AKINSANMI TITILAYO ELIZABETH

akinsanmititilayor@gmail.com | 09071064605 | Lagos, Nigeria | linkedin.com/in/titilayo-akinsanmi

PROFILE SUMMARY

Dedicated and detail-oriented molecular scientist with hands-on experience in clinical molecular diagnostics, including DNA extraction, PCR analysis, and a broad range of molecular diagnostic workflows. Passionate about diagnostics and patient care, with a genuine commitment to delivering accurate, reliable results that directly support clinical decision-making and improve patient care. With strong academic foundation in Cell biology and genetics, and eager to continue growing expertise in life science, molecular biology and diagnostics. Seeking opportunities to contribute meaningfully within a dynamic laboratory or diagnostics setting while continuously developing technical and scientific skills.

CORE COMPETENCIES

Molecular Techniques: Sample Collection & Preservation, Pipetting, Automated DNA Extraction, Manual DNA Extraction, real-time PCR, Gel Electrophoresis

Diagnostics & Analysis: PCR software operation, result interpretation, kit insert reading and implementation, PCR troubleshooting, objective result analysis

Laboratory Operations: Equipment maintenance, validation support, result uploading

Data & Reporting: Scientific report writing, data collection and interpretation, laboratory ethics and confidentiality

Tools & Software: PCR analysis software, LIMS, MS Office Suite, G Suite, Zoom, Slack

EDUCATION

B.Sc. – Cell Biology and Genetics – *Second Class Upper Division*
University of Lagos, Akoka Yaba, Lagos | 2024

WORK EXPERIENCE

Junior Molecular Scientist | Afriglobal Medicare Limited, Ikeja, Lagos | JUNE 2026 – PRESENT

- Process approximately 40+ Hepatitis B Virus (HBV), 20+ Human Papilloma Virus (HPV), and 10+ STI samples per week (~160+ HBV, ~80+ HPV, and ~40+ STI samples per month) using standard molecular biology workflows
- Perform end-to-end molecular diagnostic work including automated and manual DNA extraction (spin column method) and real-time PCR testing
- Validate and work with DNA extraction kits including the Magbio Bioflux Nucleic Acid Extraction Kit, Mole Bioscience Nucleic Acid Extraction Kit (spin column), and Biospin Virus DNA/RNA Extraction Kit
- Validate and work with PCR kits including the Bosphore HBV Quantification Kit, Bioflux HBV Fluorescence Detection Kit, Bioflux HPV Genotyping Real-Time PCR Kit, Bosphore HPV-HR-LR Genotyping Kit, Bosphore HIV Quantification Kit, Bosphore STD Combo Basic Kit, Bioflux STI-13 Pathogens Detection Kit, and Mospire HPV Nucleic Acid Amplification Kit

- Operate and configure PCR software to ensure accurate run setup, data acquisition, and reliable diagnostic output
- Interpret PCR results, applying objective analytical judgment to distinguish valid from invalid runs
- Perform PCR troubleshooting to identify and resolve technical issues including inhibition, contamination, and instrument performance errors
- Proficient in operating the Laboratory Information Management System (LIMS)
- Uphold biosafety standards by routinely decontaminating workbenches, PCR machines, and DNA extraction equipment to minimize contamination risk and ensure a safe laboratory environment

Molecular Scientist Intern (NYSC) | Afriglobal Medicare Limited, Ikeja, Lagos | JULY 2025 – MAY 2026

- Processed approximately 35+ Hepatitis B Virus (HBV), 15+ Human Papilloma Virus (HPV), and 5+ STI samples per week (~140+ HBV, ~60+ HPV, and ~20+ STI samples per month) using standard molecular biology workflows
- Performed end-to-end molecular diagnostic work including automated DNA extraction using automated extraction machine and real-time PCR machine
- Learned how to operate and configure PCR software to ensure accurate run setup, data acquisition, and reliable diagnostic output
- Learned PCR result interpretation, applying objective analytical judgment to distinguish valid from invalid runs
- Assisted with and performed PCR troubleshooting to identify and resolve technical issues including inhibition, contamination, and instrument performance errors
- Gained proficiency in operating the Laboratory Information Management System (LIMS), using it to log samples, track workflows, and upload finalized test results
- Assisted with validation processes for new assays and equipment to support quality assurance and regulatory compliance
- Upheld biosafety standards by routinely decontaminating workbenches, PCR machines, and DNA extraction equipment to minimize contamination risk and ensure a safe laboratory environment

INTERNSHIP EXPERIENCE

Research Intern | Nigerian Institute of Medical Research (NIMR), Yaba, Lagos | JUL. 2023 – SEP. 2023

- Conducted literature reviews and background research in support of ongoing scientific projects
- Learned about and observed different manual DNA extraction methods, including alkaline lysis, spin column, and salting-out techniques
- Learned how to carry out gel electrophoresis, including measuring and preparing gels, loading wells, and interpreting results

- Learned how to prepare and calculate PCR mastermixes
- Participated in fieldwork and bench laboratory activities across multiple research projects
- Assisted with data analysis on experimental and clinical findings to support ongoing research projects

Diagnostic Laboratory Intern | Afriglobal Medicare Limited, Nazo House, Ahmadiyya | SEP. – NOV. 2021

- Assisted with patient registration using Laboratory Information Management System (LIMS), and responded to client inquiries in a professional manner
- Developed practical familiarity with diagnostic laboratory equipment and clinical test procedures
- Assisted with sample collection and preservation in accordance with established laboratory protocols
- Developed foundational understanding of clinical laboratory science and the role of accurate results in patient care

VOLUNTEER EXPERIENCE

Committee Team Member | Alpha Helix YBC Committee | APRIL 2023 – JULY 2024

- Served as an active committee member, contributing to the planning and execution of academic and social events for the association
- Co-led the full planning and execution of a 4-day field trip of over 100 students and staff, coordinating accommodation, meals, and transportation across multiple days
- Organized and facilitated weekly academic seminars, coordinating feeding, refreshments, and on-the-day logistics to ensure smooth execution
- Demonstrated strong teamwork, time management, and event coordination skills across all committee responsibilities

ADDITIONAL SKILLS & ATTRIBUTES

- Strong interpersonal, critical thinking, and problem-solving skills.
- High attention to detail and precision in laboratory and documentation tasks.
- Commitment to confidentiality, laboratory ethics, and biosafety standards.
- Fast learner with flexibility to adapt to new environments and protocols.
- Proven ability to work both independently and as part of a team.