

# Gul Shahnaz

PhD (Austria)

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📍 Department of Pharmacy, Quaid-i-Azam University, 45320, Islamabad, Pakistan



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Tenured professor and internationally published formulation scientist specializing in nanomedicine, nanocarrier-guided drug delivery, and translational pharmaceuticals. Strong record in grant leadership, high-impact publications, interdisciplinary research, and advancing infectious disease and cancer therapeutics.

## Key Skills

- Drug Delivery & Nanocarrier Design
- Formulation Development & Characterization
- Grant Writing & Research Leadership
- Analytical Techniques (HPLC, DSC, FTIR, DLS)
- Scientific Writing & Mentoring

## Honors & Awards

- **UNESCO-L'Oréal** Fellowship recipient for pioneering immune-cell-based antimicrobial delivery.
- Ranked among **Top 2%** Scientists (AD Scientific Index).
- Established **WHO-QAU collaboration** on Antimicrobial Stewardship.
- Led **ACPE accreditation** of the PharmD Evening Program.

## Academic Employment and Positions

### Quaid-i-Azam University, Islamabad, Pakistan

- 09/2024 to Current  
**TENURED PROFESSOR, PHARMACY DEPARTMENT**
- 02/2020 to 08/2022  
**HEAD OF PHARMACY DEPARTMENT**
- 10/2019 to 09/2024  
**ASSOCIATE PROFESSOR, PHARMACY DEPARTMENT**
- 01/2013 to 10/2019  
**ASSISTANT PROFESSOR, PHARMACY DEPARTMENT**

### The Ohio State University, Columbus, OH-USA

- 06/2017 to 09/2017  
**VISITING ASSISTANT PROFESSOR**

### The University of Nebraska Medical Center, Omaha, NE-USA

- 06/2015 to 09/2015  
**VISITING ASSISTANT PROFESSOR**

### Inimmune-Missoula, MT, USA

- 08/2022 to 06/2023  
**INVESTIGATOR-FORMULATION SCIENTIST**

## Education

**Ph.D.** (Pharmaceutical Technology) 03/2012  
Leopold-Franzens-Universität Innsbruck-Innsbruck, Austria

**Master of Science** (Pharmaceutics) 01/2007  
Islamia University Bahawalpur-Pakistan

**Bachelor of Science** (Pharmaceutical Sciences) 03/2005  
Islamia University Bahawalpur-Pakistan

## Key Grants & Projects

- 2012 funded by HEC  
Comparative Bioavailability and Pharmacokinetic Characterization
- 2014-2016 funded by UNESCO- L'Oréal  
Monocyte-Macrophages as Target Drug Depos
- 2016-17 funded by COMSTECH-TWAS  
Thiolated Nanocarriers for Leishmaniases
- 2016-18 by Pakistan Academy of Sciences  
Nanocarrier for Oral Peptide Drug Delivery
- 2017-20 funded by HEC  
Macrophage Targeted Nanocarriers
- 2018-2021 funded by HEC  
Microneedle Patch for Melanoma
- 2022-2025 funded by HEC  
Thermoresponsive Lipid Carriers
- 2024-25 by Pakistan Academy of Sciences  
Drug Powder Inhalers Against MDR-TB

## Teaching & Graduate Supervision

Quaid-i-Azam University, Islamabad, Pakistan

- M.Phil. & PhD Thesis Supervisor: Supervised 6 PhD and 35 M.Phil. Graduates with more students currently under supervision.
- Guided multiple undergraduate research theses and final-year projects.
- Mentored students in experimental design, data analysis, and scientific writing.

## Selected Publications

3,805 citations | h-index 39 | i10-index 69 |

Sharif, N., Murtaza, I., **Shahnaz, G.**, Saeed, A., Ishtiaq, A., Tabassum, S., ... & Pandey, S. (2025). Precision nanophytomedicine: Alginate-chitosan nanogels encapsulating *Olea ferruginea* ethyl acetate fraction for enhanced cardiovascular protection. *International Journal of Biological Macromolecules*, 144656. (Q1, IF=8.5)

Azhar, F., Naureen, H., **Shahnaz, G.**, Hamdani, S. D. A., Kiani, M. H., Khattak, S., ... & Díez-Pascual, A. M. (2023). Development of chitosan based  $\beta$ -carotene mucoadhesive formulation for skin cancer treatment. *International Journal of Biological Macromolecules*, 253, 126659. (Q1, IF=8.5, 21 citations)

Kiani, M. H., ul Hassan, M. R., Hussain, S., Kiani, Z. H., Ibrahim, I. M., **Shahnaz, G.**, ... & Díez-Pascual, A. M. (2022). Cholesterol decorated thiolated stereocomplexed nanomicelles for improved anti-mycobacterial potential via efflux pump and mycothione reductase inhibition. *Journal of Molecular Liquids*, 367, 120378. (Q1, IF=5.2, 6 citations)

**Shahnaz, G.**, Vetter, A., Barthelmes, J., Rahmat, D., Laffleur, F., Iqbal, J., ... & Bernkop-Schnürch, A. (2012). Thiolated chitosan nanoparticles for the nasal administration of leuprolide: bioavailability and pharmacokinetic characterization. *International journal of pharmaceutics*, 428(1-2), 164-170. (Q1, IF=5.2, 139 citations)

Iqbal, J., **Shahnaz, G.**, Dünnhaupt, S., Müller, C., Hintzen, F., & Bernkop-Schnürch, A. (2012). Preactivated thiomers as mucoadhesive polymers for drug delivery. *Biomaterials*, 33(5), 1528-1535. (Q1, IF=12.4, 202 citations)

**Shahnaz, G.**, Iqbal, J., Rahmat, D., Perera, G., Laffleur, F., Rossi, D., & Bernkop-Schnürch, A. (2012). Development and in vivo characterization of a novel peptide drug delivery system providing extended plasma half life. *Journal of controlled release*, 157(3), 375-382. (Q1, IF=11.5, 34 citations)

## Conference Presentations

Delivered international conference presentations from 2008 to 2021 across Austria, Slovenia, the UAE, France, Thailand, and Pakistan on advanced drug-delivery systems, nanomedicine, and pharmaceutical innovation.