



**QUARTERLY RESEARCH PROGRESS REPORT**  
**QUARTER: (1<sup>st</sup> Quarter)**

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

**I. Project 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**

**Targets for the quarter**

- ✓ 3T3-L1 cell expansion, passaging and cryopreservation.
- ✓ 3T3-L1 cell culture for experiments.
- ✓ SDS-PAGE, and Western Blotting experiment for new concentration.
- ✓ Oil Red O Staining and Lipid Droplet Quantification.
- ✓ 2nd Trial Experiment for Triglyceride and MTT Assay

**Highlights of accomplishments**

- ✓ Preliminary results for Western Blotting.
- ✓ Preliminary results for Oil Red O stained lipid droplets.
- ✓ Preliminary results for Triglyceride Assay.
- ✓ Preliminary results for MTT Assay.

**IV. Physical Report of Operation**  
**A. Research Program**

	Particulars/Name and Brief Description of Utilized/ Commercialized Technologies	Number
<b>Outcome Indicator</b>		
1. Number of research outputs utilized by the industry or by other beneficiaries		
<b>Output Indicator</b>		
1. Number of research outputs completed within the year		
2. Percentage of research outputs published in internationally-referred or CHED recognized journal within the year		

**A. Technologies/Information patented and commercialized**

Technology Invention(s) New Information	Invention Patent Number	Date of Issue	Utilization of Invention		Name of Commercial Product
			Development	Service	
<b>A. Technology Invention(s)</b>					
<b>B. New Information</b>					

**B. Research papers published (Identify if articles were for Research, Extension, Innovation or MSc/ PhD Studies)**

	Title	Author (s)	Date/Year/Publication/ Publisher	Remarks (if Research, Extension, Innovation, Thesis, MSc/PhD)
a. Refereed Journal				
Institutional				
National				
International				
b. Semi-popular publ'n (newsletter, etc.)				
c. Popularized publ'n (technoguides, etc.)				
d. Book Chapter/s				
e. Books				


### C. Citation

Research Output as Cited by Other Researcher(s) in Journal Activities									
Title of Research Output/ Published Journal Articles/ Book	Title of Journal & Vol. Issue/ Year	Keywords	Researcher (s)	Citation Details					
				Author(s) Who Cited the Research Output	Title of Article Where the Research Output Was Cited	Title of Journal	Vol. / Issue / Page No.	City/ Year Published	Publisher

#### I. Issues, Problems, and Recommendations

- Delayed delivery of supplies
- Limitations in passaging cell line

Submitted by:

  
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