

Deborah Oluchukwu Eke

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👤 Profile

Dedicated and detail-oriented microbiologist with a strong foundation in laboratory research, testing, and analysis. Proven ability to identify and characterize microorganisms, develop and implement microbiological testing protocols, and contribute to research and development projects. Seeking opportunities in various industries, including healthcare, pharmaceuticals, food and beverages, and environmental monitoring, where I can apply my skills and knowledge to advance innovation, improve public health, and promote sustainability.

🎓 Education

Bachelor of Science in Microbiology 02/2021 – 09/2025 | Ebonyi, Nigeria

Alex ekwueme federal university, Ndufu-alike ikwo

- Completed a comprehensive course in microbiology, including hands-on research experience through a final year project on "Isolation, Identification and Antibiotic Susceptibility of Oral Bacterial Isolates of Students".
- Developed skills in microbiological techniques, data analysis, and research methodology.
- Gained knowledge in areas such as microbial genetics, biotechnology, and infectious diseases.

👨‍💼 Professional Experience

SIWES Research Intern 06/2024 – 10/2024 | Lagos, Nigeria

Nigerian Institute of Medical Research (NIMR)

- Contributed to research projects at:
 - Center for Tuberculosis Research (CTBR)
 - Center for Infectious Disease Research (CIDR)
- Assisted in laboratory research, testing, and data collection
- Gained experience in microbiological techniques and research protocols

Molecular Biology and Bioinformatics Intern 12/2024 | Enugu, Nigeria

DNA Learning Center, Godfrey Okoye University

- Participated in a comprehensive training program focused on:
- Molecular Biology Techniques: Hands-on experience with molecular biology methods and applications
- Bioinformatics Analysis: Introduction to bioinformatics tools and techniques for **data analysis**
- Forensic and Crime Detection Applications: Exploration of forensic science and crime detection methods using molecular biology and bioinformatics

Basic Science Instructor 2023 | Osun, Nigeria

Rose Comprehensive College

- Trained students on Basic Science curriculum, fostering a deep understanding of scientific concepts and principles.
- Developed and delivered engaging lesson plans to promote academic excellence and critical thinking.

🌐 Languages

- English

Certifications & Training

Genomac institute inc. USA

Bioinformatics 201, Genomac Institute Inc. USA (Program fully funded international genomics and bioinformatics bootcamp)

- Completed a comprehensive course covering bioinformatics fundamentals, including DNA sequencing technologies, codon and protein coding identification, comparative genomics, and functional annotation.
- Gained expertise in whole genome analysis, including whole genome alignment for detecting genomic diseases and evolutionary insights.

Data Analytics Professional Program

TS Academy | February - May, 2026

- Gained hands-on skills in Excel, Power BI, SQL, and Python basics
- Built dashboards and performed data analysis on real datasets

SLA Data Analytics Program

SLA | April 2026

- Completed intensive 1-day training on data analytics fundamentals

Skills

Data Analysis — Competent

Experience in using these skills for data management and analysis

- Microsoft Excel
- Power BI
- SQL
- Python

Microbiology Skills — Proficient

Skills

- Microbial isolation and identification
- Laboratory testing and analysis
- Research and development
- Quality control and assurance
- Data analysis and interpretation

Projects

Isolation Identification and antibiotics susceptibility of oral bacterial isolates of students of Alex ekwueme federal university Ndufu-alike ikwo

05/2025 – 06/2025

This study investigated the isolation, identification, and antibiotic susceptibility of oral bacterial isolates from students at Alex Ekwueme Federal University Ndufu-Alike, Ikwo. The research aimed to identify bacteria in oral samples using conventional microbiological methods and determine their antibiotic susceptibility profiles.

Key Findings:

- Ten bacterial isolates were identified, including *Listeria* spp., *Micrococcus* sp., *Staphylococcus epidermidis*, *Aerococcus* sp., *Salmonella* sp., *Streptococcus* sp., *Streptococcus pyogenes*, *Enterococcus* sp., and *Klebsiella* sp.
- The isolates showed high levels of multi-drug resistance, with 70% having a Multiple Antibiotic Resistance (MAR) index greater than 0.2.
- The most effective antibiotics were ciprofloxacin and levofloxacin, while high resistance was observed against ampicillin and augmentin.

Implications:

- The study highlights the human oral cavity as a reservoir for antibiotic-resistant bacteria, posing a risk for opportunistic infections and complicating treatment strategies.
- The findings underscore the need for continued surveillance of antibiotic resistance patterns and promotion of rational antibiotic use in community and clinical settings.

Significance:

- The study contributes valuable information on the microbial dynamics in the oral environment and provides insights for disease control, treatment planning, and public health policies.
- The findings may assist healthcare providers in choosing appropriate treatments for oral infections and inform preventive oral health campaigns.