

# Aremu Miracle Michael

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## Academic Profile

Distinguished Physiology graduate with a strong academic record and extensive field and laboratory research experience in cardiovascular, metabolic, and public health physiology. Proficient in experimental design, biochemical analysis, and epidemiological field operations. Passionate about bridging molecular physiology with disease prevention and control strategies, particularly for non-communicable and neglected tropical diseases (NTDs). Demonstrated leadership in national-level training, supervision, and community-based health initiatives.

## Educational Background

### Bachelor of Science (B.Sc.) in Physiology

University of Medical Sciences, Ondo State, Nigeria October 2019 – September 2023 **CGPA: 4.61 / 5.00** (First Class Honours, 92.2%)

### Relevant Coursework:

Advanced Cardiovascular Physiology • Neurophysiology • Endocrinology & Metabolism • Renal and Fluid Physiology • Cellular and Molecular Physiology • Research Methods & Biostatistics • Pharmacological Principles • Exercise Physiology • Immunophysiology

### Final Year Research Project:

“Ameliorative Effects of Clomiphene Citrate on Cadmium-Induced Abnormal Sperm Indices in Male Wistar Rats.”

- Designed and conducted controlled animal experiments assessing reproductive toxicology and pharmacological interventions.
- Demonstrated recovery of sperm function, revealing therapeutic implications for cadmium-induced infertility.

## Publications and Manuscript

- Aremu, M. M., & Ogunmiluyi, E. (2025). *Crude oil neurotoxicity: A comprehensive review of mechanistic insights, therapeutic strategies, and future perspectives from human and animal studies*. Manuscript under review.
- Akinola, A. O., Oyeyemi, A. W., Omotoso, D. R., Daramola, O. O., Emojevwe, V., Ogunwole, E., Aremu, M. M., Oladipupo, O. B., Abegunde, A. G., & Osazuwa, O. B. (2023). *Ameliorative activities of clomiphene citrate on cadmium-induced reproductive functions and morphological impairments in male Wistar rats*. Department of Physiology, University of Medical Sciences, Ondo City, Ondo State, Nigeria.

## Academic Distinctions:

- Dean’s List (All Eight Semesters) – Best Male Graduating Student, University of Medical Sciences – Faculty of Basic Medical Sciences Prize for Academic Excellence

## Research and Professional Experience

### Research Data Analyst – Foot Impact Initiative (NTD Projects)

Ondo State, Nigeria | January 2024 – Present

- Managed health survey datasets using KoboCollect, SPSS, and Python for NTD prevalence analysis.
- Developed dashboards and data visualizations for national NTD progress reporting.
- Contributed to youth-led initiatives focused on disease elimination and health education.

### Card Reader – Lymphatic Filariasis Transmission Assessment Survey (TAS)

Kogi State & Kwara State, Nigeria | 2025

- Served as card reader for the TAS project, collecting and testing finger-prick blood samples using rapid diagnostic strips.
- Documented test results, maintained sample integrity, and ensured accurate data entry for surveillance records.
- Supported quality control and analysis to determine post-MDA transmission interruption status.

### Evaluator – Federal Ministry of Health (Coverage Evaluation Survey — CES)

Ondo State, Nigeria | March – April 2024

- Evaluated Onchocerciasis mass drug administration (MDA) coverage using CES methodology.
- Conducted household-level verification of treatment uptake and recorded compliance metrics per WHO protocols.
- Performed data validation and prepared verified inputs for national NTD databases and program reports.

**Convener & Facilitator – Training of Trainers (TOT) Workshops for NTD Officers  
Oyo State & Ekiti State, Nigeria | 2024**

- Convened and facilitated TOT workshops for State and Local Government NTD officers and Environmental Health Directors.
- Delivered technical sessions on MDA implementation, logistics, supervision, and data management for Soil Transmitted Helminthes, Onchocerciasis and Lymphatic Filariasis.

**Field Supervisor – National Deworming / School-Based MDA (Soil-Transmitted Helminths)  
Oyo State, Nigeria | November 2024**

- Supervised deworming campaigns in schools, monitoring treatment delivery and documenting program reach.
- Ensured accurate data reporting and compliance with national NTD operational guidelines.

**Field Officer – Schistosomiasis & NTD Assessment (SNTD Research Program)  
Ondo State, Nigeria | February – March 2024**

- Conducted parasitological surveys (Kato–Katz and urinalysis) to establish schistosomiasis prevalence baselines.
- Contributed to spatial data mapping and program planning for targeted control interventions.

**State NTD Officer (SNTD) – Mass Drug Administration (Mectizan Distribution) Supervision  
Ondo State, Nigeria | January 2024**

- Supervised Onchocerciasis Mass Drug Administration (Mectizan distribution) across local government areas.
- Oversaw community drug distributors, monitored supply logistics, and ensured adherence to safety protocols.
- Compiled supervisory reports and treatment coverage summaries for state NTD program leadership.

**Student Intern (Clinical Physiology)**

**University of Medical Sciences Teaching Hospital, Ondo State | March 2023 - June 2023**

- Conducted pulmonary function tests (spirometry, peak flow measurements) on 120+ patients with respiratory conditions, analyzing data and preparing reports for physician review
- Performed electrocardiography (ECG) and stress testing on patients being evaluated for cardiovascular disease, ensuring proper lead placement and artifact-free recordings
- Educated patients on test procedures and proper breathing techniques, improving patient compliance and test quality by 25%

**Health Educator (Volunteer)**

**Hypertension Awareness Initiative, Ondo Community Outreach | August 2022 – August 2023**

- Organized blood pressure screening for over 800 participants in 12 communities.
- Delivered health education sessions on hypertension prevention and management.
- Referred 67 individuals with uncontrolled hypertension for clinical follow-up.

**Research Volunteer – Metabolic Research Unit**

**University of Medical Sciences Teaching Hospital, Ondo State | January – May 2022**

- Participated in clinical research assessing metabolic syndrome among 250 hypertensive patients.
- Conducted anthropometric and biochemical data collection (lipid profile, glucose, HbA1c).
- Entered and validated SPSS datasets with 99.7% accuracy, contributing to published outputs.

## Technical & Research Skills

- Animal and Experimental Handling • Physiological Techniques • Biochemical and Molecular Assays • Histology and Microscopy
- Data Analysis and Software • Documentation and Academic Tools • Clinical and Community Health

## Languages

- English (Fluent) • Yoruba (Native)

## Certifications

- Animal Care and Use in Research, Education and Testing (ACURET) – Certificate of Competence in Animal Handling
- Data Science and Analytics – HP Life Certification (2024)
- Introduction to Web 3 – Commonwealth Intel
- Student Research Conference – Presenter Certificate, UNIMED (2024)

## Conferences, Trainings, and Workshops

- University of Medical Sciences Student Journal Conference – Geneva, Switzerland (2023)  
**Oral Presenter:** “Ameliorative Activities of Clomiphene Citrate on Cadmium-Induced Reproductive Function and Morphological Impairment in Male Wistar Rats.”
- Faculty of Basic Medical Sciences International Conference and Symposium – UNIMED, Ondo (2025)  
**Poster Presenter:** Same study as above.
- Federal Ministry of Health Stakeholder Training on MDA Implementation – Oyo & Ekiti States (2023–2024)  
Convener and Facilitator – Led TOT training for NTD officers and health directors.
- Lymphatic Filariasis Transmission Assessment Survey (TAS) Training – Kogi & Kwara States (2024)

## Leadership and Membership

- President – Student Physiological Association of Nigeria (SPAN), UNIMED Chapter (2023)
- Vice President – SPAN, UNIMED Chapter (2022)
- Member – The Physiological Society (UK)

## Awards and Honours

- Best Male Graduating Student – University of Medical Sciences (2023) • Pre-Degree Programme Distinction (2019)
- Faculty of Basic Medical Sciences Prize for Academic Excellence (2023) • Dean’s List (All Eight Semesters, 2019–2023)

## Research Interests

- Cardiovascular and Metabolic Physiology • Molecular Mechanisms of Non-Communicable Diseases • Neurophysiology • Experimental and Translational Pathophysiology • Global and Public Health Research

## References

### Dr. Akinola Adeniran Oluwadamilare

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