



Sania Ikram

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Highlights

Research Acknowledgment, NUMS:

Recognized by Department of Biological Sciences for MS thesis on "Genome-Based Perspectives of Aerobic Bacteria from Healthy Human Gut"; contributions in microbial cross-interactions, resistome profiling, culturomics, and WGS analysis under Dr. Raees Khan.

Best Researcher Award (Biological Sciences) – World Biophotonics

Research Awards: Awarded for innovative research in biological sciences.

Best Researcher Award (Microbial Genomics) – ScienceFather:

Recognized at Nanotechnology Conference 2024 for excellence in microbial genomics, WGS, comparative genomics, and functional annotation of human gut bacteria.

Key Skills:

- Teaching & research
- Leadership, Project management
- Lab Management and Documentation
- Presentation, Communication and Teamwork Skills
- Bioinformatics Tools and Sequence Analysis
- Antimicrobial interaction assays,
- DNA/RNA Extraction, Gel Electrophoresis, PCR
- Scientific Report Writing
- Meta-Analysis
- R basics, KBase, SPSS
- Adobe Photoshop, Illustrator, Canva

❖ Work Experience:

1. Graphic Designer (Sep 2025-Feb 2026)

HexaFume, Islamabad

- Assisted in routine office coordination and administrative support activities; prepared and managed official documents, reports, and presentations.
- Designed visual materials (presentations, promotional graphics, and reports using Canva, Adobe Illustrator/Photoshop, PowerPoint, Word, Excel).
- Refined, edited, and optimized images and graphics for digital and presentation use, ensuring clarity, consistency, and professional visual quality.

2. Lecturer (2023-2024)

(Concepts College of Sciences, Rawalpindi)

- Taught Biology concepts to Intermediate and Matric students through clear explanations, structured lessons, and focused academic support that strengthened understanding in class.
- Delivered lectures and practical sessions, improved problem-solving abilities.
- Demonstrated strong subject knowledge, effective teaching skills and adaptable methods to simplify complex topics.

3. Lab Internee (June 2021-Aug 2021)

Al-Sheikh Welfare Medical Complex, Lahore

- Assisted in laboratory activities supporting Hepatitis and dialysis patients, contributing to sample handling, basic diagnostics and routine operational tasks under the supervision of senior staff.
- Manage laboratory operations, maintaining specimen records, supporting diagnostic test preparation and ensuring smooth processing of clinical samples.
- Supported routine microbial testing and data recording, assisted in analyzing diagnostic findings and quality in everyday clinical laboratory practices.

4. Internee

WWF Digital Eco Internship

- Complete learning modules and create awareness on global environmental challenges.
- Assisted in research, content creation and educational project support.
- Applied knowledge from modules to practical problem-solving for local environmental issues.

❖ Education:

- **MS Microbiology and Immunology (2023-2025)** in the Department of Biological Sciences, National University of Medical Sciences (NUMS), Rawalpindi, Punjab, Pakistan.
- **BS (Hons.) Genetics (2018-2022)** graduated from the Department of Biotechnology, Kinnaird College for Women, Lahore.

❖ **Publications:**

- **Ikram, S.**, Ullah, M., Lee, J., Hasan, N., Yoo, J.-W., Khan, R., & Naeem, M. (2026). Fecal microbiota transplantation in inflammatory bowel disease: a systematic review and meta-analysis of randomized controlled trials (2020–2025). *Inflammopharmacology*. <https://doi.org/10.1007/s10787-026-02174-w>
- **Ikram, S.** (2025). Aerobes in the Gut Microbiota – Roles, Interactions, and Implications for Host Health. *International Journal of Biological, Medical and Pharmaceutical Sciences*. <https://ijbmosp.org/index.php/IJBMSP/article/view/141>.
- Abbasi, Z. W., **Ikram, S.**, Ullah, M., Ahmad, A., Ali, I., & Naeem, M. (2025). Harnessing the gut microbiome for therapeutic interventions. *Journal of Clinical and Translational Research*. <https://doi.org/10.36922/JCTR025390067>.
- Aftab, M.; **Ikram, S.**; Ullah, M.; Khan, N.; Naeem, M.; Khan, M. A. (2025). *Recent Trends and Future Directions in 3D Printing of Biocompatible Polymers*. *Journal of Manufacturing and Materials Processing*, 9, 129. <https://doi.org/10.3390/jmmp9040129>.
- Aftab, M.; Ali, H.; Ullah, M.; **Ikram, S.**; Khan, S. U.; Wahab, A.; Naeem, M. (2025). *Biomedical Applications of Carbon Dots: Advances in Antimicrobial Therapy and Targeted Delivery Systems*. *Biomedical Materials and Devices*. <https://doi.org/10.1007/s44174-025-00444-9>.
- Aftab, M.; **Ikram, S.**; Ullah, M.; Khan, S. U.; Wahab, A.; Naeem, M. (2025). Advancement of 3D Bioprinting Towards 4D Bioprinting for Sustained Drug Delivery and Tissue Engineering from Biopolymers. *Journal of Manufacturing and Materials Processing*, 9(8), 285. <https://doi.org/10.3390/jmmp9080285>.
- Aftab, M., Mehreen, S., Ullah, M., **Ikram, S.**, & Naeem, M. (2025). Recent advancements in inorganic based nanomaterials for wound healing; challenges and future opportunities. *Journal of Cluster Science*, 36, Article 213. <https://doi.org/10.1007/s10876-025-02932-w>.
- Hasan, N., Aftab, M., **Ikram, S.**, Mustofa, A. Z., Sriwidodo, S., Darusman, H. S., Amir, M. N., Tockary, T. A., & Uchida, S. (2026). *Recent advances in lipid nanoparticles for cancer vaccine delivery: Challenges and future perspectives*. *International Journal of Pharmaceutics*: X, Article 100484. <https://doi.org/10.1016/j.ijpx.2026.100484>.

❖ **Workshops and Seminars:**

- Participant in the International Conference on Science, Technology and Innovation, Kinnaird College for Women University (2019).
- Workshop on cellular renewal and fasting physiology during Ramadan, Rawalpindi (2024)
- 2nd Virtual Workshop on Zoonotic Diseases: One Health Aspects on AMR organized by NIH, Islamabad
- Two Days CME-accredited Conference on practice-changing updates in hematology (ASH®, EHA, ASCO highlights), PC Hotel Rawalpindi (2024)
- One-day workshop on AI applications in life sciences research, NUMS Islamabad (2024).
- Clinical Trials Summit of Pakistan – symposium on trial design, regulation, and ethics, Army Medical College/NUMS (2025).

❖ **References:**

Name: Dr. Raees Khan
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