



**KHAIZRAN SIDDIQUI**

Email: ksiddiqui@uok.du.pk,  
khaizransiddiqui@yahoo.com

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**OBJECTIVE**

To obtain a challenging position in a prestigious organization where my education and experience could be further enhanced.

**ACADEMIC PROFILE**

- ◆ **PhD (Genetics) Thesis submitted**-----2022
- ◆ **Enrolled in MPhil leading to PhD. (Genetics)** \_\_\_\_\_ 2015
  
- ◆ **M.Sc. (Microbiology)** \_\_\_\_\_ 2002  
Department of Microbiology, University of Karachi, Pakistan.  
Carried out a research review and project as partial requirement of the Master's degree.  
*Project:*  
Isolation and partial characterization of bacteria from wastewater samples collected from different hospitals in Karachi, Pakistan.
  
- ◆ **B.Sc. (Hons)** \_\_\_\_\_ 2001  
Department of Microbiology, University of Karachi, Pakistan.  
Subjects: Microbiology, Biochemistry and Physiology.
  
- ◆ **H.S.C.** \_\_\_\_\_ 1997  
Board of Intermediate Education, Karachi, Pakistan.  
Subjects: Botany, Zoology, Chemistry, Physics.
  
- ◆ **S.S.C.** \_\_\_\_\_ 1995  
Board of Secondary Education, Karachi, Pakistan.  
Subjects: Biology, Chemistry, Physics, Maths.

## **WORK PROFILE**

- **Research Officer (confirmed)**-----**March 2009–Present date**  
**Centre for Molecular Genetics**  
**University of Karachi**
- **Visiting Faculty** ----- **January 2023 –till date**  
**Teaching Functional Biology**  
**University of Karachi**

## **SKILLS**

### **◆Molecular Biology** \_\_\_\_\_

- Genomic DNA Extraction
- Plasmid DNA preparation
- Plasmid curing
- DNA transformation
- PCR
- 16s rRNA gene Sequencing & BLAST homology

### **◆Analytical** \_\_\_\_\_

- Spectrophotometry.
- Gel Electrophoresis.
- TLC.
- SEM.
- TEM.

### **◆Microbiology** \_\_\_\_\_

- Standard techniques and procedures for the isolation, purification, propagation and maintenance of bacteria.
- Experience of studying different aspects of bacterial strains (from Soil, food and Marine resources) including Heavy Metals & Antibiotic resistance.
- Isolation and characterization of bacteria responsible for synthesis of Dextran.

### **◆ Software and Bioinformatics tools**

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- MS Office, Photoshop, BLAST, SPSS, R software

## **WORKSHOPS AND SEMINARS ORGANIZED /ATTENDED**

- Third International Biennial Conference of Pakistan Society of Microbiology entitled “Microbiology: Challenges for the new millennium” from 28-30 March 2000.
- Eight weeks computer training course for Microbiologists/Research students organized by Department of Microbiology, University of Karachi from July-October 2002.
- Seminar entitled “Agriculture biotechnology” held on 25<sup>th</sup> April 2009.
- Workshop entitled “Bio fertilizers: Importance and Development Using Indigenous Resources” from 17<sup>th</sup> -20<sup>th</sup> August 2009.
- Workshop entitled “Laboratory Biosafety and Containment Facilities” from 5<sup>th</sup> -9<sup>th</sup> October 2009.
- Workshop entitled “Bio fertilizer and Environment” from 8<sup>th</sup> – 10<sup>th</sup> March 2010
- Workshop entitled “Bio fertilizers: Growers Perspective” held on 12<sup>th</sup> September 2011.
- Symposium entitled “Exploring Biochemistry: Molecular Innovations and Beyond” held on 5<sup>th</sup> December 2012.
- Ninth International Biennial Conference of Pakistan Society of Microbiology entitled “Vector Borne Viral Disease Surveillance and Control” from 28<sup>th</sup>–31<sup>st</sup> January 2013.
- Conference on “Applications of Molecular Biology in Medicine and Agriculture” at QAU from 20<sup>th</sup> -22<sup>nd</sup> August 2013.
- National workshop on Chemical and Biological safety at HEJ Research Institute of Chemistry, ICCBS, University of Karachi from 22-23 September 2014.
- ORIC workshop on Data analysis using SPSS on 3<sup>rd</sup> June 2016.
- TURNITIN workshop 2016.
- Next-Generation DNA Sequencing Data Analysis Workshop, March 27 – 29, 2017 at the L.E.J. National Science Information Center, ICCBS, University of Karachi.
- 5th International Conference on Environmental Horizon, ICEH 2019 held from 11<sup>th</sup> to 13<sup>th</sup> January 2019, Department of Chemistry, University of Karachi, Pakistan.
- Twelfth International Biennial Conference of Pakistan Society of Microbiology entitled “Next Generation of Microbial Therapeutics” from 19<sup>th</sup>–22<sup>nd</sup> January 2019, Abbottabad University of Science and Technology, Pakistan.

- Workshop entitled “Academic Research Writing” on 19<sup>th</sup> February 2019, organized by of Pakistan Society of Microbiology.
- Workshop entitled “Antimicrobial Stewardship” on 21<sup>st</sup> February 2019, organized by of Pakistan Society of Microbiology.
- Workshop entitled “Computational Biology for Metagenomics Analysis for Beginners” in South Asian Regional Symposium on Microbial Ecology held from February 12-14, 2020 at Pokhara, Nepal.
- Webinar on Whole Genome Sequencing - A New Golden Standard in Modern Medicine on August 27, 2022 organized by Arcensus GmbH, Germany.
- 49<sup>th</sup> Postgraduate training course on Nuclear and other advanced techniques in Agricultural and Biological Research held from 12<sup>th</sup> – 22<sup>nd</sup> September, 2022 at NIAB, Faisalabad, Pakistan.

## **PRESENTATIONS DELIVERED**

### ◆ **Oral presentations** \_\_\_\_\_

- Oral presentation entitled “**Biotransformation of Sucrose into Dextran by *Weissella cibaria* CMGDEX3**” in 5th International Conference on Environmental Horizon, ICEH 2019 held from 11<sup>th</sup> to 13<sup>th</sup> January 2019 at Department of Chemistry, University of Karachi, Pakistan.
- Oral presentation entitled “**Biosynthesis and Characterization of Dextran Production by *Weissella cibaria***” in 12th International Biennial Conference, Pakistan Society for Microbiology (PSM), held from February 20- 22, 2019 at Abbottabad, Pakistan.
- Oral presentation entitled “**Optimization of culturing conditions for the production of high molecular weight exopolysaccharide by *Weissella cibaria***” in National Conference entitled Genes, Genomes, Genetics and Diversity held from December 18 - 19, 2019 at Department of Genetics, University of Karachi, Pakistan.
- Oral presentation entitled “**Optimization of culturing conditions for the production of crude dextran by CMGDEX3**” in South Asian Regional Symposium on Microbial Ecology (SARSME 2020) held from February 12-14, 2020 at Pokhara, Nepal.

#### ◆ Poster presentations

- Poster presentation entitled “**Isolation of High Molecular Weight Dextran Producing *Weissella cibaria* CMGDEX3 from Pakistan**” in 9<sup>th</sup> International Biennial Conference of Pakistan Society of Microbiology held from 28<sup>th</sup> to 31<sup>st</sup> January 2013.
- Poster presentation entitled “**Dextran production by *Weissella cibaria* CMGDEX3 isolated from Cabbage**” in International Conference on Applications of Molecular Biology in Medicine and Agriculture at QAU from 20<sup>th</sup> -22<sup>nd</sup> August 2013.
- Poster entitled “**Optimization of culturing conditions for the production of Dextran by *Weissella cibaria* CMG DEX3**” accepted for presentation in 113 general meeting held by American Society for Microbiology in Denver, Colorado May 18-21, 2013.

#### ◆ Awards

- Travel grant for participating in South Asian Regional Symposium on Microbial Ecology held from February 12-14, 2020 at Pokhara, Nepal.

### **PUBLICATIONS & REPORTS**

#### ◆ Review & Project Write-ups

- Research project entitled “**Dextran Production by Bacteria: Lab Scale Approach**” 2009.
- Final technical report of the project entitled “**Dextran Production By bacteria: A Lab Scale Approach**”2012.
- Research project entitled “**Phylogenetic study of Airborne Bacteria in Karachi based on 16S rRNA**” 2016.
- Research project entitled “**Production of industrially important Biopolymer by Lactic acid bacteria**” 2017.

- Research project entitled “**Investigation of Cost Effective Ways for Microbial Co-production of Levan and Dextran**” 2018.
- Research project entitled “**Evaluation of locally available carbon sources for dextran production by indigenous bacterial isolates**” 2019.
- Research project entitled “**Optimization of culturing conditions and detection of dextran producing genes of the selected dextran producing bacterial strain**” 2022.

#### ◆ Research Papers

- Ahmed, Rifat Z., **Khaizran Siddiqui**, Muhammad Arman, and Nuzhat Ahmed. "Characterization of high molecular weight dextran produced by *Weissella cibaria* CMGDEX3." *Carbohydrate Polymers* 90, no. 1 (2012): 441-446.(Impact factor 5.1 ).
- Talat Mujahid **Khaizran Siddiqui**, Rifat Ahmed, Nuzhat Ahmed. "Isolation and partial characterization of phosphate solubilizing bacteria isolated from Soil and Marine samples". *Pakistan Journal of Pharmaceutical Sciences* (2014), 27, no. 5 Spec No, 1483-1490. (Impact Factor 0.95).
- **Khaizran Siddiqui**, Jameela Akhtar, Talat Mujahid, Nuzhat Ahmed. "Partial Characterization Of Various Bacteria Isolated From Indigenous Environments Of Karachi and Baluchistan". *International Journal of Advanced Research* (2014), Volume 2, Issue 6, 69-90. (BASR approved).
- Erum Shoeb, Nuzhat Ahmed, Jameela Akhtar, Uzma Badar, **Khaizran Siddiqui**, Maqsood Ansari. "Screening and Characterization of biosurfactant producing bacteria isolated from Arabian Sea coast of Karachi". *Turkish Journal of Biology*,(2015), 39 , doi:10.3906/biy-1405-63. (Impact factor 1.216).
- Talat Mujahid **Khaizran Siddiqui**; Rifat Ahmed, Syed Abdus Subhan , Abdul Wahab. "Bacteriological Quality Analysis of Tap Water of Karachi, Pakistan". *International Journal of Advanced Research* (2015), Volume 3, Issue 2, 573-578. (BASR approved).
- Erum Shoeb., Jameela Akhtar., **Khaizran Siddiqui**., Samina Imtiaz., Faiza A. Ansari., Fouad M. Qureshi., Obaid Y. Khan. "Isolation Of Non-Pathogenic Biosurfactant Producing Bacteria From Karachi Coast Of Arabian Sea". *International Journal of Biology and Biotechnology*.(2019), Vol.16, No.1, 45-48. (HEC Y category).
- **Khaizran Siddiqui**., Samreen Fatima., Jameela Akhtar., Erum Shoeb., Uzma Badar., Fouad M Qureshi. "Evaluation of efficient carbon, nitrogen sources, micro and macro nutrients for dextran production by *Weissella cibaria* CMGDEX3 by utilizing a modified multifactorial Plackett-Burman statistical design". *Pakistan Journal of Pharmaceutical Sciences* (2020), Vol33, No. 5, 2351-2353. (Impact Factor 0.6).

- Dawoud, Turki M., Fatimah Alshehrei, **Khaizran Siddiqui**, Fuad Ameen, Jameela Akhtar, and Afsheen Arif. "Purification, Characterization and N-terminal Protein Sequencing of the Enzyme Dextranase Produced by *Leuconostoc mesenteroides*." *Biosciences Biotechnology Research Asia* 18, no. 2 (2021): 287-295. <https://doi.org/10.13005/bbra/2915> (ISI Indexed)

#### ◆ Abstracts

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- **Khaizran Siddiqui**, Rifat Z. Ahmed Muhammad Arman, N Ahmed, 2013. Isolation of High Molecular Weight Dextran Producing *Weissella cibaria* CMGDEX3 from Pakistan. Proceeding of 9<sup>th</sup> International Biennial Conference of Pakistan Society of Microbiology.
- **Khaizran Siddiqui**, Rifat Z. Ahmed, N Ahmed, 2013. "Dextran production by *Weissella cibaria* CMGDEX3 isolated from Cabbage" proceedings of International Conference on Applications of Molecular Biology in Medicine and Agriculture at Quaid E Azam University.

#### **EVENTS ORGANIZATION**

- Organized and participated in the Research project entitled "Isolation, characterization and screening of Biosurfactant producing bacteria" in Centre for Molecular Genetics, University of Karachi from December 2012-May 2013

#### **MEMBERSHIP OF SCIENTIFIC SOCIETIES**

- Pakistan Society of Microbiology (PSM)
- American Society of Microbiology (ASM)
- Organization of Women in Science in developing World (OWSD)
- Member Self-Assessment Manual team, developed by Quality Enhancement cell

#### **REFERENCES AND RECOMMENDATIONS AVAILABLE UPON REQUEST**