

DR. YASMIN

(BS, MS, PhD, Postdoc)

- Address: Department of physiology & biochemistry, Cholistan University of Veterinary and Animal Sciences, Bahawalpur, Pakistan.
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- Google scholar: <https://scholar.google.com/citations?user=35dUKc4AAAAJ&hl=en>
- Researchgate: <https://www.researchgate.net/profile/Yasmeen-Junejo/research>

Personal Vitae:

- Sex : Female
- Marital Status : Married
- Nationality : Pakistani

Professional research experiences:

- 12/03/2024 to present: Lecturer, department of physiology & biochemistry, Cholistan University of Veterinary and Animal Sciences, Bahawalpur, Pakistan.
- 09/01/2017-30/11/2018: Researcher/lecturer at the biochemistry lab, department of biology, Virtual University of Pakistan. **Project**: “synthesis and characterization of gold nanoparticles and their biological applications” (principal investigator, Dr. Yasmin).
- 01/09/2014-05/01/2017: Postdoctoral researcher at the molecular biology lab, department of biology, Gaziantep University, Turkey. **Project**: “toxicological effects of green-synthesized and traditional silver nanoparticles on airway epithelial cells” (scientific supervisor, Prof. Mehmet Ozaslan).
- 25/12/2012-24/12/2013: Doctoral researcher (partial work) at the chemistry lab, department of chemistry, Fatih University, Turkey. **Project**: “green synthesis and characterization of silver nanoparticles and their applications” (scientific supervisor, Prof. Abdul Hadi Baykal).
- 01/12/2009-27/08/2014: Doctoral researcher, national center of excellence in analytical chemistry, University of Sindh Jamshoro, Jamshoro 76080, Pakistan. **Project**: “antibiotic based synthesis of silver nanoparticles and their applications” (scientific supervisor, Prof. Dr. Sirajuddin).

Academic qualifications:

- 01/12/2009-27/08/2014: **PhD thesis** in analytical chemistry (nanotechnology) at national center of excellence in analytical chemistry, University of Sindh Jamshoro, Jamshoro 76080, Pakistan with distinction “**very honorable**”. **Project**: “antibiotic based synthesis of silver nanoparticles and their applications” (scientific supervisor, Prof. Dr. Sirajuddin).
- 01/12/2007-27/08/2009: **MPhil thesis** in analytical chemistry (nanotechnology) at national center of excellence in analytical chemistry, University of Sindh Jamshoro, Jamshoro 76080, Pakistan. **Project**: “antibiotic based synthesis of silver nanoparticles and their applications” (scientific supervisor, Prof. Sirajuddin).
- 02/09/2003-21/01/2007: **Bachelor’s degree** in chemistry, University of Sindh, Jamshoro, Sindh, Pakistan. **Project**: “Detection of toxic metals in raw water of Keenjhar and Manchar lakes” (supervisor: Prof. Dr. Aamna Balouch).

Key skills and expertise:

- Design and synthesis of functionalized nanoparticles for biomedical applications
- Optimization of nano-formulations for anti-cancer, and metabolic disease therapeutics
- Physicochemical characterization using:
 - UV–Visible Spectroscopy
 - FT-IR Spectrophotometry
 - Scanning Electron Microscopy (SEM)
 - X-Ray Diffraction (XRD)

- Nuclear Magnetic Resonance (NMR)
- Voltammetry techniques
- pH analysis and electrochemical measurements
- Primary and secondary cell culture (mammalian cell lines)
- Cytotoxicity and viability assays (MTT assay)
- ELISA for cytokine and biomarker quantification
- qPCR for gene expression profiling
- Lactate Dehydrogenase (LDH) cytotoxicity assay
- Trans-epithelial electrical resistance (TEER) measurement for barrier integrity studies
- Handling biological samples, maintaining sterile conditions, and adhering to biosafety protocols.
- Analysis of laboratory results with different software's.

Publications:

- Safdar, M., Imran, L., Kubra, K. tul, Nasir, T., Imran, S., **Junejo, Y.**, Ozaslan, M. (2026). MicroRNA-mediated regulation of skeletal muscle myogenesis in ducks: association of molecular networks to environmental adaptation and meat quality. *World's Poultry Science Journal*, 1–25. <https://doi.org/10.1080/00439339.2026.2662317> (IF: 3.5)
- Nasir, T., Safdar, M., Imran, S., Tariq, M., **Junejo, Y.**, Ozaslan, M., & Younus, M. (2026). Genome-wide in silico identification and characterization of the F-box gene family in water buffalo (*Bubalus bubalis*). *Comparative Biochemistry and Physiology Part D: Genomics and Proteomics*, 101825. <https://doi.org/10.1016/j.cbd.2026.101825> (IF: 2.4)
- **Junejo, Y.**, Safdar, M., Ozaslan, M. (2025). Synthesis and characterization of silver nanoparticles for water purification. *The Eurasia Proceedings of Health, Environment and Life Sciences*, 17, 22–26. <https://doi.org/10.55549/ephels.146> (no IF available)
- Safdar, M., **Junejo, Y.**, Tariq, M., Ayaz, M. M., Imran, S., Wadood, A. A., Farah, M. A. (2025). Phytoestrogens modulate bovine G protein-coupled receptors and play a critical role in regulating reproductive functions in animals. *Reproduction in Domestic Animals*, 60(3), e70033. <https://doi.org/10.1111/rda.70033> (IF: 1.7)
- **Junejo, Y.**, Safdar, M., Ozaslan, M. (2024). Synthesis of silver nanoparticles and their applications. *The Eurasia Proceedings of Health, Environment and Life Sciences*, 14, 22–48. <https://doi.org/10.55549/ephels.126> (no IF available)
- Safdar, M., Younus, M., Hassan, F., **Junejo, Y.** (2024). Development and validation of rapid multiplex PCR assay for identification of DNA origins of pork, donkey and cow species in real food samples. *Proceedings of the Pakistan Congress of Zoology*, 42, 25–30. <https://dx.doi.org/10.17582/ppcz/42.25.30> (IF: 0.5)
- Muhammad Safdar, Faizul Hassan, Muhammad Sajjad Khan, Aneeb Hassan Khan, **Yasmeen Junejo**, Mehmet Ozaslan, Muhammad Asif Arain, Atique Ahmed Behan (2024). In silico analysis of polyphenols modulate bovine PPAR γ to increase milk fat synthesis in dairy cattle via the MAPK signalling pathways. *Journal of Animal Science*, 3:102:skae248. <https://dx.doi.org/10.1093/jas/skae248> (IF: 2.7)
- Safdar, M., Ozaslan, M., **Junejo, Y.**, et al. (2022). Cytotoxic and anticancer activity of a novel synthesized tet-AuNPs simultaneously activates p53 and inhibits NF- κ B signaling in SKBR3 cell line. *Toxicology and Environmental Health Sciences*, 14, 69–76. <https://doi.org/10.1007/s13530-021-00118-1> (IF: 1.0)
- Safdar, M., Ozaslan, M., Khailany, R. A., **Junejo, Y.**, et al. (2020). Synthesis, characterization and applications of a novel platinum-based nanoparticles: catalytic, antibacterial and cytotoxic studies. *Journal of Inorganic and Organometallic Polymers and Materials*, 30, 2430–2439. <https://doi.org/10.1007/s10904-019-01387-7> (IF: 4.9)
- Arshad, M., Ozaslan, M., Ali, H. K., Safdar, M., **Junejo, Y.**, Babar, M. E. (2019). Molecular investigation of gold nanoparticles toxicity in mice model and p53 activation. *Journal of Biological Sciences*, 19, 391–395. <https://doi.org/10.3923/jbs.2019.391.395> (IF: 0.19)
- **Junejo, Y.**, Safdar, M., Kumar, G. M., Saravanan, M., Khailany, R. A., Ozaslan, M., Gondal, M. A., Deekonda, K., Shahzad, Q. (2019). Synthesis and characterization of cefditoren-capped silver nanoparticles and their antimicrobial and catalytic degradation of ibuprofen. *Journal of Cluster*

Science, 30, 1663–1671. <https://doi.org/10.1007/s10876-019-01612-w> (IF: 3.6)

- **Junejo, Y.,** Safdar, M. (2019). Highly effective heterogeneous doxycycline stabilized silver nanocatalyst for the degradation of ibuprofen and paracetamol drugs. *Arabian Journal of Chemistry*, 12(8), 2823–2832. <http://dx.doi.org/10.1016/j.arabjc.2015.06.014> (IF: 5.2)
- Safdar M, **Junejo, Y.,** & Balouch, A. (2015). Efficient degradation of organic dyes by heterogeneous cefdinir derived silver nanocatalyst. *Journal of Industrial and Engineering Chemistry*, 31, 216–222. <https://doi.org/10.1016/j.jiec.2015.06.026> (IF: 6.0)
- Safdar, M, **Yasmeen Junejo** (2015). The development of a hexaplex-conventional PCR for identification of six animal and plant species in foodstuffs. *Food Chemistry*, 192, 745. <https://doi.org/10.1016/j.foodchem.2014.10.088> (IF: 9.8)
- Safdar, M, & **Junejo, Y.** (2015). A multiplex-conventional PCR assay for bovine, ovine, caprine and fish species identification in feedstuffs: Highly sensitive and specific. *Food Control*, 50, 190–194. <https://doi.org/10.1016/j.foodcont.2014.08.048> (IF: 6.3)
- **Junejo, Y.,** Sirajuddin, Baykal, A., Safdar, M., Balouch, A. (2014). A novel green synthesis and characterization of Ag NPs with its ultra-rapid catalytic reduction of methyl green dye. *Applied Surface Science*, 290, 499–503. <https://doi.org/10.1016/j.apsusc.2013.11.106> (IF: 6.9)
- **Junejo, Y.,** Güner, A., Baykal, A. (2014). Synthesis and characterization of amoxicillin-derived silver nanoparticles: Its catalytic effect on degradation of some pharmaceutical antibiotics. *Applied Surface Science*, 317, 914–922. <https://doi.org/10.1016/j.apsusc.2014.08.133> (IF: 6.9)
- **Junejo, Y.,** Baykal, A., Sirajuddin. (2014). Green chemical synthesis of silver nanoparticles and its catalytic activity. *Journal of Inorganic and Organometallic Polymers and Materials*, 24, 401–406. <https://doi.org/10.1007/s10904-013-9974-y> (IF: 4.9)
- **Junejo, Y.,** Karaoğlu, E., Baykal, A., Sirajuddin. (2013). Cefditorene-mediated synthesis of silver nanoparticles and its catalytic activity. *Journal of Inorganic and Organometallic Polymers and Materials*, 23, 970–975. <https://doi.org/10.1007/s10904-013-9882-1> (IF: 4.9)
- **Junejo, Y.,** Baykal, A., Sözeri, H. (2013). Simple hydrothermal synthesis of Fe₃O₄-PEG nanocomposite. *Central European Journal of Chemistry*, 11, 1527–1532. <https://doi.org/10.2478/s11532-013-0281-9> (IF: 1.4)
- **Junejo, Y.,** Baykal, A., Safdar, M. (2014). Ultrarapid catalytic reduction of some dyes by reusable novel erythromycin-derived silver nanoparticles. *Turkish Journal of Chemistry*, 38, 765–774. <https://doi.org/10.3906/kim-1401-24> (IF: 1.4)
- Safdar, M, **Junejo, Y.** (2014). Development and validation of fast duplex real-time PCR assays based on SYBR Green fluorescence for detection of bovine and poultry origins in feedstuffs. *Food Chemistry*, 173, 660–664. <https://doi.org/10.1016/j.foodchem.2014.10.088> (IF: 9.8)
- Safdar, M, **Y. Junejo,** K. Arman, M. F. Abasiyanik (2014). A highly sensitive and specific tetraplex PCR assay for soybean, poultry, horse and pork species identification in sausages: development and validation. *Meat science*, 98, 296–300. <https://doi.org/10.1016/j.meatsci.2014.06.006> (IF: 6.1)
- Hassan S.S., Sirajuddin, Solangi A.R., Agheem M.H., **Junejo Y.,** Kalwar N.H., Tagar Z.A. (2011). Ultra-fast catalytic reduction of dyes by ionic liquid recoverable and reusable mefenamic acid-derived gold nanoparticles. *Journal of Hazardous Materials*, 190, 1030–1036. <https://doi.org/10.1016/j.jhazmat.2011.04.047> (IF: 11.3)
- **Junejo Y.,** Tagar Z.A., Sirajuddin, Memon N., Agheem M.H., Hassan S.S., Kalwar N.H., Khattak M.I. (2011). Selective, simple and economical lead sensor based on ibuprofen-derived silver nanoparticles. *Sensors and Actuators B: Chemical*, 157, 430–437. <https://doi.org/10.1016/j.snb.2011.04.082> (IF: 7.7)
- Tagar Z.A., Sirajuddin, Memon N., Kalhor M.S., O'Brien P., Malik M.A., Abro M.I., Hassan S.S., Kalwar N.H., **Junejo Y.** (2012). Highly sensitive, selective and stable multi-metal ions sensor based on ibuprofen-capped mercury nanoparticles. *Sensors and Actuators B: Chemical*, 173, 745–751. <https://doi.org/10.1016/j.snb.2012.07.093> (IF: 7.7)
- Topkaya R., Kurtan U., **Junejo Y.,** Baykal A. (2013). Sol–gel auto combustion synthesis of CoFe₂O₄/1-methyl-2-pyrrolidone nanocomposite with ethylene glycol: Its magnetic characterization. *Materials Research Bulletin*, 48, 3247–3253. <https://doi.org/10.1016/j.materresbull.2013.04.071> (IF: 5.7)
- Hassan S.S., Sirajuddin, Solangi A.R., Kazi T.G., Kalhor M.S., **Junejo Y.,** Tagar Z.A., Kalwar

- N.H. (2012). Nafion-stabilized ibuprofen–gold nanostructures modified screen-printed electrode as arsenic (III) sensor. *Journal of Electroanalytical Chemistry*, 682, 77–82. <https://doi.org/10.1016/j.jelechem.2012.07.006> (IF: 4.1)
- Kalwar N.H., Sirajuddin, Sherazi S.T.H., Abro M.I., Tagar Z.A., Hassan S.S., **Junejo Y.**, Khattak M.I. (2011). Synthesis of l-methionine-stabilized nickel nanowires and their application for catalytic oxidative transfer hydrogenation of isopropanol. *Applied Catalysis A: General*, 400, 215–220. <https://doi.org/10.1016/j.apcata.2011.04.034> (IF: 4.8)

Edited books (04):

- **Junejo, Y** (2025). *Advances in Chemical Sciences*. ISRES Publishing. ISBN: 978-625-6959-91-0. <https://www.isres.org/advances-in-chemical-sciences-82-b.html>
- **Junejo, Y** (2024). *Chemistry: The Modern Approach*. ISRES Publishing. ISBN: 978-625-6959-63-7. <https://www.isres.org/chemistry-the-modern-approach-69-b.html>
- **Junejo, Y** (2023). *Chemistry for the Life*. ISRES Publishing. ISBN: 978-625-6959-31-6. https://www.isres.org/books/978-625-6959-31-6_31-12-2023.pdf
- Ozaslan, M., & **Junejo, Y** (2021). *Current Studies in Basic Sciences, Engineering and Technology 2021*. ISRES Publishing. ISBN: 978-605-73797-0-2.
- <https://www.isres.org/current-studies-in-basic-sciences-engineering-and-technology-2021-19-b.html>

Book chapters (Top 10 based on the relevance out of 25):

- **Junejo, Y.**, & Ozaslan, M. (2025). Emerging trends in chemistry. In *Advances in Chemical Sciences* (pp. 1–10). ISRES Publishing. <https://www.isres.org/advances-in-chemical-sciences-82-b.html>
- **Junejo, Y.**, & Ozaslan, M. (2025). Green chemistry for sustainability. In *Advances in Chemical Sciences* (pp. 11–19). ISRES Publishing. <https://www.isres.org/advances-in-chemical-sciences-82-b.html>
- **Junejo, Y.** (2025). Advances in catalysis. In *Advances in Chemical Sciences* (pp. 20–29). ISRES Publishing. <https://www.isres.org/advances-in-chemical-sciences-82-b.html>
- **Junejo, Y.** (2025). Advanced materials chemistry. In *Advances in Chemical Sciences* (pp. 30–40). ISRES Publishing. <https://www.isres.org/advances-in-chemical-sciences-82-b.html>
- **Junejo, Y.** & Ozaslan, M (2024). Introduction of Nanotechnology in Chemistry. In Y. Junejo (Ed.), *Chemistry: The Modern Approach* (pp. 1-7). ISRES Publishing. <https://www.isres.org/chemistry-the-modern-approach-69-b.html>
- Sundas Ashraf, Maria Nazir, Muhammad Haris Khan, Iqra Fazil, Atif Ahmed, Minahal Fatima, Muhammad Safdar, **Yasmeen Junejo** (2024). *Nanotechnology in microbiology: Bridging tiny worlds for big impact*. ISRES Publishing, pp. 74–102. <https://www.isres.org/chemistry-the-modern-approach-69-b.html>
- **Junejo, Y.**, & Öz aslan, M. (2023). Introduction to chemistry: The science of matter and change. In *Chemistry for the Life* (pp. 1–10). ISRES Publishing. https://www.isres.org/books/978-625-6959-31-6_31-12-2023.pdf
- **Junejo, Y.**, & Öz aslan, M. (2023). Basics to advanced environmental chemistry. In *Chemistry for the Life* (pp. 291–300). ISRES Publishing. https://www.isres.org/books/978-625-6959-31-6_31-12-2023.pdf
- **Junejo, Y.**, & Öz aslan, M. (2023). Basics to advanced analytical chemistry. In *Chemistry for the Life* (pp. 247–260). ISRES Publishing. https://www.isres.org/books/978-625-6959-31-6_31-12-2023.pdf
- Shahnaz, Muhammad Safdar., & **Junejo, Y.** (2023). Drug-based synthesized silver nanoparticles against pathogenic bacteria. ISRES Publishing, pp. 117–122. https://www.isres.org/books/978-625-6959-31-6_31-12-2023.pdf



Awards & research funding:

Awards:

- 25/06/2025-01/07/2025: Recipient of the “*STEM Faculty Training Programme*” from King’s College London, University of York and University of Birmingham, UK (Fully funded).
- 01/09/2014-05/01/2017: Recipient of the “*TUBITAK postdoctoral research fellowship*”, Turkey (US\$ 75,000) with “toxicological effects of green synthesized and traditional silver nanoparticles on airway epithelial cells”.
- 25/12/2012-24/12/2013: Recipient of the “*TUBITAK PhD (partial work) research fellowship*”, Turkey (US\$ 60,000) in order to complete PhD “green synthesis and characterization of silver nanoparticles and their applications”.
- 01/12/2009-27/08/2014: Recipient of the “*Higher Education Commission of Pakistan Scholarship*” (PhD degree), Pakistan (US \$36,000) in order best performance in NTS test (62%).
- 04/09/2013: Recipient of the “1st Position” in poster presentation at Tubitak conference at Fatih University, Istanbul, Turkey, September 2013.
- 28/09/2011: Recipient of the “2nd Position” in poster presentation national symposium on kinetics and catalysis (KC-2011). NCEPC, University of Peshawar summer campus baragali, sep 26-28, 2011.

Funding:

- 01/12/2009-27/08/2014: **Project**: “green synthesis and characterization of silver nanoparticles and their applications” funded by *Higher Education Commission of Pakistan* (US \$36,000).

Participation at international conferences:

- 10/07/2025-13/07/2025: International conference on medical, health and life sciences, Peja, Kosovo, Europe. **Oral talk**: “Efficient degradation of organic dyes using cefdinir-derived silver nanoparticles: Catalytic applications and environmental implications”.
- 22/08/2024-25/08/2024: International conference on medical, health and life sciences, Tashkent, Uzbekistan. **Oral talk**: “Silver nanoparticle-based analytical assay for detection of dyes in water”.
- 06/07/2024-09/07/2024: International conference on medical, health and life sciences, Budapest, Hungary, Europe. **Oral talk**: “Rapid molecular diagnostic assays using silver nanoparticles for arsenic detection in water samples”.
- 24/04/2024-25/04/2024: 8th International conference on the global halal food industry, BZU, Multan, Pakistan. **Poster**: “Introduction of nanoparticles to protect foods against microbes”.
- 22/02/2024-23/02/2024: 9th Invention to innovation summit 2024, Punjab University, Lahore, Pakistan. **Poster**: “Utilization of green silver nanoparticles against AMR”.

Participation at international workshops:

- 25/06/2015-01/07/2025: Recipient of the International training “*STEM Faculty Training Programme*” from King’s College London, UK, University of York and University of Birmingham.
- 15/11/2012-19/11/2013: International workshop for UV Vis microscopy, hosted by Fatih university, Turkey and provided by Turkish scientists.

Supervising & mentoring activities:

Supervision of students:

- As a researcher at CUVAS, Pakistan, I supervised 13 MS students’ dissertations: 01 at the faculty of biosciences.

Teaching:

- I have been involved in teaching at the “chemistry and biochemistry” BSc program of the faculty of basic sciences at the Cholistan University, Pakistan. I have also delivered the practical courses of “food nanotechnology” at the Cholistan University, Pakistan (7 years), Virtual University of



Pakistan (1.9 years). I have also participated in teaching practical courses of “analytical techniques” at the faculty of biosciences, Virtual University of Pakistan.

Mobility for obtaining training/ establishing new collaborations:

- 25/06/2015-01/07/2025: Training on “*STEM Faculty Training Programme*” from three universities of UK such as King’s College London, UK, University of York and University of Birmingham.
- 01/09/2014-05/01/2017: Training and research on “toxicological effects of green synthesized and traditional silver nanoparticles on airway epithelial cells” at Gaziantep University, Turkey.
- 25/12/2012-24/12/2013: Training and research on “green synthesis and characterization of silver nanoparticles and their applications” at Fatih University, Istanbul, Turkey.

Services:

- 01/12/2018–present: Thesis committee member, CUVAS, Bahawalpur. I guided 11 MPhil theses on chemistry, biochemistry and biotechnology.
- 01/01/2020–30/12/2022: Workshop Coordinator, CUVAS, Bahawalpur. I organized 03 trainings on STEM for 50+ participants.
- 30/11/2018–present: Peer Reviewer. *Food chemistry, journal of applied science etc.* I reviewed 15+ manuscripts on nanotechnology.
- Assistant Director, ASRB.
- Assistant Director, ORIC.

Reference(s):

- **Prof. Mehmet Ozaslan, PhD**
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