

Curriculum Vitae

KARZAN K MAHMUD

93 Dey new Zanko,Sharawani,Erbil

Mobile Tel: 00964 750 452 3086

Email: karzan.mahmud@su.edu.krd

PROFILE:

I am expert in Biotechnology in Microbiology areas with Specialized in the study of roles of mutant microbiology in decreasing the impact of drought conditions on agriculture. I have experiences in pathology and identification of interactions between molecules in organelles as well as studying Msc and PhD in molecular microbiology and microbial biotechnology in Sheffield Hallam University-UK and Salahaddin University/Erbil-Kurdistan. I possess strong motivations of working in the scientific laboratories and researching professionally in different regions and countries. I am currently looking to achieve postdoctoral research opportunity to expand my knowledge regarding my specialist and working on the novelty of sciences.

EDUCATION AND QUALIFICATIONS:

- **Salahaddin University – Erbil** 2018-2022 Achieved PhD degree in Molecular Microbiology/ Microbial Biotechnology.

PhD dissertation entitled “Induce Plant Drought Tolerance through Inoculation with Mutant *Pseudomonas fluorescens*”

- Achieved distinction in overall of my PhD studying.
- Achieved distinction in dissertation viva defense.
- Utilized different techniques and instruments regarding microbiology, molecular and biotechnology during studying PhD.
- Achieved novelty of working in the area regarding cloning and expressing two genes together in one plasmid vector.
- Applying to achieve patent in Iraqi government regarding of novelty of working during PhD study.
- Studying 14 courses during PhD studying.

- **Sheffield Hallam University-UK.** 2013–2014 Graduated MSc Biotechnology in Virology.

The final research project topic was “*Identification of Interactions of Viroid RNAs with Host Factors when they are imported into Chloroplast*”

- Achieved 66 grade in overall and Distinction in the laboratory performances (Practical mark).
- Utilized several techniques during performing the project such as; PCR, Western blot, Northern blot, genome extraction, gel electrophoresis, RT-PCR, sequencing, microbial culturing with some others.
- Planned and organized laboratory activities and overcame problems by researching new identification strategies.
- Achieved novel result for visualizing RNA bands and transferred from polyacrylamide gel into nitrocellulose membrane.

- **Salahaddin University / Erbil – Kurdistan.** 2005 – 2009

Studied BSc. Agricultural engineering sciences - College – plant protection department.

- Studied 8 semesters and each semester included no less than 7 courses.
 - 3 months trained during summer session in the Kurdistan crops to identify the most pandemic diseases.
 - The final research project title was “*Controlling of Bacteria Diseases Biologically on the Tomato Chloroplast*”, and obtained 86 grade.
- **English Language Teaching Centre (ELTC), Sheffield University – UK** June 2011 – December 2011.
- Studied 22 weeks – Fulltime, general and academic English language.
- **Pre-sessional Course in English for Academic Purposes at TESOL Centre - UK.** Oct. 2012 – Dec. 2012
- Achieved level **A** in overall aspects which equal to 6.5 of IELTS.
 - Studied 8 weeks- Fulltime, academic English language.
 - Conducted several oral presentations with submitting some short scientific writings as well.
 - Achieved **7 degree** of IELTS in overall aspects in Leeds University – UK- Oct 2013
- **English Language proficiency course for postgraduate studies academic from October 18th to November 12th 2020 with Advanced level**
- **Took a special course regarding how Microsoft word and excel programs can be used in Kurdistan** Oct. 2014 – January 2015.
- **Took GIS training course in Salahadding University – Erbil from January 22nd 2016 to March 28th 2016**

WORK EXPERIENCE:

- **Salahaddin University / Erbil – Kurdistan** Aug. 2009 – to present.
- A member technician team in the Plant Protection Department.
- Management of organization of plant pathology lab experiments.
 - General registerator unite at Salahaddin University from 2015 to 2019.
 - **Lecturer of Horticulture Diseases, Biotechnology, Plant virology, Agricultural Extension, Microbiology and Academic Skills at Agricultural Engineering Sciences – Salahaddin University.**
 - **Lecturer of Genetics, Molecular Biology and Academic Debate and Critical thinking at Education College – Shaqlawa - – Salahaddin University.**
 - **Lecturer of General Biology, General Genetics, Medical genetics, Health Education, Molecular Biotechnology, Microbiology, Academic Debate and English Language at Tishk international university**
 - Supervised 28 undergraduate students for the graduation research projects.
 - Members and been the head in several academic and scientific committees in the university.
 - Attending and participating by papers in many international and national conferences regarding my specialized.

KEY SKILLS:

A- Laboratories Skills

- **DNA and RNA techniques:**

Skills in primer designs, cloning strategies, digestion, ligation, transformation, transfection, DNA blotting methods, PCR technique, qRT-PCR, electrophoresis gel analysis, site direct mutagenesis, sequencing techniques.

- **Recombinant protein production:**

Recombinant cell culture in cell lines, SDS-PAGE, Dot blot, crude purification, protein study by mass spectrometry, gel filtration chromatography, ion exchange chromatography.

- **Cell culturing:**

Cell sub-culturing (passaging cells) and mammalian cell culturing techniques.

- **Identification of plant and human diseases.**

Isolation techniques of plant infections, diagnosis plant diseases, culturing and proliferation of plant microbiology.

- **Molecular cloning techniques.**

- **Sequencing.**

- **Horizontal gene transfer techniques among bacteria.**

- **Antibiotic sensitivity agents.**

- **Microbial growth regulation and enhancements.**

B- Communication:

- Excellent in oral and writing communication developed through academic studies.
- Confident communicator with colleagues and researchers in laboratories.
- Very good in oral presentation with ability to explain unclear points.

C- Language:

Having ability to speak and writing 3 languages fluently (Arabic, English and Mother tongue language (Kurdish)).

D- Team work:

Having Experiences of working in different academic groups with influence roles and punctuality of working on the time.

E- Having experience in non-Governmental organizations, as I am a member in several organizations like agricultural engineering organization.

OUTSIDE INTERSTS:

- Interested in sports generally, and volleyball sport particularly.
- Interested in travelling especially to the historical places.
- Interested in working at charity organizations.
- Interested in working in non-Government organizations like human right organization or anti violence organization.....etc.

PUBLICATION:

A part from my Master requirements, I have written some un-published and published papers.

- Dec. 2013, **A proposed method for producing H7N9 vaccine in *Nicotiana benthamiana* plant.**
- Dec. 2013, **Plant expression systems; overview of plant expression systems, regulating using miRNA inactivation and expression of Factor IX in soybean plants.**
- Dec. 2013, **improving the methods of teaching and appreciation of health and safety.**
- Nov. 2013, **The effect of DR5 MAb on PC3 cells proliferation.**
- Nov. 2013, **Human factor IX cloning and expression.**
- Jun. 2013, **Does protein involve with transferring viroid RNA into chloroplast.**
- May. 2013, **The effect of chemotherapy for reducing the rate of blood cancer cells.**
- Apr. 2013, **RNA extraction and utilizing Real time PCR.**
- Feb. 2013, **Analyzing human protein Factor IX in three different samples using western blotting.**
- **Published some articles during PhD studying.**
- **Effects of the Transconjugant *Pseudomonas fluorescens* Carrying 1-aminocyclopropane-1-carboxylate Deaminase Gene on Drought Tolerance of Wheat.**
- **Transferring of Exopolysaccharide (EPS) Gene Cluster from *Rhizobium leguminosarum* to *Pseudomonas fluorescens* by Horizontal Gene Transfer Techniques.**

REFEREES:

- **From BSc Study;**
 - 1) Dr Nawzad Qadir Bawakrd. Assistant Professor in insect physiology and ecology in the department, nawzad.kadir@su.edu.krd. (009647504482196).
 - 2) Dr Tavga Sulaeman Rashid. Assistant professor in Biotechnology and postharvest diseases of plants in the department, tavga.rashid@su.edu.krd. (009647504524781).
- **From MSc study;**
 - 1) Dr. David Smith, course leader of MSc biotechnology, Sheffield Hallam University, and my tutor of Molecular biotechnology. d.p.smith@shu.ac.uk(00441442253044).
 - 2) Dr. Ben Abell, My supervisor in research project, Sheffield Hallam University, and my tutor of plant biotechnology. Abell.ben@shu.ac.uk (00441442253145).
- **From PhD study;**
 - 1) Dr Aras Muhammed Khudur. Assistant Professor in Molecular and Soil Microbiology in Soil and water department , aras.khudhur@su.edu.krd. (009647504631754).
 - 2) Dr Abdulkarim Yasin Karim. Professor in Biotechnology and Biochemistry in Science college-Biology department, abdulkarim.karim@su.edu.krd. (009647507448393).