



Curriculum Vitae

Name	:	Mohammad Sayyar Khan (Qazi)
Date of birth	:	December 10, 1977
Sex	:	Male
Marital status	:	Married
Nationality	:	Pakistani
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Web of Science Researcher ID: HPE-3586-2023. [Mohammad Sayyar Khan - Web of Science Researcher Profile](#)

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[Google Scholar ID: Dr. Mohammad Sayyar Khan \(Qazi\) - Google Scholar](#)

Post Doc, Beijing Academy of Agriculture and Forestry Sciences, China

Primary areas: Molecular characterization and biotic and abiotic stress tolerance of endophytic and rhizospheric bacteria associated with lily plants, Project write up, Research, Student supervision.

Ph.D in Plant Biotechnology, The University of Tsukuba, Japan

Primary areas: Environmental risk assessment of transgenic plants harboring abiotic stress tolerance genes, Research, Supervision

M.Phil in Plant Biotechnology, IBGE, The University of Agriculture, Peshawar, and NIBGE, Faisalabad

Primary area: Molecular characterization of Begomoviruses infecting chilies in Punjab and NWFP, Provinces of Pakistan

Area of Specialization

Biotechnology, Genetic Engineering, Molecular biology, Microbiology, Environmental risk assessment

Professional Responsibilities

Teaching, Research and Administration

ACADEMIC DETAILS

Institution/Board	Degree/Certificate	Session	CGPA/Marks
Beijing Agro-Biotechnology Research Centre, Beijing Academy of Agriculture and Forestry Sciences, China	Post Doctorate Microbiology, Biotechnology	November 2018 to November 2019	-----
University of Tsukuba, Japan	Ph.D. Biotechnology	2007-2011	A
The University of Agriculture, Peshawar	M.Phil. Biotechnology	2000-2002	3.82/4.00 Division: First
The University of Agriculture, Peshawar	B.Sc. (Hons) Plant Breeding and Genetics	1996-2000	3.32/4.00 Division: First
Islamia College Peshawar/BISE Peshawar	F.Sc. Pre-Medical	1994-1996	824/1100 Division: First
Government High School No. 1 Charsadda/BISE Peshawar	Secondary School (Matric) Science	1991-1993	660/850 Division: First

EXPERIENCE (TEACHING, RESEARCH and ADMINISTRATION)

Currently working as Director of the Institute of Allied Health Sciences and Emerging Technologies (IHSET)

Employer	Designation	Duration
Institute of Biotechnology and Genetic Engineering, The University of Agriculture Peshawar	Associate Professor (BS-20)	04-03-2022 - Present
Institute of Biotechnology and Genetic Engineering, The University of Agriculture Peshawar	Assistant Professor (BS-19)	30-05-2012 to 03-03-2022
As above	Lecturer (BS-18)	13-01-2007 to 29-05-2012
As above	Lecturer (BS-17)	18-01-2005 to 12-01-2007
As above	Lecturer (on 06 months duration)	12-12-2003 to 17-01-2005

HONORS, AWARDS AND ACHIEVEMENTS

1. I was one of the members of the research team that developed an aphid resistant and high yielding brassica variety “**IBGE Sarson**” approved by Govt. of Khyber Pakhtunkhwa in Feb, 2022.
2. I was awarded a **Post Doctoral Fellowship** at the Beijing Academy of Agriculture and Forestry Sciences (BAAFS) under the Talented Young Scientist Program (TYSP), Ministry of Science and Technology Chinese Government for the year 2018/2019.
3. Based on my research achievements, I was awarded **Research Productivity Award (RPA)** by Pakistan Council for Science and Technology (PCST) for the year 2015/2016.
4. I was awarded with a Ph.D. scholarship from **Ministry of Education, Science, Sports, and Culture, Japan** (Monbusho, currently called MEXT-Scholarship) 2006-2010.

RESEARCH INTERESTS

Molecular biology; Biotechnology; Genetic engineering; Plant-microbe interaction; Biotic and abiotic stress tolerance in plants; Biofertilizers; Biopesticides; Pesticide-degrading microbes; Environmental risk assessment of transgenic plants.

RESEARCH PROJECTS

Completed 03 research projects as Principal investigator (PI), and one project as PI is in the experimentation phase

S No.	Title of the project	Total funds in Rs. (millions)	Funding Agency	Duration	Status/start and completion
1	Bioaugmentation of soils contaminated with excessive pesticide application on peach plantation in the valley of Swat	4.3	Pakistan Science Foundation (PSF)	03 Years	September 2023 to June 2026
2	Genetic Engineering of sugarcane with the rice tonoplast H ⁺ -PPase gene to improve sucrose content and salt tolerance	2.3	Pakistan Science Foundation (PSF)	03 Years	June 2014 to May 2018
3	Environmental Biosafety Assessment on Transgenic Oil Seed Rape Lines harboring the Synthetic Chitinase Gene (<i>NiC</i>) Conferring Fungal Disease	1.0	ILSI Research Foundation/Center for Environmental Risk Assessment (CERA), U.S. as part of the	01 Year	October 2014 to September 2016

	Resistance		strategic support under the Biosafety Research in Pakistan Grants Program (BRPGP)		
4	Environmental risk assessment studies for the potential production of transgenic oilseed rape lines with enhanced disease resistance	0.5	Government of Khyber Pakhtunkhwa Directorate of Science and Technology (DOST)	01 Year	April 2013 to March 2014

M. Phil Thesis Supervised (Major Supervisor)

S. No	Name of Student	M. Phil Thesis title	Year
1	Aimen Farooq	Isolation and characterization of plastic degrading bacteria from dumped soil area	June 2026
2	Sara Khan	Antibacterial and phytochemical characterization of <i>Zingiber officinale</i> and <i>Syzygium aromaticum</i> against <i>Escherichia coli</i>	June 2026
3	Mohaiman Khattak	Isolation, antimicrobial resistance and molecular profiling of bacteria from drinking water of Peshawar-Pakistan	March 2025
4	Hamza Iqbal	Biochemical and molecular analysis of endophytic bacteria-mediated salt stress tolerance in <i>Solanum lycopersicum</i>	Mar, 2024
5	Maaz Iqbal	A comprehensive computational strategy for profiling core proteins and formulating a multi-epitope vaccine targeting <i>Mycobacterium tuberculosis</i>	Oct, 2023
6	Irba Zulfiqar	Isolation and characterization of pesticide degrading bacteria from pesticide contaminated soil of peach orchards	Sep, 2023
7	Parwana Khan	Potential of wheat endophytic bacteria for plant growth promotion, water stress tolerance and fungal disease resistance	Sep, 2023
8	Sumaiya Tehsin	Screening and characterization of endophytic bacteria from <i>Solanum lycopersicum</i> and analysis of their plant growth promoting and fungal disease resistance	Nov, 2023
9	Nooreen Rahman	Molecular and biochemical characterization of endophytic bacteria isolated from <i>Silybum marianum</i> and their effects against pathogenic microbes	Sep, 2022
10	Tahira Naz	Screening and characterization of rhizospheric bacteria from <i>Silybum marianum</i> and analysis of their heavy metals tolerance and plant growth promotion	Nov, 2022
11	Muhammad Dawood	Morphological diversity and transferability of rice SSR markers in wheat genotypes for genetic diversity	Apr, 2022

12	Dawood Shah	Molecular and biochemical characterization of endophytic bacteria from wheat varieties	May, 2021
13	Kalsoom Jehan	In vitro characterization and analysis of rice varieties against various levels of salt (NaCl) stress	Nov, 2018
14	Nida Jan	Antimicrobial activities of leaves and stem extracts of <i>Tamarix aphylla</i>	Nov, 2018
15	Aisha Gul	In vitro characterization of polyethylene glycol (PEG) tolerant calli of sugarcane	May, 2018
16	Syeda Maryum Bokhari	Morphological and genetic diversity analysis of local rice accessions through microsatellite markers	Aug, 2018
17	Waqar Ahmad	Transformation of the sugarcane variety (Cp 77/400) with the promoter of <i>OsC₃H₅₂</i> gene	Apr, 2018
18	Syed Usman Ali Shah	Cloning and analysis of the rice (<i>Oryza sativa</i>) H ⁺ -Pyrophosphatase 1 (<i>OsOVP1</i>) gene responsive to salt stress	Oct, 2017
19	Ishaq Khan	Antimicrobial effect of different methanolic extracted samples of leaves and roots of <i>Verbascum Thapsus</i> L. (common mullein)	Aug, 2017
20	Syed Urooj Sadaat	Biosafety risk assessment of transgenic <i>Brassica napus</i> conferring antifungal resistance	Oct, 2016
21	Saba Gul	Physiological and biochemical assessment of sugarcane calli in response to various level of salt stress	May, 2016
22	Waqar Ali Khan	Isolation of entomopathogenic fungi from dead insects to be used as a biological control agent	May, 2016
23	Mazhar Ullah	Development of efficient in vitro protocols for callus induction and regeneration in sugarcane (<i>Saccharum officinarum</i> L.)	May, 2015
24	Muhammad Arif	Analysis of antifungal and antibacterial activities of different solvent extract samples from stem and seeds of <i>Peganum harmala</i>	May, 2015
25	Muhammad Adnan	Cloning and molecular analysis of the rice <i>C3H10</i> gene promoter	June, 2014
26	Syed Jawad Shah	Assessment of salinity stress and the protective effects of glycine betaine of local wheat varieties	June, 2014

PhD student's supervision

S. No	Student Name	Research Title	Registration No.	Supervision Status	PhD status
1	Faiza	Genomic characterization and microbial assisted iron bio-fortification: A two way approach to enhance yield and nutritional value of wheat (<i>T. aestivum</i> L)	2013-Agr-U-29674	Local Supervisor-II	Ongoing
2	Uzma Jamal	Identification of beneficial endophytes and determining the plant crop production under changing climate	2010-Agr-U-21864	Local Supervisor-II	Completed
3	Mazhar Ullah	Genetic engineering of sugarcane with the rice H ⁺ -PPase (<i>OVP2</i>) gene to improve salt stress tolerance	2009-Agr-U-19654	Local Supervisor-I	Completed
4	Midrar Hussain	Characterization of OsTZF8 gene encoding tandem CCH zinc finger protein for abiotic stress tolerance	2013-Agr-U-31788	Local Supervisor-II	Completed

BOOKS/BOOKS CHAPTERS

1. Mohammad Sayyar Khan and Irba Zulfiqar (March 6th 2023). Microbial mitigation of drought stress in plants: Adaptations to climate change: In. Abiotic Stress in Plants - Adaptations to Climate Change, Dr. Manuel T. T. Oliveira and Prof. Anabela Afonso A. Fernandes Silva, IntechOpen, DOI: 10.5772/intechopen.109669.
2. Mohammad Sayyar Khan and Mudassar Nawaz Khan (October 23rd 2019). Understanding Plant Responses to Drought and Salt Stresses: Advances and Challenges in “Omics” Approaches, Transgenic Crops - Emerging Trends and Future Perspectives, Muhammad Sarwar Khan and Kauser Abdulla Malik, IntechOpen, DOI: 10.5772/intechopen.81041.

COURSES DEVELOPED

MS/MPhil Microbiology

Course ID	Title	Credit Hrs
Micro-701	Microbial Genetics	3 (3+0)
Micro-702	Microbial Diversity	3 (3+0)
Micro-703	Plant-Microbe Interaction	3 (3+0)
Micro-704	Environmental Microbiology	3 (3+0)

Micro-705	Industrial Microbiology	3 (3+0)
Micro-706	Medical Microbiology	3 (3+0)

PhD Microbiology

Course ID	Title	Credit Hrs
Micro-712	Advances in Microbiology	3 (3+0)
Micro-713	Advanced Microbial Genetics	3 (3+0)
Micro-714	Advances in Industrial Microbiology	3 (3+0)
Micro-715	Advances in Food Microbiology	3 (3+0)
Micro-716	Advances in Agriculture Microbiology	3 (3+0)
Micro-717	Immunology	3 (3+0)

REVIEWER OF PEER-REVIEWED JOURNALS

Completed invited review tasks of more than 40 manuscripts for the following Journals.

International Journal of Systematic and Evolutionary Microbiology, Frontiers in Microbiology, Frontiers in Plant Science, Applied Soil Ecology, Physiological and Molecular Plant Pathology, Environmental Technology and Innovation, Agronomy, International Journal of Plant Biology, Biocatalysis and Agricultural Biotechnology, PLoSOne, Saudi Journal of Biological Sciences, Scientia Horticulturae, South African Journal of Botany, Water, International Journal of Microbiology, Agronomy Research, PeerJ

MEMBERSHIP OF SCIENTIFIC SOCIETIES

1. American Society of Microbiology
2. Asian Federation of Biotechnology

ACADEMIC PRESENTATIONS/POSTERS/SYMPOSIUM

1. **Khan MS**, Nakajyo H, Shimazaki T, Yamada K, Shigemori H, Kikuchi A, Watanabe KN. Glycoalkaloid content in transgenic potatoes with abiotic stress tolerance. 116th meeting of the Japanese Society of Breeding, September 25-27, 2009, Hokkaido University, Sapporo, Hokkaido, Japan, September-2009. (Poster presentation).
2. **Khan MS**. Transgenic plants with abiotic stress tolerance and future challenges in environmental risk assessment. The 2nd Annual South Asia Biosafety Conference, September 15-16, Taj Samudra Hotel, Colombo, Sri Lanka, September-2014. (Poster presentation).
3. One of the organizers of “International Conference on Sustainable Agriculture and Food Security” held on 27th-31st August, 2023 at Bara Gali, Khyber Pakhtunkhwa, Pakistan.