Contact details

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Ruqyya Khalid

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CURRENT POSITION

(August 2018---till date)

Assistant Professor

Department of Biochemistry Kinnaird College for Women

EDUCATION

Degree	Year	Marks	Institute			
Ph.D.	2016	CGPA	School of Biological Sciences (SBS), University of the Punjab,			
		3.82	Lahore-54590, Pakistan.			
			PX and PE/PPE antigens of <i>Mycobacterium tuberculosis</i> : duction and immunogenic characterization.			
M.Phil.	2009	CGPA	School of Biological Sciences, University of the Punjab,			
		3.61	Lahore-54590, Pakistan.			
BSc Hons	2008	CGPA	Microbiology and Molecular Genetics, University of the			
		3.93	Punjab, Lahore-54590, Pakistan.			
	Thesis title: Cytogenetic analysis of children with congenital malformations.					
FSc	2003	79%	Pre-medical, Board of Intermediate and Secondary			
			Education, Lahore.			
Matric	2000	84%	Science, Board of Intermediate and Secondary Education,			
			Lahore.			

RESEARCH INTEREST:

Infectious disease diagnostics and therapeutics (molecular and immunological assays), Molecular cloning and expression of antigenic proteins for diagnostic and therapeutic purposes, Antimicrobial resistance studies, Bacteriophages use in therapeutics

ONGOING RESEARCH PROJECTS:

- o Isolation and characterization of bacteriophages against *Mycobacterium spp.* and other pathogenic bacteria
- o Tuberculosis and Dengue infections: Antimicrobial resistance, Epidemiological studies
- o Biological significance of different plant extract (*In Vitro and In Silico* approaches).
- Development of hydrogel-based materials

MAJOR SUBJECTS STUDIED

- Recombinant DNA technology
- Molecular Biology
- Biochemistry
- Protein chemistry and enzymology
- Virology

- Microbiology
- Immunology
- General and Medical Genetics
- Genomics
- o Cell biology

HONOURS AND AWARDS

- 1. **HEC Approved PhD supervisor**, in discipline of Biological Sciences (Dated: 24th Nov, 2022)
- 2. Awarded **University Gold Medal** for obtaining 1st position in BSc (Hons), Microbiology and Molecular Genetics in University of the Punjab, Lahore.
- 3. **Merit Scholarship**, BSc (Hons) Microbiology and Molecular Genetics, University of the Punjab, Lahore, Pakistan (2004-2008).
- 4. **Distinction (CGPA 4.0)** in final comprehensive exam of M. Phil leading to Ph.D. program, School of Biological Sciences, University of the Punjab, Lahore, Pakistan (2009).
- 5. **Best Oral Presentation** in 11th biennial conference on Molecular Bioscience-Challenges and opportunities, Pakistan Society for Biochemistry and Molecular Biology (PSBMB) conference, University of the Punjab, Lahore, Pakistan (2013).
- **6. HEC scholarship,** PhD, School of Biological Sciences, University of the Punjab (2009-2016)

RESEARCH GRANTS

Sr. No.	Project Title	Funding agency	Start Date	Duration	Role	Status
1.	Isolation and Characterization of Bacteriophages against Multi- Drug Resistant Mycobacterium tuberculosis (Project ID: 20-14931)	Higher Education Commission (HEC) Pakistan. (NRPU grant)	Oct 5 th , 2022	3 years	Principal Investigator (PI)	Ongoing

RESEARCH PUBLICATIONS

A. Research thesis written (02)

Year	Supervisor	Title of thesis	Degree	Institute
2016	Dr. M. Waheed Akhtar Professor School of Biological Sciences, University of the Punjab, Lahore.	HSPX and PE/PPE antigens of <i>Mycobacterium tuberculosis</i> : recombinant production and immunogenic characterization	Ph.D.	School of Biological Sciences (SBS), University of the Punjab, Lahore

Professor/Dean children with congenital M Faculty of life Sciences, Nur International University malformation University	Microbiology and Molecular Genetics, Jniversity of the Punjab, Lahore
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B. Research papers

Published (International)

Total IF = 23.129

- 1. Muhammad Kashif Munir, Faiz Ahmed Raza, Adnan, M., Sana Rehman, Ruqyya Khalid, Asif Hanif, & Muhammad Saqib Saeed. (2025). Diagnostic Performance of Xpert® MTB/XDR for Drug-Resistant Pulmonary Tuberculosis. Journal of Gandhara Nursing and Allied Health Sciences, 5(1), 3–8.
- 2. Laiba Ajmal, Amna Hamid, Faiz Ahmed Raza, Sefee Ullah Chaudhry, Kanzal Iman, Sidra Ajmal, Hooria Younas, **Ruqyya Khalid**, Raazia Tassaduq. (2022) Repellent activity of trans-anethole and tea tree oil against Aedes aegypti and their interaction with OBP1, a protein involved in olfaction. Entomologia Experimentalis et Applicata 170(7): 547-554. (**IF= 1.99**).
- **3.** Raza FA, Javed H, Khan MM, Ullah O, Fatima A, Zaheer M, Mohsin S, Hasnain S, **Khalid R**, Salam AA. (2021) Dengue and Chikungunya virus co-infection in major metropolitan cities of provinces of Punjab and Khyber Pakhtunkhwa: A multi-center study. PLoS Neglected Tropical Diseases, 15(9): e0009802. **(IF 4.446)**
- **4.** Khurshid, S., Afzal, M., **Khalid, R.,** Akhtar, M. W. & Qazi, M. H. (2017). Potential of multicomponent antigens for tuberculosis diagnosis. Biologicals, 48:109-113. **(IF=1.603)**
- **5. Khalid, R.,** Afzal, M., Khurshid, S., Paracha, R. Z., Khan, I. H., & Akhtar, M. W. (2016). Fusion molecules of heat shock protein HSPX with other antigens of *Mycobacterium tuberculosis* show high potential in serodiagnosis of tuberculosis. PLoS ONE, 11(09): e0163349. (**IF=3.54**)
- **6.** Afzal, M., Khurshid, S., **Khalid, R.,** Paracha, R. Z., Khan, I. H., & Akhtar, M. W. (2015). Fusion of selected regions of mycobacterial antigens for enhancing sensitivity in serodiagnosis of tuberculosis. Journal of Microbiological Methods, 115: 104-111. **(IF=2.01)**
- 7. Khurshid, S., Afzal, M., **Khalid, R.,** Khan, I. H., & Akhtar, M. W. (2014). Improving sensitivity for serodiagnosis of tuberculosis using TB16. 3-echA1 fusion protein. Tuberculosis, 94(5): 519-524. (**IF=3.0**)
- **8.** Raza, F. A., Rehman, S., **Khalid, R.**, Ahmed, J., Iqbal, M., Ashraf, S., Hasnain, S., Ahmed, M. (2014). Demographic and clinico-epidemiological features of dengue fever in Faisalabad, Pakistan. PLoS ONE, 9(3): e89868. **(IF=3.54)**
- Khurshid, S., Khalid, R., Afzal, M., & Akhtar, M. W. (2013). Truncation of PstS1 antigen of Mycobacterium tuberculosis improves diagnostic efficiency. Tuberculosis, 93(6): 654-659. (IF=3.0)

Published (National)

10. Khalid, R., Mahmood, S., Raza, F. A. & Waheed, K. A. I. (2018). Cytogenetic analysis of children with congenital dimorphism reported to tertiary care hospital in Lahore, Pakistan. J Fatima Jinnah Med Univ. 12(1):9-12.

PATENTS

- "A polynucleotide comprising a nucleotide sequence encoding a fusion protein" (Pakistan patent # 142886; granted date: 5/8/2019; expiry date: 4/15/2034).
 Patent awarded in favor of: School of Biological Sciences, University of the Punjab, Lahore <u>Authors:</u> M. Waheed Akhtar, **Ruqyya Khalid**, Madeeha Afzal and Sana Khurshid.
- 2. "Multi-epitope fusion antigens for diagnosis and prevention of tuberculosis" (Pakistan patent # 142446; granted date: 15/09/2017; expiry date: 1/07/2034).

 Patent awarded in favor of: School of Biological Sciences, University of the Punjab, Lahore *Authors*: M. Waheed Akhtar, Madeeha Afzal, Sana Khurshid and **Ruqyya Khalid**.

TRAINING COURSES

Attended a training workshop "Active Citizens Training of Facilitators" from 7th to 11th
January 2019 organized by Kinnaird College in collaboration with British Council at
Kinnaird College for Women.

SKILL ENHANCEMENT COURSES

- o "Study designs in Epidemiology", an online non-credit course authorized by Imperial College London and offered through Coursera. (Date of Completion: 12-08-2023)
- "Validity and Bias in Epidemiology", an online non-credit course authorized by Imperial College London and offered through Coursera. (Date of Completion: 12-09-2023)

PRESENTATIONS

Oral Presentations

- Ruqyya Khalid. "Targeting Tuberculosis: The role of Phage therapy in drug resistance" at 3rd International Conference of Science, Technology and Innovation at Kinnaird College for Women from 18th -20th February, 2025.
- Ruqyya Khalid as Guest speaker. A talk on "The Science of Phages: Tiny Warriors with Big Potential" in a Seminar on "Bacteriophage therapy: A Innovative and Sustainable Approach to Combat Antimicrobial Resistance" organized by Department of Biochemistry in collaboration with ORIC, Kinnaird College for Women on 8th May, 2024.
- Maimoona Hamood, Arham Khan, Faiz Ahmed Raza, Ruqyya Khalid. "Frontiers in Applied biological Science" organized by Department of Biology, Garrison University Lahore from 14th December, 2023.

- Ruqyya Khalid. "Chimeric fusion antigens of Mycobacterium tuberculosis improves diagnostic and therapeutic efficacy". 2nd International Conference on Science, Technology and Innovation" organized by ORIC, Kinnaird College for Women from 8th-10th March, 2023.
- Arham Kahn, Maimoona Hamood, Faiz Ahmed Raza, Ruqyya Khalid. Pattern of clinical features and epidemiology of dengue fever in Rawalpindi, Pakistan. 2nd International Conference on Science, Technology and Innovation" organized by ORIC, Kinnaird College for Women from 8th-10th March, 2023.
- Maimoona Hamood, Faiz Ahmed Raza, Ruqyya Khalid. "Dengue and Chikungunya virus co-infection in major metropolitan cities of provinces of Punjab and Khyber Pakhtunkhwa: A multi-center study". 2nd International Conference on Science, Technology and Innovation" organized by ORIC, Kinnaird College for Women from 8th-10th March, 2023.
- o **Ruqyya Khalid,** M. Waheed Akhtar. "Recombinant production and characterization of protein antigens of *Mycobacterium tuberculosis*". 11th biennial conference, Molecular Bioscience-Challenges and opportunities, of Pakistan Society for Biochemistry and Molecular Biology (PSBMB) held at the University of the Punjab, Lahore from 25th -28th November 2013.
- o **Ruqyya Khalid,** Saqib Mehmood. "Cytogenetic analysis in children with congenital malformation." 19th Biennial Pakistan Paediatric Association Conference, Peshawar from 18th -20th April, 2008.

Poster Presentations

- Ruqyya Khalid, Arham Khan, Faiz Ahmed Raza, Shafiq ur Rehman and Shahzara. Isolation and Characterization of Non-Tuberculous Mycobacteria. A National Conference on Recent Advances in Biological Sciences (RABS-2025). Lahore Garrison University. 21st-22nd January, 2025.
- Iqra Nadeem, Laiba Shaheen, Ruqyya Khalid and Faiz Ahmed Raza. Phage therapy: A promising Alternative to Antibiotics. A National Conference on Recent Advances in Biological Sciences (RABS-2025). Lahore Garrison University. 21st -22nd January, 2025.
- Laiba Shaheen, Ruqyya Khalid, Faiz Ahmed Raza. Analysis of Multiple Drug Resistance Tuberculosis through Conventional and Molecular Methods got 1st price in poster competition "Kinnaird Festival of Statistics and Data Science" organized by Department of Statistics at Kinnaird College for Women.
- Aiman Khan, Faiz Ahmed Raza, Ruqyya Khalid. Determination of larvicidal activity of different plant oils. Pakistan Society of Zoology. University of the Punjab 16-18th March, 2023.
- Faiz Ahmed Raza, Hasnain Javed, Areeba Fatima, Ruqyya Khalid et al., "Dengue and Chikungunya virus co-infection in major metropolitan cities of provinces of Punjab and Khyber Pakhtunkhwa: A multi-center study". 4th international symposium on Advances

- in Molecular Biology of Plant and Health Sciences at Center of Excellence in Molecular Biology, December, on 23rd -24th December, 2021.
- Ruqyya Khalid, Saqib Mahmood, Faiz Ahmed Raza, Khawaja A Irfan Waheed, <u>Areeba Fatima</u>. "Cytogenetic analysis of children with congenital dysmorphism reported to tertiary care hospital in Lahore, Pakistan". 1st International Conference Punjab University, Recent Advances in Molecular Sciences" at University of the Punjab during 6th-8th November, 2019.
- Ruqyya Khalid, Sana Khurshid, Madeeha Afzal, Rehan Zafar Paracha, Imran H Khan, M. Waheed Akhtar. "Fusion Molecules of Heat Shock Protein HSPX with Other Antigens of Mycobacterium tuberculosis Show High Potential in Serodiagnosis of Tuberculosis". 1st International Conference Punjab University, Recent Advances in Molecular Sciences" at University of the Punjab during 6th- 8th November, 2019.
- o Mahnoor Khan, **Ruqyya Khalid**. "Evaluation of GeneXpert in diagnosis of smear negative Tuberculosis patients". 1st International Conference on Science, Innovation and Commercialization" from 2nd-4th April 2019 at Kinnaird College for Women.
- o **Ruqyya Khalid,** M. Waheed Akhtar. "Cloning and expression of *Mycobacterium tuberculosis* antigens and development of serological assay for diagnosis of Tuberculosis". 10th biennial conference, Bimolecular Science and Development. Pakistan Society for Biochemistry and Molecular Biology (PSBMB). Dr. A. Q. Khan institute of Biotechnology and Genetic Engineering (KIBGE), University of Karachi. 1-5 December 2010.
- o **Ruqyya Khalid,** Saqib Mehmood. "Cytogenetic analysis in children with congenital malformation". 4th annual symposium. The Children's Hospital and the Institute of Child Heath, Lahore. 18-19 November 2007.
- Ruqyya Khalid, Saqib Mehmood. "Cytogenetic analysis in children with congenital malformation". 1st international symposium on Genomics, Proteomics and Metabolomics: Recent Trend in Biotechnology. Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore. 22-23 October, 2007.

COMPETITIONS

- Wasifa Shoaib, Hafiza Fizza Kausar and Ruqyya Khalid. Prototype / innovative product display. XanthaGlow: Nature's Secret to Radiant Skin
- Hafsa Naveed, Raazia Tasadduq, Faiz Ahmed Raza, Ruqyya Khalid. Prototype / innovative product display. Zanza-Pel: An Eco-Friendly Mosquito Repellent.
- o Irfa Asif, Raazia Tasadduq, Amna Younus and Ruqyya Khalid. Prototype / innovative product display. Cellenzo: Bacterial Cellulose from Agrowaste

WORKSHOPS/CONFERENCES ORGANIZED

- Workshop on "Consent and Ethics in Public Health Research" organized by Department of Biochemistry in collaboration with ORIC, Kinnaird College for Women on 29th April, 2025
- o A hands-on workshop on "Advances in Molecular Docking and Drug Designing" organized by Department of Biochemistry in collaboration with ORIC, Kinnaird College for Women on 16th November, 2024.

- Seminar on "Bacteriophage therapy: A Innovative and Sustainable Approach to Combat Antimicrobial Resistance" organized by Department of Biochemistry in collaboration with ORIC, Kinnaird College for Women on 8th May, 2024.
- Seminar on "Preconception Care and Precision medicine" organized by Department of Biochemistry in collaboration with ORIC, Kinnaird College for Women on 22nd November, 2023.
- Workshop on "Innovations in Control and Management of Arboviral Diseases in Pakistan" organized by Department of Biochemistry in collaboration with ORIC, Kinnaird College for Women on March, 2023.
- o Moderated a session in a conference "1st International Conference on Science, Innovation and Commercialization" from 2nd-4th April 2019 at Kinnaird College for Women.
- Organized one day workshop 'Application of Statistics in Biological Research: A Training Workshop' in Kinnaird College for Women on 3rd November 2018.
- Organized 11th biennial conference "Molecular Bioscience-Challenges and opportunities", of Pakistan Society for Biochemistry and Molecular Biology (PSBMB) at the University of the Punjab, Lahore from 25th -28th November 2013.
- Organized a symposium on "Tuberculosis-Epidemiology, Diagnostics and Therapeutics" at institute of Biochemistry and Biotechnology, University of the Punjab on 3rd November 2011.

WORKSHOPS/CONFERENCES/SEMINARS ATTENDED

- Mental Health Matters organized by Compus Counselor, Kinnaird College for Women on 14th Jan, 2025.
- 2 Days Hands-on Training Workshop on "Isolation and Characterization of Bacteriophages for Phage Therapy" organized by Institute of Microbiology and Molecular Genetics, University of the Punjab from 17th-18th March, 2023.
- Three days conference on "2nd International Conference on Science, Technology and Innovation" organized by ORIC, Kinnaird College for Women from 8th-10th March, 2023.
- Three days training Workshop on "Multi-omics Big Data Analysis Boot Camp" organized by School of Biochemistry and Biotechnology, University of the Punjab, Lahore on 7-9th December, 2022
- o One day workshop on "Hands on Training for Growing Edible Gardens and Entrepreneurship" organized by Department of Botany in collaboration with ORIC and Green Youth Movement Club, Kinnaird College for Women on 4th October, 2022.
- o IPVS Satellite Symposium on "Human Papilloma Virus and Cervical Cancer" jointly organized by International Papilloma Virus Society (IPVS), Dr. Punjwani Center for Molecular Biology and Drug Research (PCMD, International Center for Chemical and Biological Sciences (ICCBS) and University of Karachi on 22nd-24th September, 2022.
- One day workshop on "Mushrooms, its Secrets and Entrepreneurship" organized by Department of Botany in collaboration with ORIC, Kinnaird College for Women on 14th March, 2022.
- o Online webinar on "COMSTECH UNESCO Webinar on open science" organized by COMSTECH on 10th March, 2022.

- o Online webinar on "Writing the SAR (Self-Assessment Report)" organized by Quality Enhancement Cell of Kinnaird College for Women on 29th January, 2022.
- Online workshop on "Data Analytics using SPSS" organized by Quality Enhancement Cell of Kinnaird College for Women on 30th January, 2021.
- Online workshop on "Lecturing to electric teaching" organized by Quality Enhancement Cell of Kinnaird College for Women on 22nd May, 2021.
- o "International Conference Punjab University, Recent Advances in Molecular Sciences" at University of the Punjab during 6th- 8th November, 2019.
- "1st International Conference on Science, Innovation and Commercialization" from 2nd-4th April 2019 at Kinnaird College for Women.
- A workshop "Toxicological Screening in New Drug Development" at "1st International Conference on Science, Innovation and Commercialization" 3rd April 2019 at Kinnaird College for Women.
- One day workshop on 'ISO 21001 Educational Organization Management System (EOMS)" on 17th November, 2018 organized by QEC, Kinnaird College for Women, Lahore.
- One day workshop on 'Application of Statistics in Biological Research: A Training Workshop' on 3rd November 2018 at Department of Biochemistry, Kinnaird College for Women, Lahore.
- Symposium on "Tuberculosis-Epidemiology, Diagnostics and Therapeutics" on 3rd November 2011 at institute of Biochemistry and Biotechnology, University of the Punjab.
- One day workshop on "Fluorescent microscopy: Introduction and application" on 24th September 2011 at department of Microbiology and Molecular Genetics, University of the Punjab.
- Training workshop on "Immunoassays" from 23rd-26th February 2011 organized by center of Pakistan Medical Research Council NHRC and Barts and London UK at Sheikh Zayed Hospital, Lahore.

SUMMARY OF SKILLS

- Circular Dichroism (CD) spectroscopy
- DNA sequencing
- o PCR, Gel electrophoresis (agarose, native and SDS PAGE)
- Cloning and transformation
- o Protein expression and purification techniques (chromatography, FPLC)
- o Immunological assay (ELISA) and immune-blotting
- Antibodies production in rabbits
- Cell culture techniques for chromosome analysis (Karyotyping)
- Techniques of microbiology (culturing, staining methods, antimicrobial sensitivity etc.)
- Phage isolation and culturing techniques (Plaque and Spot assays)
- o Familiar with various bioinformatics tools like BLAST, Clustal W, Oligonucleotide calculator, Primer3, NCBI, NEB cutter, I-tasser
- o Familiar with ENDNOTE, Biorender, GraphPad Prism.

RESEARCH STUDENTS SUPERVISED

SR. NO.	STUDENT NAME	THESIS TITLES	YEAR	
		M. PHIL. RESEARCH STUDENTS		
1.	Iqra Nadeem	Isolation and Characterization of Bacteriophages against Gram Negative Bacteria	Ongoing	
2.				
3.	Laiba Shaheen	Evaluation of Antimicrobial Agents against Mycobacterial Species	2025	
4.	Momna Masood	Meta-Analysis of Larvicidal Potential of Indo-Pak Flora against <i>Aedes aegypti</i>	2024	
5.	Arham Khan	Isolation and characterization of <i>Mycobacterium</i> smegmatis	2024	
6.	Maimoona Hamood	MDR and XDR profiling of <i>Mycobacterium tuberculosis</i> isolates through GeneXpert	2024	
7.	Aiman Khan	In-vitro and In-silico analysis of larvicidal activity of Piper betle extract against Aedes aegypti	2024	
8.	Maria Nawaz	Biochemical and molecular characterization of probiotic bacteria	2023	
9.	. Javeria Akhtar Investigating larvicidal potential of bioactive compounds of <i>Psidium guajava</i> leaves through <i>in-silico</i> analysis		2022	
10.			2022	
11.	Faiza Mukhtar	Determination of antidiabetic and hypolipidemic activity of aqueous extract of <i>Psidium guajava</i> leaves	2022	
12.	Iqra Mughal	Identification and characterization of probiotics isolated from different foods	2022	
13.	Hina Mustafa	Determination of chemical constituents and bio- activities of <i>Psidium guajava</i> leaf extracts against <i>Aedes</i> <i>aegypti</i>	2021	
14.	Amna Liaqat	Discovery Of Hepatitis C Virus NS3/4A Protease Inhibitors By Combining <i>In</i> Silico Approaches	2021	
15.	Arshia Irfan	Detection of aminoglycoside resistance genes in clinical isolates of <i>Staphylococcus aureus</i>	2021	
16.	Sumbal Shehzadi	Detection of aminoglycoside resistance genes in clinical isolates of <i>Acinetobacter baumannii</i>	2021	
17.	Amna Amjad	Cloning and expression of recombinant his-espj antigenic protein in <i>Escherichia coli</i>	2020	
		BS RESEARCH STUDENTS		
1. 2.	Wasifa Shoaib Hafiza Fizza Kausar	Synthesis and Characterization of Hydroxyethyl Cellulose and xanthan gum based biodegradable hydrogels	Ongoing	

3.	Sawera Shehzadi	Optimization of Bacterial Cellulose Production from Fruit Waste	2025	
4.	Hira Atif	Biochemical Characterization of Bacterial Isolates from Fermented Extract of <i>Allium sativum</i>	2024	
5.	Tooba Batool	<i>In-vitro</i> and <i>in-silico</i> analysis of larvicidal activity of tea	2024	
6.	Khadija	tree oil against <i>Aedes aegypti</i>	2021	
7.	Zainab Zia	dee on agamserieues aegypu		
8.	Aymen Tahir			
9.	Baseerat Khalid	Identification and characterization of probiotics	2023	
	Rafia Anjum	isolated from Kanji	2020	
11.	Abeerah Rizwan	Cloning of <i>Aedes aegypti OBP1</i> gene into pet28a(+)	2022	
12.	Ajwa Ashfaq	expression vector		
13.	Mehzial Shoukat	•		
14.	Samra Safdar			
15.	Tehreem Minahil	Antimicrobial activity of different plant leaf extracts on	2022	
16.				
17.				
18.	Arham Khan	Pattern of clinical features and epidemiology of dengue		
19.	Maimoona Hamood	fever in Rawalpindi, Pakistan		
20.	Fizza Anjum			
21.	Aleeza Nisar	Antibacterial, thrombolytic, anti-haemolytic and	2022	
22.	Insharah Saqib	larvicidal activities of Commiphora gileadensis		
23.	Humaira Amjad	Determination of larvicidal activity of different plant		
24.	Kainat	oils		
25.		Sero-prevalence of chikungunya viral infection in	2020	
23.	Tir Ceba Tatillia	dengue patients	2020	
26.	Huria Saeed	Determination of phytochemical content and	2020	
		4	2020	
27.	<u> </u>	roosa Shafaqat biological activities of Commiphora gileadensis		
28.	Romella Mudassir	Determination of larvicidal activity of neem, clove, tea	2020	
		tree and orange oil extracts		
29.	Zainab Iqbal	Recombinant cloning of <i>Mycobacterium tuberculosis</i>	2019	
		PPE antigenic protein in E. coli		
30.	Mahnoor Khan Evaluation of GeneXpert in diagnosis of smear negative		2019	
		Tuberculosis patients		
31.	Rahat Jamil	Serum electrolytes profile of iron deficiency anemic	2019	
	· ····· <i>y•</i> ······	patients		
		patiento		

ACADEMIC AND NON ACADEMIC RESPONSIBILITIES

- Member of Self-Assessment Review (SAR) Committee of M.Phil Biochemistry Program, Kinnaird College for Women
- o Internal member of Thesis defense committee of BS and M.Phil Biochemistry Program, Kinnaird College for Women
- Member of Viva Voce examination committee of internship reports of BS Biochemistry, Kinnaird College for Women
- o Member of Anti-Dengue Committee, Kinnaird College for Women, Lahore since 2023.

o Curriculum development and preparation of course files

MEMBERSHIPS

- American Society of Microbiology (ASM)
- o Pakistan Society for Biochemistry and Molecular Biology (PSBMB)

PEER REVIEWER

- Peer reviewed research grants proposal for Health Research Institute, National Institute of Health in 2023 (2 research grants).
- o Peer reviewer for Phytomedicine Plus since 2023 (1 article reviewed).
- Peer reviewer for Journal of Fatima Jinnah Medical College (JFJMU) since 2020 (2 papers reviewed).
- Peer reviewer for Journal of Pakistan Medical Association (JPMA) since 2018 (12 papers reviewed).

EXTERNAL EXAMINER

 External examiner for M.Phil Viva Voce at different institutes: The University of the Lahore, Lahore Garrison University, University of Veterinary and Animal Sciences.

LANGUAGE PROFICIENCY

Language	Listening	Reading	Writing	Speaking
English	Good	Good	Good	Good
Urdu	Excellent	Excellent	Excellent	Excellent
Arabic	Fair	Good	Fair	Poor

REFERENCES

Professor M. Waheed Akhtar

School of Biological Sciences, University of the Punjab, New Campus, Lahore 54590 – Pakistan.

Email: mwa.sbs@pu.edu.pk

Professor Dr. Saqib Mahmood

Professor/Dean Faculty of life Sciences, Nur International University Lahore 54590 – Pakistan.