



RESEARCH CORPORATION  
OF THE UNIVERSITY OF GUAM

Annual Report  
**FY2022**



## Credits

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# 2022 KEY PERFORMANCE INDICATORS

14.5%

increase in the number of grants supported by RCUOG.

34%

increase in grant expenditures, which underscores efficiency.

\$19.4M of expenditures in FY2022 compared to \$14.5 in FY2021.

 26

Travel grants awarded in FY2022.



13%

increase in the number of employees compared to the prior year.



# BOARD OF DIRECTORS

The Research Corporation of the University of Guam is under the management and control of a Board of Directors. Board membership includes representation from the UOG Faculty Senate, the UOG Board of Regents, the UOG Research Council, UOG senior administrators, and members representing the community at large.

**Dr. Thomas W. Krise**  
*Chairperson/UOG President*

**Dr. Anita Borja Enriquez**  
*Vice Chairperson/UOG Senior Vice President and Provost*  
**Randall Wiegand**

*Treasurer/UOG Vice President of Administration and Finance & Chief Business Officer*

**Dr. Cheryl Sangueza**  
*Secretary, UOG Faculty Senate Representative (10/21-5/22)*

**Ryan Shook**  
*Secretary, UOG Faculty Senate Representative (9/22-current)*

**Agapito Diaz**  
*UOG Board of Regents Representative*

**Bernadette (Bernie) Valencia**  
*UOG Board of Regents Representative*

**Dr. John Jenson**  
*UOG Research Council Representative*

**Dr. Artemio R.A. Hernandez**  
*Community Member Representative*

**Ray Topasna**  
*Community Member Representative (8/14-2/22)*

**Dr. Rachael Leon Guerrero**  
*Member/ UOG Vice Provost Research and Sponsored Programs*



*Dr. Thomas W. Krise*



*Dr. Anita Borja Enriquez*



*Randall Wiegand*



*Dr. Cheryl Sangueza*



*Ryan Shook*



*Agapito Diaz*



*Bernadette (Bernie) Valencia*



*Dr. John Jenson*



*Dr. Artemio R.A. Hernandez*



*Ray Topasna*



*Dr. Rachael Leon Guerrero*



*RCUOG's core team is pictured from left: Michael Conner, Chief Business Officer; Danica Batac, Accounting Analyst II; Barbara Molarte, Accounting Specialist; Precious Nagallo, Accounting Analyst I; Sable Sablan, Human Resources Specialist I; Gloria Travis, Accounting Specialist; Cathleen Moore-Linn, Executive Director; Raeanne Concepcion, Human Resources Specialist III.*

As the University of Guam celebrates its 70th anniversary, it continues to experience record levels of grant activity. Major grants including the National Science Foundation funded Established Program to Stimulate Competitive Research (EPSCoR) grant, the National Cancer Institute funded PIPCHE grant, Department of Defense Cooperative Ecosystem Studies Unit funded projects, and many others have elevated grant activity at the institution. New grants include, through a partnership with the Guam Department of Agriculture, an Invasive Species Dog Detector Pilot Program to sniff out coconut rhino beetles, a Department of Interior funded Campus Security project, and the G3 Renewable Energy Project and Energy Audit of Government Buildings project.

The Office of Research and Sponsored Programs, College of Natural and Applied Sciences, Center for Island Sustainability, Marine Lab, University of Guam faculty, the UOG Business Office, and the UOG Human Resources Office are RCUOG's key partners, and the Research Corporation could not function without effective collaboration with these units.

This report highlights the positive outcomes in FY2022 and the role RCUOG plays in supporting the University of Guam's research projects while ensuring efficiency and compliance in daily operations.

Cathleen Moore-Linn  
Executive Director

## PURPOSE

The purpose of this report is to capture a snapshot of the organization after its eighth year of operation and to highlight how RCUOG supports research and outreach projects through its efficient processes, reporting, and engagement with overarching University of Guam goals.

## FY2021 Audit

RCUOG activities and transactions were audited under the University of Guam's FY2021 audit. There were no findings for grant transactions supported by the Research Corporation, which indicates that RCUOG continues to utilize strong internal controls, which comply with federal regulations and its own policies.

The FY2021 audit marked the seventh consecutive year of no questioned costs. Successful audits are the foundation of UOG's and RCUOG's success.



*Tristen Lizama works to eradicate Little Fire Ants in the Cotal Reserve.*

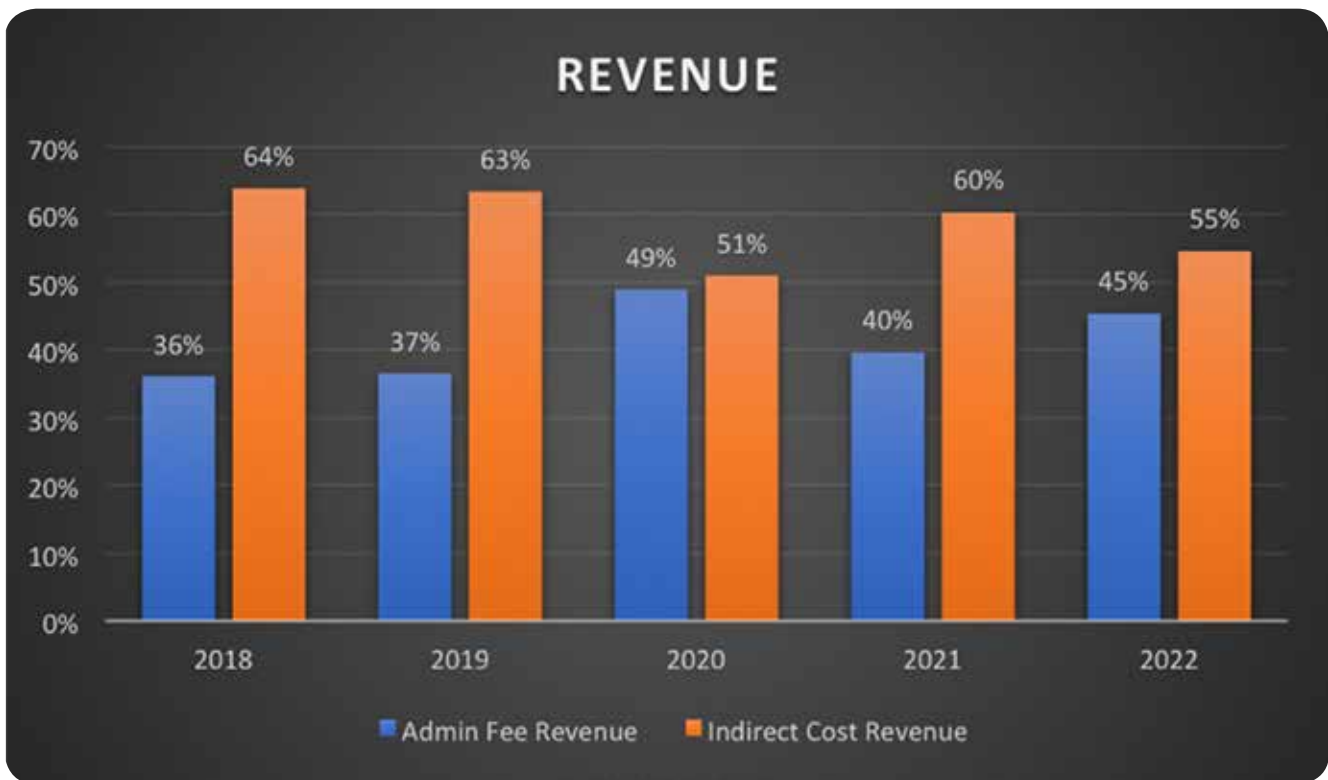


# Revenue and Operating Expenses

Public Law 32-114 requires the Research Corporation to be self-sufficient. To achieve this requirement, RCUOG relies on revenue generated through administrative fees and its share of indirect costs. In FY2022, RCUOG received 18% of the University of Guam's grant generated indirect cost revenue equating to \$547,626 and \$455,296 in administrative fees/other revenue (charged to those projects that do not include indirect costs) for a total of \$1,002,922. For FY2022, RCUOG posted operating expenses of \$663,227.

FY2022 marks the first time RCUOG exceeded \$1million in revenue. The year ended with net revenue of \$339,695. Of this amount, \$250,000 is committed to support construction costs for the new Water and Environmental Research Institute (WERI) facility and the School of Health Nursing Annex.

The RCUOG core team consists of eight employees. The core team is responsible for all human resources and financial transactions as well as federal financial reporting and compliance. At the beginning of 2022, RCUOG converted two part-time employees to full-time status to help manage the significant increase in workload.

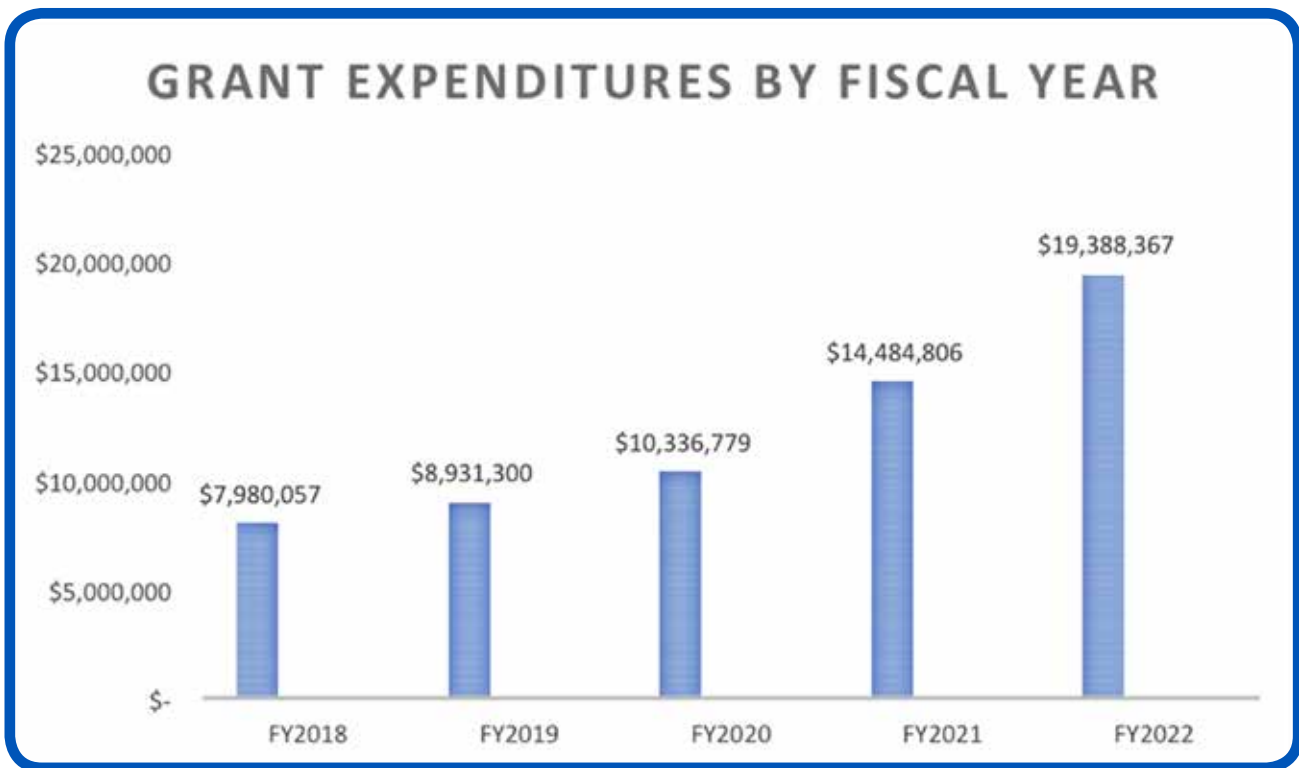


## Grant Expenditures up 34%

Total grant expenditures for FY2022 were \$19,388,367 which is an increase of 34% over the prior year's expenditures of \$14,484,806. Notably, expenditures increased 87% in just two years. Grant expenditures are a key performance indicator because they relate to the efficient and effective managerial environment at the Research Corporation.

At the end of the fourth quarter, RCUOG provided support services to 150 different grants, an increase of 14.5% over the FY2021 fourth quarter total of 131 grants.

While expenditures increased by 34% percent, operational costs increased 3%, which underscores RCUOG's high level of productivity and efficiency.



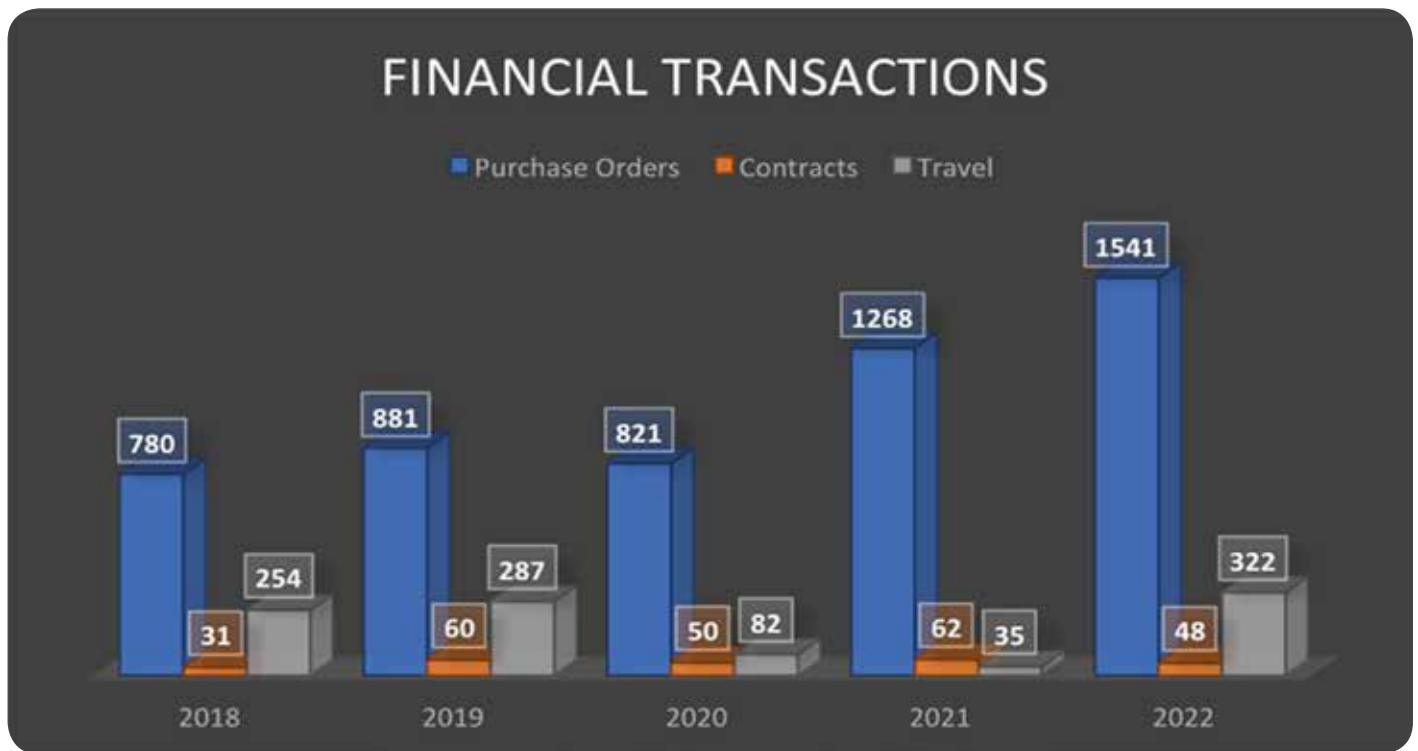


## Human Resources

RCUOG completed 372 personnel hiring actions in FY2022 compared to 386 personnel hiring actions during the prior fiscal year. These hires include all temporary full-time and part-time positions based on availability of funds as well as summer salaries for UOG faculty for grant related work. At the end of FY2022, RCUOG employed 203 individuals, 122 full-time and 81 part-time employees. Student employees accounted for 30 of the part-time positions. This marks an increase of 13.4% in the number of employees compared to the prior year.

## Financial Transactions

The number of financial transactions, which includes purchase orders and contracts, increased 40% in FY2022 compared to the prior year. This increase is due to the growth of overall grant activity at the institution. Despite the significant spike in transactions, most were completed within 48 hours. RCUOG's streamlined procedures function in tandem with UOG systems in payroll, accounting, and human resources and these University offices are instrumental to RCUOG's efficiency.





*UOG expects to break ground on the new WERI building and the Nursing Annex in 2023.*

## **A&E Design for the WERI Building and Nursing Annex**

The architectural and engineering designs for the new WERI building and the School of Health Nursing Annex were 95% complete at the end of FY2022. The WERI building is a three-story 13,017 square foot facility while the Nursing Annex is a two-story 11,960 square foot facility. The Economic Development Administration awarded \$8.55M to UOG in 2021, which is matched by \$1.72M of local funds.

RIM Architects was hired in January 2022 to design the facilities. RIM Architects collaborated with teams from WERI and the School of Health, led by WERI Director John Jenson and SOH Dean Margaret Hattori-Uchima respectively, UOG Director of Facilities Management Systems, Glenn Leon Guerrero, UOG Capital Projects Manager Zenon Belonger, RCUOG Executive Director Cathleen Moore-Linn, and others to develop the design details for the new facilities. Construction on the new buildings is scheduled to begin in 2023.

This project is a tribute to the collaborative working environment between the University of Guam, the UOG Endowment Foundation Board of Directors, and the Research Corporation. The UOG Endowment Foundation committed to fund a portion of the required 20% local match in the initial grant submission. Due to the pandemic, related supply chain issues, and inflation, construction costs for the new facilities are expected to exceed the allocated budget. The RCUOG Board of Directors approved a transfer of \$250K per year from RCUOG's net revenue to UOG to repay an internal loan from the endowment fund to fill the construction funding gap and ensure the buildings are constructed on schedule.

## Policies

Policies were approved by the RCUOG Board of Directors to support efficiency within the organization, ensure RCUOG remains a competitive employer, and to support other activities of the Research Corporation and the University of Guam. The reserve expenditures policy was developed because RCUOG realized net revenue for the first time at the end of FY2021. The Board of Directors authorized an expenditure of \$158,460 to support the architectural and engineering contract for the new WERI building and Nursing Annex. Policies include:

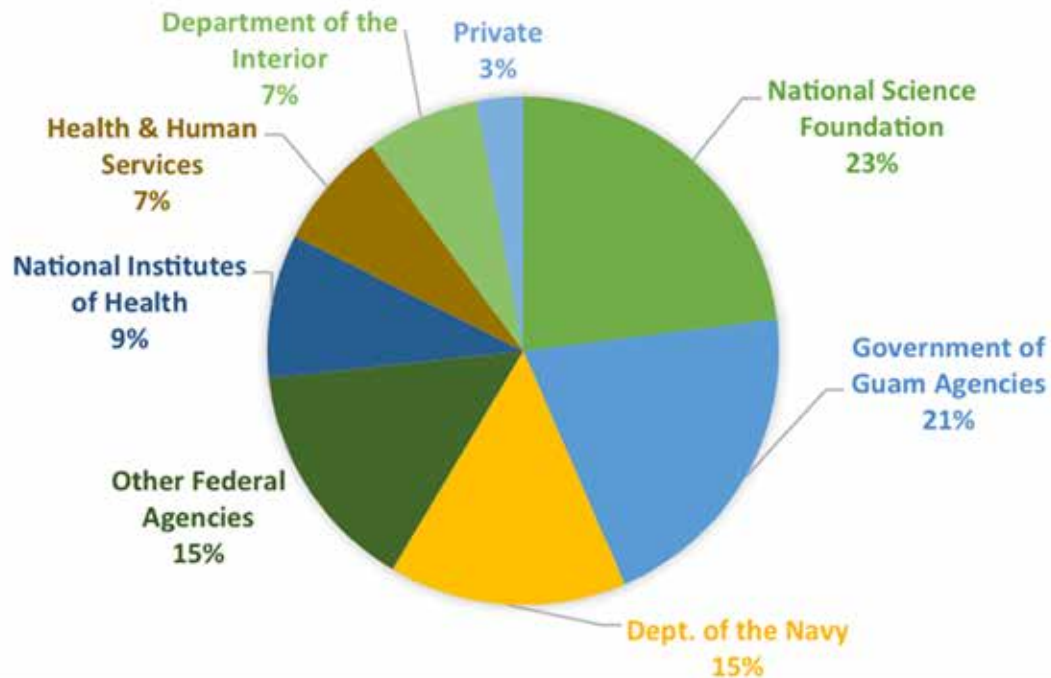
- Amended the Travel Policy
- Approved Reserve Expenditures to Support the WERI Research Facility and Nursing Annex Building Construction Project
- Approved the FY2023 Operations Budget
- Approved the Reserve Distribution Policy
- Amended Authorization to Open or Close Credit Facilities

## Guam Aquaculture and Training Center

RCUOG issued a lease to CoreSeed to operate GADTC in January of 2020 which resulted in the University of Guam's first public-private partnership. RCUOG has an outstanding obligation to the Chamorro Land Trust Commission (CLTC) to conduct phase II agriculture training. The pandemic and closure of government of Guam offices delayed training activities. Dr. Leroy "Bob" Barber and Mark Acosta, both of the College of Natural and Applied Sciences, will reengage with the CLTC administration to complete the final step in the process.



## FUNDING SOURCES



## Focus on Research

The chart above provides a breakdown of grants supported by RCUOG by funding category. Federal agencies, Government of Guam agencies, and non-profit foundations partner with the University of Guam and RCUOG to produce research and service outcomes. The Research Corporation, with a focus on efficiency, provides support to scientists who pursue research projects that have a direct, positive, and lasting impact on Guam and the region.



# FINANCIAL STATEMENT

## RCUOG REVENUE & EXPENSE/BALANCE SHEET

### REVENUE & OTHER ADDITIONS

Federal Grants	\$16,024,615.99
GovGuam Grants	875,832.71
Private Grants	334,587.74
Miscellaneous	2,023,048.82
Transfer from UOG	255,366.56

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**Total Revenue & Other Additions** 19,513,451.82

### EXPENDITURES AND OTHER DEDUCTIONS

Salaries	7,114,177.24
Fringe Benefits	838,507.82
Travel On/Off Island	1,016,722.43
Contracts	3,745,877.34
Supplies	1,065,623.12
Equipment	370,128.11
Capital Outlay	1,022,105.27
Miscellaneous	4,215,225.99

Total Expenditures	19,388,367.32
Increase/Decrease this Year	125,084.50
Net Assets Beg.	3,950,326.32

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**NET ASSETS END** 4,075,411.34

### BALANCE SHEET

#### ASSETS

Cash in Bank	745,974.52
Account Receivables	1,401,566.36
Advances to Suppliers	485,023.96
Advances to Travelers	117,181.95

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**Total Assets** 2,749,746.69

#### LIABILITIES & NET ASSETS

A/P Contracts	11,243.84
Accrued Payroll	6,381.79
Due to/fr Unrestricted	(1,343,290.28)
Deferred Revenue	
Net Assets End	4,075,411.34

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**TOTAL LIABILITIES & NET ASSETS** 2,749,746.69




# 2022 TRAVEL GRANTS AWARDED

RCUOG offers travel awards to students using mileage accrued from purchases made with the RCUOG official credit card in accordance with Public Law 32-019. RCUOG management and staff are delighted to play a small part in supporting students' academic endeavors. RCUOG awarded 26 travel awards in 2022 and a total of 61 awards since the program was launched in 2017.

Graduate student Abram Townsend presented his thesis research on the genetic diversity and population connectivity of blue corals in Guam at the International Coral Reef Symposium (ICRS) in Bremen, Germany in July.

Fifteen UOG Army ROTC cadets traveled to the Commonwealth of the Northern Marianas in May for an opportunity to develop leadership skills. Cadets led JROTC cadets at Tinian High School in field training exercises and physical fitness. Cadets who received travel awards include Noel Degracia, Khloe Ann Miranda, Gavin Pangelinan, Joseph Aquino, Lidio Fullo, Gohan Calunan, Jeffrey Seo, Gavin Whitt, Amarah San Nicolas, Gabriel Aguon, Bert Magallano, Jude Tenorio, Napu Cruz, Elaine Cases, and Berwyn Ednaco.

Andrew McInnis was awarded travel to several islands in the region to conduct additional field research and coral reef monitoring protocols.



Renee Crisostomo traveled to Florida in September to present her research thesis at the Reef Futures Conference.



*UOG Army ROTC cadets took off to Tinian in May to work with JROTC cadets at Tinian High School.*



Abram Townsend presented his thesis research at the International Coral Reef Symposium (ICRS) in Bremen, Germany.

# Travel Grantees



Nico Valencia was at Yale University in the summer where he learned about computational biology and psychiatric genetics policies.



Seanna Bataclan completed an internship in Oregon on mobile health equity for children with autism.

Colin Anthony traveled to Japan as a visiting research student at Tohoku University in October.



Carlos Tramonte presented at the Reef Futures Conference in Florida.







Anela Duenas, John Sacayan, Pablo de la Vega Basurto, and Sarai Vega, traveled to Puerto Rico in October to attend the SACNAS National Diversity Conference.



Therese Miller attended a summer course, Biodiversity and Integrated Taxonomy of Invertebrates, at the University of Washington.

# GRANTS & CONTRACTS

- 2021 State Urban Forest Resilience Grant Program
- 2022-2023 Sea Grant Omnibus Support
- 2023 Guam Strategy Energy & Action Plan
- Abstinence Education
- An Evolutionary Investigation into the High Rates of Metabolic disease in Pacific Peoples
- Atantano: Reviving Historical and Biological Connections with the Land
- Autonomous Control Technology for Unmanned Aerial Systems with Agricultural and Environmental Applications in the Central Pacific Islands
- Biomonitor Support for Natural Resource Management at JRM AOR
- Brown Treesnake (BTS) Research
- BUILD EXITO Admin - Enhancing Cross-disciplinary Infrastructure and Training at Oregon
- BUILD EXITO Research - Enhancing Cross-disciplinary Infrastructure and Training at Oregon
- Building Coral Resilience and Facilitating Post Bleaching Recovery
- Building Leadership Skills for Diverse Japanese Students
- Butterfly & Snail Monitoring
- Capacity Improvement for Agricultural Biotechnology
- CAPS Fire Ants
- CAPS Honey Bee
- CAPS Nursery Survey
- CESU Crown of Thorns Starfish
- CESU Vegetation on Reforestation AAFB
- Chamorro Studies Program
- CIS P-175 Plant Salvage
- CIS-ECASU-GCSO Consortium for Sustainability Outcomes
- CIS-Ugum Restoration
- Climate Change, Variability, and Drought in the US Affiliated Pacific Islands - Working with Managers to Mitigate the Impacts of Drought and Wildfire
- CNAS-USDA Control of CRB
- CNAS-USDA CRB Harmonic Radar
- Collaborative Implementation Grant: Navigating Home
- Coral Mitigation Plan for the GTA Conduit Installation and SEA-US Cable Landings, Piti
- Coral Population Genetics to Identify Diverse Populations for Reef Restoration
- COTS-Pilot Study to Implement a Crown of Thorns outbreak Mitigation plan in Guam Micronesia
- Course in Tropical Forest Ecology of the Mariana Islands
- Data Analysis Post Doctoral Fellowship
- Develop a Comprehensive Implementation Plan for Phase I of the North Finegayan Forest Enhancement Site located within JRM AOR
- Developing a Certification Program in Forest Conservation and Management in Micronesia
- Developing a Simple Genetic Toolkit to Assess and Predict Stress Levels in Guam Corals
- Developing Chamoru Language Infrastructure
- Development of Reef Restoration
- Distance Education Grants Program for Higher Education in the Insular Areas (DEG)
- DOAG USDA 2020 Guam Forest Action Plan Update
- Don't Pack a Pest Outreach
- EDUC Stabilization Fund ESF
- Eight Spot Butterfly
- Enhance the Health and Resilience of Natural and Agroforests
- Enhancing Awareness of CRB and LFA in Micronesia
- Enhancing Local Knowledge to Sustain A Forest Inventory and Monitoring Program through the Pacific Islands
- Enhancing Marine Science Capacity in the Western Pacific through Science Internships at UOG
- Establish Guma' Tinemtom to support population health research through island wisdom
- Establishment of Self-sustaining biological control of CRB
- Finegayan - Impact of Fine-Scale Precipitation on Salinity Levels
- Five Future Trainers – FCAG
- Following the Hyperuricaemic Trail with University of Otago
- Forest Bird Monitoring & Assessment on Tinian Joint Region Marianas (JRM) Leased Lands
- Fruit Bat Monitoring on AAFB
- FY22 CRB Management
- FY22 Hornet Mitigation
- FY22 PPA 1S.0363.01 Pathway Combined
- G3 Makerspace and Innovation Hub
- G3 GEDA Circular Economy
- Geriatrics Workforce Enhancement Program
- Getting Guam Healthy MOU with DPHSS "Walk to Wellness Program"
- GROW GUAM
- GU 20 UOG PPA Solanaceous Survey
- Guam Cancer Registry 2022
- Guam Ecosystems for Corals and Oceans
- Guam Families Coping During COVID-19 Project
- Guam Green Growth (G3)
- Guam Green Growth Renewable Energy Project and Energy Audit of Government of Guam Buildings
- Guam Hazard Mitigation Plan
- Guam Restoration of Watersheds: GROW Ugum
- Hanom Fresko: A cross-disciplinary study of coastal freshwater discharge hydrology and near-shore and coastal ecology
- Hawaii Space Grant Consortium 2020-2024
- Holistic Heritage of the World War II Chuuk (Truk) Lagoon Battlefield
- Hydrogeologic Assessment of the Suspected Sink Hole
- Hydrologic Assessment J-001B Finegayan Utilities
- Identifying key Reef Sites for the Management and conservation of Coral Genetic Diversity and Resilience
- Improvement of Seed Distribution System of Heirloom Eggplants

- Improvement of Tropical Agriculture and Food Science Research at UOG
- Improving Reef Resilience through Sustainable Fisheries
- Invasive Plant Control within Joint Region Marianas Area of Responsibility
- Invasive Species Detector Dog Pilot Program
- Island Wide Habitat Conservation Plan (HCP)
- JAMS Saipan Coral Restoration Project
- Kumision Village Map Chamoru Names
- LFA Survey, Perimeter Monitoring and Eradication at Anderson South
- Little Fire Ant Management in Cotal Conservation Forest
- MCT Further Enhancing the Capacity of Local NGOs
- MGT-Invasive Vegetation (Ironwood), Wake Island (cooperative agreement)
- ML-BSP Impact of Successive Bleaching on Coral Assemblage
- ML-BSP Saipan-Guam Coral Nursery Cross Visits for Information Exchange
- ML-DOI/NPS: Building Staghorn Coral Community
- Monitoring System Exp & Rehab Program (MSERP)
- MOU between Proferre, Inc and UOG RCUOG
- MSU WSARE Sustainable Agriculture and Education
- NASA EPSCoR Research Infrastructure Development Program
- Engaging Guam Residents to Reduce Land Based Sources of Pollution
- NMC Insect Collection
- Northern Guam Lens Aquifer Monitoring System
- NSF INCLUDES NSF Inclusion Across the Nation of Communities of Learners in Underrepresented Discoverers in Engineering and Science (INCLUDES): Supporting Emerging Aquatic Scientists Island Alliance
- ORSP CESU Cycads
- ORSP-UH Food System Resiliency for CHL
- Pacific ADA Center Health Care Staff Implementation of Americans with Disabilities Act Responsibilities: Barriers and Strategies to Address
- Pacific Consortium SRAE Project
- Pacific Island Climate Science Center Graduate Scholars and Summer Undergraduate Research Fellowship programs
- Pacific Island Partnership for Cancer Health Equity (PIPCHÉ)
- PFM Contract- Granite Obayashi, Hensel Phelps, SWCA, Granite Obayashi, and EA Engineering
- PICASC Coral Reef Bleaching Events
- PL 35-99 Guam Green Growth (G3) Initiative
- PL 36-54 Guam Green Growth (G3) Initiative
- Plant and Invertebrate Surveys JRM Area of Responsibility as Specified on Guam and CMNI
- Port Forest Pest
- Promoting Beginning Farmer Training
- RCUH PACIOOS
- RCUOG-CRB Management, Palm Tree Pesticide Injection
- Reducing tree decline of *Casuarina equisetifolia* in Guam through replacement of bacterial wilt infected trees and research into the bacterial microbiomes of trees and associated termites.
- Removal of dead coconut trees (CRB breeding sites) surrounding AB Won Pat Int'l Airport and Jose D. LG Port Authority
- Research and Rapid Response to Control the Brown Tree Snake on Guam
- Resident Instruction Grants Program for Institutes of Higher Education in Insular Areas
- Restoring Staghorn Corals and Ecosystem Services on Reef Flats in Guam
- ROTA Landfill Preliminary Design
- Sea Turtle Aerial Surveys in Farallon De Medinilla (FDM)
- Sea Turtle Monitoring, Protection, and Educational Outreach on AAFB
- Self Determination Study
- *Serianthes nelsonii* Monitoring AFB
- *Serianthes nelsonii* Monitoring JRM
- SOENG-BSP DOI Soil Bioengineering Techniques
- Subaward UH Children's Health Living Center of Excellence to Collect Child Health Data on Guam and support CHL Intervention Training
- TAP Campus Security
- TAP Establishing the Artifact Maintenance Program
- TAP Marine Resources Education
- The Guam Terrestrial Snail Inventory
- Towards a More Perfect Union: Teaching and Learning in Micronesia
- Training Capacity for the Guam Cultural Repository (Guam Technical Assistance Program)
- U24 Cardiometabolic Diseases
- UH-COVID-RX UP
- University of Guam Sea Grant Omnibus Proposal 2018-2022
- USAPI Pacific Regional Central Cancer Registry (PRCCR)
- USDA BTS Research (22-23)
- USDA VRT Ag & Food
- Vegetation Restoration for the Habitat Management Unit AAFB
- Water Quality Monitoring on Joint Region Marianas Submerged Lands Guam
- Wetlands Protection Development - Guam Watershed
- WSARE Implementation 2020 for Guam
- WSARE Training Network
- Yo'Amte Plant and Healing

