



VISAYAS
STATE UNIVERSITY



ADVANCED RESEARCH
AND INNOVATION
CENTER
Visayas State University
Baybay City, Leyte, 6521 Philippines
Phone: Trunkline 565-0600, local 1119
Email: aricenter@vsu.edu.ph
Website: www.vsu.edu.ph

QUARTERLY RESEARCH PROGRESS REPORT

1st Quarter

Research Title: Bioactivity and molecular characterization of lead compounds from candidate antidiabetic indigenous plants

I. Program/Project/Study Objectives

1. To characterize and elucidate the structure of compounds from selected plant extracts with known antidiabetic properties,
2. To determine the effect and mechanism of action of plant extracts on the differentiation of adipocyte cells,
3. To determine the intermolecular interaction of the selected plant extracts to that of the alpha-glucosidase enzyme, receptor proteins, and ligands

II. Relevance to VSU & College's Thrust and Priorities:

The approved research will strengthen the research capacity of the Visayas State University in the field of Health Research in addressing the rapidly evolving state of both communicable and non-communicable diseases.

The international collaboration will also give opportunities to researchers to gain knowledge in the field of Computational Biology and Bioinformatics, which is also a part of the RDEI Priorities and Agenda of the Advanced Research and Innovation Center.

III. Highlights of accomplishments within the quarter

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| A. | Targets for the quarter | ✓ | Performed oil red staining and lipid droplet analysis |
| ✓ | Optimization of protein quantification, SDS-PAGE and western blotting protocol | ✓ | Immunofluorescence/immunostaining of adipocyte cells |
| ✓ | Extraction of Pitogo plant sample using hexane | ✓ | Highlights of accomplishments |
| B. | | ✓ | Initial results of SDS-PAGE, western blotting, oil red staining and immunofluorescence experiment |
| ✓ | Extraction of Pitogo plant sample | ✓ | |

Vision: A globally competitive university for science, technology, and environmental conservation.
Mission: Development of a highly competitive human resource, cutting-edge scientific knowledge and innovative technologies for sustainable communities and environment.