



PROF. DR. INAYAT SHAH

PHD, POST DOC, MBBS, PGD, DFM, CHPE, MHPE

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- Khyber Medical University
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Google Scholar ID:

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SKILLS

- Project Management
- Public Relations
- Teamwork
- Time Management
- Leadership
- Effective Communication
- Critical Thinking
- Academic Leadership
- Research and Grant Management
- Quality Assurance and Governance

LANGUAGES

- English (Fluent)
- Urdu (Fluent)
- Pushto (Fluent)



PROFILE

A seasoned academic leader and researcher with over 15 years of experience, I currently serve as the Director of the Institute of Basic Medical Sciences (IBMS) at Khyber Medical University (KMU). I have led strategic initiatives that enhanced research output, faculty development, and program accreditation, including the successful implementation of a computer-based examination system impacting over 1,200 exams annually. As Consultant for the Public Health Reference Laboratory (PHRL), I manage serological research and public health initiatives.

With expertise in Human Physiology, Sports Medicine, and Health Professions Education, I have mentored numerous PhD and MPhil students, driving academic and research excellence. KMU has helped me in polishing my leadership skills in curriculum Development, academic administration, programs accreditation and international collaboration over the last years, and I am dedicated to advancing KMU's vision of excellence in education, research, and healthcare, with a focus on AI in health, innovation, digitization and public health impact.

EDUCATION

Master's in Health Professions Education (MHPE) Sep 2023 – Jan 2026
Khyber Medical University, Peshawar, Pakistan

Post Doc Dec 2022- Nov 2023
(Centre for IMPACT (C4IMPACT University of York)

Diploma in Family Medicine Aug 2018 – July 2019
Khyber Medical University, Peshawar

Certificate in Health Professional Education (CHPE) April 2021- Oct 2021
Khyber Medical University, Peshawar

Introduction to the Principles and Practice of Clinical Research Sep 2017- June 2018
NIH UK

PhD Physiology Sep 2010 – May 2015
University of Glasgow, United Kingdom

PGD (Evidence Based Medicine and Health Professional Education) Sep 2010 – Aug 2011
University of Glasgow (UK)

MBBS Dec 2000 – Dec 2006
Khyber Medical Collage University of Peshawar, Pakistan



EXPERIENCE

Senior Leadership, Academic & Administrative Roles

Director, Institute of Basic Medical Sciences (IBMS)

November 2020 till date

As Director, Institute of Basic Medical Sciences, I implemented strategic initiatives that led to an increase in research output, improved faculty development programs, and enhanced the quality of postgraduate education. I successfully led the accreditation of the MPhil & PhD programs in 13 different specialties and built international research collaborations. In addition, my institute also got accreditation for FCPS programs in Physiology, Anatomy and Biochemistry. In This role, I am responsible for:

- Strategic Leadership: Providing direction and vision to the institute
- Academic Oversight: Development, implementation, and evaluation of academic programs
- Research management: facilitating research initiative, securing funds, and ensuring compliance with ethical standards.
- Administrative management: Budgeting, resource allocation, and service delivery
- Quality Assurance: Enhancing the quality of education, research, and ensuring compliance with accreditation standards.
- Collaboration and Networking: Establishing and maintaining collaborative relationships with other institutions and healthcare organizations.
- Community engagement: Engaging with the community, healthcare professionals, and other stakeholders to promote health awareness.
- Lead role in faculty development, research capacity building, and national academic networking
- Chair, Graduate Studies Committee and PhD Advisory Committees.

Focal Person Semester System Examination Jul 2023 till date

- In this role, I am responsible for Leading the coordination and execution of university-wide semester and annual examinations.
- Managing **1,200+ annual examinations** with an estimated **1.2 million question-paper turnover**.
- Overseeing secure question-paper preparation, printing, distribution, and examination logistics.
- Ensuring timely, accurate, confidential, and transparent examination processes.
- Coordinating with academic and administrative units to ensure smooth and efficient conduct of examinations.

Chairman Strategic Planning Committee Aug 2023 – Till date

In this role I am responsible for:

- Leading the development, implementation, monitoring, and evaluation of KMU's Strategic Plan 2023–2028.
- Providing strategic leadership for institutional growth, academic excellence, research, innovation, and quality enhancement across KMU and its constituent institutions.
- Coordinating the development of strategic priorities, key performance indicators (KPIs), and institutional targets in alignment with KMU's vision and mission.

- Strengthening strategic planning, performance management, and evidence-based decision-making across academic and administrative units.
- Monitoring progress against strategic objectives and preparing periodic performance reviews and reports for senior university management.
- Facilitating coordination among faculties, institutes, constituent colleges, and administrative departments for effective implementation of strategic initiatives.
- Leading initiatives for curriculum development, academic quality enhancement, accreditation, and alignment with national and international standards.
- Contributing to resource optimization, institutional development planning, and sustainable growth of the University.
- Working with internal and external stakeholders to identify emerging challenges, opportunities, and strategic priorities for KMU.
- Promoting a culture of continuous improvement, accountability, innovation, and outcome-based institutional planning.
- Developing and reviewing strategic policies and frameworks to support KMU's long-term institutional goals and priorities.

○ **Professor of Physiology**

Aug 2024 – Till date

Institute of Basic Medical Sciences, Khyber Medical University, Peshawar

At this role, I am responsible for;

- Teaching Cardiovascular Physiology (PHY801), Respiratory Physiology, Sports Medicine (PHY 705), and Sports Physiology (PHY 802) to Postgraduate students (MPhil and PhD)
- Teaching Blood Physiology and Cell Physiology to Undergraduate students
- Currently working on multiple collaborative research projects
- Supervision of postgraduate research students, MPhil, PhD, FCPS
- Writing grant proposals and publishing research articles.
- Lead curriculum development and accreditation of MPhil/PhD/FCPS Physiology program from KMU statutory bodies as well as the Higher Education Commission (HEC), Pakistan, Pakistan Medical and Dental Council (PMDC), Pakistan and College of Physicians and Surgeons of Pakistan (CPSP)
- Establish multidisciplinary research clusters in cardiometabolic health, exercise medicine, genomics, and digital health
- Improve international rankings through quality publications, citations, and collaborations
- Supervising/Supervised 7 PhDs and 32 MPhil Scholars
- Executive Editor Advances in Basic Medical Sciences
- Chairman of the Graduate Study Committee

Associate Professor, Physiology

May 2019 – Aug 2024

Institute of Basic Medical Sciences, KMU

The responsibility included:

- Teaching Cardiovascular Physiology (PHY801), Sports Medicine (PHY 705), and Sports Physiology (PHY 802) to Postgraduate students (MPhil and PhD)
 - Teaching Blood Physiology and Cell Physiology to Undergraduate students
 - Supervision of postgraduate research students
 - Writing grant proposals and publishing research articles
- Member of the Advanced Studies and Research Board

Assistant Professor of Physiology

Institute of Basic Medical Sciences, KMU

June 2015 – May 2019

The responsibility included:

- Teaching "BMS 802; Ethics for research scientists", BMS 803 "Applied Biostatistics, "PHY 802" Respiration and Sports Physiology, Cardiovascular Physiology (PHY801), Endocrinology (PHY 705) to MPhil and PhD students
 - Principal investigator in 2 and Co-PI in 3 research projects. Conducting research trainings and seminars
 - Facilitating Journal Club and research symposia
- Organizer of International research conferences

Chair Graduate Study & PhD Advisory Committee

Khyber Medical University, Peshawar, Pakistan

2020 to date

- To supervise and conduct the annual review process of all PhD students enrolled in the Institute of Basic Medical Sciences KMU (nearly 120) and submit a formal report to the academic council and the Director of academics
 - To ensure the timely and successful completion of PhD research
- Organize research and development activities and training.

Graduate Training Assistant (GTA)

Aug 2010 – July 2011

University of Glasgow, UK

- Assisted faculty in the delivery of lectures and the preparation of teaching materials.
- Conduct tutorial sessions, laboratory sessions, and seminars as assigned.
- Facilitated discussions and helped students understand course content.
- Offered office hours to provide academic support, advice, and mentorship to students.
- Acted as a liaison between students and faculty, facilitating communication and understanding.
- Maintained accurate records of research findings and presented results at meetings as required.
- Participated in research activities under the supervision of faculty members

Senior Surgical Officer

March 2009 – June 2010

International Committee of the Red Cross (ICRC), Peshawar

- Diagnosed and treated patients independently as well as under consultant supervision
- Maintained patients' records
- Supervised undergraduate Medical students

Medical Officer

Feb 2008 – March 2009

Peoples Primary Healthcare Initiative, Peshawar

- Diagnosed and treated patients in different disciplines of Medicine

House Job

Jan 2007 - Jan 2008

Medicine and Surgery Lady Reading Hospital Peshawar

- Diagnosed and treated patients in different disciplines of Medicine

RESEARCH INTRESTS

I am leading a research group at Khyber Medical University Pakistan. Our research group is multidisciplinary team of Scientists, Clinicians and IT professionals. My research interests lie at the intersection of sports physiology and chronic disease management, with a particular focus on the physiological responses and adaptations in athletes and individuals at risk of diabetes and cardiovascular diseases. I am deeply interested in exploring how regular physical activity and sports can influence the progression and management of prediabetes and hypertension. My goal is to develop targeted exercise interventions that can be integrated into preventive healthcare strategies to improve outcomes in hypertensive patients, with prediabetes and diabetes. This includes studying the effects of various types and intensities of exercise on blood pressure, insulin sensitivity, and overall cardiovascular health. I aim to contribute to evidence-based practices that can guide clinical recommendations and public health policies.

POSTGRADUATE STUDENTS SUPERVISED

I have had the privilege of supervising over 30 MPhil students in the fields of Physiology, Physical Medicine, and Physical Education. Additionally, I have served as the primary supervisor and co- supervisor for six doctoral candidates in Physiology and Physical Education. Currently, I am supervising a cohort of 7 MPhil and 5 PhD candidates, guiding their research in advanced topics within these disciplines.

INTERNATIONAL AND NATIONAL RESEARCH COLLABORATIONS

1. Research Work on Genetic Analysis of Autosomal Recessive Visual Impairment in Pakistani Consanguineous Families with the University of Geneva
2. Applying Mixed reality teaching Methodology Using HoloLens to Medical students in collaboration with the MCoRPUS, Belgium
3. Collaboration with UNICEF, on Strengthening Nutrition Education and Curriculum Integration at KMU
4. Collaboration with Department of Sports and Physical Education, Sarhad University of Information Technology, Peshawar
5. Collaboration with Department of Sports and Physical Education, University of Haripur
6. Collaboration with UNICEF, on Mental Health Assessment and Follow-up Project for Flood-Affected Schoolchildren in KP
7. Collaboration with Department of Sports and Youth Affairs, KP for establishment of 1st integrated Biomechanical and rehabilitation lab. Concept note accepted and included in ADP 2025-26

RESEARCH GRANTS

Below is a list of research projects that I received/won as Principal Investigator. In this role, I am responsible for proposal writing, budget utilization, project execution, and final report submission:

1. Awarded research grant of **(0.489 M PKR)** under Faculty Research Grant Program from ORIC KMU, Jan 2021, for the research project titled "Vitamin D Levels: Newly Diagnosed Pulmonary Tuberculosis and Rifampicin Resistant Patients" as PI, **(Completed)**
2. Awarded NRPU grant of **(4.365 M PKR)** from HEC, Pakistan, in June 2022, for a research project titled "Optimization of Exercise Protocol For Prediabetic Population In Post Prandial State" as PI Grant number: 16057, **(Completed)**
3. Awarded grant of **(157.60 M PKR)** for Strengthening Nutrition Education and Curriculum Integration at KMU as Project Lead by UNICEF, Pakistan **(Completed)**
4. Awarded grant of (35.777M PKR) for Mental Health Assessment and Follow-up Project for Flood-Affected Schoolchildren in KP, as PI **(In progress)**
5. Awarded grant of **(USD 41000)** for Mixed reality Holo-Lens Based Learning and Teaching in Medical Education by MCORPOUS, Belgium (Industry- Academia Linkage Project) **(Co-PI)**

RESEARCH PUBLICATIONS & IMPACT

With over 65 publications in peer-reviewed journals and a cumulative impact factor exceeding 50, my research has significantly contributed to the understanding of sports physiology and chronic disease management. Key publications include studies on the impact of exercise on prediabetes, cardiovascular health, and mental health in athletes.

So far, I have 65+ publications in peer-reviewed journals, of which 22 are Scopus-indexed. The cumulative impact factor of the publications is more than 50, the H-index is 9, and the total number of citations exceeds 200.

Google Scholar ID:

<https://scholar.google.com/citations?user=pz9SMU0AAAAJ&hl=en>

ResearchGate ID:

<https://www.researchgate.net/profile/Inayat-Shah-2>

ORCID ID:

<https://orcid.org/0000-0003-1900-6181>

LIST OF PUBLICATIONS

1. Khan M, Malik MO, Sajjad S, Uzair M, **Shah I**, Bhatti MI. Combination of Psilocybin and cognitive behavioral therapy improves Oxytocin levels and depressive symptoms in Patient with major depressive disorder. Genetic and Molecular Research. 2026; 25 (1S): 1-8 DOI: <https://doi.org/10.4238/e91xh631>
2. **Shah I**, Karim FH, Tauqir S, Shah Z. Effects of postprandial exercise timing on irisin and metabolic responses in adults with prediabetes. Khyber Medical University Journal. 2025;17(4):127– 135. <https://doi.org/10.35845/kmu.2025.24011>.

3. Zoofeen U, Shah M, Sultan S, Ehtesham E, **Shah I**, Sharif N, Khan M, Shah FA. Punicalagin improves inflammation and oxidative stress in rat model of pelvic inflammatory disease. *Natural Product Research*. 2025 May 19;39(10):2780–2786. doi: 10.1080/14786419.2024.2313183. Epub 2024 Feb 8. PMID: 38329023.
4. Rehman K, Tahir A, Imtiaz S, Khan Z, Afaq S, Khan A, **Shah I**, Kanaan M, Sanauddin N, Khaleeq N, Abdeali M, Walker S, Ahmed F, Jennings HM, Ali S, Fazid S, Shahab AR, Khattak MI, Zafar R, Basit A, Siddiqi K, Haq ZU. Engagement of community through participatory learning and action for control and prevention of type II diabetes and its risk factors (EMPOWER-D): A protocol for a cluster randomised controlled trial. *BMC Public Health*. 2025;25:3492. doi:10.1186/s12889-025-24371-y
5. Tirimzi SSA, Ahmed N, **Shah I**, Malik MO, Shah Bukhari SMS, Laghari A, Azhar EI, Yasir M, Shah M. Enhanced level of cardiac biomarkers (Troponin-I, atrial natriuretic peptide) and angiotensin-II in COVID-19 hospitalized acute coronary syndrome patients. *SN Comprehensive Clinical Medicine*. 2025;7:150. doi:10.1007/s42399-025-01917-
6. Sultan S, Zoofeen U, **Shah I**, Shah Bukhari SMS, Sharif N, Shah Bukhari SK, Khan M, Habib SH, Shah FA, Alamoudi MK, Shah M. Enhanced inflammatory and oxidative response mitigation by acetyl-L-carnitine in a rat model of pelvic inflammatory disease. *Naunyn-Schmiedeberg's Archives of Pharmacology*. 2025; 398: 9215–9224. doi:10.1007/s00210-025-03858-w
7. **Shah I**, Kareem FH, Tauqir S. Time matters: Acute physiological and psychological effects of different exercise durations in prediabetes. *Pakistan Journal of Medical & Cardiological Review*. 2025;4(1):82– 96.
8. **Shah I**, Kareem FH, Tauqir S. Finding the feel-good zone: Psychological responses to exercise intensity in adults with prediabetes. *Sports Sciences and Physical Education Review*. 2025;4(1): LXIV–LXXVI.
9. Tauqir S, **Shah I**, Alsubaie A, Noreen S, Sadaf S, Ali S. Prevalence of psychological distress: a scientific approach towards the mental health and wellbeing of population during the SARS-CoV-2 outbreak. *F1000Research*. 2024;13:339. doi:10.12688/f1000research.145483.2
10. Tauqir S, Shah SS, **Shah I**, Ali S. Exercise intensities and metabolic health: Targeting blood glucose, insulin, and C-peptide levels in adults with prediabetes in the postprandial state. *Journal of Taibah University Medical Sciences*. 2024;19(5):1049–1057. doi:10.1016/j.jtumed.2024.10.002
11. Tauqir S, Shah SS, Mohmand A, Malik MO, **Shah I**. Optimizing the timing of exercise after meal in prediabetic individuals. *Journal of Population Therapeutics and Clinical Pharmacology*. 2024;31(6):364–373. doi:10.53555/jptcp.v31i6.6501
12. **Shah I**, Kareem FH, Tauqir S. Impact of diverse intensities of acute exercise on lipid profiles and cardiorespiratory fitness in prediabetic populations postprandially. *Pakistan Journal of Medical & Cardiology Review*. 2024;3(4):103–110.
13. **Shah I**, Kareem FH, Tauqir S. Effects of timing, intensity, and duration of aerobic exercise on body composition in prediabetic adults. *Sports Sciences and Physical Education Review*. 2024;3(2): CVII–CXV.
14. Shah Z, **Shah I**, Malik MO, Fayyaz F. Moderate exercise and antioxidant dynamics: Unravelling the influence of family history in prediabetes. *Khyber Journal of Medical Sciences*. 2024;17(4):268–275. doi:10.70520/kjms.v17i4.562

15. Amber, **Shah I**. Unseen scars: COVID-19 and the silent mental toll on track athletes. *Sports Sciences and Physical Education Review*. 2024;3(2):XXIV–XXX.
16. Sultan N, Arif T, **Shah I**, Khan W. Effect of vitamin D on body mass index in football athletes. *Pedagogy of Physical Culture and Sports*. 2024;28(4):328–335. doi:10.15561/26649837.2024.0410
17. **Shah I**, Kareem FH, Tauqir S. Impact of graded exercise intensity on Irisin secretion, lipid profile, and stress in a prediabetic population. *The SPARK*. 2024; 9(1):69-181
18. Sardar A, **Shah I**, Malik O, Mahmood R, Asmatullah A, Qaisar O. Effects of chewing time of high protein meal on satiety and GLP-1 hormone. *Pakistan Journal of Physiology*. 2024;20(2):31–35. doi:10.69656/pjp.v20i2.1632
19. Hamid N, Malik MO, Hajira B, **Shah I**, Azhar M. Food temperature altered macronutrients induced changes in satiety hormones; glucagon-like peptide-1 and cholecystokinin and their correlation with subjective satiety. *Journal of Family and Community Medicine*. 2024;31(3):237–243. doi:10.4103/jfcm.jfcm_356_23
20. Hamid N, Malik MO, Hajira B, **Shah I**, Azhar M. Consumption of high fat and hot temperature meals induces higher subjective satiety and reduces hunger. *Journal of Population Therapeutics and Clinical Pharmacology*. 2024;31(1):1398–1411. doi:10.53555/jptcp.v31i1.4190
21. Sultan N, **Shah I**, Ali I. Exploring the impact of sun exposure, vitamin D, and cardiorespiratory endurance on athletic performance of footballers. *Sports Sciences and Physical Education Review*. 2023;2(1): LXII–LXV.
22. **Shah I**, Kareem FH, Tauqir S. Exploring the interplay between exercise duration and effects on lipid profiles in prediabetic patients. *The SPARK*.8(10). 124-139. 2023.
23. Rao AR, Nazir A, Imtiaz S, Paracha SA, Waryah YM, Ujjan ID, Anwar I, Iqbal A, Santoni FA, **Shah I**, Gul K, Baig HMA, Waryah AM, Antonarakis SE, Ansar M. Delineating the spectrum of genetic variants associated with Bardet–Biedl syndrome in consanguineous Pakistani pedigrees. *Genes*. 2023;14(2):404. doi:10.3390/genes14020404
24. Khan MJ, Hussain SJ, Qazi N, Wazir AK, Wazir AH, **Shah I**, Ishtiaq M. Determinants of dietary pattern and non-communicable diseases among adult population of districts Kohat and Nowshera, Khyber Pakhtunkhwa, Pakistan. *Pakistan Journal of Medical & Health Sciences*. 2023;17(1):217–222. doi:10.53350/pjmhs2023171217
25. Tauqir S, Mahmood R, **Shah I**. Perceived stress responses among medical & dental students in Rehman Medical Institute during COVID-19 pandemic. *Journal of Rehman Medical Institute*. 2023 Jul–Sep;9(3):13–16.
26. Ahmad I, Binmadi N, Afridi SG, Aljohani S, **Shah I**, Saidal A, Shahzad M. Salivary oxidative stress and antioxidant capacity in smokeless tobacco (Naswar) users. *Clinical, Cosmetic and Investigational Dentistry*. 2023;15:121–132. doi:10.2147/CCIDE.S415827
27. Ali A, Baseer N, Huma Z, Yousafzai YM, **Shah I**, Zia A, Alorini M, Sethia N. Mixed reality model for learning and teaching in anatomy using peer assisted learning approach. *European Journal of Anatomy*. 2023;27(1):129–138. doi:10.52083/TRAD3516
28. Zubair A, Fatima S, Habib H, Nazli R, **Shah I**, Shah M. Effects of oral lipid-based nutritional supplements on appetite, energy intake, and lipid profile of moderately underweight children. *Food Science & Nutrition*. 2022;10:1–14. doi:10.1002/fsn3.3125

29. Ambreen F, Ali DES, Faiz S, **Shah I**, Majid B, Khan Z. Evaluation of salivary parameters (flow rate, pH, amylase and total protein) in periodontitis patients based on CPITN criteria. *International Journal of Health Sciences*. 2022;6(S9):1286–1295. doi:10.53730/ijhs.v6nS9.12520
30. Farukh U, **Shah I**, Rahim A, Batool SM, Ayub Z, Shabbir A, Khan I, Akhtar Z. Effect of strict glycemic control on periodontitis in non-insulin dependent patients: A quasi-experimental study. *Journal of Khyber College of Dentistry*. 2022;12(2):69–75.
31. Ahmad I, Fatima S, Luqman MW, Nazli R, Habib SH, **Shah I**. Efficacy of multiple micronutrients supplementation on energy intake, calcium and vitamin d levels in underweight children. *Journal of Ayub Medical College Abbottabad*. 2022;34(3 Suppl 1):589–597. doi:10.55519/JAMC-03-S1-9296
32. Khan H, Khan S, Arif T, **Shah I**. Effects of aerobic exercise protocol on high density lipoprotein (HDL) level among young adults: An experimental study. *The SPARK*. 2022;7(1):26–34.
33. Khan MN, Khan H, Shahzad M, Ibrahim M, Arif M, Kibria Z, Waheed U, Saba N, **Shah I**, Sumera, Yousafzai YM. Seroprevalence of SARS-CoV-2 antibodies among eligible blood donors of Peshawar, Pakistan. *American Journal of Blood Research*. 2022;12(3):88–96.
34. **Shah I**, Arif T, Bukhari A, Ali I. The effects of high intensity exercise to exhaustion on the concentrations of endostatin and VEGF in plasma. *Pakistan BioMedical Journal*. 2022;5(6). doi:10.54393/pbmj.v5i6.590
35. Mustafa G, Mughal AW, **Shah I**, Arif T, Abbasi MM. The effects of resistance training for 12 weeks on serum calcium, phosphorous and parathyroid hormone levels of urban and rural children. *Pakistan BioMedical Journal*. 2022;5(5):143–147. doi:10.54393/pbmj.v5i5.465
36. Muhammad R, Mughal AW, Khan W, Roman S, **Shah I**. Analysis of serum electrolyte concentration by exercising on treadmill ergometer at different MET levels. *Webology*. 2022;19(2):5269–5279.
37. Shah Z, **Shah I**, Malik O, Fayyaz F. The physiological response of cardiorespiratory fitness parameters to exercise in prediabetic population: An experimental pre-post design. *The SPARK*. 2021;6(1):71–78.
38. Shah Z, **Shah I**, Malik O, Ahmad F. Exploring anthropometrics, body composition and antioxidant capacity in prediabetic population with and without family history of diabetes. *Medical Forum Monthly*. 2021;32(12):60–63.
39. Khan N, Shah M, Malik MO, Badshah H, Habib SH, **Shah I**, Shah FA. The effects of tobacco and cannabis use on semen and endocrine parameters in infertile males. *Human Fertility*. 2021. doi:10.1080/14647273.2021.1969042
40. Shahzad M, Ali A, **Shah I**, Ayaz K, Jamil B, Salam A. An observational study to assess satisfaction with multi-resource peer assisted learning among postgraduate research students. *Rawal Medical Journal*. 2021;46(3):690–694.
41. Shah Z, **Shah I**, Malik MO, Ullah I. Effect of short duration moderate intensity physical activity on glycemic control and antioxidant status of prediabetic population. *Saudi Medical Journal*. 2021;42(6):660–665. doi:10.15537/smj.2021.42.6.20210019
42. Tauqir S, Israr M, Rauf B, Malik MO, Habib SH, Shah FA, Usman M, Raza MA, **Shah I**, Badshah H, Ehtesham E, Shah M. Acetyl-L-carnitine ameliorates metabolic and endocrine alterations in women with PCOS: A double-blind randomized clinical trial. *Advances in Therapy*. 2021;38(9):4875–4896. doi:10.1007/s12325-021-01789-5

43. Sammar K, **Shah I**, Shah M, Naz R, Nazir U. Effect of academic stress on physiological and biochemical parameters among medical students. *Advances in Basic Medical Sciences*. 2021;5(1):3–6.
44. Hassan J, Rehman SU, **Shah I**, Salman H, Abideen ZU, Shereen MI. Comparison of serum prolactin levels in patients with erectile dysfunction with and without type 2 diabetes mellitus. *Journal of Medical Sciences*. 2021;29(1):6–9.
45. **Shah I**, Arif T, Baxendale RH, Iftikhar M, Khan A. The effect of different exercise intensities on plasma endostatin in healthy volunteers. *Journal of Pharmaceutical Research International*. 2021 Mar;33(13):30-8.
46. Shah Z, Mughal AW, Khan S, Tauqir S, **Shah I**. Moderate physical activity improves inflammatory markers (IL-6 and TNF- α) and diabetic profile in the prediabetic population. *Annales Kinesiologiae*. 2020;11(2):131–144. doi:10.35469/ak.2020.271
47. Hassan J, Rehman SU, **Shah I**, Salman H, Abideen ZU, Shereen MI. Testosterone levels in patients of erectile dysfunction with and without type 2 diabetes mellitus. *Pakistan Journal of Physiology*. 2020;16(4):3–5.
48. **Shah I**, Tauqir S, Mughal AW, Shahzad M, Arif T. Effective intensity of exercise for improving the modifiable risk factors of cardiovascular disease in overweight adult males. *The SPARK*. 2020;5(1):1–7. Shah Z, **Shah I**, Mehmood A, Muhammad G, Shahid S, Dar A. Effect of physical activity on HbA1c levels in prediabetic population. *Khyber Journal of Medical Sciences*. 2019;12(3):400–404.
49. Shoukat SW, Khan SA, Ishtiaq M, **Shah I**, Jamil SUU, Khan T. Bacteriological assessment of drinking water of Rawalakot district, Azad Kashmir, Pakistan. *Khyber Medical University Journal*. 2019;11(4):222–225. doi:10.35845/kmu.2019.18799
50. **Shah I**, Mughal AW, Khan AQ. Correlation of body mass index with selected physical fitness parameters among adolescents of Khyber Pakhtunkhwa, Pakistan. *The SPARK*. 2019;4(1):99–103.
51. Zaman U, Taimoor A, Qureshi SA, **Shah I**, Nazir A, Fatima S. Common risk factors of spontaneous preterm labour with intact foetal membranes. *Pakistan Journal of Physiology*. 2019;15(3):10–12.
52. Zaman U, Nazir A, Taimoor A, **Shah I**, Fatima S, Jadoon H. Association of risk factors with spontaneous preterm labour with intact foetal membranes. *Journal of Ayub Medical College Abbottabad*. 2019;31(4):536–540.
53. Shah FJ, Imranullah, Mustafa A, Ishtiaq M, Jawad M, **Shah I**, Huma N. Relationship of tuberculosis with demographic and socio-economic variables among patients visiting a health care facility in district Peshawar. *Advances in Basic Medical Sciences*. 2019;3(1)
54. Ullah I, Shah FJ, Mustafa A, Ishtiaq M, **Shah I**, Ullah N, Khan SA. Knowledge, attitude and practices of hospital staff regarding the solid waste management in Hayatabad Medical Complex Peshawar. *Advances in Basic Medical Sciences*. 2018;2(2):93–96.
55. Ansar M, Chung H, Taylor RL, Nazir A, Imtiaz S, Sarwar MT, Manousopoulou A, Makrythanasis P, Saeed S, Guipponi M, Pournaras CJ, Ansari MA, Ranza E, Santoni FA, Ahmed J, **Shah I**, Gul K, Black GCM, Bellen HJ, Antonarakis SE. Bi-allelic loss-of-function variants in DNMBP cause infantile cataracts. *American Journal of Human Genetics*. 2018;103(4):568–578. doi:10.1016/j.ajhg.2018.09.004
56. Yousafzai YM, Baseer N, Fatima S, Ali A, **Shah I**. Changes in learning style preferences of postgraduates after entering a new learning environment. *Journal of Ayub Medical College Abbottabad*. 2018;30(3):386–391.

57. Jalil T, Rashid I, **Shah I**, Khan I, Yousafzai YM. In-silico assessment of common β -globin gene mutations found in Khyber Pakhtunkhwa, Pakistan. *Pakistan Journal of Physiology*. 2018;14(3):69–75
58. Roghani A, Khan N, **Shah I**, Khan S, Taj AS, Yousafzai YM. Quality of life and its determinants in transfusion dependent thalassaemia. *Pakistan Journal of Physiology*. 2018;14(3):64–68
59. **Shah I**, Habib SH, Yousafzai YM, Ali A, Ikram S, Zia H, Said R. Perceived stress in undergraduate physical therapy students of Peshawar, Pakistan. *Pakistan Journal of Physiology*. 2018;14(3):60–63.
60. Ali A, Habib SH, **Shah I**, Jan A, Yousafzai YM. Attributes of a good medical school: faculty perspective in local context. *Pakistan Journal of Physiology*. 2017;13(4):48–51.
61. Shaheen G, Ali A, Tariq SA, Ullah S, Sultana N, **Shah I**, Khan N, Halimi SMA, Saeed M, Habib SH. Evaluation of hepatotoxic and nephrotoxic effects of piroxicam sulfonated derivatives. *Pakistan Journal of Physiology*. 2017;13(4):18–22.
62. **Shah I**, Malik MO, Khan MJ, Fatima S, Baxendale RH, Habib SH. Endostatin concentration in plasma of healthy human volunteers. *Journal of Ayub Medical College Abbottabad*. 2017;29(2):200–206.
63. Habib SH, Malik MO, Fatima S, **Shah I**. Evaluation of peer assisted learning in evidence based medicine course: A pilot study at University of Glasgow. *Journal of Ayub Medical College Abbottabad*. 2017;29(4):662–666.
64. Ali A, Haq ZU, Huma Z, **Shah I**, Yousafzai YMM, Kazmi SKR. Teaching microscopy effectively through a combined Peyton's four-step approach and Gagné's instructional model. *Pakistan Armed Forces Medical Journal*. 2017;67(6):1030–1037.
65. Arsh A, Ali A, Ullah I, Darain H, Khan A, Zaidi MU, **Shah I**. Body mass index in medical students and its association with gender and academic year. *Pakistan Journal of Physiology*. 2017;13(3):18–21.
66. Ali A, Yousafzai YMM, Khan Z, **Shah I**. The systematic translation of biomarkers research into clinical practice. *Pakistan Journal of Physiology*. 2017;13(3):42–47.

CORE COMPETENCIES

- Leadership in academic and research management, curriculum design, faculty development, grant writing, and stakeholder engagement.
- Expertise in building research capacity, fostering interdisciplinary collaborations, and ensuring compliance with national and international accreditation standards.
- Research: Grants writing, Project planning & management, Biostatistics, and manuscript writing
- Laboratory: Basics of Quantification of Exercise-induced thermogenesis and substrate metabolism, Breath by breath analysis of individuals, Quantification of the aerobic and anaerobic capacity of different individuals using VO₂ max test, The cardio-protective mechanisms during exercise, Body Plethysmography, Sport Medicine and Injuries, ELISA, PCR, and Western blot technique for quantification of proteins and other antigens
- Teaching: Lesson planning, Classroom management, Assessment, and student engagement and motivation
- Curriculum planning, development, and accreditation
- Communication and public engagement
- Computer skills: Microsoft Word, Excel & PowerPoint. End note, Zotero, SPSS, Minitab, GraphPad Prism

AWARDS & HONOURS

- Certificate of Appreciation for Generous Efforts and Outstanding Contributions to Khyber Medical University, by VC, KMU, Peshawar, on 17 January 2023.
- Certificate of Appreciation for Frontline warrior; Contributions During the COVID-19 Pandemic, by VC Khyber Medical University, Peshawar.
- Certificate of Appreciation for Achieving of IBMS as leading institute (Category W) as per QEC ranking by VC, Khyber Medical University, Peshawar
- Certificate of Appreciation for Excellent Teaching Performance at the Institute of Basic Medical Sciences in 2018, by the Quality Enhancement Cell (QEC), Khyber Medical University, Peshawar.
- Certificate of Appreciation for Excellent Teaching Performance at the Institute of Physical Medicine & Rehabilitation in 2016, by the Quality Enhancement Cell (QEC), Khyber Medical University, Peshawar.
- Certificate of Appreciation for Excellent Teaching Performance at the Institute of Physical Medicine & Rehabilitation in 2015, by the Quality Enhancement Cell (QEC), Khyber Medical University, Peshawar.
- Certificate of Appreciation for Outstanding Performance as an Assessment Team Member for Academic Programs at Khyber Medical University, Peshawar.
- Aailed HEC Funded KMU scholarship for faculty development for PhD from University of Glasgow, 2010-2015
- Remained School representative for School of Life Sciences, University of Glasgow, for 3 years, 2012-2015
- Scholarships from the intermediate board both in SSC and HSSC for standing in top 20 positions (1998-2020)
- Various certifications in Advanced Medical Statistics, Good Clinical Practice, and Advanced Cardiac Life Support (ACLS) from the University of Glasgow and USAID.
- Advance cardiac life support and basic life support by the Ministry of Health / USAID
- Integrated Management of Newborn and Child Health, organized by the Ministry of Health / USAID
- Certified in Excel, MS Word and Power point, SPSS, Designing Posters, Good Clinical Practice, Advanced Medical Statistics, Applied Medical Statistics, Critical Appraisal of Medical Literature, Reference Manager, Scientific Medical Writing, Information Resources and Search Skills - (Med Sci), Educational Supervisor Training Session, Endnote Bibliographic Software Organized by University of Glasgow, School of Medicine.
- Certified in the Research Capacity program for PI organized by HEC and Coventry University
- Certified in the Personal Reliability Workshop organized by PBSA, NIH, USA
- Certified in Organizational Behavior and Work Ethics, organized by Pakistan Academy for Rural Development
- Office bearer PPS as Vice President PPS since Dec 2025
- Office bearer PPS 2023-25, as Treasurer & C-Chair PPS-18 International Conference

SCIENTIFIC ACTIVITIES (WORKSHOPS/CONFERENCES/ SEMINARS) AS ORGANIZER/ FACILITATOR/ PARTICIPANTS

Leadership Role in Conferences

- Finance Chair of the 1st International Basic Medical Sciences Conference organized by Khyber Medical University, Peshawar from 23rd to 25th Oct, 2018
- Organizer of the 2nd International Basic Medical Sciences Conference organized by Khyber Medical University, Peshawar from 20th to 23rd Nov, 2023
- Organizer of the 4th Euro-Pak International Conference of Sports Sciences & Education organized by Sarhad University, Peshawar & INSHS (France) on 9th & 10th Nov, 2024 at Islamabad
- Co-Chair at Pakistan Physiological Society International Conference 2023 (PPS-18), Held on) October 6-8, 2023, jointly organized by KMU, RMI and KGMC
- Organizer of the 3rd Euro-Pak International Conference of Sports Sciences & Education organized by Sarhad University, Peshawar & INSHS (France) on 9th & 10th Nov, 2024 at Islamabad
- Organizer of the 2nd Euro-Pak International Conference of Sports Sciences & Education organized by Sarhad University, Peshawar & INSHS (France) on 9th & 10th Nov, 2024 at Islamabad
- Organizer of the 1st International Conference on Quality Assurance in Higher Education (ICQAHE), organized by the Quality Enhancement Cell (QEC), Khyber Medical University, Peshawar, from 18–19 December 2017.
- Chief Organizer of the 4th National Seminar on Genetic Disorders, organized by Khyber Medical University, Peshawar, on 2 October 2024.
- Organizer of the 3rd National Seminar on Genetic Disorders 2023,
- held on 24 October 2023.
- Chief Organizer and Focal person of Seminar on “Advancing Inclusive and resilient youth” by International Research Institute, IIUI, held on 22nd July 2025.
- Chief Organizer and Focal person of Seminar on “Advancing Inclusiveness among youth through training and education” by International Research Institute, IIUI, held on 15th and 16th Nov 2019.
- Organizer of Workshop on Small Laboratory animal Handling, Organized by IBMS, KMU on 12th Sep 2023
- Lead Organizer of the International Thalassemia Day, Organized by IBMS and DOSTI welfare Organization, on 8th May 2025

As Keynote/ Oral Presenter at International Conference (Inland and abroad)

- Keynote Speaker “Mental Health and Physical Activity” at the 19th
- Pakistan Physiological Society International Conference 2025 (Baluchistan Chapter) on 6th December 2025.
- Oral Presentation at “Improving Mental and Physical Health Together”, jointly organized by Khyber Medical University and UK International Development, from 24–26 November 2025. • Oral Presentation on “Three trial, One Insight: How Aerobic Exercise Shapes Stress and Brain functions in Prediabetes” at the XVIII International Congress of

Human Motricity (ICHM), organized by Universidade Tiradentes, Brazil, from 22–24 October 2025.

- Keynote Speaker at XVII International Human Motricity Congress on “Beating Prediabetes: The right exercise at the right time” held at Villa Vicoso, Portugal on 11th, 12th and 13th December 2024
- Keynote speaker at the 4th Euro-Pak International conference on “Exercise & Diabetes” at Islamabad by Sarhad University of Information Technology on October 5th, 6th, 2024
- Keynote speaker at the 1st International Conference on ‘Innovation in Health Care Practices During Pandemic: Bridging the Gap between Scientist’ at University of Haripur, December 05, 2023
- Keynote speaker at 2nd International Conference on ‘Health Challenges of COVID-19: Collective Knowledge in Transformation of Societies’ at University of Haripur, October 19- 20, 2023
- Keynote speaker at 1st International Conference on Sports at Gomal University DIKhan, October 25-26, 2022
- Keynote Speaker at 1st international Interdisciplinary conference, 7th to 9th June 2022, Held at Bara Gali Campus, University of Peshawar
- Oral presentation on the effect of Optimization of exercise timings for diabetic patients in the postprandial state, in the 1st International Conference on Physical Activity, Sports and Recreation held at the Government College University, Faisalabad, on 17 to 18 December 2019.
- Oral Presenter at the 16th Biennial Conference (Supplementary), organized by AJK Medical College, Muzaffarabad, from 21–22 June 2019.
- Oral Presenter at the 1st International Conference on Sports, Exercise & Health Sciences, organized by the Higher Education Commission (HEC) and Gomal University, D.I. Khan.

Workshop and Seminars Facilitated

As Facilitator

- Facilitator for “Designing Smart Hospitals” on 16 April 2025, organized by Khyber Medical University, Peshawar.
- Facilitator for “Principles, Application, and Training on Enzyme- Linked Immunosorbent Assay (ELISA)” on 30 January 2016, organized by Khyber Medical University, Peshawar.
- Facilitator for a Hands-on Workshop on the Practical Application of Enzyme-Linked Immunosorbent Assay (ELISA) on 29 April 2016, organized by Khyber Medical University, Peshawar.
- Facilitator more than 100 workshops on communication Skills organized by College of Physician and Surgeons Pakistan (CPSP)
- Facilitator for a Medical Genetics Training Workshop on Patient Enrollment and Study Design, organized by Khyber Medical University, Peshawar.
- Master trainer for De Escalation and managing of violence in Healthcare setting ICRC
- Master trainer on curriculum update in Human and clinical nutrition course

As Participant

- Attended Workshop on “AI tools for Medical Research” on 2nd and 3rd July 2026, organized by ORIC KMU
- Certified in “Qualitative Expertise: Thinking Through Qualitative Study Objectives, Design, and Data Management” on 6 March 2025, organized by IMPACT.
- Certified in Good Clinical Practice on 16 August, 2023 organized by NIDA Clinical Trails Network

- Certified in Organizational Behaviour & Work Ethics training from 12–14, 2022, organized by the Academy for Rural Development, Peshawar.
- Certified in Research Capacity Building Programme for Principal Investigators in 2022, organized by the Pak–UK Education Gateway.
- Attended Emergency First Aid at Work training on 5 April 2013, conducted by Stewart First Aid Training Ltd.
- Certified in Good Clinical Practice on 21 July 2010, organized by GCRF, University of Glasgow.
- Certified in "Evaluating Professionalism: Why It Matters, What to Assess, and How to Assess It" on 16 April 2025, organized by Khyber Medical University, Peshawar.
- Attended "Health Economics: An Introduction" on 3 December 2024, organized by the Global Mental Health Symposium.
- Certified in Supervisory Skills training from 19–21 January 2024, organized by the College of Physicians & Surgeons Pakistan (CPSP).
- Certified in Assessment of Competence training from 15–17 December 2023, organized by the College of Physicians & Surgeons Pakistan (CPSP)
- Certified in Educational Planning & Evaluation training from 18–20 August 2023, organized by the College of Physicians & Surgeons Pakistan (CPSP)
- Attended "Emerging Research Landscape: A Global Trend" from 20–22 June 2023, organized by Rehman College of Dentistry, RMI, Peshawar.
- Certified in Research Methodology, Biostatistics & Medical Writing training from 23–26 August 2023, organized by the College of Physicians & Surgeons Pakistan (CPSP).
- Attended the Personnel Reliability Workshop from 4–5 November 2022, organized by the Pakistan Biological Safety Association.
- Attended "Promoting Equitable Relationships in Identifying Community-Driven Research Priorities" on 27 October 2020, organized by Khyber Medical University, Peshawar.
- Attended Advancement Inclusiveness among Youth through Training & Education by International Islamic University, Islamabad on 15 & 16 Nov, 2019.
- Attended Research Ethics training from 1–2 October 2019, organized by Khyber Medical University, Peshawar
- Attended a Facilitation Workshop on the Practice of Flow Cytometry from 23–25 October 2018, organized by BMedCon'18, Khyber Medical University, Peshawar
- Attended the Micro Feedback Skills Workshop on 23 May 2017, organized by Khyber Medical University, Peshawar.
- Attended training on Polymerase Chain Reaction (PCR) on 27 January 2017, organized by Khyber Medical University, Peshawar
- Attended the 39th Annual Conference of the Pakistan Association of Pathologists and the 4th Joint Conference of Societies of Pathology on 24 November 2016, organized by Khyber Medical University, Peshawar.
- Attended Research Methodology & Proposal Development and Bio-statistics & SPSS training from 5–10 April 2010, organized by Khyber Medical University, Peshawar.
- Attended the ESS-EMCH Workshop from 11–15 November 2008.
- Attended Research Governance and Standards and Standard Operating Procedure (SOP) Development training from 28–29 October 2024, organized by The Aga Khan University, Karachi.

- Attended "Communication & Consultation in Clinical Practice: Unveiling the Hidden Agenda", organized by Khyber Medical University, Peshawar.
- Participated in the 31st Anniversary of the Pakistan Physiological Society , jointly organized by Rehman Medical College, on 16 April 2018.
- Participated in the National Youth Conference on Countering Violent Extremism on Campuses , held in Islamabad, organized by the National Counter Terrorism Authority (NACTA) and HEC, from 11–12 July 2018.
- Poster Presenter at the SAAP VI & PPS 16th Biennial Conference, organized by UCMD, from 13–15 December 2018.
- Participated in the Symposium on Complete Blood Counts: Principles, Clinical Interpretation, and Recent Advances, organized by the Institute of Basic Medical Sciences, Khyber Medical University, Peshawar.
- Attended the 2nd International Public Health Conference titled "Winds of Change: Public Health Innovations for a Healthier Nation", organized by Khyber Medical University, Peshawar.

MEMBERSHIPS & MISCELLANEOUS ACADEMIC AND ADMINISTRATIVE SERVICES

- CPSP approved Supervisor for FCPS Physiology
- HEC Approved Supervisor for PhD Physiology
- Chairman KMU Strategic Plan for 2023-2028
- Vice President, Pakistan Physiological Society
- Member International Human Motricity Network (IMHN), Europe
- Chairman Inspection Committee Since
- Member Syndicate Khyber Medical University Since 30th June 2025
- Chairman Graduate Study Committee IBMS, KMU
- Chairman IBOS, IBMS KMU
- Chairman Curriculum Committee, IBMS, KMU
- Chairman Institutional Performance Evaluation Committee
- Chairman for determining the Eligibility and recognition of experience committee
- Facilitator for Communication skills Workshop for CPSP since 2016 (more than 100 workshops Facilitated)
- Inspector for Higher Education Regulatory authority for 4 years
- Master trainer for De Escalation and managing of violence in Healthcare setting ICRC
- Member KMU Strategic Planning Resource Enhancement Committee (SPREC), KMU
- Member of the Statues Committee KMU
- Member of the Institutional Inspection Committee KMU
- Member KMU admission committee for MBBS/ BDS for 4 years
- Member Governance and Coordination committee for Functionalization of KMU nursing Schools
- Member University Selection Board KMU
- Examiner of the National Licensing Exam for Pakistan Medical and Dental Council
- PhD and MPhil Examiner for different Universities
- PMC and PMDC Inspector for evaluation and recognition of Medical Colleges
- Chairman Appellate Medical Board for MBBS/BDS admissions
- Program Review member of different Universities For HEC evaluation
- Member Pakistan Medical and Dental Council

- Member South Asian Association of Physiology (SAAP)
- Member Pakistan Biological Safety Association (PBSA)
- Reviewer for national and international, peer-reviewed journals KMJ, SPARK, PJP, and AFMJ
- Reviewer/examiner for the evaluation of PhD/MPhil theses of various universities in Pakistan

NOTABLE SEMINARS ATTENDED

- Presentation by James D Watson,
- Nobel laureate for DNA structure discovery- Presentation by
- F Barre- Sinoussi
- Noble laureate for HIV discovery

REFERENCES

Prof. Ronald H Baxendale

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Pakistan