E): 2791-0016; ISSN (P): 2791-0008)

International Health Review is an open access peer-reviewed biannual journal edited by Dr. Umar Bacha (CoD, Nutrition Sciences, SHS). The journal's mission is to bring novel, significant, enduring, and advanced research of prime importance to health practitioners, researchers and medical experts that addresses challenging questions in health and medical disciplines. The journal features original research papers, reviews, and short communication, commentary, and letter to the editor.

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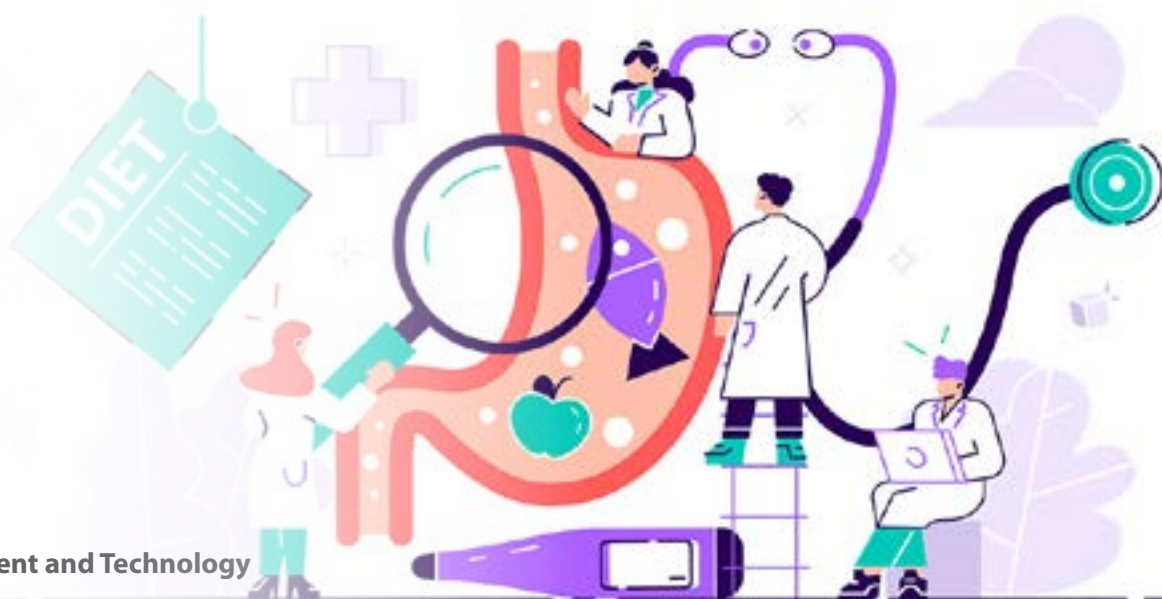


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ALUMNI CORNER

Employment at leading organizations

Two of our alumini have been appointed in Ireland Health Care as a clinical Physiotherapist

- Zeeshan Arshad
- Shahzaib Naeem

Shahzaib Naeem hired as clinical physiotherapist in Surrya Azeem Hospital

Zainab Batool (nutritionist) hired as Monitoring assistant in District Bhimber, Azad Kashmir, Pakistan under World Food Program

Admissions in International universities

1. Mahad Afzal, M.Usman, Wardah Arshad, and Fatima Mazhar (Department of Physical Medicine and Rehabilitation, batches 1 and 2) have taken admission for post-graduation in universities in UK
2. Rida Khan (Department of Nutrition Science, batch 1) is studying in Master's Program (Public Health) at University of Debrecen, Hungary



Department of Physical Medicine and Rehabilitation, SHS



GRADUATE'S PERSPECTIVE

An interview with our graduate Sania Pervez (S2016241014)

1. What are you currently planning to do?

I graduated from SHS, UMT in Spring 2016. I belong to batch 4 of DPT. Now I have applied for foreign scholarship for further studies.

2. How did you get an idea for applying on studentship abroad?

I think that UK has better opportunities for health science professionals. The educational system is advanced, practical standards are high and I wanted to explore job opportunities abroad. Some of my batch mates were studying in UK who motivated me a lot.

3. Did you face any hurdles during this application?

The whole process is quite time taking but everything is mentioned on official websites of universities. If we follow the timeline there is no hurdle. For me the process ran very smoothly.

4. How do you think your experience at SHS, UMT polished your skills to help you get an acceptance abroad?

Teachers here are highly educated and experienced; they managed to teach us with their experiences even with limited resources. Due to good academic score I managed to secure a good scholarship abroad. Teachers of SHS motivated me to pursue my studies by updating me about the scholarship opportunities.

5. What advice will you give to your juniors regarding choosing their scholarships/ future career?

For all the health sciences students I'd say that there is quite a competition in allied health fields. An exposure from outside of Pakistan would be of real help to you. However, study hard here too, as in order to win scholarships, you need good scores in your undergrad degree also.

6. Are there any pro tips that you want to give to your juniors from your experience?

Always work hard and believe in Allah. Set your goals and work for them. Don't waste your time. Start internships during your studies so you can get hand on practice with theoretical knowledge. Along with that, make good network for yourself that will help you afterwards. Explore opportunities abroad as well as in Pakistan. You may start your own set up related to your field in innovative ways.

Thank you Sonia and best wishes for your future endeavors

STUDENT CORNER

Saira Amir (f2017242059)

Semester 10, Doctor of Nutrition Science, Department of Nutrition Science, SHS

What do you say about your experience of studying at SHS, UMT?

I'm a senior undergraduate student at SHS UMT with a major in Nutrition Sciences. Being a first-generation university student, I feel honored to be a part of this prestigious institute. One of the best things about it is the generous scholarship policy of UMT, through which SHS supports its students at their best. My university experiences thus far have been amazing. I've learned so many new things that time has gone by so fast. The past few years at SHS not only helped me improve intellectually but also made me learn new things about myself and what I'm interested in. The constant support provided by fellow students, staff, and faculty made this experience worthwhile. SHS offers great opportunities to its students. Thanks to the strong faculty looking out for us, I've become much more sure of what I'm passionate about. I came to university thinking I wanted to be a dietitian, but now I'm looking forward to pursuing a research-related career. This is how good exposure and guidance make you navigate your career decisions. Different courses I took during my program, like Dietetics, Food Biotechnology, Public Health, and Meal Management, all helped me understand what I'm good at and directed me to my true calling. I thoroughly enjoyed the courses like Evidence-Based Practice, Supervised Clinical Practice, and Community Project that involved hands-on experience and are going to benefit me in the real world. One of my most meaningful experiences at SHS is getting the opportunity to work under professors who are the best at what they do. Their passion inspires me to give my best. When I discussed my interest in research with them, they were open to my ideas and eager to help me out by letting me assist in their research projects. On top of all the academic parts, I met people with different backgrounds and ideas that made me appreciate diversity and inclusivity. In short, life at SHS is great and I'm making the most of it.

Saira



STUDENT EXCHANGE PROGRAM

We are delighted to announce that two of our students have successfully completed summer school programs under the Office of Internationalization, UMT in 2022

- Ms Ghaaziya (f2017242013), Department of Nutrition Science, completed International Summer School Program at University of Nottingham (UoN), Malaysia
- Ms Noor Fatima (F2018242102), Department of Nutrition Science, completed Delightful Istanbul Summer School Program at Istanbul Aydin University (IAU), Turkey



10 TIPS FOR HEALTH SCIENCES STUDENTS

Hey, the healthcare experts to be!

Starting a university life is quite exciting for you. Isn't it?

On one side, there is a happiness to start new journey of your life, the journey that leads to your successful career. On the other hand, there must be a burden of fitting in & stress of upcoming challenges. In a nutshell, university is all a learning experience.

Here are 10 skills that will help you to balance your life at university:

1. Being a prospective healthcare professional, it is important for you to keep your health at priority because you cannot guide others to be healthy while your own health will be at risk. Live a healthy lifestyle and plan your meals.
2. The university life is going to be tough. Therefore, time management is the first soft skill you will need to be skilled at. You have to manage the time for studies as well as for recreational activities. Do hangouts with friends but finish your daily academic tasks first.
3. Don't even think that you cannot ask for help. Do not hesitate to ask for help from your peers, seniors, and teachers. Share your problems with them and they will surely help you to provide possible solutions.
4. Learn to work in groups. Social interaction with different people is the foremost purpose of university. They want you to develop leadership skills by collaborating with others. Group assignments and projects teach you connect with people with different skills and knowledge perspectives.
5. Be a problem-solver. Try to solve your problems by yourself because nobody is going to understand your situation better than you. This will make you confident and brave.
6. Try to learn new technology tools especially those technologies that are relevant to your field. It will make you a better learner and play important role in your career success. In this digital era, the market demands skillful persons in each field.
7. Be organized and make deadlines your priority. This will teach you discipline and order in life.
8. Always find time for re-creational activities as well. University is a bigger platform to offer you both curriculum and co-curriculum opportunities. It is up to you that how much you grab according to your taste and potential. You can practice your hobby here, take part in sports and join different university clubs.
9. Healthcare professionals must cooperatively work together in order to give best possible combination of healthcare. Doctors, physiotherapists, nutritionists, lab experts, pharmacists and diagnostic specialists can collectively offer a therapeutic & treatment plan to patients to maximize the speed of recovery.
10. You must learn the medical ethics, while you have your hospital rotations & other healthcare centers. It will help you to grow professionally.

Be the best version of yourself!

*Ammara Arshad
Lecturer, Nutrition Science
SHS, UMT*

Edited by:

Afifa Tanweer (Lecturer, Department of Nutrition Science, SHS, UMT)

Rabia Jawa (Assistant professor, Department of Physical Medicine and Rehabilitation, SHS, UMT)

Special thanks to Ms. Fatima Tariq (Demonstrator, PM&R, SHS) for compilation of faculty profile

Special thanks to Ms. Arham Fatima (Senior Officer, SHS) and Ms. Asma Khan for compilation of events gallery

