

SARAH ALANEZI

Alkhobar, Saudi Arabia

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PROFILE SUMMARY

Biochemist with an MSc from the University of Edinburgh and a BSc in Applied Biochemistry. Experienced in academic research, scientific writing, and instructional support. Skilled in molecular biology, bioinformatics, NGS workflows, and protein characterization. Strong background in variant analysis, Linux-based data processing, and molecular diagnostics. Committed to advancing research and education in Saudi Arabia in line with Vision 2030.

EDUCATION

M.Sc. in Biochemistry — *University of Edinburgh*

Sep 2023 – Nov 2024

- Al-Rowad Scholarship Recipient
- Thesis on circadian rhythm protein using cloning, purification, and bioinformatics
- Contributed to teaching support, lab method review, and scientific writing

B.Sc. in Applied Biochemistry — *University of Jeddah*

Sep 2018 – Jul 2021

- GPA: 4.39/5 (Honors), Certificate of Excellence
 - Internship at Al-Amal Hospital in clinical diagnostics
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TEACHING & ACADEMIC SUPPORT

Academic Support | University of Edinburgh

Dec 2023 – May 2024

- Mentored students on molecular biology lab techniques
- Assisted in academic presentations and instructional material design

Science Ambassador | University of Jeddah

2019 – 2021

- Led workshops, student orientation, and science communication events
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RESEARCH EXPERIENCE

Volunteer Research Assistant | Eastern Health Cluster

Feb 2025 – Present

- Observed DNA/RNA extraction and NGS workflows for sarcoma studies
- Contributed to bioinformatics pipeline setup and sample tracking documentation

MSc Researcher | University of Edinburgh

Jan 2024 – Aug 2024

- Cloned and expressed tagged proteins; purified using IMAC and gel filtration
- Characterized samples via SDS-PAGE, native PAGE, BCA, DLS, TDA, and MS
- Utilized SnapGene, PyMOL, Jalview, and Python for structural assessment
- Supported protocol writing, poster presentation, and figure preparation

Biochemistry Intern | Al-Borg Diagnostics

Oct 2022 – Oct 2023

- Rotated in hematology, molecular genetics, and NGS/COVID testing units
- Observed genetic workflows and assisted in sample preparation and QC

TECHNICAL SKILLS

Molecular Biology: DNA/RNA extraction (from tissue and organ samples), PCR, SDS-PAGE, native PAGE, western blotting, protein purification (IMAC, gel filtration), enzyme assays, BCA, DLS, TDA, MS, spectrophotometry, concentration measurements

Cloning & Expression: Primer design, expression vector construction, transformation, In-Fusion cloning

Bioinformatics: FASTQC, BWA, GATK, SAMtools, BEDTools, SnapGene, Jalview, PyMOL

Programming & Systems: Python, Bash, basic R, Linux workflows

Communication: Scientific writing, protocol drafting, academic presentations, technical figures

CERTIFICATIONS & TRAINING

- College Teaching – Univ. of Washington (2024)
- Bioinformatics – UC San Diego (2024)
- Advanced Bioinformatics – BioGrademy (2024)
- Scientific Writing – Coursera (2023)
- cGMP – Biopharma Institute (2025)

LANGUAGES

- Arabic (Native)
- English (Fluent – IELTS 7.0)