

Ghina Omar Ali Alshahrani

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Research Profile

Molecular biotechnology graduate with strong hands-on experience in molecular biology, zebrafish genetics, and inflammation research. Experienced in PCR-based genotyping, sequencing, protein analysis, and phenotypic imaging.

Education

MSc in Molecular Biotechnology — University of Sheffield, United Kingdom (2024–2025)

Research project in Clinical Medicine focusing on molecular mechanisms of osteoarthritis. Techniques: PCR, primer design, molecular data analysis, scientific report and poster writing.

BSc in Biology (Microbiology) — University of Jeddah (2022)

GPA: 4.74 / 5 (Excellent – Second Honours)

Research Experience

- Genotyping and sequencing of gNEDD4 mutant zebrafish (F2 generation)
- DNA extraction (NaOH), PCR amplification, gel electrophoresis, ExoSAP cleanup, and Sanger sequencing preparation
- Allele-specific PCR primer design
- Mechanical tail injury assays and neutrophil recruitment analysis.
- Phenotypic imaging and microscopy-based analysis
- Genotype–phenotype correlation and data interpretation
- Western blotting of zebrafish tissue lysates (WT and mutants)
- Protein analysis of deubiquitinating enzymes (UCHL1, ATXN3)
- Literature analysis on extracellular vesicle biomarkers in neuroinflammatory diseases

Technical Skills

Molecular Biology: PCR, allele-specific PCR, primer design, DNA extraction, sequencing preparation, gel electrophoresis

Protein Analysis: Western blotting, antibody-based detection

Model Organisms: Zebrafish handling, injury models, genotyping, phenotypic imaging

Data Analysis & Writing: Experimental design, troubleshooting, literature review, scientific writing.

Software: MS Office, R Studio (basic)

Clinical & Laboratory Training

Saudi German Hospital, Jeddah — 60 Hours

Microbiology, Hematology, Serology, Clinical Chemistry & Hormones, Parasitology

Practical training at the Laboratories of King Fahd Medical Research Centre

Courses & Certifications

- Learning R Studio for Data Analysis (2024)
- Foundation of Handling Medical Samples (CME), SCFHS (2022)
- Forensic Toxicology – Infinity Medical Academy (2022)
- First Aid Course – University of Jeddah (2020)
- Practical training at the Laboratories of King Fahd Medical Research Centre (2025)
- IELTS band (6.5) (2024)

Languages

Arabic: Native | English: Excellent