

# Faculty Profile Format – Institute of Microbiology (IOM)

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## 1. General Information

Full Name: Muhammad Ilyas Riaz

Designation/Position: Lecturer

Department/Section: IOM, QOL

Email: Ilyas.riaz@uvas.edu.pk

Phone (Official): 0312-4662123

Date of Birth: 13-12-1990

## 2. Academic Qualifications

Degree	Field	University/Institute	Year	Country
PhD	Microbiology	UVAS/IOM	2022	Pakistan
M.Phil	Microbiology	UVAS/IOM	2017	Pakistan
D.V.M	Veterinary Science	UVAS	2015	Pakistan

## 3. Professional Experience

Position	Institute	Duration (Years)	From – To
Lecturer	IOM, UVAS	8 year	2017-date
Teaching Assistant	UDL, UVAS	1 years	2016-2017

## 4. Research Contributions

4.1 Research Papers (APA style):

1. Muhammad Ilyas Riaz, Masood Rabbani, Sohail Raza, Ali Raza Awan, Aleena Kokab and Iqra Nazir (2022): "Construction and Characterization of *purD* Gene Deleted *Brucella abortus*" Article Published in Pakistan Journal of Zoology
2. Muhammad Ilyas Riaz, Masood Rabbani, Sohail Raza, Ali Raza Awan, Aleena Kokab and Rida Haroon Durrani (2022): "In Vivo Evaluation of *purD* Gene Deleted *Brucella abortus* in Mice as Potential Vaccine Candidate for Control of Brucellosis" Article Published in Pakistan Journal of Zoology
3. Muhammad Abu Bakr Shabbir, Aziz Ul-Rahman, Muhammad Rizwan Iftikhar, Majeeda Rasheed, Muhammad Kashif Maan, Adeel Sattar, Mehmood Ahmad, Farid Ahmed Khan, Waqas Ahmad, Muhammad Ilyas Riaz and Hassaan Bin Aslam (2024): "Exploring the Interplay of the CRISPR-CAS System with Antibiotic Resistance in *Staphylococcus aureus*: A Poultry Meat Study from Lahore, Pakistan" Article Published in Medicina
4. Aleena Kokab, Ali Sheikh, Masood Rabbani, Wasim Shehzad, Muhammad Ilyas Riaz and Qurat ul Ain (2023): "Post-harvest biocontrol of *Salmonella Enteritidis* on Chicken breast meat and Shelleggs using multiphage cocktail" Article Published in *Veterinaria Italiana*
5. Muhammad Bilal, Shahan Azeem, Asim Aslam, Shahid Abbas, Muhammad Ilyas Riaz, Faisal Shahzad and Muhammad Yasin Tipu (2023) "Evidence of *Salmonella enterica* in Pakistani backyard poultry breeds: isolation, molecular characterization and pathology" Article Published in *Veterinaria Italiana*
6. Muhammad Asif Rasheed, Sohail Raza, Wadi B. Alonazi, Muhammad Adnan Ashraf, Muhammad Tariq Navid, Irfana Aslam, Muhammad Nasir Iqbal, Sarfraz Ur Rahman and Muhammad Ilyas Riaz (2023): "Design and Assessment of a Novel in Silico approach for Developing a Next-Generation Multi-Epitope Universal Vaccine Targeting Coronaviruses" Article Published in Microorganisms
7. Aleena Kokab, Ali Ahmad Sheikh, Masood Rabbani, Wasim Shehzad, Muhammad Ilyas Riaz, Sohail Raza and Rida Haroon Durrani (2022): "Physiological Profiling of Lytic Bacteriophages and their Efficiency against *Salmonella Enteritidis* on Chicken Breast Cuts" Article Published in Pakistan Journal of Zoology
8. Lucinda Slater, Shoaib Ashraf, Osama Zahid, Qasim Ali, Muhammad Oneeb, Muhammad Haroon Akbar, Muhammad Ilyas Riaz, Kiran Afshan, Neil Sargison, Umer Chaudhry (2022) "Current Methods for the Detection of *Plasmodium* Parasite Species Infecting Humans" Review Article Published in Current Research in Parasitology & Vector- Borne Diseases
9. Rida Haroon Durrani, Ali Ahmad Sheikh, Masood Rabbani, Muti-ur-Rehman Khan, Muhammad Ilyas Riaz, Muhammad Anas Naeem, Salman Ashraf Chattha, Aleena Kokab, Munazzah Maqbool, Muhammad Athar Abbas, Naila Siddique (2022) "Physiological Properties of Indigenous Lytic Bacteriophages as Monophage Suspension and Cocktail against Poultry-Adapted Typhoidal *Salmonella* Variants" Article Published in Veterinary Research Forum

10.Iqra nazir, Masood Rabbani, Ali Ahmad Sheikh, Muhammad Ilyas Riaz, Sohail Raza, Qurat ul ain, Arfat Yousaf Shaheen and Aleena Kokab (2021): "Evaluation of in ovo antiviral activities of medicinal flowers against Newcastle Disease Virus and Avian Influenza Virus" Article Published in International Journal of Agriculture and Biology

11.Muhammad Asif Rasheed, Sohail Raza , Ali Zohaib , Muhammad Ilyas Riaz , Amina Amin, Muhammad Awais, Sami Ullah Khan , M. Ijaz Khan , Yu-Ming Chu (2021) "Immunoinformatics based prediction of recombinant multi-epitope vaccine for the control and prevention of SARS-CoV-2" Article Published in Alexandria Engineering Journal by Elsevier

12.Iqra nazir, Masood Rabbani, Ali Ahmad Sheikh, Sehrish Firyal, Sohail Raza and Muhammad Ilyas Riaz (2021) "Antibacterial Activity of Medicinal Flowers against Multi Drug Resistant *E. Coli*" Article Published in Pakistan Veterinary Journal

13.Rida Haroon Durrani, Fareeha Akhtar, Ali Ahmad Sheikh, Munazzah Maqbool, Aleena Kokab, Kiran Imtiaz and Muhammad Ilyas Riaz (2021) "Effects of Storage Temperature on the Microbiological Quality of Fish Meat from Two Different Managemental Systems" Article Published in Pakistan Journal of Zoology

14.Arslan Tariq, Mushtaq Ahmad, Sajid Iqbal, Muhammad Ilyas Riaz, Muhammad Zahid Tahir, Aamir Ghafoor, Amjad Riaz (2019) "Effect of Carboxylated Poly L- Lysine as a Cryoprotectant on Post-thaw Quality and in vivo Fertility of Nili Ravi Buffalo (*Bubalus bubalis*) Bull Semen" Article Published in Theriogenology by ELSEVIER

#### 4.2 Books/Chapters:

NA

#### 4.3 Conferences:

- Poster Presentation at the ASM Microbe Conference Organized by the American Society for Microbiology in Atlanta, Georgia, United States (2024)
- Poster Presentation at ASM Microbe Conference Organized by American Society for Microbiology in Houston, Texas, United States (2023)
- Asia-Pacific Biosafety Association's 15<sup>th</sup> Annual Biosafety Conference (2022)
- International Poultry Science Conference (Member of Organizing Committee) (2022)
- IFBA's Virtual Biosafety Conference "A Vision of Tomorrow", (2021)
- 4<sup>th</sup> WPSA International Virtual One Health Conference (Member of Organizing Committee) (2021)

## 5. Trainings

### 5.1 Trainings Received

Title	Institution	Year	Duration
Training on Vector Borne Disease: Sero-surveillance and Immune Marker Studies	The Agha Khan University	2025	2 days
Training on Fundamentals of Mathematical Modeling in Vector Borne Disease Control	The Agha Khan University	2025	2 days
Complementary Training on Biorisk Management	Association for Biorisk Management	2024	4 days
Enhancing Molecular Biology Techniques and Cybersecurity at Irbid, Jordan	Sandia National Laboratories (USA) & Jordan University of Science and Technology	2023	7 days
International Poultry Science Conference	PPA & UVAS		2 days
BRM Refresher Virtual Training on Biorisk Management	Association for Biorisk Management	2022	2 days
Training on Biorisk Management	Health Security Partners	2021	5 days

### 5.2 Trainings Conducted

Title	Audience	Institution	Year	Duration
Advanced Analytical Techniques for Mycotoxin Detection and Biochemical Detoxification	PG Students	UVAS	2025	2 days

Strategies				
Training Workshop Basics of Biorisk Management	PG Students	UVAS	2024	3 days
Three-Day Training Workshop Upskill Senior Management for ISO 35001 Compliance	Senior Management of Various Veterinary Institutes	ABM	2024	3 days
Hands-on Training Workshop Capacity-Building Training of Lab Attendants Regarding Biosecurity Protocols in Research Institutes	Lab Attendants from different universities of Lahore	HSP	2024	1 day
Two-Day Cyber Biosecurity Training Workshop	PG Students	GCU, Faisalabad & HSP	2023	2 days
Virtual Awareness Seminars Series on Field Biosafety for DVM Students	DVM Graduates from UVAS, CVAS & KBCMA	HSP	2021	3 days
Faculty Training	Faculty Members from	Sandia National Laboratories &	2020	3 days

Program For Veterinary Education Establishments of Pakistan on How To Effectively Teach Newly Introduced Course “Biorisk Management for DVM Degree”	Veterinary Institutes of Pakistan	PVMC		
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## 6. Memberships & Accreditations

American Society for Microbiology  
 Pakistan Veterinary Medical Council  
 Pakistan Biological Safety Association

## 7. Services & Contributions

- Member of Technical Working Group for Implementing ISO 35001 Project in Pakistan by Association for Biorisk Management Pakistan
  - Member of Reviewing Committee of National Laboratory Infectious Waste Management Guidelines
  - Lab Management System ISO 17025 for the Sustainability of University Diagnostic Lab

## 8. Awards & Recognitions

- International Federation of Biosafety Association (IFBA) Re-certified Professional in Biorisk Management
- International Federation of Biosafety Association (IFBA) Certified Professional in Biosecurity
- Member UVAS Faculty of Veterinary Sciences Board of Studies
- International Federation of Biosafety Association (IFBA) Certified Professional in Biological Waste Management
- Research Fellow under International Research Support Fellowship by Punjab Higher Education Commission at The Roslin Institute, University of Edinburgh, UK
- International Federation of Biosafety Association Global Mentee Awardee
- Health Security Partners (HSP) Future Fellowship Awardee

- Overall ranked 3<sup>rd</sup> in UVAS D.V.M session
- Higher Education Commission (HEC) Scholarship Holder
- UVAS Merit Scholarship Holder

## **9. Administrative Roles**

Role	Institute/Committee	Period
Lab Manager	QOL Lab 107	2024- to date

## **10. Research Interests & Future Plans**

- Development of novel recombinant vaccines for mitigation of zoonotic livestock diseases
- Implementation of international biosafety and biosecurity guidelines both indigenous and in international settings

## **11. Additional Information**

- Languages: Urdu, English & Punjabi
- Reviewer: N/A
- Editorial Roles: N/A