

**Editorial**

Introduction to NJBMB's Fourth Issue for 2024: Advancing Biochemical Research for Health and Innovation

Isma'ila A. Umar^{1,*}¹Editor-in-Chief, Nigerian Journal of Biochemistry and Molecular Biology*Correspondence: smaumar2003@gmail.com**Keywords:** Alzheimer's disease, Diabetes management, Postprandial glycemia, Protein biomarkers, Xanthine oxidase

It is with great pleasure that we present Volume 39, Issue 4 of the Nigerian Journal of Biochemistry and Molecular Biology (NJBMB), the official publication of the Nigerian Society of Biochemistry and Molecular Biology. This edition continues our commitment to advancing biochemical and molecular biology research by featuring high-quality studies that address critical scientific and health-related challenges.

The studies in this issue exemplify the breadth and depth of biochemical research, ranging from natural product pharmacology to forensic biochemistry, nutritional biochemistry, and disease pathogenesis. These contributions underscore the pivotal role of biochemistry and molecular biology in improving human health and scientific understanding.

The first study, by **Tijjani et al.**, explores the glucose-lowering and antioxidant properties of *Xylopiya aethiopica* seed extract, providing insight into its potential application in diabetes management and oxidative stress mitigation. Their findings highlight the importance of indigenous medicinal plants in disease prevention and therapeutic development.

Olawuni et al. investigate the neuroprotective potential of *Ficus benjamina* leaves in mitigating Alzheimer's disease pathology. Their study integrates *in silico* and *in vitro* approaches to evaluate the inhibitory effects of apigenin and kaempferol on key enzymes implicated in neurodegeneration. This research contributes to the growing field of natural compounds as alternative therapeutic strategies for neurodegenerative diseases.

Agoro and Thomas present an innovative forensic biochemistry study, utilizing vitreous lipid and protein biomarkers to differentiate between postmortem and true brackish water drowning cases. Their findings offer promising forensic applications in medico-legal investigations and criminal justice proceedings.

Babarinde et al. employ bioassay-guided fractionation to identify anti-inflammatory and xanthine oxidase inhibitory compounds from *Zanthoxylum tessmannii* roots. Their work not only supports traditional medicinal uses of the plant but also raises important considerations regarding potential allergenic effects of its bioactive constituents.

Faponle et al. examine the impact of common Nigerian starchy staple meals on postprandial glycemia. Their findings emphasize the need for dietary modifications in glucose metabolism disorders such as diabetes, reinforcing the crucial link between nutrition and health.

The publication of this issue would not have been possible without the dedication and expertise of numerous individuals. We extend our profound gratitude to the contributing authors for their rigorous research and scholarly contributions. Our sincere appreciation also goes to the editorial board, peer reviewers, copy editors, and the production team for their tireless efforts in ensuring the integrity and quality of the journal.

We hope that the insights presented in this issue will stimulate further research, inspire innovative applications, and contribute to the continued growth of biochemical and molecular biology sciences in Nigeria and beyond.

Thank you for your continued support, and we look forward to future ground-breaking discoveries that will shape the future of biochemical research.

CITATION

Umar A. I. (2024). Introduction to NJBMB's fourth issue for 2024: Advancing biochemical research for health and innovation. *Nigerian Journal of Biochemistry and Molecular Biology*, 39(4):195. <https://doi.org/10.4314/njbmb.v39i4.1>

Copyright © 2024 Umar. This is an open access article distributed under the [Creative Commons Attribution License CC BY 4.0](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Submit your next manuscript to NJBMB at
<https://www.nsbmb.org.ng/journals>