

MUHAMMAD YOUNUS

Chairman/ Associate Professor
Department of Pharmacognosy



CONTACT



+92 3464054083

+92 3077441519

+92 3464054083



Bahawalpur, Pakistan



mkhane@iub.edu.pk

EDUCATION

2021

Ph.D. (Pharmacognosy)

University of Karachi, Karachi

2009

M.Phil. (Pharmacognosy)

University of the Punjab, Lahore

1994

B.Pharmacy

Gomal University, D.I.Khan

LANGUAGES

- English
- Urdu
- Punjabi
- Pashto
- Saraiki

I aim to build a career in teaching and research within pharmaceutical sciences, focusing on natural products. My approach is driven by honesty, dedication, and a strong work ethic to contribute meaningfully to the field.

WORK EXPERIENCE

Oct 2023 – Present

Chairman, Dept. of Pharmacognosy

The Islamia University of
Bahawalpur

Jul 2023 – Present

Associate Professor (Pharmacognosy)

The Islamia University of
Bahawalpur

Apr 2022 – Nov 2023

In-Charge, Dept. of Pharmacognosy

The Islamia University of
Bahawalpur

Dec 2015 To Jul 2023

Assistant Professor (Pharmacognosy)

The Islamia University of Bahawalpur

Oct 2005 To Aug 2006

Lecturer (Pharmacognosy)

Riphah University, Islamabad

Aug 1994 To June 1999

Medical Sales Executive

GlaxoWellcome Pakistan Limited, Karachi

Nov 2009 To Dec 2015

Lecturer (Pharmacognosy)

The Islamia University of Bahawalpur

2002 To 2004

Field Manager/Product Specialist

Paramount Pharmaceuticals

RESPONSIBILITIES

- Advanced Analytical Techniques in Pharmacognosy (Graduate & Postgraduate)
- Instrumental Analysis (TLC, HPLC, IR, UV, Fluorescence) (Undergraduate, Graduate & Postgraduate)
- Spectroscopy (UV, IR, Mass, NMR) (Undergraduate, Graduate & Postgraduate)
- Research Methodology (Postgraduate)
- Biosynthesis of Natural Products, Ethnopharmacognosy, Marine Natural Products Chemistry, Fungal Metabolites, Chemotaxonomy (Undergraduate & Graduate)
- Overseeing departmental academic and administrative activities.
- Leading curriculum development and ensuring course quality.
- Managing faculty and staff recruitment, training, and evaluation.
- Promoting research initiatives and securing funding for projects.
- Ensuring compliance with university policies and academic standards.
- Facilitating collaboration between faculty, students, and industry partners.
- Organizing seminars, workshops, and conferences for knowledge exchange.
- Monitoring student progress and addressing academic concerns.
- Managing departmental budget and resource allocation.
- Representing the department in university meetings and committees.
- Establishing strategic goals for departmental growth and development.
- Encouraging interdisciplinary collaboration and partnerships.
- Ensuring the maintenance and upgrade of laboratory facilities and equipment.
- Overseeing the publication of departmental research and scholarly work.

RESEARCH

- Supervision of M. Phil and PhD students in the field of Pharmacognosy/ Natural Products

PHD

I completed my Ph.D. under the supervision of Dr. Mohtasheem ul Hasan at the University of Karachi, conducting research on the pharmacognostic standardization and phytopharmacological investigation of medicinal plants from the Cholistan Desert (Bahawalpur region, Pakistan). My dissertation, titled "Pharmacognostic and Pharmacological Studies on *Euphorbia nivulia* Buch.-Ham," involved testing crude extracts and fractions using solvents like ethanol, butanol, chloroform, and hexane, yielding positive results. This species was studied pharmacognostically and pharmacologically for the first time.

- Standardized *Euphorbia nivulia* using macroscopic and microscopic pharmacognostic parameters
- Evaluated enzyme inhibitory potential (α -glucosidase, acetylcholinesterase, thioureaase)
- Conducted in-vivo and in-vitro studies, including anticonvulsant activity using a modified De Sarro Model
- Investigated anti-diabetic and hepato-nephroprotective potentials
- Employed HPLC, GC-MS, and FTIR techniques for analysis
- Explored antibacterial and antifungal properties of natural products

I published 9 research articles in national and international journals (W, X, Y categories), with one article currently under review.

M PHIL RESEARCH

My research topic in M Phil was "Antimicrobial Potentials of *Echinops echinatus*" under supervision of Prof. Dr Farrakh Zia Khan, University College of Pharmacy, The University of Punjab, Lahore. 1 research article was published in an international journal.

CO-AUTHOR

Wrote a chapter in a book published by CRC-Press Taylor & Francis, USA
Toxicity, government regulations and future of nanotechnology in food packaging: In:
Dar, A. H. & Nayik, G. A. (1st. ed. 2023) Nanotechnology interventions in food
packaging and shelf life extension. USA: CRC-Press Taylor & Francis
Link: <https://www.vitalsource.com/en-uk/redeem>

CO-SUPERVISION OF PHD & M PHIL STUDENTS

- Co-supervising Mr. Fayyaz Anjum, a Ph.D. scholar in pharmacology (2020–2023), focusing on the pharmacognostic and pharmacological aspects of *Bassia indica*.
- Co-supervising Muhammad Atif, a Ph.D. scholar in biochemistry (2021–2024), working on bioassay-guided fractionation of *Ochthochloa compressa* from the Cholistan Desert.
- Co-supervised Iqra Fareed, an MPhil student in pharmaceutical chemistry (2019–2022), on phytochemical and biological evaluation of *Onosma bracteatum*.
- Co-supervised Iqra Rafiq, MPhil in Eastern Medicine (2019–2021), on phytochemical and enzyme inhibition studies of *Euphorbia nivulia* Buch.–Ham.

RESEARCH PAPERS

- Anjum, Fayyaz, Saad Touqeer, Muhammad Younus Khan, QurraUllah Jamil, Ayesha Rida, Jafir Hussain Shirazi, Syeda Abida Ejaz, et al. "Pharmacognostic Evaluation, Chemical Characterization, and Antibacterial Activity of *Bassia indica* (Wight) AJ Scott." *Plants* 13, no. 13 (2024): 1753.
- Sarwar, Ghulam, Tauseef Anwar, Huma Qureshi, Muhammad Younus, Muhammad Waqar Hassan, Muhammad Sajid-ur-Rehman, Faizan Khalid, Muhammad Ishaq, Bushra Ahmed Alhammad, and Mahmoud F. Seleiman. "Revealing the Dynamics of Saffron Growth: Optimizing Corm Size and Planting Depth for Increased Yield Synergies." *PLOS ONE* 19, no. 5 (2024): e0303264.
- Sarwar, Ghulam, Tauseef Anwar, Huma Qureshi, Muhammad Younus, Muhammad Waqar Hassan, Muhammad Sajid-ur-Rehman, Faizan Khalid, Faiza, Wajid Zaman, and Walid Soufan. "Optimizing Germination: Comparative Assessment of Various Growth Media on Dragon Fruit Germination and Early Growth." *BMC Plant Biology* 24, no. 1 (2024): 533.
- Younus, Muhammad, Muhammad Mohtasheem-ul-Hasan, Shakeel Ijaz, Muhammad Kamran, Ambreen Maqsood, Bushra Saddique, Uzair Nisar, et al. "Investigation of *Euphorbia nivulia*-HAM for Enzyme Inhibition Potential in Relation to the Phenolic and Flavonoid Contents and Radical Scavenging Activity." *Life* 12, no. 2 (2022): 321.
- Javed, Nayla, Haji Muhammad Shoaib Khan, Muhammad Younus, et al. "Development, Characterization, Stability, and Toxicity Evaluation of Topical Ethosomal Gel Loaded with *Berberis vulgaris* L. Fruit Extract as a Cosmeceutical Product." *Journal of Population Therapeutics & Clinical Pharmacology*. DOI: 10.53555/jptcp.v3i1i.4271.
- Khan, Zaeem Hayat, Syeda Abida Ejaz, Shahid Muhammad Jafir Hussain Shirazi, Muhammad Younus, Iqbal, and Muhammad Naeem Aamir. "Assessment of the Quality of Drinking Water in Educational Institutes of South Punjab, Pakistan." *Journal of Xi'an Shiyu University, Natural Science Edition*. ISSN: 1673-064X.

- Adnan, Qazi, Sehrish Rafiq, Naveed Akhtar, Muhammad Younus, et al. "Formulation, In-Vitro Characterization, Antioxidant Potential, and Vicissitude in Rheological Parameters of Cosmeceutical Cream Containing Brassica oleracea Extract." Journal of Xi'an Shiyu University, Natural Science Edition. Volume 19, Issue 11, November 2023, 835-858. ISSN: 1673-064X.
- Fareed, Iqra, Irshad Ahmad, Muhammad Younus, et al. "A Comprehensive Study on the Phytochemistry, Extraction, Biological Evaluation, and In Silico Potential of Onosma bracteatum by GC/MS." Journal of Xi'an Shiyu University, Natural Science Edition. Volume 19, Issue 11, published on 20.11.2023.
- Yousuf, Muhammad, Haji Muhammad Shoaib Khan, Muhammad Shahzad Khan, Naheed Akhtar, Qazi Adnan, Muhammad Saleem Qureshi, Muhammad Younus, et al. "Evaluation of Various Skin Mechanical Properties after Application of Cosmetic Emulgel Loaded with Piper nigrum Seed Extract." Journal of Xi'an Shiyu University, Natural Science Edition. Volume 19, Issue 11, published on 18.11.2023.
- Shahida, Afia, Duraiz Ahmed Khana, Hanan Y. Aatib, Muhammad Younus, et al. "Chemical Profiling and Biological Activities of Dipterygium glaucum Decne." South African Journal of Botany 160 (2023): 715-730.
- Rehman, Agha Habibur, Muhammad Younus, Shehla Akbar, Numera Arshad, Imran Ahmad, et al. "Phytochemical Evaluation, Spectral Analysis, and Antiepileptic Potential of Euphorbia nivulia in Swiss Albino Mice." Bioscience Research 20, no. 2 (2023): 537-542.
- Younus, Muhammad, Noreen, B., Akram, M. N., Usman, M., ul Hassan, M., Khurshid, U., et al. "Phytochemicals Analysis and Detection of Heavy Metal Contents in Euphorbia nivulia and Soil of Cholistan Desert by Atomic Absorption Spectrum." Journal of Xi'an Shiyu University, Natural Science Edition. Volume 19, Issue 3 (2023): 10-24.
- Ahmad, Khalil, Asif, H. M., Afzal, T., Khan, M. A., Younus, M., Khurshid, U., et al. "Green Synthesis and Characterization of Silver Nanoparticles through the Piper cubeba Ethanolic Extract and Their Enzyme Inhibitory Activities." Frontiers in Chemistry 11 (2023).
- Ghaffari, Muhammad Abuzar, Khuram Ashfaq, Muhammad Younus, Muhammad Anees ur Rehman, et al. "Phytochemical, Phytotoxic, and Brine-Shrimp Lethality Investigations of Gazania rigens L." Bioscience Research 20, no. 1 (2023): 239-244.
- Abbas, Farrukh, Iqtidar Hussain, Zuhair Hasnain, Muhammad Younus, Rao Anum, and Shehla Akbar. "Response of Various Canola Genotypes to Different Fertility Levels under Irrigated Conditions of Dera Ismail Khan, KP Pakistan." Bioscience Research 20, no. 1 (2023): 224-231.
- Gull, Shama, Chaudhry B. A., Uzair, M., Ghaffari, M. A., Imran, M., Haneef, Younus, M., et al. "Phytochemical Investigations and Biological Work on Aerial Parts and Roots of Trigonella polycerata." Pakistan Journal of Pharmaceutical Sciences 35, no. 4 (2022): 1261-1267.

- Rasool, Shahid, Khizar Abbas, Faheem Ahmad, Muhammad Younus, Mehreen Malik Uttra, Amanullah, and Adnan Amin. "Determination of Antioxidant and Bimolecular Protective Effect of *Berberis calliobotrys* Aitch. ex Koehne Extracts and Essential Oil Against H₂O₂ Induced Oxidative Damage to pBR 322 DNA and RBCs." *Pakistan Journal of Pharmaceutical Sciences* 35, no. 2 (2022): 465-471.
- Shaheen, Ghazala, Iqra Fatima, Younas Khan, Hafiz Muhammad Asif, Tahira Shamim, et al. "Screening of Ethanolic Extract for Antioxidant and Anti-bacterial Activities of Some Selected Plants from Cholistan Desert." *RADS Journal of Pharmacy and Pharmaceutical Sciences* 10, no. 4 (2022): 94-200.
- Hussain, Iqtidar, Zuhair Hasnain, Muhammad Younus, Shehla Akbar, and Rashid Abbas. "Allelopathic Potential of Sorghum for Weed Control in Maize (*Zea mays* L.) in Climate Change Sustainable Agriculture." *Bioscience Research* 20, no. 1 (2023): 110-116.
- Abbas, Khizar, Muhammad Naeem Aamir, Muhammad Imran Qadir, Muhammad Younus, and Muhammad Naeem Qaisar. "Herbal Formulation Comprised of Methanol Extracts of *Tribulus terrestris* L. and *Zingiber officinale* Roscoe Has Antihypertensive Effects." *Alternative Therapies in Health and Medicine* 29, no. 4 (2021): 234-239.
- Younus, Muhammad, Muhammad M. Hasan, Muhammad Hanif, Ghulam Sarwar, Khalil Ahmad, Sajid M. ur Rehman, Jafir H. Shirazi, et al. "Botanical Features and Anti-cancerous Potential of *Euphorbia nivulia* Buch.-Ham." *Tropical Journal of Natural Product Research* 5, no. 9 (2021): 1591-1596. DOI:10.26538/tjnpr/v5i9.11.
- Younus, Muhammad, Hasan, M. M., Ahmad, K., Haq, I., Ahmad, R., Nasir, B., et al. "Evaluation of Hepato-Protective and Nephron-Protective Potential of *Euphorbia nivulia* Buch.-Ham. Against Carbon Tetrachloride-induced Toxicity in Sprague Dawley Rats." *Journal of Pharmaceutical Research International* (2021): 25-31. DOI: 10.9734/jpri/2021/v33i43A32420.
- Sajid-ur-Rehman, M., Ishtiaq, S., Khan, M. A., Alshamrani, M., Younus, M., Shaheen, G., et al. (2021). "Phytochemical Profiling, In Vitro and In Vivo Anti-Inflammatory, Analgesic, and Antipyretic Potential of *Sesuvium sesuvioides* (Fenzl) Verdc. (Aizoaceae)." *Inflammopharmacology*, 1-12.
- Younus, M., Hasan, M. M., Ali, S., Saddq, B., Sarwar, G., Ullah, M. I., et al. (2021). "Extracts of *Euphorbia nivulia* Buch.-Ham. Exhibit Phytotoxic and Insecticidal Properties Against *Lemna minor* L. and *Oxycarenus hyalinipennis* Costa." *PLoS ONE*, 16(4), e0250118.
- Shaheen, G., Noor, R., Zafar, F., Younus, M., Khurram Syed, S., Yasmeen, Z., Sajid-ur-Rehman, S., Fatima, S., & Sattar, A. (2021). "Hypertension: A Review of Therapeutic Potential of Medicinal Plants for Hypertension Management." *Plant Cell Biotechnology and Molecular Biology*, 22(45&46): 103-122.
- Fatima, I., Noor, R., Younus, M., Sajid-ur-Rehman, M., Ghaffar, S., et al. (2021). "Diabetes Mellitus: An Overview and Management with Herbs." *Journal of Pharmaceutical Research International*, 36-48.
- Younus, M., ul Hasan, M. M., Ijaz, S., Riaz, R., Ahmad, K., Hanif, M., et al. (2021). "Phytochemical Analysis, HPLC Profiling, and Antioxidant Potential of *Euphorbia nivulia* Buch.-Ham." *Journal of Pharmaceutical Research International*, 58-67

- Younus, M., Khan, F. Z., ul Hasan, M. M., Shirazi, J. H., Jamil, Q. A., Khan, Z., et al. (2021). "Pharmacognostical Standardization, Chromatographic and Spectral Analysis of Methanolic Extract of *Echinops echinatus* Linn. Roots and Fractions." *Journal of Pharmaceutical Research International*, 67-76.
- Aziz, I., Saqib, Q. N., Younus, M., Ali, E., Qadir, M. I., Siddique, F. A., et al. (2021). "Physicochemical, Antidiarrheal, and Antidiabetic Potential of Super Food (*Moringa oleifera* Lam.)." *Pakistan Journal of Pharmaceutical Sciences*, 34.
- Ahmad, K., Noor, R., Younus, M., Chohan, A., Asif, H. M., & Chishti, A. W. (2020). "Green Synthesis and Characterization of Silver Nanoparticles Using Crude Extract of *Crotalaria burhia*." *RADS Journal of Pharmacy and Pharmaceutical Sciences*, 8(4).
- Wazir, M. A., Azhar, M. I., Mehmood, Z. A., Qadir, M. I., Khan, M. Y., Siddique, F. A., et al. (2020). "Pharmacognostic, Phytochemical, Biological, and Spectroscopic Analyses of *Capparis decidua* (Forsk.) Edgew Root and Stem Bark." *Tropical Journal of Pharmaceutical Research*, 19(12), 2667-2675.
- Younus, M., Hasan, M. M., Khalil, S., Saddiq, B., Ahmad, K., Jamil, Q. A., et al. (2020). "Phytochemical, Antimicrobial, and Time-Kill Kinetics Potentials of *Euphorbia nivulia* Buch.-Ham.: A Cholistan Desert Medicinal Plant." *Pakistan Journal of Pharmaceutical Sciences*, 33.
- Younus, M., Hasan, M. M. U., Ahmad, K., Sharif, A., Asif, H. M., Aslam, M. R., et al. (2020). "α-Glucosidase Inhibitory, Antioxidant, and Anti-Hyperglycemic Effects of *Euphorbia nivulia*-Ham. in STZ-Induced Diabetic Rats." *Dose-Response*, 18(3), 1559325820939429.
- Khan, M. R., Khan, M. A., Ahmad, K., Hamad, A., Sajid-ur-Rehman, M., Asif, H., Younus, M., & Kamal, Y. (2019). "Synthesis, Characterization, and In Vitro Antibacterial Derivatives of Doxycycline." *RADS Journal of Pharmacy and Pharmaceutical Sciences*, 7(4), 215-226.
- Younus, M., Hasan, M. M., Abbas, K., & Sarwar, G. (2019). "Pharmacognostic and Physicochemical Screening of *Euphorbia nivulia* Buch.-Ham." *Pakistan Journal of Pharmaceutical Sciences*, 32(3).
- Rehman, A. H., Al Sharari, S. D., Ahmad, M., Akhtar, M., Khan, Y., & Ashraf, M. N. (2019). "Evaluation of Anticonvulsant and Antiepileptogenic Activity of *Euphorbia nivulia* in PTZ-Induced Kindling Model of Epilepsy in Mice." *Pakistan Journal of Pharmaceutical Sciences*, 32(2).
- Ishtiaq, S., Akram, M., Kamran, S. H., Hanif, U., Afridi, M. S. K., Afzal, A., Younus, M., & Akbar, S. (2017). "Acute and Sub-Acute Toxicity Study of a Pakistani Polyherbal Formulation." *BMC Complementary and Alternative Medicine*, 17(1), 1-13.
- Rehman, J. U., Aktar, N., Khan, M. Y., Ahmad, K., Ahmad, M., Sultana, S., & Asif, H. M. (2015). "Phytochemical Screening and Hepatoprotective Effect of *Alhagi maurorum* Boiss (Leguminosae) Against Paracetamol-Induced Hepatotoxicity in Rabbits." *Tropical Journal of Pharmaceutical Research*, 14(6), 1029-1034.
- Ahmad, K., Asif, H. M., Afzal, T., Khan, M. A., Younus, M., Khurshid, U., et al. (2023). "Green Synthesis and Characterization of Silver Nanoparticles Using *Piper cubeba* Ethanolic Extract and Their Enzyme Inhibitory Activities." *Frontiers in Chemistry*, 11.

- Khanum, N., Ansari, T., Khan, H. M. S., & Khan, Y. (2012). "Influence of pH and Temperature on Stability of Sulfamethoxazole Alone and in Combination with Trimethoprim (Co-Trimoxazole)." Asian Journal of Chemistry, 24(4), 1851.

MEMBERSHIP

- Life Member of Pakistan Pharmacist Association Pakistan
- Member Pakistan Society of Pharmacognosy
- Member KPK Provincial Pharmacy Council

CONFERENCES & WORKSHOPS ATTENDED

- Hands-On Training Workshop on Computational Chemistry in Modern Drug Designing
The Islamia University of Bahawalpur, April 24-25, 2024
- Hands-On Training Workshop on Drug Discovery & Development in the Modern Era
The Islamia University of Bahawalpur, March 20-21, 2023
- Workshop on Intellectual Property
The Islamia University of Bahawalpur, November 27-28, 2023
- Improvising Global Health with Eastern Medicine
The Islamia University of Bahawalpur, January 21, 2022
- STEMS International Conference-IUB
The Islamia University of Bahawalpur, March 30-31, 2021
- 2nd International Pharmacy Conference & Exhibition
The Islamia University of Bahawalpur, February 2020
- Workshop on Clinical Trials & Research
Federal Urdu University of Arts, Science & Technology (FUUAST), Karachi, April 2019
- 2nd International Symposium on Pharmaceuticals
GC University, Faisalabad, January 2019
- Standardization of Natural Products: Opportunities for Commercialization
Bahauddin Zakariya University (BZU), Multan, November 2018
- 2nd National Pharmacy Conference on "Pharmacy Profession for Prosperous Health"
Organized by HEC & The Islamia University of Bahawalpur, February 2013
- 2-Day National Conference on Scope & Development of Eastern Medicine in Pakistan
HEC & The Islamia University of Bahawalpur, April 2012
- 2-Day Training Workshop on Improving Clinical Pharmacy Practices in Pakistan
June 2012
- 2-Day Cascading Workshop on Ensuring Training Effectiveness
HEC & The Islamia University of Bahawalpur, September 2011
- 1-Day Seminar on Improving Pharmacy Practice Research
April 2011