



Dr. SABA SANA

Father's Name: SANA ULLAH

Present Address: Department of
Microbiology, IIIB GCU Lahore

Phone No: +92-3088805081

Email: saba.sana@gcu.edu.pk

ORCID: 0009-0003-6837-3209

RELEVANT SKILLS

- ✓ Culturing and Identification of Bacterial Pathogens
- ✓ Culturing and Identification of Fungi
- ✓ Genome Extraction & PCR
- ✓ SDS-PAGE
- ✓ HA, HI, RBPT
- ✓ ELISA

WORK EXPERIENCE

Assistant Professor (BPS-19)

(1st Nov 2023 to to-date)

Department of Microbiology

Ikarm ul Haq Institute of Industrial Biotechnology (IIIB)

Government College University Lahore

Lecture (BPS-18)

(2nd Nov 2017 to 31st Oct 2023)

IoM UVAS LAHORE

Total Experience: 7 Years and 6 months

Post PhD Experience: 6 Years and 15 days

IFBA Certified Professional in BRM (2023)

IFBA Certified Professional in Biosecurity (2024)

IFBA Certified professional in Biological Waste Management (2025)

EDUCATION HISTORY

- **PhD Microbiology**

UVAS Lahore

4.00/4.00

- **M.Phil Microbiology**

(Silver Medal)

UVAS Lahore

4.00/4.00

(91.38)

- **BS (Hons.) Applied Microbiology**

(Gold Medal)

UVAS Lahore

3.92/4.00

(85%)

- **HSSC (FSc- Pre-Medical)**

BISE Multan

835/1100

(76%)

- **SSC (Matriculation)**

BISE Multan

718/850

(84%)

Field of Specialization:**Bacteriology, Mycology & Mycotoxins****1. Research work done:**

#	Title (Topic)	Progress
1	Purification and characterization of aflatoxin produced by indigenous aspergilli under optimized conditions	Completed
2	Antifungal Activity of essential oils against aflatoxin producing <i>Aspergillus flavus</i>	Completed
3	Characterization of Indigenous yeast isolates as toxin binders isolated from fruits	Completed
4	Evaluation of Alternative Therapeutic agents to antibiotics against resistant uro-pathogenic bacteria	Completed
5	Molecular Characterization of Dermatophytes, Susceptibility Pattern and Resistance Modulation to Antifungals by Thymoquinone	Completed
6	Isolation, characterization of Cryptococcus, Antifungal Susceptibility Profile and Respurposing drugs	In-Progress
7	Isolation, characterization of Candida spp. Antifungal Susceptibility Profile and Respurposing drugs	In-Progress
8	Evaluation of nanoparticles agents to antibiotics against resistant <i>Staphylococcus aureus</i>	Completed
9	Antifungal Activity of nanoparticles and plant extracts against mycotoxin producing fungi	In-Progress
10	Anti-toxicogenic evaluation in grains by different compounds	In-Progress

2. SCIENTIFIC RESEARCH PAPERS/ BOOKS**Books**

1. Fundamentals of Microbiology: A Laboratory Manual. **Saba Sana**, Ali Ahmad Sheikh, Zoya Maheen, Nadia Mukhtar, Tahir Yaqub, Sikander Ali, M. Nouman Aftab and Iqara Liaqat. Published December 22, 2023 | Version v1. ISBN 978-1-960740-23-6. Scientific Knowledge Publisher.
2. A Laboratory Manual of Mycology: **Saba Sana**, Iqra Liaqat, Asma Abdul Latif, Kinza Khan, Sikander Ali, Muhammad Nouman Aftab, Muhammad Usman Ahmad, Shamsa Niaz, Nida Sana. Published February 13, 2024 | Version v1. ISBN 978-1-960740-04-5. Scientific Knowledge Publisher.

Research Papers:

1. *In-Vitro* activity of *Nigella sativa* against antibiotic resistant *Salmonella enterica*. Ashraf, Sadia, Anjum, Aftab Ahmad, Ahmad, Ali, Firyal, Sehrish, **Sana, Saba**, Latif, Asma Abdul. Environmental Toxicology and Pharmacology. <https://doi.org/10.1016/j.etap.2017.12.017>. Impact factor; 2.313.
2. Diversity of soil borne starch hydrolyzing fungi of livestock farms. **S.Sana**, A.A.Anjum, M.Nawaz, Mansur-ud-Din Ahmad and M. Rabbani. The Journal of Animal and Plant Science. 27(2) pp. 407-414.2017. Impact factor; 0.422
3. Prevalence and Antibioqram of *Staphylococcus aureus*, a camel Mastitogen. Amjad Islam Aqib, Muhammad Ijaz, Aneela Zameer Durrani, Aftab Ahmad Anjum, Riaz Hussain, **Saba Sana**, Shahid Hussain Farooqi, Kashif Hussain and Syed Saleem Ahmad. Pakistan

Journal of Zoology. 49(3) pp.861-867.2017. Impact factor 0.491

4. Identification of coagulase gene in *Staphylococcus aureus* isolates recovered from subclinical mastitis in camels. Aqib AI, Ijaz M, Hussain R, Durrani AZ, Anjum AA, Rizwan A, **Sana S**, Farooqi SH and Hussain K. Pakistan Veterinary Journal. 37(2): pp 160-164. 2017. Impact factor; 0.813.
5. Effect of fermented rice bran on growth performance and bioavailability of phosphorous in broiler chickens. Ali Ahmad, Aftab Ahmad Anjum, Masood Rabbani, Kamran Ashraf, Mian Muhammad Awais. Muhammad Nawaz, Nisar Ahmad, Ali Asif and **Saba Sana**. Indian Journal of Animal Research. [10.18805/ijar.v0i0F.8002](https://doi.org/10.18805/ijar.v0i0F.8002). 2017. Impact factor; 0.147.
6. Diversity of bacterial contamination on in-animate surfaces of a tertiary care hospital and their sensitivity to disinfectants. H.M.Khan, S.Rehman, **S.Sana**, M.A.Ali and A.A.Anjum.68(4) pp. 372-376. 2016.Impact factor; 00.
7. Studies on the antibiotic sensitivity pattern of isolates of *P.multocida* from buffaloes. M. Kamran, M. U. D. Ahmad, A. A. Anjum, A.Maqbool, K.Muhammad, M. Nawaz, N.U. Hudda, **S. Sana** and M. A. Ali. 24(5): 2014, pp. 1565-1568. 2014. Impact factor; 0.48.
8. Ahmad A., A. A. Anjum, M. Rabbani, K. Ashraf, M. Nawaz, **S. Sana** and A. Asif, 2018. Diversity of phytase producing non-Toxigenic fungi isolated from soil. The J. Anim. Plant Sci. 28(2): 467-473
9. Nazar M., M. S. Khan, M. Ijaz, A. A. Anjum, **S. Sana**, E. M. N. Setyawan, M. I. Saleem and I. Ahmad, 2018. Prevalence of Degnala Disease in bovine along with screening of toxigenic fungi isolated from contaminated rice straw. J Biolog Reg Homeo Agents 32(2): 269-274
10. Anjum A. A., N. Tariq, M. Nawaz, M. Nasir, A. Hameed, **S. Sana**, M. A. Sajid, S. Ahmad, F. Towakal and M. A. Ali, 2018. Occurrence of Bacterial Contaminants in Poultry Meals and Their Antibiotic Resistance Pattern. Pak J Science 70(2):
11. **Sana S**, A. A. Anjum, A. Ahmad, M. I. Najeel, H. F. Majeed, A. Razzaq, S. Ahmad, M. Ahmad, A. I. Aqib and M. A. Ali, 2018. Optimization of Culture Conditions for Penicillium Isolated from Soil to Enhance Amylase Production Potential. Pak J Science 70(2):
12. Nazar, M., M. S. Khan, M. Ijaz, A. A. Anjum, **S. Sana**, E. M. N. Setyawan and I. Ahmad, 2018. Comparative cytotoxic analysis through MTT assay of various Fungi isolated from rice straw feedings of Degnala disease affected animals. The J. Anim. Plant Sci. 28(4):1034-1042.
13. Shagufta Irshad, Amna Salamat, Aftab Ahmad Anjum, **Saba Sana**, Rehman Shahzaib Saleem, Azra Naheed and Asia Iqbal. 2018. Green tea leaves mediated ZnO nanoparticles and its antimicrobial activity. Congent chemistry, 4:1469207
14. Amjad Islam Aqib, Shagufta Nighat, Rais Ahmed, **Saba Sana**, Muhammad Ameen Jamal, Muhammad Fakhar-e-Alam Kulyar, Naimat Ullah Khan, Mian Saeed Sarwar, Muhammad Asif Hussain, Asadullah, Attaur Rahman and Sadeeq ur Rahman. Drug susceptibility profile of Staphylococcus aureus isolated from mastitic milk of Goats and Risk Factors Associated with Goat Mastitis in Pakistan. Pakistan J. Zool., vol. 51(1), pp 307-315, 2019.
15. Nimra Azeem, Muhammad Nawaz, Aftab Ahmad Anjum, Shagufta Saeed, **Saba Sana**, Amina Mustafa and Muhammad Rizwan Yousuf. Activity and Anti-Aflatoxigenic Effect of Indigenously Characterized Probiotic Lactobacilli against *Aspergillus flavus*—A Common Poultry Feed Contaminant. Animals, 9, 166. 2019.**IF**. 1.832.2019
16. **Saba Sana**, Aftab Ahmad Anjum, Tahir Yaqub, Muhammad Nasir and Ali Ahmad. Enzymatic and aflatoxin production potential of *Aspergillus flavus*: Pak. J. Agri. Sci., Vol. 56(3), 747-752. **IF**. 0.618. 2019.
17. **Saba Sana**, Aftab Ahmad Anjum, Tahir Yaqub, Muhammad Nasir, Muhammad Asad Ali

- and Mateen Abbas. Molecular Approaches for Characterization of Aflatoxin Producing *Aspergillus flavus* Isolates from Poultry Feed: Pak Vet J, 39(2): 169-174. 2019. **IF. 1.36.** 2019.
18. S. Irshad, M. Riaz, A. A. Anjum, **S. Sana**, R. S. Z. Saleem and A. Shaukat. Biosynthesis of ZnO nanoparticles using *ocimum basilicum* and determination of its antimicrobial activity. The J. Anim. Plant Sci. 30(2):2020.
 19. A. Ahmad; A. A. Anjum; M. Younus; S. Ahmed; S. Ali, **S. Sana**; A. Asif, N. Nazir, A. Ashraf and S.G. Mohyuddi. Optimization of Culture Conditions for Phytase Production by *Aspergillus flavus* Phy168 Isolated from Soil. Pakistan Journal of Science, Vol. 72 No. 3 September, 2020
 20. S. Hameed, A. A. Anjum, **S. Sana** and M. I. Najeeb. Bacteriological and Mycological Analysis of Mixed Vegetable Salads. Pakistan Journal of Science Vol. 72 No. 4 December, 2020.
 21. Ayesha Khan, **Saba Sana**, Yasir Zahoor. A Mini Review on Mycotoxin Binding Potential of Yeast Species. LGU J. Life Sci 4(2): 2020. LGUJLS MS.ID-093 (2020).
 22. Rana Haider Ali, Aftab Ahmad Anjum, **Saba Sana** and Muhammad Yasir Zahoor. Antifungal resistance modulation of *Aspergillus fumigatus* isolates from brooder pneumonia affected birds by *Eucalyptus globulus* extracts. AJ Life Sci. 2020, 3 (2): 145-155.
 23. **Saba Sana**, Aftab Ahmad Anjum, Mansur-Ud-Din Ahmad, Muhammad Nawaz, Ali Ahmad and Hafiza Rahat Farooq. **2021**. Dynamics of Amylases Production Potential by *Aspergillus Niger* Isolates from Soil. Pak. J. Bot., 53(2): DOI: <http://dx.doi.org/10.30848/PJB2021>
 24. Md Zulfekar Ali, **Saba Sana**, Ali Ahmad Sheikh and Zoya Maheen. 2022. Molecular Characterization of toxigenic *Aspergillus flavus* isolated from sick broiler lungs and risk factor analysis. Pak. Vet. J. 42 (4): 194-200.
 25. **Saba Sana**, Ali Ahmad Sheikh, Aftab Ahmad Anjum. PJSIR-10554-GR/3442 “Role of microbial factory in starch-based Industries and different approaches for enhanced Production of Amylases: A Review” PJSIR Ser. *Biol.Sci. in 2022-23*
 26. **Saba Sana**, Shamsa Niaz, Ali Ahmad Sheikh, Sikander Ali, Huma Mujahid, Shahgull, Iqra Liaquat and Iqra Bashir. 2024. Molecular Characterization and Susceptibility Profile of Indigenous *Arthroderma multifidum* to common Antifungals. Intl J Agric Biol 31 (4):285–294
 27. Kinza Khan, Amna Rafiq, Rizwana Sultan, **Saba Sana**, Ume Kalsoom Bashir and Abdul Haseeb Khan. 2024. Seroprevalence of Newcastle Disease Virus and Avian Influenza H9N2 in Various Districts of South Punjab, Pakistan from 2020-2022. Intl J Agric Biol 31(2):84–88
 28. Muhammad Usman Ahmad, Kaynat William, Sikander Ali, Fareeha Akhtar, **Saba Sana** and Sundas Sharif. 2024. Utilization of fermentatively produced antimicrobials peptide silver-nanoconjugates against selected bacterial pathogens. Intl J Agric Biol 31 (2):137–146
 29. Sobia Nisar, Mehroz Fatima, Syed Zakir Hussain Shah, Noor Khan, Beenish Aftab, Wazir Ali, Maryam, **Saba Sana**, Amber Fatima. 2024 Evaluation of Growth, Antioxidant Status, Hepatic Enzymes and Immunity of Nanoselenium-Fed *Cirrhinus mrigala*
 30. Sikander Ali, Muhammad Usman Ahmad, Hajrah Usmani, **Saba Sana**, Madiha Shoukat and Atif Iqbal. 2024. Exploring Enhanced Dopamine Activity using an Intracellular Tyrosinase of Two Different *Lentinula edodes* strains. Intl J Agric Biol 31:401-409
 31. S. Gull, T Ahmad, Saba Sana, M. Asif Shaheen. 2025. Antibiotic Resistance Profile in *Listeria monocytogenes* Isolates from The White Meat Available in Pakistan’s Retail

Markets. Iranian Journal of Veterinary Research. 26(1) serial no. 90. 34-40.

32. Areesha Batool, Sikander Ali, Aneeba Rashid, M. Usaman Ahmad, **Saba Sana**, Luiza C Campos. 2025. Enhanced Catalytic Stability for L-Dopa synthesis through cross-linking Al₂ O₃ Nanocrystals with Bacillus subtilis tyrosine hydroxylase. World Journal of Microbiology and Biotechnology.41: 282: 1-15 (28th July 2025).
33. Saba Sana, Aftab Ahmad Anjum, Qaiser Farid Khan, Layyaba Nazir, Sikander Ali, Ahamad Mohammad Salamatullah, Molalign Assefa, Tawaf Ali Shah. Growth and Aflatoxin Production by *A.flavus* Isolated from Poultry Feed: Effect of Physicochemical Factors and Storage Conditions. Annals of Microbiology. Accepted 2025.
34. **Saba Sana**, Layyaba Nazir Shahgull, Muhammad Sohail. Optimization of Fermentative Parameters and In-vitro safety Evaluation of Amylase Produced by *Mucor flavus*. **Accepted IJAB 2025.**
35. Saba Sana. Enzymatic Potential and Antifungal Susceptibility Profile of *Aspergillus terreus* Against Essential Oils. (Oleo Scientific Revisions Submitted)
36. **Saba Sana**, Distribution, Molecular Characterization, and Treatment Options for Dermatophytes and non-Dermatophyte fungi From Human and Animal Samples: An Integrated Approach . Revision submitted September 2025

3. RESEARCH SUPERVISED

Students supervised (No. only):

M. Phil Students: 03

Ph. D Students: 00

Membership of the supervising committees (No. only):

M. Phil Students: 14

Ph. D Students: 01

Co-Supervisor 04

Students under supervision (No. only):

M.Phil 04

BS (Hons.) 25

4. SCIENTIFIC TALKS/ PRESENTATION IN CONFERENCE OR TRAINING

Title	Year	Other details of Publication
Diversity of fungi in Animal Feedand Feed Ingredients.	9-13 Jan 2018	Presented Paper in 15 th IBCAST organized by CESAT Islamabad
Fungus Culture	24 th -25 th Oct 2018	Cell culture techniques for production of biologics Institute of biochemistry and biotechnology UVAS Lahore
Aflatoxins: A contamination issue in livestock	24 Dec 2018	Pakistan Today

Molecular characterization of toxigenic <i>Aspergillus flavus</i> isolated from sick broiler lungs and risk factor analysis	22-23 December 2021	13 th International Biennial Conference TIBE-PSM-2021
Synergy of <i>Allium cepa</i> mediated zinc oxide nanoparticles and antibiotics against biofilm forming multi-drug resistant uropathogens	22-23 December 2021	13 th International Biennial Conference TIBE-PSM-2021
Growth dynamics and phytoinhibition of aflatoxin producing <i>Aspergillus flavus</i>	30 January 2022	2nd Annual Primeasia University International E-conference on Aspects of Microbiology in Health Sector
Preparation of PCR reaction mixture and gene amplification and visualization by PCR and Agarose gel electrophoresis	5-7 October 2022	IOM UVAS Ravi Campus
Hands on Practice on Use, cleaning and calibration Of micropipette	13 September 2022	IOM UVAS Ravi Campus
Fungus: A friend or Foe	20-21 September 2022	IOM UVAS Ravi Campus
Hands on Learning on Fat Rich Dairy Products	15 Nov 2022	Capacity building of Dairy Farmers & Industry Stakeholders on Milk Value Chain Department of Dairy Technology, FAP&T, UVAS
A talk and hands on PPEs selection, Donning & Doffing in One Day Workshop on Safe Laboratory Practices-I	6 th January 2023	IOM UVAS Ravi Campus
Molecular Characterization of Toxigenic <i>Aspergillus flavus</i> Isolated from Sick Broiler Lungs and Risk Factors Analysis	16 January 2023	2 nd International Conference on New Trends in Biological Sciences, University of Okara
Novel Insights into The Microbiology of Fermented Dairy Products	24 January 2023	Capacity building of Dairy Farmers & Industry Stakeholders on Milk Value Chain Department of Dairy Technology, FAP&T, UVAS in collaboration with Livestock and Dairy Development Department L&DD, GoP
Mitigation Strategies for Prevention and Reduction of Mycotoxins	15-16 Feb 2023	Global Conference on sustainable Development in Agriculture, Biochemistry & Biotechnology Women University Multan

Effect of Prolonged Storage on Microbiological Quality of Milk	27 th to 31 th March 2023	Capacity building of Dairy Farmers & Industry Satkeholders on Milk Value Chain Department of Dairy Technology, FAP&T, UVAS in collaboration with Livestock and Dairy Development Department L&DD, GoP
Microbiological Quality and Safety of Milk & Cheese	3 rd to 7 th April 2023	Capacity building of Dairy Farmers & Industry Satkeholders on Milk Value Chain Department of Dairy Technology, FAP&T, UVAS in collaboration with Livestock and Dairy Development Department L&DD, GoP
WHO Fungal Priority Pathogens	20 May 2023	Genix Society, Department of Bioinformatics and Biosciences CUST Islamabad
Molecular Characterization of <i>Aspergillus flavus</i> Isolated from Sick Broiler Lungs and Risk Factor Analysis	23 Sept 2023	International Poultry Expo (IPEX-2023) Expo Centre Lahore Pakistan
Dual Threat: <i>Aspergillus flavus</i> : A Guilty Party Behind Aspergillosis and Aflatoxicosis	3 rd Oct, 2023	Emerging Fungal Infections: Therapeutic Aspect and Challenges organized by Department of Microbiology, The University of Haripur and Pakistan Society for Microbiology
Analytical Profile Index: A valuable Tool for Streamlining the Bacterial Identification	14 Dec 2023	One Day Training Workshop on Application of Analytical Profile Index as Bacterial Identification System Department of Wild Life and Ecology, UVAS Ravi Campus
Immune Response and Effectiveness of Monovalent Incorporated Oil Based Feed Vaccine Against <i>Aeromonas veronii</i> in Grass Carp (<i>Ctenopharyngodon Idella</i>)	12-13 March 2024	4 th International Conference on Innovative Academic Studies, Konya/Turkey
<i>Aspergillus</i> : A Hidden Menace of Food Contamination and Human Infection	02 Nov 2024	C-BICS-2024 (12 th International Conference on Biological & Computational Sciences). Department of Bioinformatics & Biosciences, Capital University of Science & Technology Islamabad
A talk and hands on session on Biological Spill Management (Resource Person)	29 th April 2025	ISSM, Department of Microbiology, GCU Lahore
A talk and hands on session on Immunological Assays	17 th May 2025	Govt. Graduate Islamia College Cooper Road Lahore

6. ABSTRACTS IN THE SCIENTIFIC PROCEEDINGS, SEMINARS, CONFERENCES

Title	Year	Particulars of Proceedings/ Seminars
M. Tariq, A. A. Anjum, J. Nazir, S. Sana , M.R. Yousaf, H. Akbar and M. A. Ali. Thermostability of phytases produced by indigenous thermolabile <i>Aspergillus niger</i> isolates	November 13 th -15 th , 2017	One health International Conference, (OHC-2017) CVAS Jhang, UVAS Lahore
A. Ahmad, A.A. Anjum, M. Rabbani, M.Younus and S. Sana . Potential risk of aflatoxicosis by Aspergilli isolated from soil of livestock farms in Lahore	November 13 th -15 th , 2017	One health International Conference, (OHC-2017) CVAS Jhang, UVAS Lahore
M. Tariq, A.A. Anjum, J. Nazir, S. Sana , A. Ahmad, M.R. Yousaf, H. Akbar and M.A. Ali. Thermo stability of phytases produced by indigenous thermo labile <i>Aspergillus niger</i> isolates	November 13 th -15 th , 2017	One health International Conference, (OHC-2017) CVAS Jhang, UVAS Lahore
A. Naeem, A.A. Anjum, A.A. Sheikh, M.Y. Zahoor and S. Sana . Antifungal activity of plants essential oils against resistant <i>Aspergillus fumigatus</i> isolates	November 13 th -15 th , 2017	One health International Conference, (OHC-2017) CVAS Jhang, UVAS Lahore
S. Sana , A.A. Anjum, M. Nawaz, M.A. Ali and M.I. Najeeb. <i>In-Vitro</i> evaluation and optimization of starch hydrolyzing potential of <i>Fusarium</i> isolated from soil of livestock farms	December 19 th -20 th , 2017	International Conference on Recent Advances in Clinical Research, UVAS, Lahore
A. Ghafoor, A.A. Anjum, T. Yaqub, M.D. Ahmad, S. Sana , M.A. Ali and M. Nawaz. <i>In-Vitro</i> activity of plant essential oils against aflatoxin producing <i>Aspergillus flavus</i> from poultry feed	December 19 th -20 th , 2017	International Conference on Recent Advances in Clinical Research, UVAS, Lahore
S. Sana , A. A. Anjum, T. Yaqub, M. Nasir, M. I. Najeeb, M. Nawaz and M. A. Ali. Dynamics of Aflatoxin Producing Fungi in Home Mixed and Commercial Poultry Feed.	January, 09 th -13 th , 2018	15th International Bhurban Conference on Applied Sciences & Technology (IBCAST) Islamabad, Pakistan
N. Sardar, M. A. Ali, A. A. Anjum, M-U-D. Ahmad, W. Shehzad, A. Kousar, S. Sana , M.Khan and M. Nawaz. Fancy Birds: Carriers of Antibiotic Resistant <i>Salmonellae</i> and <i>Escherichia coli</i> .	January, 09 th -13 th , 2018	15th International Bhurban Conference on Applied Sciences & Technology (IBCAST) Islamabad, Pakistan
S. Sana , A. A. Anjum, T. Yaqub, M. Nasir, A. Ahmad and M. A. Ali. Incidence of Mycoflora in Animal Feed and Feed Ingredients.	January, 09 th -13 th , 2018	15th International Bhurban Conference on Applied Sciences & Technology (IBCAST) Islamabad, Pakistan
H. R. Farooq, A. A. Anjum, K. Muhammad, M-U-D. Ahmed and S.Sana . Microbiological Quality Assessment and Antibiotic Resistance Pattern of Bacteria Isolated from Fresh Indigenous Juices.	January, 09 th -13 th , 2018	15th International Bhurban Conference on Applied Sciences & Technology (IBCAST) Islamabad, Pakistan

S. Hameed, A.A. Anjum, K. Muhammad, S.Sana and M. R. Yousuf. Bacteriological and Mycological Analysis of Mixed Vegetable Salads for Toxic Potential.	January, 09 th -13 th , 2018	15th International Bhurban Conference on Applied Sciences & Technology (IBCAST) Islamabad, Pakistan
Z. Mughis, M. A. Ali, A. A. Anjum, T.	December	38 th All Pakistan Science
Yaqub, M. O. Omer, M. Nawaz and S. Sana . In-Vitro Evaluation of Disinfectants Against Indigenous <i>Aspergillus Parasiticus</i>	10 th and 11 th , 2018	Conference Energy Crisis and Their Solutions in Pakistan.
A.Ghafoor, A. A. Anjum, T. Yaqub, M-U-D.Ahmad, M. A. Ali, I. Najeeb and S. Sana . Evaluation of Antifungal Activity of Essential Oils Against Toxigenic Isolates of <i>Aspergillus flavus</i> .	December 10 th and 11 th , 2018	38 th All Pakistan Science Conference Energy Crisis and Their Solutions in Pakistan.
Saba Sana . Evaluation of Antifungal Potential of Plant Essential Oils Against Aflatoxins Producing <i>Aspergillus flavus</i>	2019	Poultry Science Conference, Pakistan.PP. 54
Saba Sana , Aftab Ahmad Anjum, Tahir Yaqub, Ali Ahmad Sheikh, Mateen Abbas, Nadia Mukhtar. Growth dynamics and phytoinhibition of aflatoxin producing <i>Aspergillus flavus</i>	30 January 2022	2nd Annual Primeasia University International E-conference on Aspects of Microbiology in Health Sector, Page no.50-51
Zoya Maheen, Saba Sana , Aftab Ahmad Anjum, Javeria Ali Khan, Ali Ahmad Sheikh, Shagufta Gulraiz. Synergistic Effect of Allium cepa mediated zinc oxide Nanoparticles along with Antibiotics against Biofilm Forming Multi drug Resistant Uropathogens	30 January 2022	2nd Annual Primeasia University International E-conference on Aspects of Microbiology in Health Sector, Page no.35-36
Shamsa Niaz, Saba Sana , Ali Ahmad Sheikh. Susceptibility Pattern and Resistance Modulation of <i>Arthroderma multifidum</i> to Antifungal Agents	21-22 November 2022	An International Conference on Current and Innovative Trends in Applied Bio-sciences Department of Biology, Lahore Garrison University, Lahore (AM-03) Page 34-35
Saba Sana , Aftab Ahmad Anjum, Ali Ahmad Sheikh, Shahgull, Shamsa Niaz. <i>In-Vitro</i> Evaluation of Disinfectants and Essential Oils against Toxigenic <i>Aspergillus flavus</i>	21-22 November 2022	An International Conference on Current and Innovative Trends in Applied Bio-sciences Department of Biology, Lahore Garrison University, Lahore (AM-10) Page: 95
Iqra Bashir, Mubashrah Munir, Sehrish Sadia, Saba Sana , Ali Ahmad Sheikh and Muhammad Saleem. Evaluation of Curcuma longa against Aflatoxin B ₁ produced by <i>Aspergillus flavus</i> isolated from total mixed ration	16-17 January 2023	2 nd International Conference on New Trends in Biological Sciences, University of Okara: Page 79-80

Saba Sana Molecular characterization of Toxigenic <i>Aspergillus flavus</i> Isolated from Sick BroilerLungs and Risk Factor Analysis	16-17 January 2023	2 nd International Conference on New Trends in Biological Sciences, University of Okara: Page 39-40
Saba Sana Mitigation Strategies for Prevention and Reduction of Mycotoxins	15-16 Feb 2023	Global Conference on sustainable Development in Agriculture, Biochemistry & Biotechnology Women University Multan. Page No.
Saba Sana Assessing the Biorisk for Toxigenic <i>Aspergillus flavus</i> Isolated from Sick BroilerLungs and Risk Factors Analysis	29-30 Dec 2023	OWSD, KIBGE, University of Karachi Pakistan
Aqsa Ilyas, Mubashrah Munir, Sehrish Sadia, Saba Sana and Ali Ahmad Sheikh Evaluation of Antifungal Activity of <i>Chara vulgaris</i> against Aflatoxin B1 Produced by <i>Aspergillus flavus</i> Isolated from Total Mixed Ration (Page no. 25-26)	18-19 th April 2024	6 th International Conference on Advances in Biosciences (ICABS-2024)

7. TRAINING ORGANIZED

Title	Year	Organization
Hand on training workshop on basic laboratory instruments-Member of Organizing Committee	4-7 October 2021	Institute of Microbiology& Institute of Biochemistry and Biotechnology UVAS Ravi Campus Pattoki
Training workshop on Use of Micropipettes Working safely in Biological Safety Cabinets	13 September 2022	Institute of Microbiology UVAS Ravi Campus Pattoki
Techniques for Cultivation and Conventional Identification of Fungi”	21-22 September 2022	Institute of Microbiology UVAS Ravi Campus Pattoki
Molecular and Biochemical Approaches for Identification of Fungi	5-7 Oct 2022	Institute of Microbiology UVAS Ravi Campus Pattoki
Training on Safe Laboratory Practices	6 th January 2023	Institute of Microbiology UVAS Ravi Campus Pattoki
International Microbial Day	12 th September 2023	Department of Genetics, UVAS Ravi Campus Pattoki

One Day Training Workshop on Application of Analytical Profile Index (API) As Bacterial Identification System-Batch I	14 Dec 2023	Department of Wildlife UVAS Ravi Campus and Department of Microbiology, IIIB, GCU Lahore
Diabetes Nutrition Camp	23 rd Feb 2024	ISSM, Department of Microbiology IIIB, GCU Lahore in Collaboration with UMT Lahore
Industrial Tour to AB Mauri	27 th Feb 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
One Day Training Workshop on “Chromogenic assays as rapid tool in food testing”	7 th March 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
IIB Annual Dinner	30 th April 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
One Day Training on Laboratory Safety Practices-I: Hand Hygiene, Donning and Doffing of Gloves	16 th May 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
One Day seminar on,” From Bacteria to Designer Babies: The CRISPR Revolution	24 th May 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
Re-Creational Tour to Naran and Kaghan	6 th -8 th July 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
Online Lecture on “Careers in Microbiology”	22 nd August 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
One Day Hands on Training Workshop on Application of Analytical Profile Index (API) As Microbial Identification System-Batch II	27 th Aug 2024	Department of Microbiology, IIIB, GCU Lahore in collaboration with Department of Wildlife UVAS Ravi Campus
One Day Workshop on Animal Handling	12 th September 2024	Dr. Ikram ul Haq Institute of Industrial Biotechnology, GCU Lahore

Science Quiz Competition	21 Sept 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
Online International Webinar on “Cognitive Pralysys”Unravelling the impact of insomnia on Brain Function and Mental Performance	28 th Dec 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
Online Discourse Session on Emosphere (Emotional Intelligence)	29 th Dec 2024	ISSM, Department of Microbiology IIIB, GCU Lahore
Sampling Techniques in Diagnostic Laboratory (Chief Organizer)	20 th Feb 2025	Department of Microbiology. IIIB GCU Lahore
Basic Life Support and First Aid Orientation Session (Chief Organizer)	28 th Anril 2025	Department of Microbiology. IIIB GCU Lahore in collaboration with Emergency Services Department (Rescue 1122)
Hands On Training On Biological Spill Management (Chief Organizer)	29 th Anril 2025	ISSM, Department of Microbiology IIIB, GCU Lahore
8 th MLCON (Certificate of Appreciation) (Organizer)	30 th Anril 2025	PMLA in collaboration with Department of MLT and ARSM GCU Lahore

8. PARTICIPATION IN COLLEQUIA/SEMINARS/CONFERENCES/ TRAININGS

COURSE/ DIPLOMA/ CERTIFICATE	FIELD OF STUDY	INSTITUTION & COUNTRY
Digital Session on Revolutionizing Microbial Detection with Ready to Use Plates 22 Aug 2025	MICROBIAL DETECTION	Science Forum Lahore Pakistan

Artificial Intelligence in Research (Online) 14 th Aug 2025	AI	AI and London Consultants Islamabad
Breaking the Silence on Hepatitis: Bridging Science, Policy, and Public Health (Online) 28 th July 2025	DISEASE CONTROL	Ibadat International University Islamabad
Interpreting and Writing Post-Mortem and Histopathology Report for Scientific Publication 19-20 June 2025	DISEASE DIAGNOSIS	Cholistan University of Veterinary and Animal Sciences Bahawalpur
Vector Borne Disease: Sero-surveillance and Immune Marker Studies 18-19 th June 2025	MEDICAL MICROBIOLOGY	Department of Pathology and Laboratory Medicine, The Agha Khan University in collaboration with the University of Washington (a part of NIH-D43 Research Training Grant) at UVAS Lahore
Recent Trends and Application of Metabolomics in Food Analysis, Authentication, Process Monitoring and Gut Interactions (Online) 12 June 2025	FOOD MICROBIOLOGY	COMSTECH, Islamabad

Webinar: Theories of Research (Epistemology) of the Research Methodology Course (Online) 11 June 2025	RESEARCH METHODOLOGY	Centre for Learning and Teaching (CLT), Forman Christian College Lahore
Two Days Workshop on Data Analysis, 'Hybrid'. Certificate of Distinction 29-30th May 2025	STATISTICS	Cholistan University of Veterinary and Animal Sciences Bahawalpur
International Webinar on Technological Innovation for Food Security 02 Jan 2025	FOOD SECURITY	Dr. Sultan Ahmad Botanical Society. Government College University Lahore in collaboration with Institute of Microbiology, UVAS Lahore
Two Days Workshop on Biosecurity & Dual Use Research of Concern 27-28 Nov 2024	BIOSECURITY	Dr. Ikram Ul Haq Institute of Industrial Biotechnology Government College University Lahore in collaboration with Institute of Microbiology, UVAS Lahore
One Day Training on Intellectual Property Rights focused on Patent Writing/Drafting and Submission 09 Oct 2024	PATENT WRITING & DRAFTING	Office of Research and Commercialization (ORIC), Government College University Lahore
Cellular Agriculture Perspective, Relevance and	INDUSTRIAL BIOTECHNOLOGY	Khorana Society for Biotechnology

Challenges 15 th September 2024		Dr. Ikram Ul Haq Institute of Industrial Biotechnology Government College University Lahore
Challenges with Combating Hepatitis C in Developing Countries: A Path Towards Elimination 13 th September 2024	INFECTIOUS DISEASES	Dr. Ikram Ul Haq Institute of Industrial Biotechnology Government College University Lahore
National Faculty Development Program April, 22- May. 10 th 2024	FACULTY DEVELOPMENT	National Academy of Higher Education Commission (NAHE) HEC Pakistan
Role of AI in Microbiology Career 4 th April to 6 th April 2024	AI	Science and Technology Online
Participated in 6 th International Conference on Advances in Biosciences (ICABS-2024) 18-19 th April 2024	BIOLOGY	Biological Society of Pakistan in collaboration with Government College University Lahore
2-Days Hands on Training Workshop on Building the Capacity of Laboratory Professionals in Bio-Risk Assessment: The New WHO Approach 6-7 DEC 2023	BIO-RISK MANAGEMENT	Shifa-e-Millat University Islamabad In collaboration with Pakistan Biological Safety Association, Health Security Partner and Institute of Microbiology, UVAS Lahore
2-Days Hands on Training Workshop on Isolation and Characterization of	MICROBIOLOGY	Institute of Microbiology & Molecular Genetics, University of Punjab Lahore Pakistan

Bacteriophages for Phage Therapy 17-18 March 2023		
Train the Trainer Workshop Risk Assessment Workshop 04-06 Oct 2022	BIO RISK MANAGEMENT	Pakistan Biological Safety Association, Islamabad Pakistan
National Training Workshop Production and Evaluation of Oil Based Foot & Mouth Disease Virus Vaccine 07 th -08 th September 2022	VACCINOLOGY	Training Center for Biologics Production FMDV UVAS Lahore, Pakistan
20 th International Vaccinology Course-06-10 Sept 2021	VACCINOLOGY	International Vaccine Institute
National Workshops on Chromatographic Techniques 30-31 OCT 2017	BIOCHEMISTRY	Quality Operation Laboratory, UVAS Lahore
Immunological Techniques: Theoretical and Practical Aspects 1 ST OCT 2017	IMMUNOLOGY	Advance Life College of Medical sciences, Lahore, Pakistan
Bioinformatics Tools and Resources Institute of Biochemistry and Biotechnology. 29-30 MARCH 2017	BIOINFORMATICS	IBBT UVAS
Workshop on Riboprinter at NIBGE 8-9 Jan 2015	MOLECULAR BIOLOGY	National Institute for Biotechnology and Genetic Engineering (NIBGE), Pakistan
Application Of PAGE For Molecular Characterization Of <i>Pasteurella multocida</i> UVAS Lahore 15-17 August 2011	MOLECULAR BIOLOGY	Department of Microbiology UVAS Lahore, Pakistan

Isolation, screening and preliminary characterization of antimicrobial metabolites from food microbes. 19-23 July 2010	MICROBIOLOGY	Department of Microbiology UVAS Lahore, Pakistan
Isolation and molecular characterization of shiga toxin producing E. coli (O157) 1-5 March 2011	MICROBIOLOGY	Department of Microbiology UVAS Lahore, Pakistan
Evaluation of Antiviral and cytotoxic activity of different herbal extracts and commercial pharmaceuticals in vitro cell culture 4-7 Oct 2010	CELL CULTURE	Department of Microbiology UVAS Lahore, Pakistan
Participant of “Talented Research Exchange Programme-INSPIRE PAKISTAN” (BRITISH COUNCIL) 27-28 sept 2010	COLLABORATIVE RESEARCH	UVAS Lahore, Pakistan
Successfully completed a short training on “Environmental Sampling” (BRITISH COUNCIL) March-Sept 2009	ENVIRONMENTAL MICROBIOLOGY	Institute of Continuing Education and Extension UVAS Lahore, Pakistan
Participant of two days seminar and workshop on “Environmental Toxicology and Health”. 8-9 March 2011	ENVIRONMENTAL TOXICOLOGY AND HEALTH	Department of Pharmacology & Toxicology UVAS Lahore, Pakistan
Workshop on “Production and Evaluation of Oil Based HS+ Trivalent FMD Virus Vaccine”. 27-30 Sept 2011	VACCINOLOGY	Department of Microbiology UVAS Lahore, Pakistan
Application of ELISA for Monitoring Antibody Response of Birds to IBD Virus Vaccine 18-20 August 2011	IMMUNOLOGY	Department of Microbiology UVAS Lahore, Pakistan
Successfully completed two days’ workshop on “Controlling Laboratory Biorisk”. 4-5 Jan 2012	BIORISK MANAGEMENT	Quality Operational Laboratory (QOL), UVAS Lahore, Pakistan
Attended two days”	TOXICOLOGY	Department of Pharmacology &

International Conference on Toxicology (26-27 Jan 2012)		Toxicology, UVAS Lahore, Pakistan
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9. PROJECTS

Grant # Agency	Title of Project	Position/ Status	Amount (Rs.) Millions	Year
HEC (NRPU) 20-14665/NRPU/R&D/HEC/2021 202	Management of Total Mixed Ration Fungi using Selected Algae and Plants Team member	In Progress	8.107	2021

10. RESEARCH PROJECTS (ASSISTED)

1.	Purification and standardization of mycotoxins extracted from indigenous toxigenic fungi under optimized experimental conditions
2.	Replacement of low-level antibiotic feeding with extracts of medicinal plants in poultry

11. FELLOWSHIP

Sr. No	Title	Year	Organized/Participated
	International Research Support Initiative Program (IRSIP-PhD)	19 th March- 2018- 2 nd Sept-2018	Department of Population medicine and Diagnostic Sciences, Cornell University, Ithaca NY, USA
	Indigenous Fellowship, 5000 Phase II, Batch III	21 Nov 2016-2019	HEC Pakistan
	Bio-risk Management Exam Preparatory Course and Scholarship	10 March 2023- Completed	IFBA /Pakistan Biological Safety Association
	Biosecurity Exam Preparatory Course and Scholarship	8 Jan 2024- Completed	IFBA /Pakistan Biological Safety Association
	Biological Waste Management Preparatory Course and Scholarship	20 th May 2024- Continue	IFBA /Pakistan Biological Safety Association

12. MEMBERSHIP OF SOCIETIES

Sr. No.	ORGANIZATION	STATUS
1.	Pakistan Biological Safety Association (PBSA-1287)	Active Life Time
2.	Organization for Women in Science for the Developing	Full Time Member

	World	
3.	Asian Council of Science Editors	Member till Dec-2025
4.	Pakistan Society for Bacteriophages (113-PSP-2023)	Member

13. REVIEWER/REFeree OF RECOGNIZED ACADEMIC JOURNAL/PUBLISHER

Sr. No.	Name of The Recognized Journal	Year
1.	ACS OMEGA	2021
2.	European Journal of Nutrition & Food Safety	2021
3.	LGU Journal of Life Sciences	2022
4.	International Journal of Agriculture and Biology (IJAB)	2023
5.	Frontier in Veterinary Science	2023
6.	LGU Journal of Life Sciences (Manuscript ID-305)	2023
7.	International Journal of Agriculture and Biology (IJAB 2023-0410)	Dec 2023
8.	The Journal of Microbiology & Molecular Genetics. (JMMG-412-1)	Jan 2024
9.	Pakistan Journal of Medical Sciences	June 2024
10.	IJAB Impact of Indigenous Probiotics Derived from Traditional Fermented Dairy and Non-Dairy Products on Health Promotion IJAB-24-0232	25 July 2024
11.	LGU Journal of Life Sciences First occurrence of <i>Trametes elegans</i> from Punjab and an Overview of genus <i>Trametes</i> from Pakistan. Manuscript ID 328	26 July 2024
12.	Biotechnology and Applied Biochemistry A comprehensive review on Engineering Lactic Acid Bacteria: Emerging Genetic Tools and Synthetic Biology Strategies	11 Aug 2025
13.	World Journal of Microbiology Yeast <i>Pseudozyma hubeiensis</i> Potential for Aflatoxin B1 Decontamination and its Genetic Properties	30 th July2025
14.	BMC Microbiology Molecular Detection and Mycotoxins of <i>Penicillium</i> Species Isolated from Decayed Apple fruits collected from Qena Egypt	24 th July 2025

14. ADMINISTRATIVE WORK, CO-CURRICULAR ACTIVITIES AND EXTRA-CURRICULAR ACTIVITIES

Following administrative & other activities are performed during 2017-TO -2024;

1. **Member**, Board of Study (BOS) Department of Microbiology, GCU Lahore (2025 -To date)
2. **Member**, Board of Study (BOS) Department of Microbiology, UVAS Lahore (2017-2023)
3. **Member:** Committee for re-initiation of Ph.D program (Department of Microbiology GCU Lahore)
4. **Member:** PGPR 2024-2025
5. **Convener of Committee:** For interview of BS(Hons.) Microbiology Self-supporting Admission Fall 2024-Cycle-II
6. **Member Research Advisory Committee** Department of Microbiology GCUL
7. **Member** Class checking committee BS (Hons.) Microbiology Regular Program
8. **Co-advisor** Ibn e Sina Society of Microbiology, Department of Microbiology, IIIB GCU Lahore
9. **Coordinator Controller Examination**, Microbiology GCU Lahore
10. **Departmental Focal Person** for GCU Prospectus 2024 (Microbiology)
11. **M.Phil Coordinator** (Microbiology Evening program GCU Lahore)
12. **Member Self-Assessment Report Committee (SAR)** BS (Hons.) Microbiology
13. **Member Self-Assessment Report Committee (SAR)** PhD Biotechnology
14. **Resident Tutor**, Fatima Hall, City Campus, UVAS, Lahore
15. **Winner of faculty badminton championship** (female-2017)
16. **Winner of faculty table tennis championship** (female-2017)
17. **Second position in faculty archery championship** (female-2017)
18. **Winner of faculty badminton championship** (female-2018)
- 19.

20.

7. **Winner of faculty archery championship** (female-2018)
8. **Winner of faculty table tennis championship** (female-2018)
9. **Assistant lab manager** (Lab 08) Molecular Biology Lab
10. **Revision of course** for new scheme of study (Department of Microbiology)
11. **Member of Disciplinary committee:** All Pakistan Declamation Competition (Decrodeo19).
12-Nov 2019.UVAS LAHORE
12. **Member of Organizing Committee IPEX;** University of Veterinary and Animal Sciences, Lahore. 13 -15 Sept-2019
13. **Resident tutor** Ayesha Hall UVAS Ravi Campus Pattoki (18/09/2020-to-02/12/2021)
14. **Resident tutor** Hafsa Hall UVAS Ravi Campus Pattoki (18/09/2020-to-
15. **Superintendent Ayesha and Hafsa Hall** UVAS Ravi Campus Pattoki (03/12/2021 todate)
16. **Class Advisor** BS (Hons.) MLT (1st and 2nd) Year Ravi Campus Pattoki

17. **Member** Time table committee for BS Medical Laboratory Technology UVAS Ravi Campus Pattoki
17. **Member of committee for hostel allotment** UVAS Ravi Campus Patoki (Regr/SR-04/1051)
19. **Member of committee for implementation of SOPs for Covid-19 in hostels** (Regr/SR-04/1051)
20. **Member** of anti-ragging committee UVAS Ravi Campus Patoki (No.: 1965-PP)
21. **Member**; Stage and Hall management committee, World Egg Day UVAS Ravi Campus Patoki (Regr/GDC-25/17)
22. **Member** of Health Desk Committee UVAS Ravi Campus Patoki (Regr/SR- 04/051)
23. **Member of examination inspection committee**-Final term examination of BS (Hons.) Dairy Technology and BS (Hons.) Poultry Science Ravi Campus Pattoki (Semester-1 2021-2022)
24. **Member of Examination inspection committee**- Final term examination of DVM & BS (Hons.) MLT UVAS Ravi Campus (Semester-I1 2021-2022) (No. FVS-1066, date: 4-8-22)
25. **Physical verification of dead stock/consumables items of Dean office FAPT UVAS Ravi Campus** (Letter no. TR/1620 dated: 28-09-2022)
26. **Member of antiragging committee** UVAS Ravi Campus 2022-2023: dated 8- 12-22. Zone A block 3
27. **Member of Examination inspection committee**- Final term examination of BS (Hons.) MLT UVAS Ravi Campus (Semester-I 2022-2023) (No. FVS-125, date: 19-1-23)
28. **Member of Examination inspection committee**- Final term examination of BS (Hons.) MLT UVAS Ravi Campus (Semester-I 2022-2023) (No. FVS-871, date: 19-1-23)
29. **Member of Examination inspection committee FAPT**- Final term examination of BS (Hons.) Poultry Science and Dairy Technology UVAS Ravi Campus (Semester-I 2022-2023) (No. FPT-262, date: 05-07-23)

15. EXTERNAL EXAMINER

- Cell Biology: Government Islamia College Cooper Road Lahore (Practical)
- Enzymology-II: Lahore Medical and Dental College (LMDC) Lahore (Practical)
- Thesis Evaluation (Master of Philosophy) University of Okara Pakistan