PATIENCE AGYIRI ANDOH

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EDUCATION

Jan. 2022 – Aug. 2025

BSc. Biological Sciences

Kwame Nkrumah University of Science and Technology (KNUST), Kumasi – Ghana

HONORS AND AWARDS

Dec. 2023

Outstanding Intern of the Year Award, Holy Trinity Medical Center, Accra-Ghana

• Recognized as the top-performing intern out of a cohort of 20+ for exceptional contributions in the lab, reliability, and dedication, and contributed to research, identifying key health risk factors for chronic diseases among young adults at the center

TECHNICAL SKILLS

• Software

Data Analysis and Visualization: SPSS, Microsoft Office (Excel, Power Point, Word)

• Lab Skills

- Blood Count Testing: Proficient in conducting complete blood count (CBC) tests, analyzing cellular components to assess health conditions using the Automated Hematology Analyzer
- Western Blotting: Skilled in protein analysis through Western blotting, including sample preparation, gel electrophoresis, and protein detection
- Pour Plate Method: Experienced in microbial enumeration using the pour plate technique, ensuring accurate colony counting for bacterial analysis

RESEARCH EXPERIENCES

Jul. 2024

Team Lead, Scientific Research Capstone Project, Department of Theoretical and Applied Biology, KNUST Topic: Impacts of Mercury Exposure on Human Health

- Synthesized data from peer-reviewed studies, including a cross-sectional investigation of 343 small-scale gold miners, to evaluate mercury exposure levels and health risks, identifying that 46.6% of miners were occupationally exposed to mercury
- Analyzed findings using statistical tools (Chi-square tests and bivariate analysis) reported in existing literature to establish links between mercury exposure and adverse health effects such as numbness and skin rashes, and recommended interventions including public health campaigns and PPE training
- Presented a comprehensive poster summarizing findings and solutions, earning an A grade in Scientific Research and Communication following an evaluation through oral defense and a written exam

Feb. 2023

Microbiology Project, L.A. Ofori Group, Department of Theoretical and Applied Biology, KNUST

Topic: Ubiquitous Presence of Bacteria: An Environmental Exploration

- Prepared and sterilized 40 petri dishes with Nutrient and Potato Dextrose Agar, using 70% ethanol for surface sterilization, to expose various environmental samples (lab air, outdoor air, soil, and plants)
- Analyzed growth on petri dishes after 24-48 hours, with 100% of the plates (40/40) showing microbial growth, confirming the ubiquitous presence of bacteria and fungi in diverse environments
- Identified and classified microbial species, including Actinomyces, Staphylococcus, and Aspergillus, providing evidence of microbial diversity in common environmental settings

TEACHING EXPERIENCES

Jan. 2022 - Present

Part-time Student-Teacher & Academic Mentor, Biological Sciences Students' Association, KNUST

- Instructed and mentored 20 junior students in Molecular Biology and Biochemistry, resulting in a 90% pass rate in their assessments, improving academic performance by 30%
- Organized and led workshops on lab report writing and presentation skills, helping 100% of participants improve their grades in capstone projects by at least one grade point
- Assisted in training 30 students on Western Blotting and Pour Plate Method, improving their lab competency and reducing errors in practical exams by 25%

INDUSTRY EXPERIENCES

Sept. 2024 – Present

Quality Control Intern, Kinapharma Company Limited, Ghana

- Tested raw materials (APIs, excipients, packaging materials) using HPLC, GC, and FTIR to verify identity, purity, and potency, ensuring compliance with USP, EP, and JP standards, resulting in the approval of 100+ batches monthly
- Conducted microbiological and quantitative analyses (sterility, microbial limits, HPLC, titration, Karl Fischer) on raw materials to detect contaminants, achieving a 98% compliance rate with safety and quality standards
- Documented and evaluated test results to ensure regulatory compliance, with 95% of raw materials passing purity, potency, and impurity tests, supporting reliable product development and supply chain continuity

Oct. 2023 - Dec. 2023

Laboratory Services Intern, Holy Trinity Medical Center, Accra-Ghana

- Mastered blood sample collection techniques, ensuring contamination-free samples and achieving zero patient infections across over 200 sample collections
- Analyzed blood samples using a centrifuge and automated hematology analyzer, providing accurate blood cell counts and hemoglobin levels, contributing to the completion of 150+ tests per month
- Collaborated with a supervising doctor on a research project, contributing to data collection and analysis on health risk factors for chronic diseases, supporting the identification of 3 key risk factors in a study of 100 young adults

LEADERSHIP & VOLUNTEER EXPERIENCES

Aug. 2024 - Present

General Secretary and Editor-in-Chief, KNUST Debate Society

- Organized and facilitated weekly training sessions for over 50 junior debaters, improving competition participation and skill development, resulting in a 30% increase in competition wins within 6 months
- Launched the KDS Debater's Chronicle, a quarterly journal documenting progress and achievements, leading to a 50% increase in member engagement and fostering stronger community ties within the society

Jan. 2023 - Aug. 2023

Library Committee Deputy Head, Biological Sciences Students' Association, KNUST

- Coordinated the procurement and organization of essential reading materials for the library, increasing access to over 100 key resources for students' learning and research
- Oversaw the maintenance of the reading room, ensuring a quiet and conducive environment for over 200 students by implementing policies to reduce disruptions and promote focused study
- Liaised between students and the College of Science librarians, streamlining communication and resolving library-related concerns faster

PROFESSIONAL AFFILIATION

American Society for Microbiology, Biological Science Students' Association, KNUST, Science Students' Association, KNUST

EXTRACURRICULAR ACTIVITIES

Debate & Public Speaking

Jan. 2023 - Present

KNUST Debate Society, Kumasi - Ghana

• Summary of my debate journey and its impact on my personal development, academic achievements, and professional growth Link: Document.docx

PROFESSIONAL REFERENCES

• Franco Osei-Wusu

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Isaac Duke Asante
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