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Editorial Note

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Editor-in-Chief

I am very pleased to introduce the first issue of *Journal of Life Sciences Research (AJLSR),* a peer reviewed international journal that offers a platform for publishing research findings from various fields of biology and other life sciences for scholars and practitioners in the field. This volume marks the beginning of what we envision as a dynamic platform for critical, creative, and cutting-edge scholarly research. Our goal is to persist in enhancing the quality standards of the journal, and we aim to achieve new milestones to elevate its status within the global scientific community.

This journal emphasizes the distinct contexts and challenges of Africa and is intended for publication of original research articles connected to all facets of life sciences. In light of this context, the journal offers a vital interdisciplinary space for researchers, practitioners, and policymakers to exchange knowledge based on evidence that is pertinent both to local contexts and global issues in the field of life sciences.

This first issue opens with a paper by **Ruth Asikiya Afunwa et al.** entitled *Molecular Characterization and Antibiotic Susceptibility of Bacteria Associated with Cassava Farmlands from Igbariam Rural Communities in Anambra State, Nigeria.* The study involved the use of standard methods in isolating *Alcaligenes faecalis, Pseudomonas aeruginosa and Pseudomonas putida* associated with cassava tubers. Characterization of these isolates using antibiotic and molecular methods revealed that the isolates were sensitive to gentamicin,

azithromycin, ofloxacin and levofloxacin. The findings contribute to the understanding of some microorganisms that make up the microbiome associated with cassava tubers in rural communities.

Next, **Victor Onuche Ikani** et al present an in-depth article on *Assessing Genetic Variation in Lima Bean Breeding Lines Through Cytological and Molecular Marker Analysis*. The study evaluates the cytological and genetic variability of Lima bean mutant lines induced by fast neutron irradiation (FNI), colchicine (COLCH), and ethyl methanesulfonate (EMS) using Random Amplified Polymorphic DNA (RAPD) markers. Chromosomal aberrations such as fragmentation, chromosome unorientation, and C-metaphase were observed in Lima bean mutants subjected to fast neutron irradiation. A total of 27 alleles were detected and the polymorphic information content (PIC) values indicated high allele diversity. The findings confirm that the mutagens were effective at inducing chromosomal aberrations and RAPD markers are effective tools for detecting genetic diversity among mutant lines, demonstrating the potential of induced mutagenesis to expand the genetic base of Lima bean for breeding programs in Nigeria.

Abimbola B. Fasoranti *et al.* turn the spotlight on the *Prevalence and Predisposing Factors of Systemic Hypertension Among Adults with Glaucoma in Ondo State, Nigeria.* Using questionnaire, the authors assess the prevalence and predisposing factors of hypertension among adults with glaucoma in Ondo State in cross-sectional study. The predisposing factors of systemic hypertension identified are alcohol consumption, high salt intake, and sedentary lifestyle. The prevalence of hypertension among adults with glaucoma in Ondo state is reported to be high and therefore calls for intensified publicity to increase the awareness of the populace and ensure preventive measures.

The issue continues with a comprehensive review by **Omowaye Olaniyi Stephen et al.** on *Leishmaniasis: A Disfigured Menace to The Populace*. Advancements in molecular diagnostics, such as CRISPR-based tools and isothermal amplification techniques, CRISPR and isothermal amplification methods in diagnostics are detailed. The benefits of the use of nanoparticle-based drugs to enhance targeted delivery and bioavailability in leishmaniasis treatment in reducing toxicity and resistance was highlighted. Challenges associated with treatment such as toxicity, high costs, and increasing drug resistance are identified. Investigations into host-pathogen interactions have revealed new immunological pathways, offering targets for potential vaccines and immunotherapies. The recent development of nanoparticle-based drug delivery systems is also

improving treatment efficacy while minimizing adverse effects. This review emphasizes the urgent need for sustained research, vector control, and global collaboration to combat leishmaniasis. Bridging the gap between innovative science and public health implementation is crucial in mitigating this disfiguring menace and protecting vulnerable populations.

The final contribution is by **Friday Attah et al.** on *A Review of Artificial Intelligence -Driven Microbial Taxonomy and Identification.* While addressing continuous issues including data limits, model interpretability, and the requirement of multidisciplinary collaboration, this review describes future approaches including real-time diagnostics, functional integration through multi-omics, and AI-enabled global microbiological surveillance. It further explores the use of genomic, proteomic, metabolomic profiles, machine learning and deep learning algorithms in the automated classification of bacteria in enhancing taxonomic resolution and exposing latent microbial diversity. Advocating for the inclusion of artificial intelligence into microbial taxonomy marks a fundamental change towards a more accurate, scalable, and integrated way to grasp microbial life rather than only a technical improvement.

Taken together, the five papers in this issue reflect the core vision to provide researchers and practitioners from both the academia and industry a platform to meet and share cutting-edge developments in the field of Life Sciences. Our editorial board is committed to upholding rigorous peer review standards while remaining inclusive and supportive of early-career researchers across the continent.

As Editor-in-Chief, I extend heartfelt appreciation to the contributors to this first issue, the reviewers who generously offered their time and expertise, and the entire editorial team for their dedication to building this platform. I also wish to acknowledge the support of institutions, partners, mentees and mentors who have been supportive in upholding this vision from the beginning.

We invite researchers, professionals, and students to engage with the journal, submit their work, and help us maintain high research standards in future editions.

We are excited and look forward to achieving more successes together.