

Contact

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Top Skills

Biotechnology
Public Sector
Microbiology

Certifications

Alfa Genomics
Training

Publications

Animal Nitriton
Gene silencing by shakira sulehri
G-ACP: a machine learning approach to the prediction of therapeutic peptides for gastric cancer
cell culture
Effects of Dietary Supplementation of Yeast Culture (*Saccharomyces cerevisiae*) on Growth Performance, Blood Parameters, Nutrient Digestibility and Fecal Flora of Dairy Heifers

Dr. Shakira Ghazanfar

GBD Collaborator at Institute for Health Metrics and Evaluation
Islāmābād, Pakistan

Summary

I am a Senior Scientific Officer with 18+ years of experience in microbiology, currently working at the intersection of Artificial Intelligence and Biological Sciences. My research focuses on probiotic genomics, gut microbiome, and AI-driven solutions for health, agriculture, and environmental sustainability. I am passionate about integrating data science with microbiology to develop innovative, real-world applications that can improve human and animal health. Over the years, I have: Published research papers and edited scientific books (Springer Nature, CRC Press) Supervised and mentored numerous students Conducted national and international trainings and workshops Contributed to scientific advancement in Pakistan through government research Currently, I am focused on: AI in Microbiology and Bioinformatics Probiotic research and genomics Capacity building and scientific training I strongly believe in collaboration, innovation, and knowledge sharing, and actively engage in building platforms that connect researchers globally. Open to collaborations, speaking opportunities, and research partnerships.

Experience

Institute for Health Metrics and Evaluation
GBD Collaborator
August 2025 - Present (1 year 1 month)
United States

International Society of Antimicrobial Chemotherapy (ISAC)
Member
August 2026 - Present (1 month)

Pakistan Agricultural Research Council (PARC)
18 years 6 months

Senior Scientific Officer
September 2014 - Present (12 years)

PARC, Islamabad

www.parc.gov.pk/index.php/en/nigab

Principal Investigator/Precision Probiotic Developer

February 2021 - July 2024 (3 years 6 months)

Islamabad, Islāmābād, Pakistan

In Pakistan, limited research has been conducted for the isolation and molecular identification of the beneficial yeast strains from local sources. This project goal:

To characterize and identify ingeniously isolated yeast strains for development of yeast extract products

Assistant Professor

February 2020 - July 2021 (1 year 6 months)

Pakistan

Genomics and biotechnology, Microbial Genomics

Project Manager

January 2018 - January 2021 (3 years 1 month)

NIGAB, PARC, Islamabad Pakistan

I worked as a Project Manger (PM) in the PARB funded (15.86 Million) project entitled : DEVELOPMENT OF INDIGENOUS PROBIOTIC FEED ADDITIVE PRODUCTS TO IMPROVE PRODUCTIVITY OF DAIRY BUFFALO IN COST EFFECTIVE MANNERS.

Whole-Genome Sequencing based assessment of safety of Pakistan-Origin Probiotic Strains

B. Study/target area of the project

- i. Buffalo Research Institute (BRI) Pattoki, Punjab
- ii. Government Livestock Farm Bhakkar, Punjab
- iii. LES Chak Katora, Bhakkar, Punjab

Microbial product will be developed through the guideline of the WHO standard. Product practical application on dairy buffalo performance will be observed through small scale experiment on control environment and large scale experiment on commercial farm.

<http://parb.agripunjab.gov.pk/>

Acting Director

May 2016 - September 2016 (5 months)

Pakistan

- Successfully monitor the administrative things of the institute.

Scientific Officer

September 2010 - September 2015 (5 years 1 month)

Pakistan

Department of Animal Nutrition and Microbiology, (www.parc.gov.pk) NARC, Pakistan

- Successfully developed cost effective feed for improve the milk yield in dairy animals
- Planning and execute research in the light of the multifunctional aspect of Microbial Biotechnology, particularly with regard to increased Dairy Animals Productivity

Research Assistant

March 2008 - August 2010 (2 years 6 months)

Pakistan

Department of Animal Nutrition, (www.parc.gov.pk) NARC, Pakistan

RADP Sub Project title: "Stair Step Heifer Development Program for Induction of Early Puberty"

- Successfully developed cost effective feed for improve the milk yield in dairy animals
- Successfully completed the experiment entitled Effect of Duck Weed (Lemna Minor) as a Protein Source on Growth Performance of Broiler Chicks
- Successfully completed the experiment entitled Effect of High Fiber Enzymes supplementation to Diet on Growth Performance of Broiler Chicks
- Successfully completed the experiment entitled Nutritional Evaluation of Fodder Tree Leaves, Grasses and Shrubs for Grazing Ruminants in Pakistan.

Women in AI

Member

August 2025 - Present (1 year 1 month)

Education Writers Association

Member

August 2025 - Present (1 year 1 month)

Women in Fusion

Member

August 2025 - Present (1 year 1 month)

Islamabad. AI
Co Founder
December 2024 - Present (1 year 9 months)

BRITISH INFECTION ASSOCIATION

Member
August 2025 - Present (1 year 1 month)

London AI Academy
Member
November 2024 - Present (1 year 10 months)

Journal of Nutritional and Food Sciences

Editor
February 2025 - Present (1 year 7 months)

DIET FACTOR (Journal of Nutritional and Food Sciences)

Description

Journal of Nutritional & Food Sciences (DIET FACTOR) publishes surveillance, epidemiologic, and intervention research that sheds light on i) influences (e.g., familial, environmental) on eating patterns; ii) associations between eating patterns and health, and iii) strategies to improve eating patterns among populations. The journal also welcomes manuscripts reporting on the psychometric properties (e.g., validity, reliability) and feasibility of methods (e.g., for assessing dietary intake) for human nutrition research. In addition, study protocols for controlled trials and cohort studies, with an emphasis on methods for assessing dietary exposures and outcomes as well as intervention components, will be considered.

American Society for Microbiology

Member
February 2025 - Present (1 year 7 months)
Global Outreach Member

Taylor & Francis Group

Editor
September 2024 - Present (2 years)

Journal of Biological Regulators and Homeostatic Agents

Guest Editor
September 2023 - Present (3 years)

Italy

Alhamdulillah (Arabic: اَلْحَمْدُ لِلّٰهِ, al-Ḥamdu lillāh).

For Guest Editor IN

Journal of Biological Regulators and Homeostatic Agents

<https://www.biolifesas.org/EN/collection/1695108973510/articles>

Springer Nature in India

Book Editor

September 2023 - Present (3 years)

HEC Pakistan

HEC Recongnized Supervisor

March 2022 - Present (4 years 6 months)

CRC Press

Book Editor

February 2022 - Present (4 years 7 months)

JoVE

Guest Editor

September 2024 - November 2025 (1 year 3 months)

Frontiers

Guest editor in frontiers

December 2023 - September 2024 (10 months)

Alhamdulillah (Arabic: اَلْحَمْدُ لِلّٰهِ, al-Ḥamdu lillāh).

For Guest Editor IN Frontiers in Food Science and Technology

<https://www.frontiersin.org/research-topics/61717/influence-of-probiotic-based-foods-in-targeting-the-gut-microbiota-for-preventive-and-therapeutic-medicine#overview>

Life MDPI

Guest Editor

July 2023 - September 2024 (1 year 3 months)

Alhamdulillah (Arabic: اَلْحَمْدُ لِلّٰهِ, al-Ḥamdu lillāh).

For Guest Editor, MDPI

New Special Issue; "Effects of Natural Products as Adjuvants on Animals.

Frontiers in Nutrition

'Topic Coordinator' in frontiers in Nutrition

December 2022 - September 2024 (1 year 10 months)

Applied Sciences MDPI

Guest Editor

December 2022 - December 2023 (1 year 1 month)

Alhamdulillah (Arabic: اَلْحَمْدُ لِلّٰهِ, al-Hamdu lillāh).

For Guest Editor, MDPI

New Special Issue; "Evolution of Functional Foods, Nutraceuticals and Probiotics: From Conventional Food to Next Generation Biotherapeutics.

Government Viqar-un-Nisa Women University

Lecturer of Zoology

2006 - 2007 (1 year)

Rawalpindi

Education

Quaid-i-Azam University, Islamabad

Doctor of Philosophy (Ph.D.), Microbiology · (2012 - 2016)

Quaid-i-Azam University, Islamabad

Master of Philosophy (M.Phil.), Microbiology · (2007 - 2008)

University of Arid Agriculture, Rawalpindi

Master of Science (M.Sc.), Zoology/Animal Biology