

TEMITOPE AWE

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Education

Ph.D.: Biological Science- Neuroscience and Physiology, Expected in 06/2025

Illinois State University - Normal, IL

- **Dissertation:** Investigating the Neuronal and Molecular basis of Magnetoreception.
- **Side Project:** Investigating the role of glia in sensory processing, Leading author.
- **Side Project:** Understanding the role of Calcium signalling in the pathophysiology of Duchenne Muscular Dystrophy, contributed by creating several transgenic lines *C. elegans* strains used in this project.
- **Relevant Coursework:** Neuroscience; Mammalian Physiology; Advanced Neurophysiology; Programming in Genomics; Hormones, Brain, and Behavior; Statistics

Master of Science: Cell Biology and Genetics, 03/2016

University of Lagos - Lagos, Nigeria

- **Thesis:** Mutation analysis of mini-STRs markers in Father-Mother-Child trios of Yoruba ethnic origin.
- **Relevant Coursework:** Human genetics; Developmental genetics; Advanced genetics; Cell signaling and regulation; Cell cycle control; Statistics.

Bachelor of Science: Zoology (Genetics), 04/2012

Ekiti State University - Ado-Ekiti, Nigeria

- **Relevant Coursework:** Developmental biology; Animal physiology; Animal comparative anatomy; Animal behavior; Cytogenetics; General genetics; Population genetics; Human genetics.

Technical and Soft Skills

- Molecular: Cloning, PCR, RT/qPCR, Gibson Assembly, Transformation, mini prep
- Microscopy/Imaging: Confocal microscopy, Cell imaging, Calcium imaging and analysis
- Team Leadership
- Problem Solving
- Data Analysis
- Public Speaking
- Project Management
- Laboratory Safety Protocols
- Research Management
- Sales Support
- Statistical knowledge
- Experimental Design
- Scientific Communication

Work History

Volunteer, 09/2022 to Current

Star Adult Literacy Program – Bloomington, IL

- Tutored at various competency levels to help people with reading, math and writing skills.
- Created educational materials to convey important information to service recipients.
- Mentored new volunteers, fostering a supportive and inclusive team environment.
- Provided exceptional support for event management tasks, resulting in smoothly executed functions that exceeded expectations.
- Assisted in grant writing endeavors to secure funding for vital organizational needs and expansion plans.
- Assisted with special events and programs.
- Used strong interpersonal communication skills to convey information to others.
- Led group discussions and activities to meet different community needs.
- Promoted environmental awareness with educational workshops and hands-on activities.

Research Assistant, 05/2021 to Current

Illinois State University

- Participated in research projects by designing and executing experiments.

- Conducted literature reviews to support hypothesis development and identify gaps in existing knowledge.
- Developed research protocols and procedures to produce accurate results.
- Performed statistical, qualitative, and quantitative analysis.
- Worked both independently and collaboratively in fast-paced laboratory environment.
- Presented research findings at conferences, contributing to the advancement of the field.
- Mentored high school and undergraduate researchers, promoting professional growth and skill development within the team.
- Enhanced research quality by meticulously collecting and analyzing data from various sources.
- Streamlined data management processes for increased efficiency and accuracy in research findings.
- Collaborated with multidisciplinary teams to develop innovative research methodologies and strategies.
- Managed laboratory equipment and resources, ensuring proper maintenance and optimal functionality.
- Contributed to the publication of research articles in peer-reviewed journals.

Teaching assistant, 01/2021 to Current

Illinois State University

- Course: Molecular and Cellular Biology Labs; Anatomy and Physiology Labs.
- Taught courses under guidance of senior instructors.
- Developed materials for classroom teachers to support instruction, lab work or in-class activities.
- Maintained laboratory safety by demonstrating equipment and techniques.
- Improved overall class participation by implementing group activities and project-based learning.
- Helped with grading assignments and tests, providing constructive feedback to students based on results.
- Collaborated with fellow teaching assistants to create a consistent and supportive learning environment for students.
- Contributed to the development of new curriculum materials, enhancing the quality of instruction within the department.
- Served as a mentor to new teaching assistants, providing guidance on effective strategies for classroom management and instruction.

Teacher, 01/2016 to 01/2020

Holy Vessel International College (HVIC) – Ilesha, Nigeria

- Course: High school Biology
- Incorporated multiple types of teaching strategies into classroom.
- Graded and evaluated student assignments, papers, and course work.
- Supported student teachers by mentoring on classroom management, lesson planning, and activity organization.
- Fostered student curiosity and interest through creative hands-on activities.
- Participated in parent teacher association meeting to discuss developments of students and increase support.
- Served on school committees focused on curriculum development, teacher evaluations, or community outreach initiatives to contribute.
- Developed strong relationships with students, parents, and colleagues by maintaining open lines of communication and fostering a supportive learning environment.
- Served as competition coach and chaperone to the International Brain Bee competition and National Cowbell Mathematics competitions.

Field Research Assistant, 06/2018 to 09/2018

Public Health Institute, Obafemi Awolowo University – Ile-Ife, Nigeria

- Project Title: Study of General Well-being of Skipped-Generation Households in Nigeria
- Leveraged highly effective communication and active listening skills to work effectively with scientists of diverse backgrounds and accomplish research objectives.
- Participated in creation and collection of research data through surveys and questionnaires.
- Performed in-depth interviews with research subjects and compiled data and analyses into reports for review by group leader.
- Assisted in the analysis of collected data.

Pharmacy Sales Assistant, 08/2013 to 07/2014

Jostade Pharmaceutical and Supermarket – Ilesha, Nigeria

- Assisted pharmacists in dispensing prescriptions efficiently and accurately for optimal patient care.
- Educated customers on the proper usage of over-the-counter medications, reducing potential risks or complications.
- Participated in ongoing professional development activities to stay current with industry trends and best practices.

- Demonstrated excellent communication skills when discussing medication information with patients from diverse backgrounds.
- Supported pharmacy operations through meticulous record-keeping and accurate data entry into relevant systems.
- Adhered to all legal requirements and regulations, ensuring that the pharmacy maintained an impeccable reputation for compliance and professionalism.
- Communicated with patients to collect information about prescriptions and medical conditions or arrange consultations with pharmacists.
- Explained medication use and side effects under pharmacist direction.
- Worked with sales team to collaboratively reach targets, consistently meeting, or exceeding personal quotas.
- Prepared project presentations and reports to assist senior staff.

Teacher Corps, 06/2012 to 07/2013

Community Secondary School/ NYSC – Etomi, Nigeria

- Course: Senior High School Biology
- Incorporated multiple types of teaching strategies into classroom.
- Graded and evaluated student assignments, papers, and course work.
- Graded assignments and reported individual progress to teacher.
- Created and developed lesson plans to meet students' academic needs.
- Advised and counseled students to help them develop skills and knowledge required to succeed.
- Participated in parent teacher association meetings to discuss developments of students and increase support.
- Organized extracurricular activities such as soccer club and field trips that enriched students' experiences outside the classroom.

Student Industrial Work Experience (SIWES) Intern, 11/2010 to 05/2011

De-shalom Pharmaceutical Laboratory Limited. – Ilesha, Nigeria

- Assisted pharmacists in managing medication inventory, ensuring adequate stock levels for timely patient service.
- Improved patient satisfaction by accurately and efficiently filling prescriptions under the supervision of a licensed pharmacist.
- Contributed to increased customer loyalty through exceptional communication skills and genuine empathy for patients' needs.
- Ensured regulatory compliance with thorough record-keeping practices, including accurate documentation of medication dispensing activities.
- Developed strong relationships with healthcare providers through prompt and professional handling of prescription requests and inquiries.
- Completed mandatory training hours, gaining valuable knowledge of pharmaceutical industry practices and procedures.
- Provided exemplary customer service while addressing patient questions or concerns regarding medications or therapy plans, fostering trust in the pharmacy's services.

Professional Society Memberships

- Society for Neuroscience (SfN)
- Genetic Society of America (GSA)
- Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)

Awards

- Graduate Scholarship (2021)
- RD Weigel Awards (2022)
- Omar Rillette scholarship (2023)
- Illinois State University's College of Arts and Sciences Travel award (2023)

Leadership Position

- Ag. President, SACNAS, ISU chapter, 2022, 2023
- Vice president, SACNAS, ISU chapter, 2021, 2022
- Corps member Liaison Officer (CLO), Etung LGA, CRS, Nigeria
- Vice President, Nigeria Federation of Catholic Students, EKSU chapter, Nigeria (2011-2011)

Selected Talks

- **Awe T**, Adams J, Vidal-Gadea, AG. 2022. Alpha-tubulin *mec-12* and TRPV channel *osm-9* are required for amphid sheaths' response to nose touch in *Caenorhabditis elegans*. SACNAS NDiSTEM conference, San Juan, Puerto Rico.
- **Awe T**, Vidal-Gadea AG. 2022. Potential sensory role of Amphid glia cells in magnetic orientation in *C. elegans*. Molecular and Cellular Biology seminar, Normal, IL.
- **Awe T**, Bainbridge C, Freebairn P, Vidal-Gadea AG. 2021. Investigating a potential magnetocaloric mechanism for magnetic field transduction by *C. elegans*. Flash talk. Society for Neuroscience, Chicago, IL.
- **Awe T**, Vidal-Gadea AG. 2021. Exploring the cellular basis of magnetic orientation behavior in *C. elegans*. Neuroscience and Physiology seminar, Normal, IL.
- **Awe T**, Bainbridge C, Freebairn P, Vidal-Gadea AG. 2021. Iron-handling proteins and Mechanoreceptors are required for magnetic orientation in *C. elegans*. Flash talk, 8th Midwest Worm meeting, East Lansing, MI.

Poster Presentations

- **Awe T.**, Adams J., Akinosho A., Kelly Laura, Niha, Shifat, Vidal-Gadea AG. 2023. The AMsh glia of *C. elegans* modulates touch-induced escape responses. Society for Neuroscience, Washington D.C.
- **Awe T.**, Adams J., Kelly Laura, Niha, Shifat, Vidal-Gadea AG. 2023. The Molecular Mechanism of AMsh Glia Response to Touch in *C. elegans*. 9th Midwest Worm meeting, Detroit, MI.
- **Awe T.**, Adams J., Kelly Laura, Niha, Shifat, Vidal-Gadea AG. 2023. *Caenorhabditis elegans*' amphid sheath glia modulates touch-induced escape responses. Phi Sigma Symposium. Illinois State University, Normal, IL.
- **Awe T**, Adams J, Oblinger-Hammond D*, Vidal-Gadea AG. 2022. *mec-12* is required for the sensory response to touch of *Caenorhabditis elegans* amphid sheath glia. Phi Sigma Symposium. Illinois State University, Normal, IL.
- **Awe T**, Bainbridge C, Freebairn P, Vidal-Gadea AG. 2021. Expression pattern of iron-handling proteins required for magnetic orientation in *C. elegans*. Phi Sigma Symposium. Illinois State University, Normal, IL.

Selected Publications

- **Awe T**, Fasawe, A, Sawe, C, Adewunmi, R, Ogunware, A, Allen, M. (in review). The Modulatory Role of Gut Microbiota on Host Behavior: Exploring the Interaction between the Brain-Gut Axis and the Neuroendocrine System. *AIMS Neuroscience*.
- **Awe T**, Adams J, Kelly L, Shifat N, Stein, W., Vidal-Gadea A. (in review). The AMsh glia of *C. elegans* modulates the amplitude of touch-induced escape responses. *PNAS*.
- **Awe, T.**, Akinosho, A., Niha, S., Kelly, L., Adams, J., Stein, W., & Vidal-Gadea, A. 2023. The AMsh glia of *C. elegans* modulates the duration of touch-induced escape responses. *bioRxiv*, 2023-12.
- **Awe, E. T.**, Akpan, U. U. and Adekoya, K. O. 2017. Evaluation of Two MiniSTR Loci Mutation Events in 5 Father-Mother-Child Trios of Yoruba Origin. *Nig. J. Biotech*, 33:120-124, doi: <https://dx.doi.org/10.4314/v33i1.17>

Other skills

- **Software:** Microsoft Word, Excel, and PowerPoint, ImageJ, Sigmaplot, SaS analytics, Adobe Illustrator
- **Language:** English: Bilingual. Yoruba: native. Spanish: Intermediate.