



## ACCOMPLISHMENT REPORT

January 01 - March 31, 2022

### *Research projects accomplishments:*

Research Title: Bioactivity and molecular characterization of lead compounds from candidate antidiabetic indigenous plants (VSU-IP-2021-6)

1. Checked status of chemicals and reagents after Typhoon Odette.
2. Checked bioactivity of identified plant extracts.
3. Re-collected identified plant samples for re-extraction.
4. Re-assayed newly extracted samples.
5. Checked plant samples for essential oil contents.
7. Finalized protocol for enzyme kinetic experiment.
8. Outsourced and prepared chemicals and reagents for phytochemical analysis.
9. Phytochemical analysis of bioactive plant extracts.

Research Title: Nanomaterial-encapsulated microbial inoculant as tuber sett coating to enhance growth, yield, and micronutrient uptake of purple yam (VSU-IP-2021-11)

1. Optimized encapsulation method of bacteria in nanomaterial-alginate microbeads.
2. Mass produced the nanomaterial-alginate microbeads in preparation for the purple yam planting season.
3. Collected and prepared soil samples for pH analysis.
4. Collected soil samples for sterilization and potting.

Research Title: Bioactivity activity and chemistry of essential oils for agriculture, pharmaceuticals and Industry (VSU-IP-2021-13)

1. Checked the collected plant samples of indigenous tree species found within the Visayas State University
2. Air-dried the collected plant samples to be used in extracting essential oil.
3. Started the extraction of essential oils from the collected indigenous tree species.
4. Followed up procured glass wares and chemicals to be used in the project.
5. Hired two (laboratory aide) and one (1) laborer.

### *Building improvements:*

1. Fire extinguishers in every laboratory are installed
2. Other building implements are installed, such as a key box, first-aid box, and suggestion box.
3. Lights bulbs are installed in the rooms on the third floor of the building.
4. A biometrics system is installed and is ready for use.