QUARTERLY RESEARCH PROGRESS REPORT
QUARTER: (2nd 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.
- ✓ Protein extraction, SDS-PAGE, and Western Blotting experiment.
- ✓ Oil Red O Staining and Lipid Droplet Quantification
- ✓ Pitogo plant extraction
- ✓ Phytochemical screening of Pitogo

Highlights of accomplishments

- ✓ Stored 3T3-L1 preadipocytes at Philippine Carabao Center, Visayas State University
- ✓ Quantified protein concentration of differentiated 3T3-L1 preadipocytes for SDS-PAGE and Western Blotting
- ✓ Preliminary results for Western Blotting
- ✓ Preliminary results for Oil Red O stained lipid droplets.
- ✓ Qualitative phytochemical analysis of Pitogo extract

IV. Physical Report of Operation

A. Research Program

	Particulars/Name and Brief Description of Utilized/ Commercialized Technologies	Number
Outcome Indicator		
1. Number of research outputs utilized by the industry or by other beneficiaries		
Output Indicator		
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	
A. Technology Invention(s)					
B. New Information					

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 pub'ln (technoguides, etc.)				
d. Book Chapter/s				
e. Books				

C. Citation

Research Output as Cited by Other Researcher(s) in Journal Activities				
Title of Research	Title of Journal	Keywords	Researcher (s)	Citation Details

Output/ Published Journal Articles/ Book	& Vol. Issue/ Year			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 : **EDGARDO E. TULIN**
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Endorsed by : **MA. THERESA P. LORETO**
Center Director

Date Submitted : ____________________________

Received by OVPREI-RPO: __________________

Date Received :__________________________