

DR SALHA SAAD

14 Elton Road • Exeter • EX4 7AT • 07767091613 • sale12302006@yahoo.com

PERSONAL STATEMENT

Engaged, motivated and driven, I thrive as an experienced Researcher with a PHD, Masters and BSc centred on Genetics and Genomics, I am able to provide cutting edge genomic research within high volume laboratory settings to strict SOP, protocols and procedures. My current role as a Senior Laboratory Technician at Exeter Sequencing Services has given me the opportunity to be in charge of running Pacific Bioscience instruments at the sequencing services. I have generated single molecule long reads data from several genomic, amplicon, transcriptomic and targeted genomic libraries for internal and external projects as well as for clinical research. With previous experience within academic and laboratory teaching and demonstrating, I can work independent and part of large teams to achieve project deliverables and progress research. Operates accurately and methodically to ensure high standards and adapts effectively to changing priorities and deadlines. Adopts a consultative, analytical and solution orientated approach to internal and external relations; communicates complex information and data with clarity and promotes compliance to process at all times.

TECHNICAL SKILLS

- DNA & RNA Extraction
- PCR & cDNA synthesis
- Cloning & DNA Sequencing
- Genomic & Transcriptome Library
- DNA quality control (Bioanalyzer, TapeStation)
- DNA fragmentation (Covaris, Megarupter)
- Library size selection (Sage ELF, Blue Pippin)
- Running Illumina instruments (MiSeq, HiSeq)
- Running PacBio instruments (RS II, Sequel)
- Analysing Whole Genome Sequence
- Phylogenetic Construction
- R Language Comparison
- Diversification rate estimation
- Multivariate Analysis Methods
- Principle Component Analysis
- Principle Coordinate Analysis
- Cluster Analysis
- Browsing Genomes with Ensembl
- Read mapping
- Variant Calling
- ANOVA | MULTIPLE REGRESSION
- GAM | GAMM Modelling in R
- R Intermediate | Linux Command
- Python Programming
- LATEX Document Production
- Statistical Analysis & Graphics in R
- Multi-Dynamic Laboratory Skills

GENERAL SKILLS

- Independent Research
- Laboratory Stocking & Supply
- Project Management
- Communication
- Time Management
- IT Skills
- Written Skills & Authoring
- Poster Design for Presentations
- Sampling Methodologies
- Leadership
- SOP Standards
- Microsoft Office
- Oral Presentation Skills
- Financial Management
- Field Work
- Critical Analysis
- Teamwork
- Prioritisation

EXPERIENCE

Cardiff University, Division of Psychological Medicine & Clinical Neurosciences
Research Associate

Feb-2018_Current

- Generating Exome sequencing data for Genome Wide Association study on Alzheimer disease.
- Genotyping Alzheimer samples on Affymatrix platform.
- Genome-wide-association and Copy number variation analyses in Alzheimer data.

University of Exeter, Exeter Sequencing Services | School of Biosciences
Senior Research Technician

Jan-2017_Sep-2017

- Involved in the experimental design and given advice on the project requirements to the clients.
- Generated single-molecule long reads and short reads from various NGS libraries for number of applications.
- Trained on running Illumina machines (MiSeq, HiSeq 2500) and PacBio instruments (RS II and Sequel).
- Prepared presentations to highlight the facilities provided by the sequencing services.
- Maintained accurate records of the management of the project in alignment with the facility aims.
- Solely in charge of running PacBio sequencing lab including troubleshooting of the machines and designing protocols.

University of Nottingham | School of Life Sciences
Research Assistant | Prof. Olivier Hanotte's Laboratory

Nov-2015_Apri-2016

- Assisted with the planning of projects and coordinating roles within projects.
- Managed funding resources and allocated funds to project aims.
- Undertook a wide range of research within a laboratory setting and recording all findings.
- Prepared presentations and publications following research, analysis and conclusion processes.
- Maintained accurate records of the management of the project in alignment with the Professor

KEY ACHIEVEMENTS

- Mapping of sequence reads from whole genome sequencing data of domestic chicken samples to already available genome utilising BWA aligner.
- Calling different sets of variants utilising both GATK and sam-tools.
- Identifying the signature of selection within the genome utilising selscan.

University of Nottingham | Deep-Seq Facility
Laboratory Assistant

Apri-2016_June-2016

- Trained on how to generate Transcriptome Library from single-cell benthic foraminiferal species.
- Collaborated with assistants to diversify skills base and laboratory methodologies.

University of Nottingham | School of Life Sciences
Postgraduate Demonstrator | Animal Kingdom, Gene & Cellular Control Modules

Dec-2013_June-2014

- Demonstrated technical & practical work to First-Year BSc students; provided support and results analysis.
- Achieved positive feedback from teaching professionals following course completion.

Al-Tahdi University Libya | Biology Department
Literature Tutor | Zoology & Molecular Genetics Modules

2008 – 2009

- Delivered weekly undergraduate lecturers and seminars.
- Collaborated with colleagues to design module content aligned to degree qualification standards.
- Assessed student's work and provided individual feedback to grow confidence and knowledge.
- Disseminated assessed essays and examinations; invigilated examination conditions.
- Developed laboratory based teaching resources and writing protocols.

Al-Tahdi University Libya | Biology Department
Student Project Supervisor

2008

- Provided supervision, oversight and guidance to final-year undergraduate student's projects.
- Debated with students for the creation of research questions to meet their future aspirations.
- Provided individualised guidance on project planning.
- Provided formal feedback and guidance on student work.
- Assessed and marked final year projects.

Al-Tahdi University Libya | Biology Department
Laboratory Assistant | Evolution Module

2007

- Designed and developed materials for a laboratory practical course.
- Analysed qualification level and standards to ensure materials meet requirements.
- Implemented critical practical skills to enhance student's progression.
- Delivered course structures to students; received positive feedback and engagement.

EDUCATION | QUALIFICATIONS

- **Full-stack Web Developer Diploma program, Coding institute, | DEC-2018 – Jan-2019**
HTML Fundamentals
CSS Fundamentals
User Centric Frontend Development
JavaScript Fundaments
Interactive Frontend Development

Python Fundamentals
Practical Python
Full Stack Frameworks with Django

▪ **PhD | 2010 – 2015**

Genetic Diversity & Bio-Geographical Distribution of Benthic Foraminifera around the coastline of G. Britain

Nottingham University | School of Life Sciences

Supervisor: Dr. Christopher Wade, Nottingham University

External Examiner: Prof John Murray, Southampton University.

▪ **MSc in Genetics | 2007**

Al-Tahdi University | Zoology Department

Dissertation: Effect of Brominal and Ronstar herbicides on the genetic material using RAPD technique for detection DNA damage

▪ **BSc Biology | 2000**

Al-Tahdi University | Department of Biology

Dissertation: Effects of organic farming on flora composition in Sirte conservation project.

PUBLICATIONS

- Detelina Grozeva, Salha Saad, Georgina E. Menzies & Rebecca Sims (2019). **Benefits and Challenges of Rare Genetic Variation in Alzheimer's Disease. Current Genetic Medicine Reports.**
- Salha A. Saad, Christopher M. Wade (2016). **Biogeographic distribution and habitat association of *Ammonia* genetic variants around the coastline of Great Britain.** Marine Micropaleontology. 124:54-62
- Salha A. Saad, Christopher M. Wade (2016). **Seasonal and spatial variation of saltmarsh benthic foraminiferal communities from North Norfolk, England.** Microbial Ecology.72:1-17
- Salha A. Saad, Christopher M. Wade (2019). **Intragenomic variation of the large subunit (LSU) ribosomal rRNA gene in foraminiferal species complex *Ammonia* sp** (in preparation).

CONFERENCES

- **Presentation:**
Genotypic and Ecotypic variants of *Ammonia beccarii* (Linne) around the coastline of Great Britain. Ecological Genetic Group, Newcastle University, UK, 14-16 April 2014
- **Poster:**
Genetic Diversity in the UK benthic foraminifera *Ammonia tepida*. Population Genetic Group, Nottingham University, UK, 4-6 January 2012
- **Poster:**
Population Genetic Group, Sheffield, UK, 7-9 January 2015
- **Poster:**
Manchester Molecular & Genome Evolution Symposium, Friday 16th May 2015 Manchester, UK.

ACADEMIC MEMBERSHIPS

- The Systematics Association 2015
- Molecular Biology & Evolution Society 2014
- Genetic Society 2014

TRAINING | WORKSHOPS

- Genomics on Genome Structure, Transcriptome & Gene Function, Birmingham University 2015
- Intensive Learning & Teaching Programme, University of Nottingham 2014
- Genomics of the Speciation Continuum Workshop, Switzerland 2014
- The Use of Phylogenetic in the Study of Macroevolution, Spain 2014
- Radiation & Extinction: Investigating Clade Dynamics in Deep Time, Linnean Society of London 2014

- Restriction-Site Associated DNA (RAD) Data Analysis Workshop, Liverpool University 2014
- Genome Assembly and Annotation, Physalis, Germany 2018
- Introduction to Frequentist and Bayesian mixed models course 2018

PROFESSIONAL DEVELOPMENT | TRAINING

- The Creative Toolbox: Applying creative tools to teaching & learning 2014
- Supporting Students undertaking Undergraduate Projects & Dissertations 2014
- Story Telling as a tool to enhance Learning & Teaching 2014
- How do Students Learn? 2014
- Personal Skills for the Working Environment: A Conference for PG Students 2014
- Personal Development Planning: Creating your own Personal Development Plan 2013
- Further Presentation Skills for Researchers 2013
- Public Speaking Skills for Post-Graduate Teachers 2013
- Taking a Stand: How to command an audience and deliver effective presentations 2013
- Engage, Excite, Enhance: Top tips for Teaching & Learning 2013
- Supporting Students undertaking Undergraduate Projects & Dissertations 2013
- Public Speaking Skills for Post-Graduate Teachers 2012
- Demonstrating in Laboratory Practical's 2012
- IET: Getting your Research Published 2011
- How to be an effective Researcher for Research Students 2011
- Problem Exploration in Research 2011

ACADEMIC AWARDS | FUNDING

- Three Year Full Doctoral Award | Libyan Higher Education Committee (2010 – 2014)
- Conference Funding | School of Life Sciences, Nottingham University
- Conference Funding | Libyan Cultural Affairs, London
- Travel Grant | International Workshop, Graduate School, Nottingham University