

DR. MEMUNA GHAFOR SHAHID

MSc (GCU), MPhil (GCU), PhD (GCU)

Assistant Professor

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PERSONAL DATA

FATHER'S NAME : Abdul Ghafoor Shahid
DATE OF BIRTH : April 17, 1984
CNIC No. : 35202-4936688-0
MARITAL STATUS : Married
NATIONALITY : Pakistani
DOMICILE : Lahore, Punjab
MAILING ADDRESS : House No. 6E, Street No. 11, Block "X",
Wassan Pura, Scheme No. 2, Lahore

QUALIFICATIONS

DEGREES/ CERTIFICATES	MARKS OBTAINED	DIVISIONS	YEAR	BOARD / UNIVERSITY	MAJOR SUBJECTS
Won Fellowship Award of Post- Doctoral Studies by HEC Phase- III			2022	The University of Edinburgh, Scotland, UK	
PhD	3.38/4.0 (Course Work)	1 st	2016	Government College University, Lahore	Botany
MPhil	3.52/5.0	1 st	2006	Government College	Environmental Science

				University, Lahore	
MSc	3.17/4.0	1 st	2004	Government College University, Lahore	Botany
BSc	498/800	1 st	2002	University of the Punjab, New Campus Lahore	Botany, Zoology, Psychology

POST-DOCTORAL FELLOWSHIP

Won the Award of Post-Doctoral Fellowship of HEC, Phase-III, Batch-I, 2020 for the University of Edinburgh, Scotland, UK on the topic "Biological Characterization of Pharmacologically active ingredients (Pinocembrin and Pinostrobin) of *Glycyrrhiza glabra*"

Project won

Principle Investigator

Dr. Memuna Ghafoor Shahid

Assistant Professor

Department of Botany

Government College University, Lahore

Project title

Establishment of Dr. Sultan Ahmed Microbial Culture Collection (SAMCC) in the Department of Botany, Government College University, Lahore (Letter No. 427/ORIC/24)

Time Duration

12 Months (10th October, 2024)

Project Cost

RS/ 300,000.

Research Productivity Allowance

1. An honorarium of 40,000 was received on dated 21-05-2024 Letter No. 188/ORIC/24 by ORIC, Government College University, Lahore, Pakistan.
2. An honorarium of 25,000 was received on dated 21-05-2024 Letter No. 188/ORIC/24 by ORIC, Government College University, Lahore, Pakistan.
- 3.

INNOVATION AND COMMERCIALIZATION

One of the products of plant extracts named “Keratin Cocoa Hair Therapy Lavation” has been developed in the Department of Botany and marketed with very good results. This product is accepted and certified by the authentic higher authorities of Pakistan in 2022.

FOREIGN TRAINING

- Advanced Master Trainer Faculty Professional Development Program “**Ensuring Training Effectiveness**” at “*Asian Institute of Technology (AIT), Bangkok, Thailand*” from 10th June to 2nd July, 2011 funded by HEC and AIT, Bangkok, Thailand.

BOOKS PUBLISHED

- **Fundamentals of Botany (Part-I Diversity of Thallophytes)** for BSc and BS (4-Years). Published by Ilmi Kitab Khana, Kabir Street, Urdu Bazar Lahore in 2017.

SCHOLARSHIPS AND DISTINCTION

- Secured **third position** in B.Sc. Botany (Botany, Zoology and Psychology) session 2000-2002 from Islamia College Cooper Road Lahore
- Awarded by **Chief Minister Scholarship** in M.Sc. Botany (session 2002-2004) from GC University, Lahore.
- Awarded by Merit Scholarship in M.Sc. Botany (session 2002-2004) from GC University Lahore.

INSTITUTIONAL DEVELOPMENT ASSIGNMENTS

Focal Person Green Youth Movement, Prime Minister’s Youth Program HEC Pakistan	11 th June, 2024 to Present
Member Higher Education Commission National Curriculum Revision Committee (NCRS)	21 st August, 2017 to Present
Member Higher Education Commission Evaluation Subject Relevancy Committee	2 nd June, 2022 to Present

Advisor Horticultural Society, Government College University, Lahore	2 nd July, 2007 to Present
Deputy Chief Science Tutor, Government College University, Lahore	From 2020 to 2022

PHD RESEARCH TITLE

“Production and extraction of commercially important ergot alkaloids from *Penicillium* species by fermentation process” completed at Food and Biotechnology Research Center (FBRC), Pakistan Scientific and Industrial Research (PCSIR) Laboratories Complex, Lahore and in GC University, Lahore.

MPHIL RESEARCH TITLE

“Bio-reduction of pollutants by enzymic interaction in upflow reactor” completed under the Supervision of Dr. Muhammad Saleem (Professor, Department of Botany, University of the Punjab, Lahore) and Dr. Shahjahan Baig (Late), (Principal Scientific Officer, FBRC, PCSIR, Laboratories Complex, Lahore). The research work was completed at Food and Biotechnology Research Center (FBRC), Pakistan Scientific and Industrial Research (PCSIR) Laboratories Complex, Lahore and in GC University, Lahore.

MSC RESEARCH TITLE

“Effect of Dung, Urea and Leaf Litter on Mycorrhizal Association (VAM) on *Pisum sativum* under field conditions”, under the supervision of Mr. Muhammad Naeem Akhtar, Associate Professor (Retd.), Department of Botany, GC University, Lahore.

TEACHING TRAININGS

- Attended **“10th Faculty Professional Development Program at Learning Innovation Division (LID), Higher Education Commission, Islamabad (HEC)** from 2nd June to 16th July 2008.
- Attended **“Advanced MT-FPDF”** training by LID, HEC at HEC Regional Office Lahore from 12th Oct-24th Oct 2009.
- Attended **“Advanced MT-FPDF/PCEPT/HEC/LID Training Course”** by LID, HEC at HEC Regional office, Lahore from 1st November-4th November, 2010.
- Advanced Master Trainer Faculty Professional Development Program **“Ensuring Training Effectiveness”** at **“Asian Institute of Technology (AIT), Bangkok, Thailand”** from 10th June to 2nd July, 2011 funded by HEC and AIT, Bangkok, Thailand.
- **Prime Minister’s Green Youth Movement Capacity Building Training for Focal Persons of Green Youth Movement (GYM) Club from 2nd December, 2024-5th**

December, 2024 at Aiwan e Iqbal (CommitteeRoom No. 3) Egerton Road, Lahore.

TEACHING AND RESEARCH EXPERIENCE

	Job Title	Rank/Scale	Job Duration	Category
1.	Assistant Professor	BPS-19	July 1, 2016 to date	Permanent
2.	Lecturer	BPS-18	July 2, 2007-June 30, 2016	Permanent

PROFESSIONAL ACTIVITY

- Focal Person “Prime Minister’s Green Youth Movement” GC University Lahore from July, 2024 to Present.
- Advisor, Prof Zaheer-ud-din Khan Society for Horticulture from July, 2022 to Present.
- Deputy Chief Science Tutor, GC University, Lahore
- Secretary Departmental Board of Studies in Botany, GC University, Lahore from 2007 to 2013 and now from 2021 to June, 2024.
- Incharge Timetable of Department of Botany, GC University, Lahore, Pakistan
- Involve in M.Sc. and M. Phil. Research projects in GC University Lahore, Pakistan.
- Co-advisor of Horticulture Society, GC University Lahore, Pakistan from July, 2007 to July 2022.
- Member of Stock checking committee GC University Lahore, Pakistan.
- Incharge of Departmental Library GC University Lahore, Pakistan.
- Working as a Class Supervisor in GC University Lahore, Pakistan.
- Member of Biological Society of GC University Lahore, Pakistan.
- Member Intermediate Affairs/Laboratory, GC University, Lahore.
- Member Departmental Students Affairs, GC University, Lahore.
- Member Departmental Stock Taking Committee, GC University, Lahore

WORKSHOPS/CONFERENCES/SEMINARS

- Participated in **Workshop on the Conservation of Micromycetes in Punjab University Lahore** from 20th August 2007-26th August 2007.
- Participated in **28th International Congress of Zoology in GC University Faisalabad** from 18th March 2008-20th March 2008.
- Participated in **10th International Conference of Botany in Agriculture University of Faisalabad** from 21st April to 24th April 2008.
- Participated in “**Workshop on Environmental Laws, Compliance and Enforcement**” held on 12th July, 2010 at Avari Hotel, Lahore, Pakistan by HEC, PELA and UNEP.

CONFERENCES AND WORKSHOPS ORGANIZED

- Organized **"2nd Pakistan Botanic Gardens Conference"** from 2nd – 4th Feb. 2009 in the Department of Botany, GC University, Lahore, Pakistan
- Organized an International Seminar/ workshop on **" Preservation & Enhancement of Biodiversity: Application of Tree Rings in Pakistan"** in the Department of Botany, GC University, Lahore, Pakistan from "5th -7th Oct. 2009
- Organized **"2nd International Conference of Plant Scientists"** held at Department of Botany, GC University, Lahore, Pakistan from 22nd – 24th Feb. 2011 sponsored by Pakistan Botanical Society.
- Organized a **"Four-Day Workshop on Basic Techniques for Botany Teachers"** from 10th -13th January, 2011 in the Department of Botany, GC University, Lahore, Pakistan, sponsored by HEC.

AS RESOURCE PERSON:

- Delivered a Lecture on Fungi, its Collection, Preservation and Ecology and Lichens of Pakistan **"Four-Day Workshop on Basic Techniques for Botany Teachers"** from 10th -13th January, 2011 in the Department of Botany, GC University, Lahore, Pakistan, sponsored by HEC.
- As a Resource Person in the cascading workshop of **"Ensuring training effectiveness"** (*Topics: Training Needs Assessment, Training Design and Result Based Management*) from 12-14th September, 2011 at GC University, Lahore Pakistan.
- Resource Person in the **"16th MTFPDP (Master Trainer Faculty Professional Development Programme) (Topic: Communication Skills) for Faculty Members** from 25th May-27th May, 2012 at GC University, Lahore, Pakistan.
- Resource Person in **"Three Days Workshop on "Inculcating New Practical Based Communication Skill for Teachers (12 to 14 April, 2017)"** at University of Veterinary and Animal Sciences Lahore Sub Campus Jhang, (Topic: Getting results through communication in teaching"
- Training on women development on 12 October, 2022, Floral art training in September, 2022, Kitchen Gardening online seminar in 2022, Inaugural plantation campaign on 14th October, 2022,. Resource person in multidimensional research on 10-9-2022, Plantation campaign on 12 August, 2022, Spring plantation 31 march, 2022, Bonsai training on 28th march, 2022, Intercollegiate fresh flower competition on 24 march 2022. Social and Legal Aspects of workplace Harassment on 7th march, 2022. Floral art training on 15th october, 2021,
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CONFERENCES ATTENDED

- Attended International Seminar on **"Ecosystem Restoration in Pakistan – Global Call and Local Action"** February 9, 2016 organized and hosted by Botanic Garden Networking Secretariat, GC University, Lahore.

- Attended “International Conference of Plant Sciences” 22-24 September, 2014 organized and hosted by Department of Botany, GC University, Lahore.
- Attended Phycological Workshop on “Algal Collection & Culturing Techniques” 19-20 February, 2014, organized and hosted by Department of Botany, GC University, Lahore.
- One-day Workshop on “Phycoremediation” 27th March, 2013, organized and hosted by Department of Botany, GC University, Lahore.

PUBLICATIONS

1. Saleem, M., Arif, A., **Shahid, M. G.** and Pervez, A., 2004. Bioinformatics and life Science. *Science International*, pp: 151 to 153. **(W Category= IF 0.75)**.
2. **Shahid, M. G.**, Baig, S., Pervez, A. and Saleem, M., 2008. Production and Characterization of keratinase enzyme by *Bacillus* sp. growing on Chicken Feathers. *Proceedings Pakistan Congress of Zoology*, 28: 47-55.
3. **Shahid, M. G.**, Baig, S., Pervez, A. and Saleem, M., 2008. Degradation of Chicken Feathers by using *Bacillus* strain isolated from natural environments under submerged fermentation culture. *Proceedings Pakistan Congress of Zoology*, 28: 39-46.
4. **Shahid, M. G.**, Safdar, A. and Nadeem, M., 2015. Biosynthesis of ergot alkaloids by *Penicillium citrinum* through surface culture fermentation process. *Pakistan Journal of Zoology*, 47 (2): 361-365. **(W Category=IF 0.478)**.
5. **Shahid, M. G.** and Nadeem, M., 2015. Screening of *Penicillium* species and optimization of culture conditions for the production of ergot alkaloids using surface culture fermentation process. *Pakistan Journal of Scientific and Industrial Research*, 58B(1): 23-29 **(Y Category)**.
6. **Shahid, M. G.**, Nadeem, M., Baig, S., Cheema, T. A., Atta, S. and Ghafoor, G., 2016. Screening and optimization of some inorganic salts for the production of ergot alkaloids from *Penicillium* species using surface culture fermentation process. *Pakistan Journal of Pharmaceutical Sciences*, 29(2): 407-414. **(W Category= IF 0.682)**.
7. Shahzad, M., **Shahid, M. G.**, Nadeem, M., Irfan, M. and Syed, Q., 2016. Production and optimization of α -amylase from *Aspergillus niger* using potato peel as substrate. *Pakistan Journal of Biotechnology*, 13(2): 101-109. **(Y Category)**.

8. **Shahid, M.G.**, Baig, S., Nadeem, M., Cheema, T.A., Nelofar, R. and Saleem, M., 2017. Biosynthesis of ergot alkaloids from *Penicillium commune* using response surface methodology (RSM). *Pakistan Journal of Botany*, 49(4): 1569-1578. **(W Category=IF 0.94)**.
9. Shehzad, M., **Shahid, M. G.**, Irfan, M. and Nadeem, M., 2018. Partial characterization of α -amylase produced from *Aspergillus niger* using potato peel as substrate. *Punjab University Journal of Zoology*, 33(1): 22-27. **(Y Category)**.
10. **Shahid, M.G.**, Baig, S., Saleem, M., Arif, R., Ghafoor, G. and Liaqat, A., 2018. Qualitative and quantitative analysis of ergot alkaloids produced by *Aspergillus niger* through surface culture fermentation process. *Pakistan Journal of Botany*, 50(6): 2423-2428. **(W Category= IF 0.75)**
11. Mazhar, N., Mirza, A. I., Zia, S., Butt, Z. S., **Shahid, M. G.** and Mirza, A. I., 2018. An analysis of glacial retreat and resultant vegetation expansion in the karakorum: a case study of passu glacier in hunza valley. *Biologia*, 64(1): 135-147. **(X Category)**
12. Baig, S., Saleem, M.A., Khan, M.A., Nadeem, Z., Ahmad, S., **Shahid, M.G.** and Cheema, T.A., 2018. Genetically modified foods' safety analysis by using molecular profiling techniques. *Biologia*, 64(1): 147-153. **(X Category)**.
13. Arif, R., Bukhari, S. H., Ishfaq, M., **Shahid, M. G.**, Lee, S. F. and Saleem, M. 2019. Genetic variation and post-translational modifications of Cytochrome c oxidase-1 (COX1) in different strains of *Sordaria fimicola*. *International Journal of Agriculture and Biology*, 21 (5): 1055-1062. **(W Category IF= 0.89)**.
14. Ghafoor, Z., Sarfraz, M., Abbas, M. and **Shahid, M.G.** 2019. Evaluation of tolerance potential of *Aspergillus niger* and *Trichoderma viride* against hexavalent chromium. *International Journal of Biosciences*. 14 (4): 35-44. **(W Category IF= 0.50)**
15. Arif, R., Lee, F.S., **Shahid, M.G.** and Saleem, M. 2019. Genotyping of Ribosomal Proteins in *Sordaria fimicola* to Study Genetic Polymorphisms and Phosphorylation Modifications. *International Journal of Agriculture and Biology*, 22: 247-252. **(W Category IF= 0.89)**.
16. Arif, R., Qasim, S., **Shahid, M.G.** Lee, F.S., and Saleem, M. 2019. Genetic Analysis and Post-translation modifications of 60S Ribosomal Protein L30 in *Sordaria fimicola*. *International Journal of Agriculture and Biology*, 22: 1675-1680 **(W Category IF= 0.89)**.

17. Bukhari, S.H., Mobeen, I., Noureen, U., Akram, F., Arif, R., **Shahid, M.G.** and Saleem, M., 2020. Analysis of Genetic Polymorphisms and Post Translational Modifications of Cytochrome C-1 in *Sordaria fimicola*. *International Journal of Agriculture and Biology*, 23: 705-710 (**W Category IF= 0.822**).
18. Javeed, F., **Shahid, M.G.** and Javed, A., 2020. Effect of different operational parameters on Bio-degradation of chicken feathers by *Aspergillus niger*: Investigation under submerged fermentation process. *Pakistan Journal of Scientific and Industrial Research*, 63B(2): 71-76. (**X category**).
19. **Shahid, M.G.**, Nadeem, M., Gulzar, A., Saleem, M., Rehman, H., Ghafoor, G.Z., Hayyat, U.M., Shahzad, L., Arif, R. and Nelofer, R., 2020. Novel Ergot Alkaloids Production from *Penicillium citrinum* Employing Response Surface Methodology Technique. *Toxins*, 12(7): 427 (**W Category, IF = 4.8**).
20. Mobeen, I., Arif, R., Rasheed, A., Akram, F., **Shahid, M.G.** and Saleem, M., 2020. Genetic and post-translational modification analysis of translational associated protein RKM4 in *Sordaria fimicola*. *International Journal of Agriculture and Biology*, 23: 935-943 (**W Category IF= 0.822**).
21. Rasheed, A., Arif, R., Ishfaq, M., Mobeen, I., **Shahid, M.G.**, Javed, M.A. and Saleem, M., 2020. Genetic diversity and post translational modification analysis of L-asparaginase in six strains of *Sordaria fimicola*. *International Journal of Agriculture and Biology*, 24(2): 285-291 (**W Category IF= 0.822**).
22. Ishtiaq, S., Hanif, U., Shaheen, S., Bahadur, S., Liaqat, I., Awan, U.F., **Shahid, M.G.**, Shuaib, M., Zaman, W. and Meo, M. 2020. Antioxidant potential and chemical characterization of bioactive compounds from a medicinal plant *Colebrokea oppositifolia* Sm. *Anais da Academia Brasileira de Ciências*, 92(2): 12-18 (**W Category IF= 1.7**).
23. Naureen, U., Arif, R., Akram, F., **Shahid, M.G.** and Saleem, M. 2021. Genetic Diversity Analysis and *In Silico* Investigation of Post-Translational Modifications of Carboxypeptidase A1 (CpA1) in *Sordaria fimicola*. *International Journal of Agriculture and Biology*, 25: 475-482 (**W Category IF= 0.822**).
24. Shehzad, M., **Shahid, M. G.**, Nadeem, M. and Ikram, H. 2021. Screening of phytate degrading fungi and optimization of culture conditions for phytase synthesis using agro-industrial by-products. *Pakistan Journal of Botany*, 53(2): 763-770 (**W Category IF= 0.972**).

25. Ghafoor, G. Z., Sharif, F., Khan, A. U., **Shahid, M. G.**, Siddiq, F. and Shahzad, L. 2021. Effect of climate warming on seedling growth and biomass accumulation of *Acacia modesta* and *Olea ferruginea* in a subtropical scrub forest of Pakistan. *Écoscience*, <https://doi.org/10.1080/11956860.2021.1958536> (**W Category IF= 1.95**).
26. Shahzad, M., Chaudhry, M, **Shahid, M. G.**, Ahsan, A., Dara, M., Mazhar, B., Mustafa, M., Saeed, M., Munir, S. and Alia, N. M. 2022. Antibacterial activity of *Ricinus communis* plant extract against antibiotic resistant *Helicobacter pylori* and *Gluconobacter oxydans* isolated from fresh apple juices samples. *Brazilian Journal of Biology*, 84: 253203 | <https://doi.org/10.1590/1519-6984.253203> (**W Category IF: 1.651**).
27. Ghafoor, G.Z., Sharif, F., **Shahid, M.G.**, Shahzad, L., Rasheed, R. and Khan, A.U. 2022. Assessing the impact of land use land cover change on regulatory ecosystem services of subtropical scrub forest, Soan Valley Pakistan. *Scientific Reports*, DOI: [10.1038/s41598-022-14333-4](https://doi.org/10.1038/s41598-022-14333-4) (**W Category IF: 4.996**).
28. Shahzad, M., **Shahid, M.G.**, Nadeem, M., Nelofar, R. and Irfan, M. 2022. Application of statistical design for the economical production of phytase by *Aspergillus niger* using solid state fermentation. *The Journal of Animal and Plant Sciences*, 32(1): 238-246. DOI: <https://doi.org/10.36899/JAPS.2022.1.0419> (**W Category IF: 0.570**).
29. Ahsan, A., Arif, R., Nazir, S., Saleem, M. and Shahid, M.G. 2022. Genetic Diversity and its Impact on Post Translational Modifications of PKC and bmlBeta Tubulin Homolog Proteins in Different Species and Strains of Sordaria. *Pakistan Journal of Zoology*, 55(3): 1207-1214 pp: 1-8. DOI: <https://dx.doi.org/10.17582/journal.pjz/20180824120824> (**W Category IF: 0.78**).
30. Ghafoor, G.Z., Sharif, F., Hayyat, M.U., Shahid, M.G. and Shahzad, L. 2022. Effect of climate factors on leaf litter decomposition dynamics of a subtropical scrub forest under field and microcosm conditions. *All Life*, 15(1): 1175-1187 (**W Category IF: 1.044**). DOI: <https://doi.org/10.1080/26895293.2022.2147222>
31. Mahmood, S., Khan, N. R., Razaque, G., Shah, S. U., Shahid, M. G., Albarqi, H. A. Alqahtani, A. A., Alasiri, A. and Basit, H. M. 2023. Microwave-treated physically cross-linked sodium alginate and sodium carboxymethyl cellulose blend polymer film for open incision wound healing in diabetic animals—a novel perspective for skin tissue regeneration application. *Pharmaceutics*, 5(2): 418; <https://doi.org/10.3390/pharmaceutics15020418> 1187 (**W Category IF: 6.525**).

32. Mahmood, S., **Shahid, M. G.**, Nadeem, M., Nelofer, R. and M. Irfan, 2023. Enhanced phytase production by *Aspergillus niger* mutants in solid state fermentation. *Kuwait Journal of Science*, 50(1A): 1-14. DOI: <https://doi.org/10.48129/kjs.v50i1A> (W Category IF: 0.948).
33. Ahsan, A., Arif, R., Nazir, S., Saleem, M. and **Shahid, M.G.** 2023. Genetic diversity and its impact on post translational modifications of PKC and bmlBeta tubulin homolog proteins in different species and strains of *Sordaria*. *Pakistan Journal of Zoology*, 55(3): 1207-1214. DOI: <https://dx.doi.org/10.17582/journal.pjz/20180824120824> (W Category IF: 0.687).
34. Javaid, K., Ghafoor, Z., Sharif, F., **Shahid, M.G.**, Shahzad, L., Ghafoor, N., Hayyat, M. and Farhan, M., 2023. Spatio-temporal analysis of land use land cover change and its impact on land surface temperature of Sialkot City, Pakistan. *Scientific Reports*, [10.1038/s41598-023-49608-x](https://doi.org/10.1038/s41598-023-49608-x) (W Category IF: 4.996).
35. Ghafoor, Z., **Shahid, M.G.**, Ali, M. and Ghafoor, N., 2023. Ecosystem Services in the Changing Climate: Calling Attention for the Conservation of Tropical and Subtropical Forests. In book: *Tropical Forests - Ecology, Diversity and Conservation Status*. pp: 1-14. [10.5772/intechopen.109800](https://doi.org/10.5772/intechopen.109800)
36. Jin, W., Ismail, M., Khan, N. R., Khan, D. N., Iftikhar, T., **Shahid, M. G.**, Shah, S. and Rehman, Z. 2024. Chitosan based ethanolic *Allium sativum* extract hydrogel film: a novel skin tissue regeneration platform for 2nd degree burn wound healing. *Biomedical Material*, 19:045036. (W Category IF: 4.0). DOI: [10.1088/1748-605X/ad565b](https://doi.org/10.1088/1748-605X/ad565b).
37. Chaudhry, M., Shafique, M., Mazhar, N. A., Munir, S., Hayee, S., **Shahid, M. G.**, Raza, M. A., Mazhar, B., Ali, M. M., Rasheed, A., Shahzadi, E. and Riaz, S. 2024. Prevalence of *Pseudomonas aeruginosa* associated chronic and acute respiratory infections and role of antibiotics as antibacterial agents against isolated pathogens. *History of Medicine*, 10(2): 1130-1147 DOI: DOI:[10.17720/gz92z217](https://doi.org/10.17720/gz92z217)(X Category).
38. Dar, M., Zahid, S., Mazhar, A. S., Mazhar, N. A., Chaudhry, M., Munir, S., Kiran, S., Nasir, Q., Qauid-ul-Hassan, M., Shahid, M.G., Mazhar, B., Junaid, M. and Riaz, S. 2024. Bacterial potential of lactic acid bacteria against pathogenic *Streptococcus pneumoniae* from ophthalmic infections-A systematic review. *Journal of Xi'an Shiyou University, Natural Science Edition*. 20(10): 1-10. DOI: (W Category IF: 0.25)

39. Mehmood, S., Shahid, M. G., Nadeem, M., Nelofar, R. and Irfan, M. 2024. Purification and characterization of phytase produced from *Aspergillus niger* using solid state fermentation. *Cellulose Chemistry and Technology*, 58 (9-10), 1091-1098. (W Category IF: 1.3).
40. Rehman, S. U., Khan, N.R., Ullah, M., Shah, S.U., Rehman, A. U., Jamal, Q., **Shahid, M.G.**, Albarqi, H.A., Alasiri, A., Alqahtani, A.A. and Walbi, I.A. 2025. Nanoemulgel mediated enhanced skin curcumin penetration/retention for local treatment of cutaneous leishmaniasis: in vitro and in vivo assessment. *Drug Development and Industrial Pharmacy*, DOI: 10.1080/03639045.2025.2473495 (W Category IF: 2.5).
41. Kiran, A., **Shahid, M.G.**, Najeeb, U., Sarwar, A., Tahir, S., Nadeem, M., Nelofar, R., Khan, A.A., Aziz, T., Shami, A., Fahad, A. and Fakhira, A.A.J. 2025. Using fruit peel as a substrate for the isolation, biosynthesis and optimization of glucoamylase by *Bacillus* sp. under submerged fermentation. *Italian Journal of Food Science*, DOI: 10.15586/ijfs.v37i4.3051 (W Category IF: 3.6).
42. Mazhar, N., Chaudhry, M., Arshad, S., Ali, M.N., **Shahid, M.G.**, Barkat, F. and Wasif, M. 2025. Screening and molecular characterization of bacterial pathogens from river Ravi water used for irrigation purpose and role of biological antibacterial agents against bacterial isolates. *African Journal of Biological Sciences*. DOI:10.48047/AFJBS.7.8.2025.296-316 (W Category IF: 1.08).
43. Chaudhry, M., Zahid, S., Mazhar, A. A., Ali, N. M., Rasheed, A., **Shahid, M.G.** and Munir, S. 2025. Antibacterial activity of *Lactobacilli* and Herbal extracts against *Pseudomonas aeruginosa* from respiratory tract infections in infants. *African Journal of Biological Sciences*, 7(8): 283-295 (W Category IF: 1.08).
44. Chaudhry, M., Ali, N. M., Rasheed, A., Iqbal, M.A., Raza, M.A. **Shahid, M.G.**, Rehman, S., Faiqa, B. and Wasif, M. 2025. Impact of physical activity and associated factors on breast cancer: A Comprehensive Review. *International Journal of Environmental Sciences*, 11(24S): DOI: <https://doi.org/10.64252/pfnp3077> (Y Category).
45. Chaudhry, M., Masood, A., **Shahid, M.G.**, Khan, M. K., Ali, N. M. and Riaz, S. 2025. Screening, pathogenicity and molecular characterization of bacterial isolates from droppings of Pavo cristatus (Indian Peafowl). *Annual Methodological Archive Research Review*. 3(9) (Y Category).

ORAL PRESENTATIONS

Presented Two Papers in 28th International Congress of Zoology in GC University Faisalabad on 19th April 2008 (From 18th March-20th March 2008)

Titles of the papers are as following

1. **Shahid, M. G.**, Baig, S., Pervez, A. and Saleem, M., 2008. Production and Characterization of keratinase enzyme by *Bacillus* sp. growing on Chicken Feathers. *Proceedings Pakistan Congress of Zoology*, 28: 47-55.
2. **Shahid, M. G.**, Baig, S., Pervez, A. and Saleem, M., 2008. Degradation of Chicken Feathers by using *Bacillus* strain isolated from natural environments under submerged fermentation culture, *Proceedings Pakistan Congress of Zoology*, 28: 39-46.

THESIS SUPERVISION

PhD

1. Studies on production, purification and characterization of commercially important phytase by *Aspergillus niger* by **Shahzad Mehmood**, Roll No. 081-PHD-BOT-GCU-17 (Degree Awarded).

MPhil

1. Biosynthesis of α -Amylase from *Aspergillus niger* using Potato Peel, an Agrowaste by **Shehzad Mehmood**, Roll No. 356-7-MPH-08
2. Production and characterization of cellulases from paper degrading microbial strains by **Rubab Zaidi**, Roll No. 364-MPH-BOT-09.
3. Impact of *Penicillium commune* on the production of ergot alkaloids by **Tooba Pervez**, Roll No. 364-MPH-BOT-11.
4. Biodegradation of chicken keratinous waste by *Trichoderma viride* using surface culture fermentation process by **Iqra Yaseen Bhatti**, Roll No. 374-MPH-BOT-12
5. Biodegradation of chicken feathers using *Saccharomyces cerevisiae* under fermentation conditions by **Hafiza Rahma Dilawer**, Roll No. 351-MPH-BOT-12.
6. Ribotyping of some heavy metals resistant bacteria from leather industry effluents by **Nazia Javed**, Roll No. 355-MPH-BOT-14
7. Molecular characterization of pathogenic bacteria isolated from tannery wastewater, Sahiwal by **Sadia Perveen**, Roll No. 369-MPH-BOT-14.
8. Biosynthesis of laccase enzyme by *Botrytis cinerea* using rice husk as a substrate in submerged fermentation process by **Rabia Aslam**, Roll No. 352-MPH-BOT-15.

9. Studies on the production and extraction of laccase enzyme from *Trichoderma viride* by **Saira Atta**, Roll No. 147-MPH-GCUF-15 (**Co-supervisor**).
10. Amplification of *Clr 1/Clr 2* markers and their post translational modifications in *Sordaria fimicola* by **Samina Nazir**, Roll No. 355-MPH-BOT-16.
11. Production and Purification of Laccase Enzyme by *Trichoderma viride* using Response Surface Methodology By **Naima Aslam**, Roll No. 366-MPH-BOT-GCU-17
12. Biosynthesis of Ergot Alkaloids by Response Surface Methodology using *Fusarium oxysporum* by **Anum Asif**, Roll No. 370-MPH-BOT-GCU-17.
13. Production and Commercial Applications of Laccase by Lignolytic Waste Fermentation using *Ganoderma lucidum* by **Hira Sadaf**, Roll No. 352-MPH-BOT-GCU-18.
14. Bioprospecting and Biotechnological Applications of Laccase from *Rhizopus stolonifer* by **Mahnoor Ahmed Khan**, Roll No. 363-MPH-BOT-GCU-18 (**Co-supervisor**).
15. Purification, Characterization and Biotechnological Applications of Phytase from *Rhizopus stolonifer* by **Ahmad Raza**, Roll No. 364-MPH-BOT-GCU-18 .
16. Bioconversion of Agro-industrial Wastes to Commercially Important Laccase under Solid State Fermentation by **Muhammad Shoaib Aslam**, Roll No. 386-MPH-BOT-GCU-18.
17. Exploitation of agro-industrial wastes for the production β -carotene using solid state fermentation by **Saqib Ali**, Roll No. 363-MPH-BOT-19.
18. Biotechnologically improved production of *B*-carotene from agro-industrial waste using submerged fermentation technique by **Ishfaq Ahmed** Roll No. 374-MPH-BOT-19
19. Production and extraction of beta carotene from *Penicillium commune* using surface culture fermentation technique by **Aleena Tahir**, Roll No. 379-MPH-BOT-20.
20. Bioethanol production from saccharified biomass of paper waste using *Saccharomyces cerevisiae* by **Muhammad Tahir Younas**, Roll No. 373-MPH-BOT-2020.
21. Production and extraction of glucoamylase by *Bacillus* sp. Using submerged fermentation technique by **Ayesha Kiran**, Roll. No. 117-MPH-BOT-20.
22. Production of alpha amylase from *Bacillus* species using agroindustrial waste by surface culture fermentation technique by **Samraz Tahir**, Roll No. 128-MPH-BOT-20.
23. Extraction and biotechnological applications of commercially important laccase from *Trochoderma viride* DB-1 by **Hafiza Mehak Munawar**, Roll No. 133-MPHIL-BOT-GCU-21
24. Extraction and biotechnological applications of commercially important laccase from *Rhizopus oligosporus* MN-1 under submerged fermentation by **Sania Zafar**, Roll No. 135-MPHIL-BOT-GCU-21.

25. Extraction and biological applications of Phytase produced by *Aspergillus niger* under solid state fermentation by **Waqar Haider**, Roll No. 136-MPHIL-BOT-GCU-21.
26. Biotechnological applications of keratinase produced from *Fusarium oxysporum* under submerged fermentation by **Khizra Aslam**, Roll No. 0357-MPHIL-BOT-21.
27. Purification and biotechnological applications of laccase produced by *Fusarium oxysporum* by **Mobeen Iqbal**, Roll No. 366-MPHIL-BOT-21.
28. Purification and biotechnological applications of laccase produced by *Aspergillus niger* under surface fermentation technique by **Aleeza Azmat**, Roll No. 0377-MPHIL-BOT-21
29. Biotechnological applications of commercially important α -amylase from *Penicillium digitatum* by **Mehak Iftikhar**, Roll No. 0107-MPHIL-BOT-22.
30. Purification and characterization of commercially important keratinase by wild type and mutant strains of *Mucor mucedo* by **Saira Naeem**, Roll No. 0110-MPHIL-BOT-22.
31. Production and extraction of commercially important glucoamylase from wild type and mutant strains of *Trichoderma viride* by **Sumayyah Zia**, Roll No. 101-MPHIL-BOT-22.
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MSc

1. Development of thin layer chromatography method for the separation of ergot alkaloids of *Trichoderma viride* by **Iqra Jamil**, Roll No. 352-MSC-2012.
2. Production and characterization of extracellular laccase by *Aspergillus niger* by **Shan Ali**, Roll No. 1923-MSC-18.
3. Purification and Characterization of Phytase produced from *Penicillium commune* by **Ayesha Akram**, Roll No. 1935-MSC-BOT-2019.
4. Purification and Characterization of α -Amylase produced from *Penicillium citrinum* by **Mehak Iftikhar** Roll No. 1935-MSC-BOT-2019.
5. Production and purification of ergot alkaloids from *Pleurotus ostreatus* by **Fatima Arif**, 1930 -MSC-BOT-2020.

BSc (Hons.)

1. Characterization of VA Mycorrhiza in *Cucumis sativus* L. in soils treated with urea, dung and leaf litter by **Rakhshanda** Roll No. 1007-BH-BOT-05
2. Morpho-ecological and Biochemical studies of some Lichens of Murree Hills by **Sameera Zikria**, Roll No. 1008-BH2-BOT-08
3. Production of Oyster Mushroom by using different Agro-industrial Wastes by **Faheem Arshad**, Roll No. 80-BH-BOT-07
4. Effects of some organic soil amendments on Vesicular Arbuscular Mycorrhiza Colonization in Corn (*Zea mays* L.) by **Farah Naz**, Roll No. 54--BH-BOT-07
5. Biodegradation of newspaper waste by *Aspergillus niger* under different fermentation techniques by **Iqra Zulfiqar**, Roll No. 71-BH-BOT-08
6. Production of Cellulase enzyme by *Aspergillus niger* using different fruit and vegetable wastes by **Farah Aman Ullah** Roll No. 80-BH-BOT-08

7. Production of an exo-inulinase from a newly isolated *Aspergillus oryzae* in Vogels medium supplemented by wheat bran as a raw carbon source by **Humaira Shehzadi** Roll No. 82-BH2-BOT-08
8. Development of Mycorrhiza in *Lens culinaris* Medic. and *Brassica campestris* L. grown in soils amended with some organic and inorganic fertilizers by **Nazia Javed** Roll No. 93-BH-BOT-08.
9. Bioreduction of sugar cane filter cake by *Penicillium* sp. under fermentation process by **Sarah Ashraf** Roll No. 64-BH-BOT-09.
10. Biodegradation of food waste of local Food industry of Lahore by **Faisal Javed** Roll No. 72-BH-BOT-09.
11. Biosynthesis of ergot alkaloids by *Penicillium italicum* using Molasses as a substrate by **Zafar Khan** Roll No. 62-BH-BOT-10.
12. Production of ergot alkaloids by *Aspergillus niger* using bagasse as a substrate by **Aniqa Imtiaz** Roll No. 65-BH-BOT-10.
13. Biosynthesis of ergot alkaloids from *Aspergillus niger* by submerged fermentation technique by **Syeda Iqra Zanjani** Roll No. 81-BH-BOT-10.
14. Thin layer chromatography of ergot alkaloids synthesized by *Penicillium expansum* by **Atoofa Rukhsar** Roll No. 86-BH-BOT-11.
15. Studies on TLC behavior of ergot alkaloids produced by *Sacchromyces cerevisiae* by **Ayesha Liaqat** Roll No. 87-BH-BOT-11.
16. Quantitative analysis of ergot alkaloids produced by *Aspergillus niger* by **Ayesha Liaqat** Roll No. 1132-BH-BOT-11.
17. Synergistic effects of arbuscular mycorrhizal colonization and mineral acquisition on the growth and yield of Barley plants (*Hordeum vulgare* L.) by **Maheen Rana** Roll No. 64-BH-BOT-12.
18. Influence of cattle manure, chick feed and water deficit conditions on the growth of wheat plants and mycorrhizal fungi by **Anum Iqbal** Roll No. 90-BH-BOT-12.
19. Effect of organic and inorganic mobile phase additives on thin layer chromatography behavior of some alkaloids produced by *Penicillium commune* by **Khansa Rafique** Roll No. 71-BH-BOT-12.
20. Extracellular laccase production from *Aspergillus niger* under surface culture fermentation technique by **Saba Mazhar** Roll No. 53-BH-BOT-13.
21. Isolation and identification of fungi associated with some fruits and vegetables of local markets of Lahore by **Tahir Ali** Roll No. 56-BH-BOT-13.
22. Extracellular enzyme production by some fungi isolated from fruits of the family Rutaceae by **Zeeshan Arshad** Roll No. 62-BH-BOT-13.
23. Production of extracellular laccase from wild and mutated strains of *Penicillium citrinum* by **Wajiha Nadeem Siddiqui** Roll No. 66-BH-BOT-13.
24. Optimization of laccase produced from *Trichoderma viride* using submerged culture fermentation process by **Anum Asif** Roll No. 100-BH-BOT-13.
25. Evaluation of the potential of some local plants for natural food colors by **Saman Shahid**, Roll No. 111-BH-BOT-14.

26. Production and characterization of laccase enzyme by *Rhizopus stolonifer* by **Ahmad Raza**, Roll No. 121-BH-BOT-14.
27. Extraction and characterization of laccase enzyme produced by *Trichoderma viride* by Muhammad **Shoaib Aslam**, Roll No. 132-BH-BOT-14.
28. Isolation and identification of fungi responsible for leaf spot diseases of *Psidium guajava* by **Ayesha Noor Awan**, Roll No. 136-BH-BOT-14.
29. Extraction, characterization and TLC studies of laccase enzyme produced by *Botrytis cinerea* by **Anum Bashir**, Roll No. 154-BH-BOT-14.
30. Evaluation of potential of extracts of some plants of Lahore for textile dyes by **Hooria Shakeel**, Roll No. 155-BH-BOT-14.
31. Isolation and identification of fungi causing leaf spot and stem rot diseases of Sugarcane (*Saccharum officinarum* Hybrid) by **Faiza Suleman**, Roll No. 160-BH-BOT-14.
32. Biosynthesis of phytase enzyme by *Rhizopus stolonifer* using submerged fermentation technique by **Zahra Ali**, Roll No. 741-BH-BOT-14.
33. Biotechnological applications of fungal phytase as fertilizer and food additive in poultry feed industry by **Kaynat Fatimah**, Roll No. 54-BH-BOT-15.
34. Production of phytase enzyme by *Trichoderma viride* by employing submerged fermentation technique by **Iram Zulfiqar**, Roll No. 76-BH-BOT-15.
35. Biosynthesis of Ganoderic acid by *Ganoderma lucidum* under fermentation conditions by **Mahnoor**, Roll No. 82-BH-BOT-15.
36. Isolation and Identification of Fungal Diseases Associated with some Crops of Ghaziabad, Sahiwal by **Rabaail Naz**, Roll No. 69-BH-BOT-16.
37. Isolation and Identification of Leaf Spot and Fruit Rot Diseases of Some Trees of Khuiratta, Azad Kashmir by **Shamaim Khan**, Roll No. 81-BH-BOT-16.
38. Purification and characterization of ergot alkaloids by *Fusarium oxysporum* by **kainat Majeed**, Roll No. 90-BH-BOT-16.
39. Production and Extraction of Keratinase Synthesized by *Trichoderma viride* under Surface Culture Fermentation Process by **Rida-tuz-Zohra**, Roll No. 100-BH-BOT-17.
40. Purification and characterization of laccase enzyme produced by *Alternaria alternata* under surface culture fermentation by **Areeba Nasir** Roll No. 105-BH-BOT-17
41. Production and extraction of keratinase by *fusarium oxisporum* under submerged fermentation technique by **Khizra Aslam**, Roll No. 122-BH-BOT-17.
42. Cultivation of *Pleurotus ostreatus* (White Oyster) using different agro-industrial wastes under laboratory conditions by **Alveena Nazir**, Roll No. 107-BH-BOT-18.
43. Studies on the effect of various food supplements on the productivity and nutritional impact of Oyster mushroom by **Nawera Aziz**, Roll No. 118-BH-BOT-18.
44. Isolation and identification of fungal diseases associated with some crops of Tehsil Sadiqabad, Rahim Yar Khan by **Umm-e-Habiba**, Roll No. 0137-RE-BH-BOT-18.
45. Biotechnological applications of phytase using fungal consortium under fermentation conditions by **Aneeqa Ali**, Roll No. 022-BH (E)-BOT-18.

46. Extraction and biotechnological applications of phytase using *Ganoderma lucidum* by **Sadia Murad**, Roll No. 030-BH (E)-BOT-18.
47. Biotechnological applications of laccase produced by *Penicillium commune* MG-1 by **Fatima Riaz**, Roll No. 0106-BH-M-BOT-19.
48. Comparative studies on the synthesis of laccase from wild and mutant strains of *Aspergillus niger* BTL-4 under surface culture fermentation conditions by **Rida Imtiaz**, Roll No. 137-BH-M-BOT-19.
49. Production and extraction of keratinase produced by fungal consortium by **Fazila**, Roll No. 818-BH-(E)-BOT-2019.
50. Biotechnological applications of ergot alkaloids produced by *Aspergillus niger* by **Amna Noor**, Roll No. 111-BH-(E)-BOT-2019.
51. Production and extraction of keratinase produced by *Aspergillus niger* by **Ayesha Saeed**, Roll No. 113-BH-(E)-BOT-2019.
52. Extraction and determination of secondary metabolites of lichens collected from Jhika Gali, Murree Hills, KP, Pakistan by **Areesha Sohail**, Roll No. 112-BH-BOT-20.
53. Biotechnological applications of keratinase from fungal consortium under surface culture fermentation conditions by **Reham Shakeel**, Roll No. 133-BH-BOT-20.
54. Identification and Micro-crystallography of Lichens collected from Bansra Gali, Murree Hills, KP, Pakistan by **Noorish Tahir**, Roll No. 136-BH-BOT-20.
55. Production of ethanol from natural bio-resources using *Saccharomyces cerevisiae* by **Shanza**, Roll No. 122-BH-BOT-20.
56. Production of ethanol from natural bio-resources using *Mucor mucedo* by **Esham Tahir**, Roll No.
57. Extraction and purification of ergot alkaloids produced by Fungal consortium by **Zohaib Anjum**, Roll No. 110-BH-E-BOT-20
58. Extraction and determination of secondary metabolites of Lichens collected from Ayubia National Park, Murree Hills, KP, Pakistan by **Muhammad Fatiq**, Roll No. 123-BH-E-BOT-20.
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REFERENCES

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