

Kousar Perveen

(Registered Pharmacist Category-A)

PhD in Microbiology and Immunology

MPhil Pharmaceutics

 197 Citations | H-index: 6 | 9 Published Peer-Reviewed Articles

Research-focused scientist with working experience in the fields of **drug delivery, nano-biotechnology, microbiology, and nanocomposite material design**. Proven precision in lab work and development of innovative formulations. Consistently publishing in peer-reviewed journals with a strong commitment to excellence in advanced interdisciplinary research projects.



Contact

Jauhar Abad, District Khushab,
Punjab. Pakistan

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Education

PhD (Microbiology and Immunology), CGPA: 3.82/4.0

COMSATS University Islamabad

Islamabad, Pakistan

2025

Thesis: Production, Characterization and Applications of Poly-3-hydroxyalkanoates Produced by Bacterial Strains

MPhil (Pharmaceutical Sciences), CGPA: 3.80/4.0

Riphah International University

Islamabad, Pakistan

2015

Thesis: Formulation and Evaluation of Fluconazole Loaded Nanosponges for Improved Topical Delivery

Doctor of Pharmacy (Pharm-D), CGPA: 3.09/4.0

University of Sargodha

Sargodha, Pakistan

2012

F.Sc (Pre-Medical Science Group), (79.82%)

Board of Intermediate & Secondary Education,

Sargodha, Pakistan

2006

Matriculation (Science Group), (83.17%)

Board of Secondary Education,

Sargodha, Pakistan

2003

Working Experience

1. Research Assistant (09/2017 – 12/2023)

Comsats University Islamabad

i. Projects by National Research Program for Universities (NRPU), Higher Education Commission (HEC), Pakistan:

- Targeted drug delivery for breast cancer treatment
- Green packaging films on polymeric nanocomposites

Technical Skills

Research Techniques

- Microbial fermentation and bioprocess optimization
- Nanoparticle synthesis and nanocomposite fabrication
- Drug loading, release studies and kinetic modelling
- Cell-material interaction and antibacterial assays

Material Characterization Techniques

- UV-vis spectroscopy
- FTIR spectroscopy
- XRD analysis
- SEM/EDS analyses
- NMR spectroscopy
- DSC and TGA analyses

Data analysis & Research Tools

- MS Word and Power point
- MS Excel (data analysis)
- Scientific data interpretation and reporting in Origin Lab
- Mendeley
- EndNote

Languages

- English (Proficient)
- Urdu (Native)
- Punjabi (Native)

ii. Project by U.S. Pakistan Center for Advanced Studies in Water:

Multifunctional nanocomposite membranes for treatment of chromium from wastewater

2. Teaching Assistant (09/2017 – 12/2023)

Under supervision of Dr. Farha Masood, Department of Biosciences, Comsats University Islamabad

3. Retail Pharmacist (05/2017 - 09/2017)

Zubair hospital and Pharmacy Islamabad

Provided pharmaceutical care, patient counselling and management of patient medication

Publications (Kousar Perveen)

197 Citations, 6 h-index, Total IF=47.1

1. [Development of folate-grafted poly-3-hydroxybutyrate nanoparticles–embedded chitosan thermosensitive hydrogel for sustained and targeted delivery of epirubicin](#)

Kousar Perveen, Farha Masood, Aqsa Aslam, Asim Pervaiz, 2026, International Journal of Biological Macromolecules

(IF = 8.7, W category)

2. [Synthesis and evaluation of folic acid-conjugated MSNs for pH-responsive delivery of epirubicin with enhanced cytotoxic properties](#)

Farha Masood, Ahsan Ullah, Inam ul Haq, Noor ul Ain, **Kousar Perveen**, Aqsa Aslam, September 2025, Colloids and Surfaces A Physicochemical and Engineering Aspects

(IF = 5.4, W category)

3. [Folic acid-grafted poly-3-hydroxybutyrate nanoparticles for enhanced pH-sensitive paclitaxel delivery and cancer cell targeting](#)

Aqsa Aslam, **Kousar Perveen**, Martin R. Berger, Michael Zepp, Karel D. Klika, Abdul Hameed, Farha Masood, April 2025, Colloids and Surfaces A Physicochemical and Engineering Aspects

(IF = 5.4, W category)

4. [Preparation, characterization and evaluation of HP \$\beta\$ CD-PTX/PHB nanoparticles for pH-responsive, cytotoxic and apoptotic properties](#)

Aqsa Aslam, Farha Masood, **Kousar Perveen**, Martin R. Berger, Asim Pervaiz, Michael Zepp, Karel D. Klika, Tariq Yasin, Abdul Hameed, May 2024, International Journal of Biological Macromolecules

(IF = 8.7, W category)

5. [Characterization of folic acid-grafted poly\(3-hydroxybutyrate\) and poly\(3-hydroxybutyrate-co-3-hydroxyvalerate\) nanoparticles as carriers for sustained release of epirubicin](#)

Farha Masood, Aqsa Aslam, **Kousar Perveen**, Martin R. Berger, (the Late) Abdul Hameed, May 2024, Journal of Molecular Structure

(IF = 4.7, W category)

6. [Enhanced thermal properties of sepiolite/poly-3-hydroxyoctanoate nanocomposites as biodegradable packaging materials](#)

Abida Alam, Farha Masood, **Kousar Perveen**, Tariq Yasin, Abdul Hameed, February 2022, Materials Today Communications

(IF = 4.9, W category)

7. [Preparation, characterization and evaluation of antibacterial properties of epirubicin loaded PHB and PHBV nanoparticles](#)

Kousar Perveen, Farha Masood, Abdul Hameed, December 2019, International Journal of Biological Macromolecules
(IF = 8.7, W category)

8. [Nanosponge-based hydrogel preparation of fluconazole for improved topical delivery](#)

Nasir Abbas, **Kousar Perveen**, Amjad Hussain, Sumera Latif, Shaiq uz Zaman, Pervaiz Akhtar Shah, Muhammad Ahsan, March 2019, Tropical Journal of Pharmaceutical Research
(IF = 0.6, W category)

9. [Formulation and evaluation of fluconazole loaded nanosponges for improved topical drug delivery](#)

Nasir Abbas, Amjad Hussain, Muhammad Ahsan Hafiz, **Kousar Perveen**, January 2017, British Journal of Pharmacy

Publications as first author-under submission

1. **Perveen, K.**, Masood, F., Yasin, T., Farooq M., Evaluation of thermal, mechanical, and antibacterial properties of poly-3-hydroxybutyrate/Ag@Cu₂O/sepiolite nanocomposites for active food packaging (Manuscript submitted)
2. **Perveen, K.**, Masood, F., Yasin, T., Synthesis and characterization of poly-(3-hydroxybutyrate-co-24 mol % 3-hydroxyvalerate) by *Bacillus cereus* BA3. (Manuscript is under preparation)
3. **Perveen, K.**, Masood, F., Yasin, T., Synthesis and characterization of short chain and medium chain PHA by *Pseudomonas aeruginosa*. (Manuscript is under preparation)
4. **Perveen, K.**, Masood, F., Yasin, Effect of gamma irradiation on mechanical and thermal properties of sepiolite/poly-3-hydroxybutyrate nanocomposites. (Manuscript is under preparation)
5. **Perveen, K.**, Masood, F., Advances in Ecofriendly Polymeric Nanocomposites for Food Packaging Application: Synthesis Techniques and Functional properties (Review paper under preparation)