

CURRICULUM VITAE

Khyber Medical University, Peshawar

1. Personal Information

Name: Dr. Shakir Ullah, PhD, Post Doc

Designation: Associate Professor, Pharmacology

Department: Institute of Pharmaceutical Sciences, Khyber Medical University, Hayatabad, Phase V, Peshawar, Pakistan

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2. Academic Qualifications

Degree	Discipline	Institution	Year
PhD	Pharmacology	Institute of Basic Medical Sciences	2017
Post Doc	Neuroscience	Center for Neuroscience, Shantou University Medical College, China	2018
CHPE	Medical Education	Khyber Medical University	2024
MPhil	Immunology	National University of Science and Technology, Islamabad	2011
Pharm-D	Pharmacy	University of Malakand, Chakdara	2007

3. Professional Experience

Position	Organization	Duration
Associate Professor	Khyber Medical University	2025 – Present
Assistant Professor	Khyber Medical University	2019 – 2025
Lecturer	University of Malakand	2018 – 2019
Research Associate	Khyber Medical University	2014 – 2017
Pharmacist	North West General Hospital, Peshawar	2013 – 2014
Lecturer	Department of Pharmacy, Margalla Institute of Health Sciences, Islamabad	2009 – 2013
Pharmacist	Shifa International Hospital, Islamabad	2008 – 2009
Quality Control Analyst	Ipram International Pharmaceutical, Islamabad	2007 – 2008

4. Administrative Responsibilities

- Member, Board of Study, Institute of Pharmaceutical Sciences, Khyber Medical University.
- Member, Board of Faculty, Basic Medical Sciences, Khyber Medical University.

- Member, Graduate Study Committee, Institute of Pharmaceutical Sciences, Khyber Medical University.
- Member, Ethics Committee, Institute of Pathology and Diagnostic Medicines, Khyber Medical University.
- Member, Disciplinary Committee, Institute of Pharmaceutical Sciences, Khyber Medical University.

5. Areas of Specialization / Research Interests

- Neuropharmacology.
- Neuroscience.
- Epilepsy.
- Depression.
- Neurodegeneration.
- Pharmacogenomics and pharmacogenetics of CNS-acting drugs.
- In-silico and network pharmacology.
- Vaccine design.
- CNS-acting drug discovery.
- Drug designing.

6. Publications

Summary

Total Publications: 41

Cumulative Impact Factor: 120 (as stated in source CV)

HEC W Category: 38

HEC X Category: 3

Selected Publications

- Khan N, Ullah S, Ilyas M, Khan MW. Investigating the Role of Vitamin D in Enhancing Duloxetine and Fluoxetine Efficacy: Mechanistic Insights into NRF2 Activation, Oxidative Stress, and Neurochemical Modulation. *Journal of Biochemical and Molecular Toxicology*. 2025;39:e70473. (IF = 2.9)
- Ali S, Nawaz S, Ullah S, Irshad Z, Ali N, Nawaz A, Riaz M, Rahman NU. The protective role of *Calotropis procera* Linn against cisplatin-induced oxidative stress, insight into antioxidant effects. *Pakistan Journal of Pharmaceutical Sciences*. 2025;38(2):605-613. (IF = 0.9)
- Jahan S, Ikram M, Siraj S, Ullah S, Zakria M, Ahmad N. Emodin, a Potent Anthraquinone Mitigates MPTP-Induced Parkinson's Disease Pathology by Regulating Nrf2 and Its Downstream Targets: In Silico and In Vivo Approach. *Molecular Neurobiology*. 2025. (IF = 4.6)
- Khan I, Ullah S, Ullah S, Ali N, Huma Z, Yaşar S, Khan S, Haq RU, Khan A, Khan I. Antidepressant effects of SY-2476: A caffeine derivative's role in A1/A2A gene expression modulation in corticosterone-induced depressed rats. *Neuroscience Letters*. 2024. (IF = 3.046)
- Jamil A, Ali N, Adil MI, Ullah S, Faisal MS, Awan B. Prospective Study on Genetic Determinants of Carbamazepine Response: The CYP3A5-rs15524 Gene Polymorphism in Pashtun Patients with Epilepsy. *Journal of Medical Sciences*. 2024;32(4):365-370. (Cat. Y)
- Nur Ul Ain, Ali N, Ullah A, Ullah S, Ahmad S. Bleeding Events Associated with Rivaroxaban Therapy in Naive Patients with Nonvalvular Atrial Fibrillation: A Longitudinal Study from a Genetic Perspective with INR Follow-Up. *Medicina*. 2024;60:1712. (IF = 2.4)

- Irshad Z, Nawaz S, Ullah S*, Ali N, Khan I, Nabi M. The anticonvulsant and antioxidant effect of Rosa moschata (J) fruit extract in pentylenetetrazole induced epileptic mouse model. International Journal of Pathology. 2024;22(2):61-75. (Cat. Y)
- Rashid HU, Ullah S, Carr DF, Khattak MIK, Asad MI, Rehman MU, Tipu MK. The association of ABCB1 gene polymorphism with clinical response to carbamazepine monotherapy in patients with epilepsy. Molecular Biology Reports. 2024;51:191. (IF = 2.316)
- Un-Nisa A, Khan A, Zakria M, Siraj S, Ullah S, Tipu MK, Ikram M, Kim MO. Updates on the Role of Probiotics against Different Health Issues: Focus on Lactobacillus. International Journal of Molecular Sciences. 2023;24:142. (IF = 6.208)
- Rehman MU, Ghazanfar S, Haq RU, Ullah S, Khan S, Wu J, Ahmad W, Tipu MK. Probiotics (Bacillus Clausii and Lactobacillus fermentum NMCC-14) Ameliorate Stress Behavior in Mice by Increasing Monoamine Levels and mRNA Expression of Dopamine Receptors (D1 and D2) and Synaptophysin. Frontiers in Pharmacology. 2022. (IF = 5.988)
- Farooq N, Ali N, Ullah S. Evaluation of Hematological Parameters in the Context of Genetic Prospective in Epileptic Patients of Khyber Pakhtunkhwa. Pharmacogenomics and Personalized Medicine. 2019;12:377-385. (IF = 2.721)

7. Research Grants & Projects

Project Title	Funding Agency	Amount	Status
Screening for New Antiepileptic Drug Molecules for Treatment of Resistant Epilepsy in the Context of Genetic Manipulation in Mice Models (PI)	ORIC, Khyber Medical University	0.5 Million PKR	Completed
Nano-Based Gels for Addressing Antimicrobial Resistance in Diabetic Wound Management (HEC/NRPU/50/135915) (Co-PI)	NRPU – HEC	10.5 Million PKR	Ongoing
Investigation of the Genetic and Immunological Basis of Autoimmunity in Primary Immunodeficiency Disorders in Pakistani Patients (Co-PI)	NRPU – HEC	11.8 Million PKR	Ongoing

8. Student Supervision

MPhil Students

#	Student	Title	Role	Session	Status
1	Irfan	Seizures Inducing Potential of Current Quinolones (Ciprofloxacin, Levofloxacin, Moxifloxacin) on Pentylenetetrazol Induced Seizures Model	Co-Supervision	2018	Graduated
2	Sehrish Jabeen	Synthesis, Molecular Docking, Anti-inflammatory and Analgesic Studies of Sulbentine Analogs	Supervision	2018	Graduated
3	Zainab Irshad	Role of Rosa Moschata (J) Fruit Extract on Oxidative Stress Markers in Epileptic Animal Model	Supervision	2020	Graduated
4	Samia Nawaz	The Protective Effect of Methanolic Extract of Calotropis Procera Linn Against Cisplatin-Induced Neurodegeneration	Supervision	2020	Graduated

#	Student	Title	Role	Session	Status
5	Ahsan	The Evaluation of Analgesic and Anti-Inflammatory Effect of Chalcone Derivative in Vivo and Vitro Model	Supervision	2020	Graduated
6	Rabea	Neurobehavioral Toxicity of Iron Oxide Nanoparticles Coated with Polyethylene Glycol and Polyethylenimine in Mice	Co-Supervision	2020	Graduated
7	Palwasha Khatak	Anti-bacterial and Anti-inflammatory Effects of Topically Applied Activated Carbon Containing Gel in Gingivitis and Periodontitis	Co-Supervision	2021	Graduated
8	Irfan	Antidepressant Effects of SY-2476 Caffeine Derivative in Corticosterone-Induced Rats Model of Depression	Supervision	2021	Graduated
9	Adil	Association of Cap10 Gene Polymorphism with Efficacy of Metformin in Type-2 Diabetic Patients	Supervision	2021	Graduated
10	Naveed	Antidepressant Effects of Vitamin D in Corticosterone-Induced Depression Model	Supervision	2021	Graduated
11	Sumbal Naseem	Association of IL-6 Polymorphism with Periodontitis in Metformin-Treated Type 2 Diabetes Mellitus	Supervision	2021	Graduated
12	Shafiq Ur Rehman	The Anticonvulsant Role of Hesperetin Against Pentylentetrazole-Induced Temporal Lobe Epilepsy in Rats Model	Supervision	2022	Graduated
13	Atif Khan	To Study the Effect of Hesperetin in Combination with Vitamin C on Metformin-Treated Streptozocin-Induced Type 2 Diabetes Mellitus	Supervision	2022	Graduated
14	Fawad Ahmad	The Impact of Caffeine Derivative (SY-2532) on Cognitive Impairment in the Context of CB1R and Adenosine Receptor in the PTZ-Induced Epileptic Model	Supervision	2024	Graduated
15	Salma Khan	Association of GABRG2 Gene SNPs (rs121909673 and rs796052510) with Generalized Epilepsy	Co-Supervision	2026	Graduated
16	Asmat Bibi	Association of GABRA1 Gene SNPs (rs587777364 and rs121434579) with Epilepsy in Khyber Pakhtunkhwa Population	Co-Supervision	2026	Graduated
17	Suneela Khattak	Association of CACNA1H Gene Polymorphisms with Generalized Epilepsy	Co-Supervision	2026	Graduated
18	Falesha Gul	To Evaluate the Effectiveness of SK-73 Molecules on Memory during Kainic Acid-Induced Epileptic Model	Supervision	2023	Thesis writing
19	Sumbal Haymun	Anti-depressant Effects of Caffeine Derivative (SK73) in Kainic Acid Induced Mouse Model of Epilepsy, Focusing on 5HT2C Receptors	Supervision	2023	Graduated
20	Nimra Unab	The Assessment of Protective Effect of SY-2532 in Epilepsy Associated Depression	Supervision	2024	Thesis writing
21	Zara Ishaq	Toward Personalized Epilepsy Treatment: Investigating ABCB1 Gene Polymorphisms as Predictors of Lamotrigine Response	Supervision	2024	Research in progress

#	Student	Title	Role	Session	Status
22	Sara Ahmad	SV2A Gene Polymorphisms in Generalized Epilepsy: Implications for Seizure Susceptibility and Levetiracetam Response	Supervision	2024	Research in progress
23	Shahbaz Khan	The Therapeutic Effect of Venlafaxine in Epilepsy Associated Depression in PTZ Induced Mice Model	Supervision	2025	Research in progress

PhD Students

#	Student	Title	Role	Session	Status
1	Haroon	Association of Carbamazepine and Valproic Acid Therapy with ABCB1 and SCN1B Gene Polymorphisms in Epilepsy	Co-Supervision	2016	Graduated
2	Wajid Ali	Statins and Dihydropyridines Drug Interaction(s): An In-vitro Study	Co-Supervision	2016	Graduated
3	Noor Ul Ain	Association of CYP3A4, CYP3A5 and ABCB1 Gene Polymorphisms on Rivaroxaban and Apixaban Pharmacokinetics in Atrial Fibrillation	Co-Supervision	2016	Graduated
4	Anees	Genetic Evaluation of Autosomal Recessive Pattern of Epilepsy in Consanguineous Families of Khyber Pakhtunkhwa	Co-Supervision	2016	Graduated
5	Dr. Ayshia Iftikhar	Preclinical Evaluation of Dapansutrile as a Potential Therapeutic Agent in Temporal Lobe Epilepsy: Targeted Modulation of the NLRP3 Inflammasome/Caspase-1/IL-1 β and IL-18 Signaling Pathway	Supervision	2024	Research in progress
6	Dr. Nisar Ahmad	Not specified	Supervision	2024	Proposal writing
7	Dr. Gul Mehnaz	Not specified	Supervision	2024	Proposal writing
8	Dr. Zainab Irshad	Not specified	Supervision	2024	Proposal writing

9. Teaching Experience

Undergraduate Courses

- Pharmacology & Therapeutics-II (2+1 Cr. Hr.).

Postgraduate Courses

- Clinical Pharmacology (PHM 703) (2+0 Cr. Hr.).
- CNS Pharmacology (BMS 739) (2+0 Cr. Hr.).

10. Conferences, Workshops & Trainings

- Paper presentation, 34th National Conference of Research Association of Pathology, King Edward Medical University, Lahore.
- 6th Annual Health Research Conference, Khyber Medical University, 2015.

- Workshop on Systematic Review/Meta-analysis (3CME).
- Workshop on SPSS for Clinicians, Lady Reading Hospital Peshawar (Neurology Department).
- Workshop on Next-Generation Sequencing, Khyber Medical University, Peshawar.
- Poster presentation, 6th Annual Health Research Conference, Khyber Medical University.
- Workshop on the Practical Application of Enzyme-Linked Immunosorbent Assay (ELISA), 7th Annual Health Research Conference, 2016.
- Workshop on Writing Grant-Winning Projects, 7th Annual Health Research Conference, 2016.
- Full command of STATA, Minitab, SPSS, and GraphPad Prism (statistical software).
- Workshop on HPLC and Facilitator, 8th Annual Health Research (One Way to Health) Conference, 2017.
- 1st International Conference on Quality Assurance in Higher Education (ICQAHE), December 18–19, 2017.
- 4th Invention to Innovation Summit KP 2018, 22–23 November 2018, CECOS University, Peshawar.
- 1st National Workshop on Molecular Biology Tools and Techniques, November 12–14, 2018, University of Malakand.
- 13th Asian & Oceanian Epilepsy Congress, 10–13 June 2021.
- Bench to Bedside: Editing Human Stem Cells with CRISPR-Cas9 for Treating Genetic Disorders, Center for Regenerative Medicine and Stem Cell Research, Aga Khan University (1 week).
- Ethics and Safe Animal Handling in Research, Department of Medical Education, Ayub Medical College, Abbottabad (22 April 2025).
- Guest Speaker, “3rd International Conference on Life Sciences: Harnessing for Sustainable Health, Environment & Industry (CLS-2026),” June 4–6, 2026, University of Management and Technology (UMT), Lahore, Pakistan.

11. Awards, Honors & Distinctions

- Prime Minister’s Fee Reimbursement Scholarship for PhD.
- University Fee Reimbursement Scholarship for MPhil.

12. Professional Memberships

- Nomination for the National Curriculum Review Committee (NCRC) – Pharmacy.
- Pharmacogenomics and Pharmacogenetics, Dove Medical Press.
- Frontiers in Pharmacology.
- Frontiers in Neurology.
- Open Life Sciences.
- Journal of Neurology, BMC.

13. References

Available upon request.