# Dr. Zakia Subhan

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Zakia Subhan

KMU-IMS, Kohat

## Summary

Associate Professor and Head of Pharmacology Department KMU-IMS, Kohat, with over 13 years of teaching, research, and academic leadership experience. Holds an MBBS, M.Phil. (Gold Medal), and Ph.D. in Pharmacology. Research focuses on neuropharmacology, cardiovascular pharmacology, antimicrobial resistance, and novel therapeutics, with 25+ peer-reviewed publications. Actively engaged in curriculum development, student mentorship, and academic quality enhancement.

# Academic Background

2025 **Ph.D. Pharmacology** Institute of Basic Medical Sciences Khyber Medical University

Peshawar

**Dissertation:** "Investigations of Mechanisms Underlying the Contractile Response(s) Of Smooth Muscles Of Intestines and Aortic Strips To Schiff Bases Using Animal Models"

Supervisor: Professor Dr. Niaz Ali

2017 M.Phil. Pharmacology (Gold Medal): Institute of Basic Medical Sciences Khyber Medical

University Peshawar.

**Supervisor:** Professor Dr. Niaz Ali

2004 MBBS: University of Peshawar (GMC Campus), Pakistan.

# Professional Experience

#### 2023-Present Associate Professor Pharmacology

Organization: Khyber Medical University Institute of Medical Sciences Kohat.

**Responsibilities:** Teaching face to face, online teaching, Research, Course Coordinator, Advising and mentoring, Member of curriculum committee, supervision, Professional development, Focal person of QEC, Member of GSC Basic Medical Sciences, Focal Person of harassment committee, Member of Anti-Tobacco and drug committee, PT member, Member of disciplinary committee, Member of proctorial board, Moderator of MBBS and BDS Exams, Member of grievance committee, Member of board of studies, Module Director, Internal and external Examiner.

### 2017 –2023 Assistant Professor Pharmacology

**Organization:** Khyber Medical University Institute of Medical Sciences Kohat.

**Responsibilities:** Teaching face to face, online teaching, Research, Course Coordinator, Advising and mentoring, Member of curriculum committee, Module director, PT member, Member of disciplinary committee, Moderator of Exams, Internal and external Examiner

#### 2012 – 2017 Lecturer Pharmacology

**Organization:** Khyber Medical University Institute of Medical Sciences Kohat.

**Responsibilities:** Teaching undergraduates of MBBS and BDS, Demonstrating Practicals, Internal evaluations, advising and mentoring, Member of disciplinary committee

Feb 2006.

**House Surgeon** in dept. of Gynae DHQ Teaching Hospital D.I.Khan, Pakistan Feb 2005 – August 2005.

# Teaching (Courses taught to undergraduates)

- General Pharmacology
- Drugs Acting on Autonomic Nervous System
- Drugs acting on Cardiovascular System
- Drugs Acting on Respiratory System
- Drugs Acting on Endocrine and reproductive System
- Drugs Acting on Gastrointestinal Tract
- Drugs acting on Central Nervous System
- Chemotherapy

## Administrative Experience

- Secretary of Presentation & Seminar Section in Gomal Student Council in 2005-2006.
- PT member of Pharmacology department for MBBS program of KMU from 12/11/2019
  till date
- Member of proctorial board of KMU-IMS kohat from 7/05/2021 till date.
- Member of Team to work on developing MCQs databank for KMU from 2/06/2021 to 4/11/2022.
- Course coordinator of 3<sup>rd</sup> year MBBS modular system from Session 2022 till date.
- Module director of Foundation II module of 3<sup>rd</sup> year MBBS in KMU-IMS kohat for session 2022 till date.
- Member of KMU Anti-Drug and Tobacco Committee (ADTC) from 17/10/2022 till date.
- Member of KMU-IMS harassment committee from 23/12/2022 till date.
- Member of KMU-IMS grievance committee.
- Member of Mentor ship Program of KMU-IMS from 2<sup>nd</sup> November 2023 till date.
- Head of department of Pharmacology KMU-IMS from 1<sup>st</sup> August 2023 till date.
- Chairperson of GSC for Basic Sciences of KMU-IMS from 5/09/2023 till date.
- Member of combined disciplinary committee of KIMS, KIDS and IHS Kohat from 28/02/2024 till date.
- Focal person QEC KMU-IMS from 28 February 2025 till date

## **Professional Development and Certifications**

- Certificate in Health Professional Education fall 2021, Khyber Medical University Peshawar.
- Certificate in Health Research (CHR) 2023.Rehman Medical Institute Peshawar.

## **Workshops, Webinars and Conferences Attended**

- Two days training workshop on Self-Assessment Report Writing was held on December 19-20, 2019, organized by Quality Enhancement Cell, KMU.
- Two days' Workshop on Exploring Medical Research: Integrating Research Question, Study
- Workshop on Biosafety, Biosecurity and Bio risk Management January 2023
- Capacity Building Workshop on Research Methodology and Statistics 16-17 May 2023 KMU-IMS Kohat.
- Poster presentation in International Conference on Health Research 2023 (ICHR-23)
  Emerging Research Landscape: A Global Trend 20-22 June 2023, Rehman College of Dentistry –Rehman Medical Institute Peshawar.
- Workshop on Peer review 25<sup>th</sup> September 2023 in KMU Institute of Medical Sciences, Kohat.
- Using Artificial Intelligence in research at Pakistan Physiological Society International Conference 2023 (PPS-18) October 6-8, 2023.
- Methods, Proposal writing, and AI Applications. 7<sup>th</sup> and 8<sup>th</sup> May 2024.
- National Undergraduate Research Conference 2024 at KMU-IMS Kohat Shaping the Future: Innovation, Challenges and Solutions 10<sup>th</sup> November 2024.
- Webinar on An introduction to the use of AI Tools in research and writing, conducted on Feb 2, 2025
- Webinar on Transform Your Presentations using Al Tools, conducted on 15th March 2025.

#### Publications

- [1] Khan MH, Anwar S, Ahmad I, Khan RH, **Subhan Z**, Noreen N, et al. Characteristics of drug abusers admitted in drug abuse treatment centres at Peshawar, Pakistan. Gomal journal of medical sciences. 2004; 2(2).
- [2] Ali N, Nabi M, **Subhan Z**, Ullah S, Sultana U, Shams B. Acute toxicity and antinociceptive activity of saponins rich fraction of Dioscorea deltoidea (wall). Khyber Medical University Journal. 2020; 12(2):107-12.
- [3] Bukhari S, Ali W, **Subhan Z,** editors. Comparative Activity of Vaccinium Macrocarpon and Antibiotics in Pregnancy. Medical Forum Monthly; 2021.
- [4] Aamir M, Khan JA, Shah SHA, **Subhan Z**, Faisal MS. Off Label and Unlicensed Drug Prescriptions in Pediatric Medical Units at Tertiary Care Hospitals of Peshawar, Pakistan. International Journal of Pathology. 2021:183-9.
- [5] Bashir A, Ahmad F, **Subhan Z**, Shah SJ, Ali K, Inayat F, et al. Comparing Frequency of Cardiovascular Autonomic Neuropathy in Diabetic Cirrhotic with Non-Diabetic Cirrhotic Patients: Cardiovascular Autonomic Neuropathy in Diabetics and Non-Diabetics. Pakistan BioMedical Journal. 2022:95-102.
- [6] Ali W, Zaman S, **Subhan Z**, Razaq A, Nabi M, Khattak M, et al. Methicillin-Resistant Staphylococcus aureus (MRSA) epidemiology and antibiotics susceptibility profile isolated from different clinical samples in tertiary care hospital: MRSA epidemiology and

- antibiotics susceptibility profile. Pakistan Biomedical Journal. 2022:108-12.
- [7] Nabi M, Zaman S, Umar A, Rehman E, **Subhan Z**, Aziz N, et al. Bacteriological Profile and Drug Resistance Pattern of Isolates of ICU Patients In Hospital of Peshawar: Bacteriological Profile and Drug Resistance Pattern. Pakistan BioMedical Journal. 2022:281-5.
- [8] Rehman E, Shah SHA, Nabi M, **Subhan Z**, Zaman S, Naeem N, et al. High Risk of Cardiovascular Events in Patients, Biosynthesis of Aspirin-Resistant Thromboxane And The Risk Of Stroke, Myocardial Infarction Or Death: Biosynthesis of Aspirin-Resistant Thromboxane & Risk of Stroke. Pakistan BioMedical Journal. 2022:213-8.
- [9] **Subhan Z**, Shah FA, Farooq H, Shah SHA, Khan MO, Rehman E, et al. Antimicrobial Activity of Moxifloxacin 4th Generation Quinolones Against H-Pylori in Tertiary Care Hospital Peshawar. Pakistan Journal of Medical & Health Sciences. 2022; 16(07):619-.
- [10] Nabi M, Muhammad A, **Subhan Z**, Hassan G, Mohammad NS, Salam A, et al. Insulin and Melatonin Modulates the Histo Architecture, Cellular Biochemistry and Receptor Expression During Injury of Hepatic in Diabetic individuals and its treatment. Pakistan Journal of Medical & Health Sciences. 2022; 16(08):417-.
- [11] Mahmood S, Bhattarai P, Khan NR, **Subhan Z**, Razaque G, Albarqi HA, et al. An investigation for skin tissue regeneration enhancement/augmentation by curcumin-loaded self-emulsifying drug delivery system (SEDDS). Polymers. 2022; 14(14):2904
- [12] Ali M, Khan NR, **Subhan Z**, Mehmood S, Amin A, Rabbani I, et al. Novel Curcumin-Encapsulated  $\alpha$ -Tocopherol Nanoemulsion System and Its Potential Application for Wound Healing in Diabetic Animals. BioMed Research International. 2022; 2022(1):7669255.
- [13] Mustafa G, **Subhan Z**, Asghar M, Rehman K. Evaluation of Serum Antioxidant capacity and Liver functions in Hepatitis B and C viral infections. Khyber Medical University Journal. 2022; 14(2):122-7.
- [14] Ali S, Hussain W, **Subhan Z**, Ahmad M, Mujtaba MA, Ijaz MU, et al. Sensitivity Pattern of Antimicrobial from Pneumonia Patients in Tertiary Care Hospital. Pakistan Journal of Medical & Health Sciences. 2022; 16(08):698-.
- [15] Ahmad J, Amin MU, Mustafa A, **Subhan Z**, Qaiser F. Antinociceptive and Anti-Inflammatory Activities of Wulfenia Amherstiana in Tobacco Regulatory Science 2022; 8(1):2573-2583.
- [16] Shuaib A, Ahmad M, Asfandyar A, **Subhan Z,** Razaq A, Bangash SA, et al. Applications of the Dopaminergic System Expressed by Peripheral Blood Lymphocytes in Neuropsychiatric Disorders. Pakistan Journal of Medical & Health Sciences. 2022; 16(09):592-
- [17] Khan SA, Rehman E, Khattak MB, **Subhan Z**, Khan SY, Marwat ZI. The Impact of Toxoplasma Gondii Infection on the Vitamin D3 Levels among Women in Childbearing Age, Treatment and Effect on Fetal Brain Development. Global Drug Design & Development Review. 2022 Jun 30; 7(2):22-32.
- [18] Khawaja TM, Shah SHA, **Subhan Z**, Mehmood I, Khan MA, Shah MA. Effect of Losartan on Oxidative Stress and Lipid Profile in Patients with Essential Hypertension. International Journal of Pathology. 2023:27-32.
- [19] Muhammad Sajid, Noor Ul Ain Nawaz, Sumaira Irum Khan, Junaid Ahmad, Shubana Hayat, Naseem Ullah, **Zakia Subhan**, & Muhammad Usman Amin. (2023). Prevalence of Anemia and Factors Associated with it among the Female Population going to colleges and universities in Khyber Pakhtunkhwa (kpk), Pakistan. Journal of Population Therapeutics and Clinical Pharmacology, 30(18), 51-59.
- [20] Shah MA, Nizamuddin ZS, Khawaja TM, Mehmood I, Ullah S. Role of Rosuvastatin in

Preventing Risk of Cardiovascular Disease in Patients with Chronic Obstructive Pulmonary Disease. In Medical Forum Monthly 2023 Sep 30 (Vol. 34, No. 9).

- [21] Muhammad U, Ullah R, **Subhan Z**, Bahadar H, Ahmad S, Rasheed A. Evaluation of In-vivo anti-inflammatory activity of methyl 2-(5-butyl-6-thioxo-1, 3, 5-thiadiazinan-3yl), butanoate: In-vivo anti-inflammatory Activity of Methyl Thiadiazinan-3yl Butanoate. Pakistan Journal of Health Sciences. 2024 Mar 31:79-84.
- [22] Hussain R, Nabi M, Khan S, **Subhan Z**, Rahim F, Faisal MS, Hussain A, Ullah H, Khan Y, Bekhit MM, Alnbaheen MS. Design, synthesis and in vitro biological evaluation of new coumarin containing oxazole hybrid derivatives as multitarget inhibitor of  $\alpha$ -amylase and  $\alpha$ -glucosidase for the treatment of diabetes. Results in Chemistry. 2024 Jul 1; 9:101638.
- [23] Ahmad M, Uddin I, Murad M, Maryam L, **Subhan Z**, Khan MS, Nabi K, Nabi M, Rahim F, Ullah H, Rehman ZU. Cholinesterase inhibitors for the treatment of Alzheimer's disorder: Synthesis, biological analysis and molecular modelling studies of iso-quinoline derivatives. Results in Chemistry. 2024 Jul 1; 9:101661.
- [24] Hussain R, Hassan W, Rahim F, Subhan S, **Subhan Z**, Khan S, Hussain A, Ullah H, Nabi M, Ullah R, Ali EA. Pyrazine based novel molecules as potential therapeutic agents: Synthesis, in vitro biological screening, in silico ADMET profiling and molecular docking study. Results in Chemistry. 2024 Aug 1; 10:101698.
- [25] Atta T, **Subhan Z**, Nabi M, Ain NU, Ali W. Long term thalidomide therapy's efficacy and safety in transfusion-dependent beta thalassemia major patients: a systematic review. Khyber Medical University Journal. 2024 Sep 30; 16(3):255-62.
- [26] Khan T, Umar A, **Subhan Z**, Khan MS, Ali HZ, Ullah H, Sabri S, Wajid M, Iqbal R, Bhat MA, Ali H. Therapeutic Potential of Novel Silver Carbonate Nanostructures in Wound Healing and Antibacterial Activity Against Pseudomonas chengduensis and Staphylococcus aureus. Pharmaceuticals. 2024 Nov 1;17(11):1471.
- Subhan Z, Ali N, Ullah A, Ali W, Nabi M, Shah SW. New Lead Schiff Bases Predominantly Mediate Vasorelaxant Activity Through α1 Receptor Blocking Activity. Biomolecules. 2025 Apr 23; 15(5):611.

#### References

### 1. Professor Dr. Niaz Ali (Supervisor)

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#### 3. Dr. Muhammad Nabi (Co-Supervisor)

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