

POSTSECONDARY EDUCATION

• Bachelor Veterinary Medicine, Somali National University, Mogadishu, Somalia 2021 - 25th Feb 2024 Major GPA: 5.0/5.0 Final Cumulative GPA: 4.95/5.0 (99%), Top 1% First Class Honors [view] Completed: 180 ECTS

Thesis: "prevalence and potential associated risk factor of Ascaris galli of poultry in Benadir region Somalia." Supervisors: Ass. Prof. Hodan Ibrahim Nageye, Prof. Moktar Omar

RESEARCH INTEREST

- Host-Parasite Interactions: Understanding the intricate dynamics between parasites and their hosts.
- Drug Discovery and Resistance: Developing new drugs and strategies to combat drug-resistant parasites.
- Vector Biology and Control: Investigating vectors and developing effective control measures.
- Molecular Epidemiology and Diagnostics: Utilizing genetics and genomics for disease tracking and accurate diagnosis.

RESEARCH EXPERIENCE

Benadir Livestock Professionals Association

Feb 2022 - dec 2023

Research assistance

Project: : Investigating the Molecular Epidemiology and Diagnostic Tools for Peste des Petits Ruminants Virus (PPRV) in Somalia

- Conducted field studies and laboratory analysis to detect and characterize PPRV strains circulating in Somali livestock populations.
- Evaluated existing diagnostic assays for PPRV and explored development of improved molecular detection methods.
- Analyzed epidemiological data to understand PPRV transmission patterns and risk factors.
- Collaborated with veterinary authorities on designing effective control strategies against PPR in Somalia.

PROFESSIONAL EXPERIENCE

Somali National University

2021 - 2022

Graduate Research Assistant

Project: Veterinary Histopathology Investigation at Somali National University Faculty of Veterinary Medicine and Animal Husbandry

- Conducted an in-depth study on histopathological patterns in diverse veterinary cases.
- Analyzed tissue samples from a variety of animal species, including domestic animals and livestock.
- Employed histological staining techniques to prepare tissue sections for microscopic examination.
- Identified and characterized various lesions, abnormalities, and inflammatory responses.
- Documented findings using a standardized histopathology reporting system.
- Performed statistical analysis to determine the prevalence and distribution of specific histopathological patterns.

TEACHING EXPERIENCE

• Two years of teaching biology and chemistry in high school and a private school (Al Hilaal Educational Institute) as well as assisting at Al Safa Primary and Secondary School.

LABORATORY EXPERIENCE

- DNA extraction, purification, Cell culturing and Flow cytometry analysis.
- PCR amplification and Gene expression analysis (qPCR and RT-PCR).
- Molecular cloning, vector construction, Protein analysis (Western Blotting, SDS-PAGE).

COMPUTATIONAL SKILLS STATISTICAL SKILLS

- Statistical analysis using SPSS, Python, Instant Pad.
- Microsoft Office packages, Endnote, Adobe packages and other information technology compliance Data Analysis ability with Python, Excel and R-language.
- Basic Programming Skills with Excel VBA, Pandas Matplot Python.

STATISTICAL SKILLS

• **Programming languages**: Python (Pandas, Numpy, H5py, Tensorflow, Biopython, Scikitlearn), R (tidyverse, limma, deseq2, msstats), Shell/Bash Scripting.

- Machine learning models: Linear Regression, Logistic Regression, K-Means Clustering, Decision Tree, Random Forest, Support Vector Machine, Naive Bayes Classifier, K- Nearest Neighbors, Non-negative matrix factorization, PCA, t-SNE.
- Machine Learning: Data Preparation, Feature Engineering, Data Modeling, Performance Measurement.
- Deep learning models: CNN, RNN and ANN

AWARDS, HONORS AND GRANTS

- Best chairman for students al Safa student league club
- Successfully secured a highly competitive \$30,000 research grant at Somali National University.
- Dean's Award for Best Performing Graduate Faculty of Veterinary Medicine, Somali National University.

LEADERSHIP POSITIONS

Class Representative, Faculty Veterinary Medicine, Somali National University, Somalia 2021 – 2022

• I served as middleman between students and faculty/school management on students-related issues such as submission of assignments, rectifying exam/result complaints, organization of academic field trips and excursions. I also attended departmental academic board meetings for drafting of lectures/exams timetables.

Chairman of Somali Livestock Issues Association

2020 - 2021

- Developed social awareness campaign on Animal Welfare.
- Participated vaccination programs against Rabies.

VOLUNTEERING AND INTERNSHIP

Ministry of Livestock, Forestry and Range

2023 - present

- Conducting field surveys and data collection on livestock production, range management, and forestry conservation.
- Assisting in the analysis and interpretation of collected data using statistical software.
- Assisting in the preparation of reports, presentations, and policy briefs based on research findings.

Somali Agricultural and Livestock Professional association

2022 - 2023

• Assisting in the planning and implementation of livestock extension programs to educate farmers on best practices for animal husbandry, breeding, and disease prevention.

PUBLICATIONS

• Dissertation: Mahad Derow (2023). Prevalence and potential associated risk factor of Ascaris galli of poultry in Benadir region Somalia. BSc project work submitted to the Faculty of Veterinary Medicine, Somali National University.

Referees

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