



**ANNUAL REPORT
YEAR 2021**

- I. Highlights:** Enumerate Important accomplishments (a) in relation to targets and (b) others

Targets/Others	Accomplishments
a. 1. One(1) research proposal reviewed for internal funding	Three (3) research proposals submitted and reviewed for internal funding
b. 1. Research proposals approved	Three (3) research proposals approved and
2. Research output publication submitted for publication	Two (2) research paper submitted for review and publication

*Others includes best practices and unplanned accomplishments

II. Enrollment, Graduates, Graduate with Honors, Number of Board Placers/Passers and Delinquency Reports

A. Enrollment

1. Enrollment of students by program and by semester (include external campuses, graduate school, online programs)

Program	Number of Graduates						Total		Grand Total
	First Sem		Second Sem		Summer		M	F	
	M	F	M	F	M	F			
Not Applicable									

B. Graduates

1. Number of graduates by program and by semester (include external campuses)

Program	Number of Graduates						Total		Grand Total
	First Sem		Second Sem		Summer		M	F	
	M	F	M	F	M	F			
Not Applicable									

C. Graduates with honors

- Number of graduates with honors by program (include external campuses)

Program/ Name of Honor Graduate	Number of Honor Graduates						Total		Grand Total
	Cum Laude		Magna Cum Laude		Summa Cum Laude		M	F	
	M	F	M	F	M	F			
Not Applicable									

D. List of Licensure Exam Passers [include date of exam, passing percentage (national and institutional)]

Licensure Examination (indicate name of passer)	Date of Examination	Top 10 Rank	Institutional Passing Percentage	National Passing Percentage
Not Applicable				

E. Dropouts (For Registrar's Office only)

1. Number of Dropouts of students by course, sex and by semester

Academic Program	Number of Dropouts						Total		Grand Total
	First Sem		Second Sem		Summer		M	F	
	M	F	M	F	M	F			
Not Applicable									

F. Delinquency Status (For Registrar's Office only)

1. Number of delinquent students by course, sex and by semester (warning, probation, dismissed).

Academic Program (per semester)	Type of Delinquency						Total		Grand Total
	Warning		Probation		Dismissed		M	F	
	M	F	M	F	M	F			
Not Applicable									

G. Awards Received (individual or by student organizations)

NAME OF AWARD	NAME OF AWARDEE	PURPOSE OF THE AWARD	DATE GIVEN	AGENCY THAT GAVE THE AWARD	WHERE GIVEN

H. List of Recognized Student Organizations and their corresponding activities

Student Organizations	Activities
Not Applicable	

I. Number of Scholars by Type and by Funding Agency Per Semester

Type of Scholarship and Names	Number of Scholars/Grantees						Total		Grand Total
	First Sem		Second Sem		Summer		M	F	
	M	F	M	F	M	F			
Undergraduate									
Not Applicable									
Graduate									
Not Applicable									
Non-formal									
Not Applicable									

J. Number of students accommodated in university student dormitories

Name of Dorm	Number of Occupants						Total		Grand Total
	First Sem		Second Sem		Summer		M	F	
	M	F	M	F	M	F			
Not Applicable									

K. Accomplishments of Other than Academic Units

Not Applicable			

- L. List of trainings attended by students (local, regional, national, International). Please use the same table format in A.1 (list of trainings attended by staff).
Not Applicable

II. Manpower Profile and Development

- A. Staff Profile (include educational attainment and status of appointment)

- B. Staff Development

1. List of trainings attended (local, regional, national and international)

TITLE OF TRAINING	NAME OF PARTICIPANT	NATURE OF PARTICIPATION	PLACE	DATE
a. International				
1. Unveil the immune response to cancer and infectious disease with powerful immunoassays	Sarah Jean C. Sugano	Participant	Virtual- via Labroots	February 10, 2021
2. Good Laboratory Practices and Quality Assurance in Food Analysis	Sarah Jean C. Sugano	Participant	Virtual-via Zoom	June 18, 2021
3. "Biotechnology: Breaking Scientific Limitations"-1st International Webinar Series of the Department of Biotechnology-VSU	1. Jo Jane D. Atok 2. Chinelo M. Cardano 3. Sarah Jean C. Sugano	Participant	Virtual-via Zoom	Virtual-via Zoom

4. The 6th International Conference of Indonesian Society for Lactic Acid Bacteria and Gut Microbiota	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	August 13, 2021
5. 4th International and 12th Annual Meeting and Scientific Convention of the Philippine Society for Biology	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	October 23, 2021
b. National				
1. HERDIN PLUS Online Learning Philippine Council for Health Research and Development Department of Science and Technology Taguig City, Metro Manila, Philippines	Jo Jane D Atok Chinelo M. Cardaño	Participant	Virtual-via Zoom	January 06 2021
2. Emerging Pathogens of Interest in the Food Industry	Sarah Jean C. Sugano	Participant	Virtual-FB Live	February 4, 2021
3. “Women in Nuclear Science- Women Empowering Women”	Sarah Jean C. Sugano	Participant	Virtual-via Zoom	February 11, 2021
4. “Is COVID Vaccine Right for You?”	Sarah Jean C. Sugano	Participant	Virtual-via Zoom	February 23 2021
5. Livestock Biotechnology Center – Virtual Research Proposal	Jo Jane D Atok Chinelo M. Cardaño	Participant	Virtual- via Zoom (@ Philippine Carabao Center National	February 23-24 and 26, 2021

DA-Livestock Biotechnology Center , 3120 Nueva Ecija			Headquarters and Genepool Science City of Munoz)	
6. Virtual Workshop on Gene Editing with CRISPR	Jo Jane D Atok Ma. Theresa P. Loreto	Participant	Virtual – Philippine Genome Center with University of the Philippines Los Baños, Laguna, Philippines	March 22-26, 2021
7. Laboratory Animal Training for Biomedical Research	Jo Jane D. Atok Sarah Jean C. Sugano Chinelo M. Cardaño	Participant	Virtual via Zoom- UP Natural Sciences Research Institute UP Diliman Animal Care and Use Committee PCHRD	April 12, 21,26, 2021 and May 03, 2021
8. Changing Landscape of Universal Health Care: Paradigm Shifts in Health R and D of the 14th Philippine National Health Research System Week	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	August 12, 2021
9. DOST QUEZON Webinar Series #9: Webinar on Shelf-life Analysis for Micro-Scale Food Processors	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	August 16, 2021
10. Introduction to Sensory Evaluation and Consumer Acceptability	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	August 18, 2021

11. SIBOL 2021: Technologies for the New Normal	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	August 26, 2021
12. Food Safety in the Food Science Industry	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	August 27, 2021
13. Vaccine Types and their Effectiveness	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	September 01, 2021
14. Genomics & Agriculture: Tool Set of Agricultural Genomics	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	October 1, 2021
15. EVHRDC Training- Workshop on Molecular and Biotechnologica l Health Research	Jo Jane D. Atok Chinelo M. Cardano	Participant	Virtual- via Zoom	October 13, 14, & 15
16. Online Training: Sample Preparation of Proximate Analysis of Food Biological Sample Preparation for Scanning Electron Microscopy	Sarah Jean C. Sugano	Participant	Virtual- via Zoom	October 21, 2021
17. PHREB National Conference	Jo Jane D. Atok Chinelo M. Cardano	Participant	Virtual- via Zoom	November 9-10, 2021
18. Virtual-Cluster Farm Industry Encounters through the S&T Agenda (FIESTA) on MANGO	Jo Jane D. Atok Zenaida T. Ecleo	Participant	Virtual- via Zoom	Dec 3, 9-10 and 16-17, 2021
c. Regional				
32nd Joint ViCARP and	¹ Sarah Jean C. Sugano	¹ Best Poster Entry	Virtual-via Zoom	March 23- 24, 2021

RRDEN Regional RDE Symposium ViCARP and RRDEN	² Chinelo M. Cardaño Jo Jane D. Atok	² Best Paper Entry (Research Category)		
1st General Assembly of Region VIII- CHED Scholarships	Sarah Jean C. Sugano	Participant	Virtual-via Zoom	September 01, 2021
Regional Health Research Symposium	Jo Jane D. Atok Chinelo M. Cardano Sarah Jean C. Sugano	Participant	Virtual-via Zoom	November 24-25, 2021
d. Local				
Science-Direct Articles and Journals Choosing the Right One for Your Research	Jo Jane D. Atok Chinelo M. Cardaño	Participant	Virtual-via Zoom	January 21, 2021
Coronavirus vaccine: Are you willing to take the shot?"	Sarah Jean C. Sugano Jo Jane D. Atok Chinelo M. Cardaño	Participant	Virtual-via Zoom	February 23, 2021
Seminar/Lectur e on Intellectual Property Awareness and Commercializati on of Technologies	Sarah Jean C. Sugano Jo Jane D. Atok Chinelo M. Cardaño	Participant	Virtual-via Zoom	Nov. 04, 2021
Patent Search Lecture	Sarah Jean C. Sugano Jo Jane D. Atok Chinelo M. Cardaño	Participant	Virtual-via Zoom	November 16, 2021
Patent Drafting cum Writeshop /Webinar	Jo Jane D. Atok	Participant	Virtual-via Zoom	Nov. 19, 20,21 2021

2. List of staff pursuing graduate studies whether on scholarship or on their own.

C. Staff Performance (awards received, etc.)

NAME OF AWARD	NAME OF AWARDEE	PURPOSE OF THE AWARD	DATE GIVEN	AGENCY THAT GAVE THE AWARD	WHERE GIVEN (PLACE)
Outstanding Paper Award	EETulin ABTulin	Recognition of Research	March 24, 2021	ViCARP and RRDEN	Virtual via Zoom -

(1st Place- Research Category)	EATulin CMCardaño	Efforts Title of Research Paper “Biochemical characterizat ion and phytochemic al profiling of underutilized root and tuber crops for increased utilization and product development options”			32nd Joint ViCARP and RRDEN Regional RDE Symposium ViCARP and RRDEN
Best Poster (5th Place)	JDTan SMMercado SJSugano LAArcuino NJTGonzales STHDaya VAndaya MRManiego	Recognition of Research Efforts Title of Research Poster “Developme nt of Microbial Starter with Optimum Stability for Fermented Alcoholic and Non- alcoholic Beverages from Purple Taro (<i>Colocasia esculenta</i>)”	March 24, 2021	ViCARP and RRDEN	Virtual via Zoom - 32nd Joint ViCARP and RRDEN Regional RDE Symposium ViCARP and RRDEN

D. List of in-house trainings conducted and type of participants

E. Changes in the procedure/process, etc. to improve performance; implementation of new policies, etc.

II. Research

A. Highlights: **Important accomplishments, awards received, etc. (a) in relation to targets and (b) others**

Targets/Others	Accomplishments
a. 1. One(1) research proposal reviewed for internal funding	Three (3) research proposals submitted and reviewed for internal funding

Vision:
Mission:

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

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No.

b. 1. Research proposals approved	Three (3) research proposals approved and
2. Research output publication submitted for publication	Two (2) research paper submitted for review and publication

B. Significant results of completed and ongoing researches (Bulletized)

<i>On-going researchers</i>	Accomplishments
<i>VSU-IP-2021-06: Bioactivity and molecular characterization of lead compounds from candidate antidiabetic indigenous plants</i>	
	<ul style="list-style-type: none"> Alpha-glucosidase and alpha-amylase inhibition assay of plant extracts were performed
	<ul style="list-style-type: none"> IC₅₀ Alpha-glucosidase and alpha-amylase inhibition assay of plant extracts were performed
	<ul style="list-style-type: none"> Essential oils from plant samples were extracted
	<ul style="list-style-type: none"> Alpha-glucosidase and alpha-amylase inhibition assay of plant extracts were performed on hydrolysate extracts
<i>VSU-IP-2021-11: Nanomaterial-encapsulated microbial inoculant as tuber sett coating to enhance growth, yield and micronutrient uptake of purple yam</i>	
	<ul style="list-style-type: none"> Silver nanoparticles (NPs) at varying concentration were biosynthesized
	<ul style="list-style-type: none"> Antimicrobial activity of the biosynthesized NPs was assessed
	<ul style="list-style-type: none"> Optimization of the encapsulation method of bacteria in nanomaterial-alginate microbeads
<i>VSU-IP-2021-13: Biological activity and chemistry of essential oils for Agriculture, Pharmaceutical and Industry</i>	
	<ul style="list-style-type: none"> Research material and voucher specimens were prepared
	<ul style="list-style-type: none"> Supercritical CO₂ extracts, materials, equipment and chemicals for the distillation of essential oils were prepared

C. List of matured technologies developed and technologies for dissemination

D. Linkages – include nature of MOA signed with agencies

III. Extension

A. Highlights: Important accomplishments, awards received, etc. (a) in relation to targets and (b) others

B. Significant results of completed and ongoing extension projects

A. 1. List of trainings conducted/services rendered and number of clientele served per training

Title of Trainings/Services Rendered	Type of Clientele or Participants	Date and Place of Training	Number of Participants	Number of Trainees weighted by length of training
None				

2. List of active partnerships with LGUs, Industries, NGOs, NGAs, SMEs and other stakeholders

Partnership established	Specific name of NGO, NGA, SMEs, LGUs, industries	Nature of Project (e.g. training, consultancy, community participation)	Date MOU or MOA signed
None			

C. Linkages – include nature of MOA signed with agencies
None

E. Other Accomplishments (example: pilot projects established, demo farms, technical assistance and other extension activities conducted)
None

II. **Linkages** – include nature of MOA signed with agencies
None

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