

Dr. Farhan Younas

Assistant Professor-Biosciences

Centre for Interdisciplinary Research in Basic Sciences (CIRBS)
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Email: Farhan.younas@iiu.edu.pk

Specialization: Molecular Biotechnology and Microbiology

Education:

MS-Biosciences- (University of Kaiserslautern, Germany)

PhD-Biotechnology- (Jacobs University Bremen, Germany)



Profile:

Dr. Farhan Younas joined Centre for Interdisciplinary Research in Basic Sciences (CIRBS), International Islamic University, Islamabad in October 2018. He did his MS in Biosciences with specialization in Biotechnology and Microbiology from University of Kaiserslautern, Germany. He completed his PhD from Jacobs University Bremen, Germany. He has research experience from some distinguished research institutes and labs in Germany, including Max Planck Institute for experimental medicine, Göttingen, Germany.

The main focus of his PhD work was to study outer membrane channel forming proteins (Porins) in both Gram-positive and Gram-negative bacteria. These proteins serve as main channels for antibiotic transport. The projects he worked on received funding from prestigious Innovative medicine Initiative (IMI).

Research Interests:

Antimicrobial resistance is a naturally occurring process in microbes, however, the process is accelerated by uncontrolled and excessive use of antibiotics. Antimicrobial resistance leads to lengthier hospital stays and increase the health care costs as well. To treat multi-drug resistance (MDR), better understanding of the resistance at molecular level and developing alternatives to antibiotics is of immense importance. We are mainly focusing on developing novel approaches to treat MDR and to understand the mechanism of resistance at molecular level in a better way.

Research Grants/Awards/Honors:

- A research grant worth 0.5 million PKR granted by Higher Education Commission (HEC) to investigate the microbial contamination in health care facilities in Islamabad.

Current Research students:

Student name	Level	Status
Khalid Hussain	MS	Thesis write up
Abdul Wadood	MS	Research
Aaliya Khanum	MS	Submitted, 2020
Gulnaz	MS	Research and Thesis write up
Rida Batool	MS	Research

Trainings/workshops/seminars/conferences:

- Introductory course in laboratory animals: Handling, techniques and theory, April 11-18, 2013, Max planck institute for experimental medicine and Max Planck institute for biophysical chemistry, Göttingen, Germany.

- Advanced course in rodent surgery and experimentation, June 19-20, 2013, Max Planck institute for biophysical chemistry, Göttingen, Germany.
- Molecular-Membrane-Biophysics, March 3-5, 2014, Hünfeld, Germany
- DGHM (Deutsche Gesellschaft für Hygiene and Mikrobiologie) VAAM (Vereinigung für Allgemeine und Angewandte Mikrobiologie) meeting, October 5-8, 2014, Dresden, Germany
- Annual conference 2015 of the association for General and Applied Microbiology, March 1-4, 2015, Marburg, Germany.
- Innovative Medicine Initiative (IMI) Translocation annual meeting, July 2014, July 2015 and July 2016, Bremen, Germany.
- The current usage of nanotherapeutics and biodrugs, organized by Department of Biological sciences, IIU, Dec 12-13, 2018.
- Advancements in Biotechnology and Biocomputing, organized by Department of Biological sciences, IIU, Feb 07-09, 2019.
- 3rd International conference on Recent Innovations and Pharmaceutical Sciences (ICRIPS), organized by Riphah International University, Islamabad, March 13-14, 2019.
- Recent updates in Biotechnology, organized by Department of Biotechnology, AWKUM, October 16-18, 2019.

Publications (2018-2020):

- Identification and characterization of smallest pore-forming protein in the cell wall of pathogenic *Corynebacterium urealyticum* DSM 7109, *BMC Biochemistry*, **2018**.
- The major outer membrane protein of *Legionella pneumophila* Lpg1974 shows pore-forming characteristics similar to the human mitochondrial outer membrane pore, hVDAC1, *Biochemica et Biophysica acta*, **2018**.
- Protease producing *Pseudomonas aeruginosa* strain (IBC-2) from coal mines from Orakzai agency, Pakistan, *Applied Ecology and Environmental Research*, **2019**.
- Identification of Cyclo (L-Pro-D-Tyr) from *Bacillus Amylolyquefaciens* Y1 exhibiting antifungal activity against *Fusarium graminearum* to control crown rot in wheat, *Applied Ecology and Environmental Research*, **2019**.
- Comparative efficacy of domestic garlic (*Allium sativum*) and neem (*Azadirachta indica*) against *Haemonchus contortus* in small ruminants, *Applied Ecology and Environmental Research*, **2019**.