

Jiyan Ali Haji

Duhok, Kurdistan

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PROFESSIONAL SUMMARY

A highly experienced lecturer, researcher and lab technician with a robust background in biology, specializing in genetics, molecular biology, histology, and pathology. With extensive expertise in both theoretical and practical teaching, curriculum development, and research, I have significantly contributed to the academic community. My focus lies in advancing knowledge within the field of cancer research, particularly through the application of molecular analysis and immunohistochemistry. I seek to continue my academic journey by contributing to innovative research in cancer biology while collaborating with leading experts.

EDUCATION

Ph.D. in Genetics

Department of Biology, College of Science, University of Duhok 2020 – 2024

Thesis Title: Molecular Analysis of Predictive Genes of Colorectal Cancer in Tumor and Adjacent Tissue of Three- and Five-Year Survivor Patients

Advisor: Assistant Professor Dr. Mayada Ilias Yalda, M.B.Ch.B.F.I.C.M.S(Path)

Relevant Coursework: Cancer Biology, DNA Markers, Advanced Pathology, Genetic Disorders, Biostatistics.

M.Sc. in Genetics

Department of Biology, College of Science, University of Duhok 2012 – 2014

Thesis Title: Synergistic Effects of Bleomycin and *Hypericum Triquetrifolium* Extract on Bone Marrow and Germ Cells of Albino Mice

Focus: Chromosomal analysis, chromosomal staining techniques, and analysis of reproductive cell aberrations induced by cancer

B.Sc. in Biology

Department of Biology, University of Duhok 2003 – 2007

RESEARCH EXPERIENCE

Graduate Research Assistant

College of Health Sciences, University of Duhok & Cihan University 2015 – 2024.

- Delivered lectures on General Biology, Histology, Molecular Biology, Anatomy, and Molecular & Cellular Pathogenesis, enhancing student engagement and comprehension.
- Developed and implemented a science board-approved curriculum that contributed to improved educational outcomes.

- Supervised and mentored students in research projects, guiding them through tasks, assignments, and presentations.
- Collaborated with academic staff to shape the department's strategic direction and research priorities.
- Organized examinations, assessed student progress, and provided individualized academic support.
- Integrated research into undergraduate teaching, involving students in laboratory projects to foster early scientific inquiry.
- Actively engaged in professional development by presenting research at conferences and contributing to community service.

PUBLICATIONS

- **Ali Haji, J.** "Using Multinomial Logistic Regression to Identify Factors Affecting Platelet Count."
- **Ali Haji, J.** "Synergistic Effects of Bleomycin and *Hypericum Triquetrifolium* Extract on Bone Marrow and Germ Cells of Albino Mice."
- **Ali Haji, J.** "Association Between Cycle Threshold (Ct) Values of Real-Time PCR with Number of Platelets in SARS-CoV-19 Patients."
- **Ali Haji, J.** "Mesenchymal and Vascular Dissemination Markers: ERG and α -SMA in Colorectal Cancer and Adjacent Tissue—Pericytes or Microvascular Density."

RESEARCH SUMMARY

In my Ph.D. research, I investigated the molecular and genetic factors influencing colorectal cancer prognosis patients in Duhok city- Kurdistan region/ Iraq. My work focused on the tumor and tumor microenvironment, particularly microvascular density (MVD) and pericyte involvement, using immunohistochemistry markers (ERG, α -SMA, and FLI-1). I also examined the prevalence of mutations in key genes that lead to progression in colorectal cancer (KRAS, NRAS, BRAF, PIK3CA, AKT) and their association with clinicopathological features and patient's survival. This study revealed significant correlations between MVD, tumor differentiation, and genetic mutations, offering insights into personalized therapies based on genetic profiles of the patients.

TEACHING EXPERIENCE

Lecturer

Sports Institute, University of Duhok 2015 – 2023

- Lectured on Physiology, Anatomy, Sports Medicine, and Biomechanics, fostering deep understanding through age-appropriate and interactive material.
- lectured on General Biology, Histology, Molecular Biology, Anatomy, and Molecular & Cellular Pathogenesis.
- Supervised summer training for graduation students from the Medical Laboratory Department at Duhok university and Cihan University (2019-2023).
- Developed and enhanced lesson plans to increase student participation and academic performance.
- Mentored students individually, improving academic outcomes and fostering critical thinking.
- Utilized hands-on activities such as dissections to deepen conceptual understanding.

- Monitored student performance and provided detailed progress reports to administration and parents.
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Laboratory Experience

Laboratory Technician

- **Health Counseling:** Provided expert counseling on health-related matters, utilizing in-depth knowledge of laboratory processes and diagnostics.
- **COVID-19 Sample Processing:** Collaborated effectively with interdisciplinary teams to collect, process, and analyze COVID-19 samples, contributing to critical public health research and response.
- **Laboratory Testing and Experimentation:** Conducted a range of complex laboratory tests and experiments, including:
 - Real-time PCR (qPCR) for quantitative nucleic acid analysis.
 - DNA purification, qualification, and quantification.
 - Chromosome extraction and staining for cytogenetic studies.
 - Mitotic index assay, abnormal sperm morphology assay, and micronucleus assay for cellular and genetic analyses.
- **Immunohistochemistry and Histology:**
 - Performed immunohistochemistry staining assays both manually and using automated systems, optimizing protocols and analyzing various staining patterns for research applications.
 - Prepared histological slides with diverse staining techniques to evaluate tissue samples.
 - Analyzed histological slides to assess tumor characteristics, including stage, grade, and pathological features of tumor like necrosis, lymph node involvement, and tumor deposits, contributing to comprehensive pathological evaluations.

TECHNICAL SKILLS

- **Software Proficiency:** Microsoft Word, Excel, SPSS
 - **Laboratory Techniques:** Genetics, Molecular Biology, Immunohistochemistry
 - **Languages:** Fluent in Kurdish, Arabic, and English (IELTS and TOEFL certified)
 - **Studied** teaching methods and Academic Development, Duhok University/ Duhok City/ Kurdistan, Iraq -2019.
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