

CNAS ANNUAL REPORT

AY 2025-2026



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES



UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES

CNAS ANNUAL REPORT AY 2025-2026

Published: July 2026

Layout: Alicia Borja

Editor: Jackie Hanson

Production Assistance: Conrad Calma

The University of Guam is a U.S. Land Grant and Sea Grant institution accredited by the WASC Senior College & University Commission. UOG is an equal-opportunity provider and employer committed to our island wisdom values of *inadahi yan inagofli'e*: respect, compassion, and community. To request this publication in an alternate format, please contact (671) 735-2060 or cnasteam@triton.uog.edu.





A MESSAGE FROM THE DEAN



Buenas yan Håfa Adai!

I am pleased to share the second edition of the CNAS Annual Report. This report is more than a summary of data, events, and accomplishments; it is a reflection of the collective work, dedication, and spirit of the College of Natural & Applied Sciences. At the heart of every achievement are our faculty, staff, administrators, students, and partners, whose commitment to teaching, research, extension, outreach, and service continues to move CNAS forward.



*Together,
we advance
knowledge,
inspire innovation,
and serve our
community
and the
Western Pacific.*



As the dean, I remain inspired by the vision that continues to guide our college: for CNAS to be recognized as the shining star of academic excellence in STEM, a leader in innovative tropical agricultural and terrestrial research, and a beacon of impactful community outreach across the Western Pacific. I envision CNAS as the “go-to” college for our local students – those eager to pursue a STEM education and contribute meaningfully to the future of our island and region.

This year, CNAS continued to strengthen its academic enterprise through student-centered instruction, experiential learning, strategic partnerships, and community engagement. Our enrollment, graduates, and credit hour production reflect our important role in serving UOG students and preparing future leaders in STEM, agriculture, natural resources management, medicine, data science, teaching, and related fields. Through initiatives such as the NYITCOM medical pathway, NextGen GROW, and NextGen COMPASS, students gained expanded access to professional pathways, scholarships, paid internships, national learning experiences, and hands-on training to support Guam’s workforce needs.

At the same time, CNAS continued to extend science, learning, innovation, and service beyond the university through Charter Day, UOG Math Day, the Islandwide Science Fair, the Chemistry Olympiad, the UOG High School Chemistry Titration Competition, the CNAS STEM Conference, UOG Extension workshops, and 4-H programs. Together, these efforts reflect our commitment to academic excellence, public service, and the Land Grant mission that remains central to who we are.

May this report serve as both a record of our progress and a tribute to the people who make that progress possible. To our faculty and staff, thank you for your dedication. To our students, thank you for inspiring us. To our partners and community, thank you for believing in the work of CNAS.

Si Yu’os Ma’åse’,

Rachael T. Leon Guerrero, Ph.D., RDN
Dean, College of Natural & Applied Sciences
Director, UOG Land Grant Extension Service
Director, UOG Land Grant agInnovation Research Center



A MESSAGE FROM THE ASSOCIATE DEAN



Buenas yan Håfa Adai!

Greetings to all CNAS faculty, staff, and students. Academic Year 2025-2026 has been a transformative year of re-envisioning for our college. I extend my heartfelt Si Yu'os Ma'åse' to each of you for your dedicated engagement in teaching, research, extension, outreach, and service. It has been an honor to work alongside such committed professionals who make our college and university an exceptional place to work and learn.

This year's annual report highlights the strength of our academic enterprise and the collective accomplishments of our faculty, staff, administrators, students, and partners. CNAS served 1,842 students in Fanuchånan (Fall) 2025, conferred 132 degrees during AY2025-2026, and produced more than 20,000 credit hours across undergraduate and graduate programs. These outcomes reflect the continued importance of CNAS in preparing future leaders in agriculture, biology, chemistry, computer science, mathematics, data science, environmental science, natural resources, medicine, teaching, and related STEM fields.

Our college also expanded student pathways and experiential learning opportunities in important ways. The new academic partnership with the New York Institute of Technology College of Osteopathic Medicine-Arkansas created Guam's first structured pathway for aspiring physicians, strengthening opportunities for local students to pursue medical education. Through NextGen GROW and NextGen COMPASS, CNAS students received scholarships, paid internships, national professional development experiences, and hands-on training that supported workforce development in agriculture, food systems, natural resources, STEM, public health, and federal service. Our graduate students also demonstrated excellence through thesis awards and research projects that addressed local and regional needs.

This year further demonstrated CNAS's strong commitment to outreach and community engagement. In addition to our Land Grant program delivery, CNAS also brought science and learning to the broader community through Charter Day and the Land Grant Festival, the 48th Islandwide Science Fair, the 15th UOG Math Day, the 6th Chemistry Olympiad, the UOG High School Chemistry Titration Competition, the student-led CNAS STEM Conference, and other student- and community-centered activities.

While this summary cannot capture every accomplishment, it represents our collective dedication to excellence in education, research, and service. Thank you for your unwavering belief in our college's mission. Together, we have built a foundation for continued excellence, and we eagerly anticipate an even more impactful year ahead.

Si Yu'os Ma'åse',

Maika V. Vuki, Ph.D.

Interim Associate Dean/Professor of Chemistry
College of Natural & Applied Sciences



A MESSAGE FROM THE ASSOCIATE DIRECTOR



Buenas yan Hāfa Adai!

It is with great pride and gratitude that we present this Annual Report, showcasing another year of meaningful service, education, and community engagement through our UOG Land Grant Extension Service programs.

At the heart of our mission is a commitment to improving the quality of life for individuals, families, and communities through research-based education and culturally relevant programming. Throughout the year, our Extension team worked alongside community members, partners, and stakeholders to deliver innovative and impactful projects that address local needs while honoring our island's traditions, values, and unique way of life.

Our Agriculture & Natural Resources programs provided hands-on public workshops and educational opportunities that strengthened community knowledge in sustainable agriculture, horticulture, raised-bed gardening, and animal welfare. These initiatives empowered residents to enhance food security, protect natural resources, and adopt environmentally responsible practices.

Through our Family & Consumer Sciences programming, community members gained valuable skills and resources to support healthier lifestyles and greater economic well-being. Popular initiatives, such as our Let's Cook series, promoted nutritious meal preparation using locally available ingredients, while workshops on diabetes management, financial literacy, and value-added food processing equipped participants with practical tools for improving health and financial resilience.

Youth development remained a cornerstone of our efforts through engaging 4-H programs, including summer camp experiences that fostered leadership, teamwork, life skills, and a deeper appreciation for agriculture and the environment. We were especially pleased to host educational field trips on the UOG campus, where youth, including Head Start preschool children, experienced hands-on learning opportunities that connected them to agriculture, nature, and healthy living. Additional recreational and educational activities, including visits to the Aqua Park, provided memorable experiences that encouraged exploration, confidence, and positive social development.

These accomplishments would not have been possible without the dedication of our Extension faculty and professionals, volunteers, community partners, educators, families, and participants. This enthusiastic collaboration continues to strengthen our collective efforts and expand the reach of Extension programs across our communities.

As we reflect on the successes highlighted in this report, we remain committed to serving as a trusted resource for education, innovation, and community development. Together, we will continue building stronger, healthier, and more resilient communities for future generations.

Si Yu'os Ma'āse',

Tanisha F. Aflague, Ph.D., RDN
Interim Associate Director, UOG Land Grant Extension Service
Professor of Nutrition, College of Natural & Applied Sciences



A MESSAGE FROM THE ASSOCIATE DIRECTOR

Buenas yan Háfa Adai!



This past year was one of adaptation, resilience, and growth for CNAS as we navigated a changing landscape of national priorities and new opportunities. These changes required us to refine our focus while remaining firmly committed to our mission of advancing science in service to Guam and the region. The result is a research enterprise that is more focused, more responsive, and better prepared to address both longstanding challenges and emerging issues facing our island communities.

As you explore this report, you will see research that addresses many of Guam's most important needs, from strengthening food and energy security to protecting our natural resources and improving biosecurity. At the heart of these efforts are our faculty, whose expertise in the natural sciences and mathematics helps the university respond to the challenges facing our community. Just as importantly, the external funding that supports much of this work has also created valuable research, training, and internship opportunities for our undergraduate and graduate students, helping prepare the next generation of scientists, innovators, and problem-solvers for Guam and the nation.

Looking ahead, CNAS will continue to adapt and grow while remaining grounded in the needs of the people and communities we serve. We remain committed to advancing science that is relevant, practical, and impactful – science that helps build a stronger, more resilient future for Guam and the region.

Si Yu'os Ma'ase',

Frank A. Camacho, Ph.D.
Interim Associate Director
UOG Land Grant agInnovation Research Center



ACADEMIC OUTPUTS



Building strong academic programs that inspire learning, drive discovery, and prepare future leaders.



OUR COMMITMENT

We are committed to academic excellence through innovative teaching, experiential learning, and a student-centered approach.



1,055

STUDENTS
ENROLLED
FALL 2025



103

DEGREES
CONFERRED
AY 2025-2026



16,668

CREDIT HOURS
PRODUCED
AY 2025-2026



STUDENTS PER MAJOR as of:	Fanuchånan 2025	Fañomnåkan 2026
 Agriculture & Life Sciences	64	54
 Biology	189	192
 Chemistry	51	49
 Computer Science	101	94
 Mathematics	17	14
 Graduate Biology	24	23
 Graduate Environmental Science	16	15
 Graduate Sustainable Agriculture, Food, & Natural Resources	10	11
 Graduate Data Science	14	14

GRADUATES PER MAJOR as of:	Fanuchånan 2025	Fañomnåkan 2026
 Agriculture & Life Sciences	9	4
 Biology	7	29
 Chemistry	1	13
 Computer Science	0	16
 Mathematics	1	2
 Graduate Biology	5	2
 Graduate Environmental Science	0	2
 Graduate Sustainable Agriculture, Food, & Natural Resources	1	2
 Graduate Data Science	0	9



CREDIT HOUR PRODUCTION



Our credit hour production reflects the strength of our academic programs and our commitment to student success.



9,051

TOTAL CREDIT HOURS
PRODUCED
FANUCHÅNAN 2025



7,617

TOTAL CREDIT HOURS
PRODUCED
FAÑOMNÅKAN 2026



16,668

TOTAL CREDIT HOURS
PRODUCED
AY 2025-2026

CREDIT HOUR PRODUCTION BY SUBJECT

ACADEMIC LEVEL	SUBJECT	Fanuchånan Credit hour Production	Fañomnåkan Credit hour Production
 UG Undergraduate Programs	 Agriculture & Life Sciences	795	718
	 Biology	2,247	1,905
	 Chemistry	1,203	1,116
	 Computer Science	613	537
	 Mathematics	2,898	2,389
	 Military Science & Leadership	219	159
	 Physics	653	512
 GR Graduate Programs	 Sustainable Agriculture, Food & Natural Resources	18	43
	 Biology	182	77
	 Environmental Science	112	76
	 Data Science	111	85



CANDIDATES FOR DEGREE IN COURSE



FANUCHANAN (FALL) 2025

BACHELOR OF SCIENCE (B.S.)

AGRICULTURE & LIFE SCIENCES: TROPICAL AGRICULTURE PRODUCTION TRACK

Adriann Alfons
Franklin Cruz Fujihira
Cecilia Erensia Mendiola Pangelinan

AGRICULTURE & LIFE SCIENCES: HUMAN NUTRITION & FOOD SCIENCES TRACK

Gwindaleen Cruz Espulgar
Christian Alexander Quiblat Reyes
Stephanie C. Suva

AGRICULTURE & LIFE SCIENCES: FAMILY & COMMUNITY RESOURCE DEVELOPMENT TRACK

Twindon-Lee Ragiyaane

BIOLOGY: APPLIED BIOLOGY TRACK

Kaylen Cari Guerrero Cruz
Aellany Kirsten G. Gatus
William Kazuki Minami
Raelani Jrey Santos Naputi

BIOLOGY: BIO-MEDICAL TRACK

Genavieve Valencia Mangosong
Jennifer Yuri Ok

MATHEMATICS

Shannon Marie Leon Guerrero Ada



CANDIDATES FOR DEGREE IN COURSE



MASTER OF SCIENCE (M.S.)

BIOLOGY

Zoe Ariellius

Anela Eliza Kainani Duenas

Garret Thomas O'Donnell

Arthur J. S. Perez

Mikayla Reed Reuter

SUSTAINABLE AGRICULTURE, FOOD & NATURAL RESOURCES

Rennie Glen Taiwerpal



CANDIDATES FOR DEGREE IN COURSE



FAÑOMNĀKAN (SPRING) 2026

BACHELOR OF SCIENCE (B.S.)

AGRICULTURE & LIFE SCIENCES: TROPICAL AGRICULTURE PRODUCTION TRACK

Timotheo Silbanuz
Farron Taijeron

AGRICULTURE & LIFE SCIENCES: CHILD & FAMILY LIFE SCIENCES TRACK

Trisha Casey Joab

BIOLOGY: APPLIED BIOLOGY TRACK

Jessica Catherine Bratcher
Tadashi Elijah Villagomez Hiura
Rebecca Hope Leon Guerrero
Joanna Marie Reyes Pangelinan

BIOLOGY: BIO-MEDICAL TRACK

Lizalette Marie V. Basa
Cara Catalina Canovas
Hannah-Jo Cruz
Kyra Magdangal Dela Cruz
Kedrick Al Leon Guerrero Diego
Madison Gabriella Eclavea
AmandaJade Natividad Fajardo
Kaila Peralta Lasam
Gabriel Michael Leon Guerrero
Jan Krismari Torres Malig-on

Angelica Abella Marzo
Haleia Joneine Peredo
Karlle Dawn Dizon Policarpio
David Vincent Flores Quichocho
John Kyle Dela Cruz Rabino
Manuel Albert Pabroa Roque
Jaedine Keila G. Sto.Domingo
Rico Daniel Tkel Takao
Noah Tano
Franchesca Maxene Bobos Tibayan

BIOLOGY: INTEGRATED BIOLOGY TRACK

Kiana Mae Agulto Camacho
Ave Maria Perez Jesus
Jose Enrique Duenas Simpson
Sadie Laurel Leong Tumanda



CANDIDATES FOR DEGREE IN COURSE



CHEMISTRY: CHEMISTRY-BIOLOGY DUAL-DEGREE TRACK

Atasha Loreigne Garcia Bautista
Chia-Chia Hsieh
Ave Lyn Artero Medina
Veronica Rose Obias
Christopher Richmond
Casey M. Rosario
Nathaniel Sharma
Benjamin Ulrich Cabujat Snaer
Christel Kei Uychoco Valerio

CHEMISTRY: FORENSIC CHEMISTRY TRACK

Jessica Laquibla Muyco
Cameron Rose Delgado San Agustin

CHEMISTRY: PRE-PHARMACY TRACK

Shanae Abcde L. Ayangco
Jenna Lynn Mafnas

COMPUTER SCIENCE

Jeacob Basa
Mark Anthony Mia Bias
Rico de Castro Blancaflor Jr.
Jonathan Manzano Collado
Connor Ray Balajadia Cruz
Rocelin Barrozo De Vera
Marvin John Sison Ednaco
Winston Albert Hernaez Galindo

Sean Christian Gustilo Lacdoo
Ian Miguel Manalili Lague
Lauren Yelin Meade
Geron Anthony Fabro Mendiola
Christopher Seiki Blas Nadeau
Jamar Osera Nucum
Adrian Yuzon Ocampo
Eric Braiden Royal Jr.

MATHEMATICS

Johndeo Celorio Bulatao



CANDIDATES FOR DEGREE IN COURSE



FAÑOMNĀKAN (SPRING) 2026

MASTER OF SCIENCE (M.S.)

BIOLOGY

Forest Downey
Emma Victoria Miller

DATA SCIENCE

Cabrini Cruz Aguon
Angelika Mae De Celis Argao
Antoni Badowski
Michael Basaliza Cajigal
Aurienne Maria-Claire Reyes Cruz
Maria Seanna Cabero Minas
Abigail Santos Pobre
Jacob G. Richards
John Christian Abedes Sual

ENVIRONMENTAL SCIENCE

RoCelia Nicole Terlaje Paulino
Mary Clare Snaer

SUSTAINABLE AGRICULTURE, FOOD & NATURAL RESOURCES

Laura Chen
Katrina Jon Macasaquit Nguyen

ARMY ROTC GRADUATES

MINOR IN MILITARY SCIENCE

FANUCHĀNAN (FALL) 2025

Nathan Andreau Mangune

B.S. Elementary Education

Minor: Military Science

Branch: Field Artillery

Accession: Guam Army National Guard

Daniel Juan Galura Mendiola

B.S. Health Care

Minor: Military Science

Branch: Medical Services Corps

Accession: Active Duty



FAÑOMNĀKAN (SPRING) 2026

Kenneth Change Aguon Ebeya

B.A. Business Admin., Armor Branch, Active Duty

Christopher Tainatongo Eclavea Jr.

B.S. Public Admin., Air Defense Artillery, Active Duty

Ashley Nicole Iriarte

B.S. Criminal Justice, Medical Service Corps, Active Duty

Tristan Cole Pangelinan Mendiola

B.S. Criminal Justice, Logistics Branch, Army National Guard

Martin Wayne Dizon Ocampo

B.S. in Criminal Justice, Adjutant General's Corps/Infantry, Active Duty

Sheldon Orhaitil

B.S. Criminal Justice and B.S. Public Administration, Military Police Corps, Army Reserve

Jacob Gabriel Richards

M.S. Data Science, Military Intelligence, Active Duty

Earl Lawrence Gonzales Salamat

B.S. Criminal Justice and B.S. Public Administration, Infantry, Army Reserve

Jaroe Galvez Scott

B.S. Criminal Justice, Adjutant General Corps, Active Duty

Fernando Sison

B.S. Criminal Justice

Jonah Raphael Concepcion Tenorio

B.A. Political Science, Air Defense Artillery, Active Duty

Patrick Lawrence Campos Toves

B.S. Criminal Justice, Armor Branch, Active Duty

Rizaldy Veloria Tugade Jr.

B.S. Criminal Justice, Medical Service Corps





CHIA-CHIA HSIEH

FAÑOMNĀKAN (SPRING)
2026 VALEDICTORIAN

Chemistry-Biology Dual Degree

"Success is not defined only by personal achievement. It is also defined by how we impact the lives of others."

Class of Fañomnākan 2026 valedictorian **Chia-Chia Hsieh**, a chemistry-biology dual-degree graduate, reflected on her journey from Taiwan to Guam and the support system she found at UOG after arriving alone at age 16.

"There were many moments during my first few years when I felt lonely and uncertain about whether I truly belonged here," Hsieh said. "But over time, UOG became the place that helped me grow the most."

She credited faculty, classmates, and friends for helping create a sense of belonging and shared purpose, particularly during recent islandwide power outages that disrupted final exams, presentations, and projects.

"As someone far away from home, those moments reminded me that UOG was not simply a university," Hsieh said. "It was a community that genuinely cared about its students."

Drawing on the university's mission of Ina, Deskubre, Setbe – to enlighten, discover, and serve – Hsieh encouraged her fellow graduates to use their education in service of others.

Hsieh's undergraduate research focused on plants significant to Pacific island communities, work that later led to a research internship at Academia Sinica in Taiwan. She said those experiences helped her understand the connections between science, culture, community, and service.

Hsieh's journey from Taiwan to Guam reflects the transformative role higher education can play in expanding opportunity across the region. After graduation, she will attend the University of Michigan College of Pharmacy, where she plans to pursue a Doctor of Pharmacy degree and continue her commitment to improving health outcomes through pharmacy and public health.



GRADUATE THESES & ADVISORS



FANUCHÅNAN (FALL) 2025

MASTER OF SCIENCE IN BIOLOGY

Zoe Ariellius

Thesis Title: Effects of Eutrophication on the Microbiome and Resilience of Guam's Key
Scleractinian Corals

Advisor: Dr. Héloïse Rouzé

Anela Eliza Kainani Duenas

Thesis Title: Ecophysiology of Shifts in Coral Species Dominance on Reef Flats of Guam

Advisor: Dr. Bastian Bentlage

Garret Thomas O'Donnell

Thesis Title: Archipelago-Scale Genetics of the Massive Porites Species Complex in the Mariana Islands

Advisor: Dr. David Combosch

Arthur J. S. Perez

Thesis Title: *Nautilus belauensis*: The Search for (Species) Identity

Advisor: Dr. David Combosch

Mikayla Reed Reuter

Thesis Title: Heat Tolerance and Phylogenetic Analysis of Staghorn Acropora on Guam

Advisor: Dr. David Combosch

MASTER OF SCIENCE IN SUSTAINABLE AGRICULTURE, FOOD, AND NATURAL RESOURCES

Rennie Glen Taiwerpal

Thesis Title: Evaluating the Physical & Chemical Characteristics of Cocopeat and its Potential as Growing
Media

Advisor: Dr. Mari Marutani



GRADUATE THESES & ADVISORS



FAÑOMNĀKAN (SPRING) 2026

MASTER OF SCIENCE IN BIOLOGY

Forest Downey

Thesis Title: Effects of Natural and Restored Staghorn Acropora Coral Thickets on Reef Fish Assemblages

Advisor: Dr. Brett Taylor

Emma Victoria Miller

Thesis Title: Quantifying Reef Carbonate Production Through Digital Reef Modelling

Advisor: Dr. Tom Schils

MASTER OF SCIENCE IN DATA SCIENCE

Cabrini Cruz Aguon

Project Title: Comparative Analysis for Automated Breast Density Estimation

Advisor: Dr. Grazyna Badowski

Angelika Mae De Celis Argao

Project Title: Developing a Neonatal Risk Prediction Tool for Guam Using Population-Level Birth Data

Advisor: Dr. Grazyna Badowski

Antoni Badowski

Project Title: Modeling Coral Cover Dynamics in Micronesia: A Bayesian Hierarchical Analysis of Thermal Stress and Reef Recovery

Advisor: Dr. Grazyna Badowski

Michael Basaliza Cajigal

Project Title: Identifying Breast Cancer Risk Phenotypes in Guam: Stratified Latent Class Modeling and Concordance Analysis with Gail and BRISK Risk Scores

Advisor: Dr. Grazyna Badowski

Aurienne Maria-Claire Reyes Cruz

Project Title: Identifying Breast Cancer Risk Phenotypes in Guam: Stratified Latent Class Modeling and Concordance Analysis with Gail and BRISK Risk Scores

Advisor: Dr. Grazyna Badowski

Maria Seanna Cabero Minas

Project Title: The Elements of Success: Exploring Factors of Student Performance through Multilevel Regression

Advisor: Dr. Grazyna Badowski



GRADUATE THESES & ADVISORS



FAÑOMNÅKAN (SPRING) 2026

MASTER OF SCIENCE IN DATA SCIENCE

Abigail Santos Pobre

Project Title: The Elements of Success: Exploring Factors of Student Performance through Multilevel Regression

Advisor: Dr. Grazyna Badowski

Jacob G. Richards

Project Title: Analyzing Risk: Exploring Charge Off Data and Risk Based Pricing

Advisor: Dr. Grazyna Badowski

John Christian Abedes Sual

Project Title: The Elements of Success: Exploring Factors of Student Performance through Multilevel Regression

Advisor: Dr. Grazyna Badowski

MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCE

RoCelia Nicole Terlaje Paulino

Thesis Title: Deep Learning for Invasive Species Detection: CNN Based Identification of Brown Treesnakes in Camera Trap Data

Advisor: Dr. Rachel Jolley

Mary Clare Snaer

Thesis Title: Hydrologic Analysis of the Deep Observation Wells in the Northern Guam Lens Aquifer

Advisor: Dr. Nathan Habana

MASTER OF SCIENCE IN SUSTAINABLE AGRICULTURE, FOOD AND NATURAL RESOURCES

Laura Chen

Thesis Title: Stability, Antioxidant Activity, and Application of Pigment 'Betacyanin/HP- β -Cyclodextrin Complex' from Dragon Fruit

Advisor: Dr. Jian Yang

Katrina Jon Macasaquit Nguyen

Thesis Title: Examining Food Preparation and Taste Tests on Fruit and Vegetable Intake and Willingness to Try Among Youth in Guam: The EFNEP EATS Study

Advisor: Dr. Tanisha Aflague



GRADUATE THESIS AWARDS

FAÑOMNĀKAN (SPRING) 2026

*RECOGNIZING EXCELLENCE. HONORING
IMPACT. INSPIRING DISCOVERY.*

The UOG Graduate Thesis Awards recognize outstanding graduate students for thesis and research work that demonstrates academic excellence, innovation, community relevance, and scholarly impact. The awards highlight graduate research across multiple programs and celebrate students whose work contributes to knowledge, addresses local and regional needs, and reflects the University of Guam's mission of discovery and service. Several graduate students from CNAS were awarded in this year's ceremony, which took place on May 21, 2026.

INNOVATIVE RESEARCH AWARD

Angelika Argao, a M.S. in Data Science student, received the Innovative Research Award, for her research project, **"Developing a Neonatal Risk Prediction Tool for Guam Using Population-Level Birth Data."** The award goes to projects that demonstrate creativity, rigor, and a strong potential to contribute new knowledge and applied problem-solving.

GRADUATE STUDENT AWARD

Maria Seanna Cabero Minas, also from the M.S. in Data Science program, received the Graduate Student Award for her project titled **"The Elements of Success: Exploring Factors of Student Performance through Multilevel Regression."** The award recognizes the leadership of students whose academic work bridges research, service, and real-world application.

COMMUNITY IMPACT AWARDS

The Community Impact Awards reflect the value of graduate research in responding to community needs and supporting meaningful outcomes beyond the classroom. The category had a tie, resulting in both a group recipient and an individual recipient:

The team of **Abigail Pobre, Maria Seanna Minas, and John Christian Sual**, all from the M.S. in Data Science Program, won the group award for their project, **"The Elements of Success: Exploring Factors of Student Performance through Multilevel Regression."**

Rennie Taiwerpal from the M.S. in Sustainable Agriculture, Food, and Natural Resources Program, won the individual Community Impact Award for his thesis, **"Evaluating the Physical & Chemical Characteristics of Cocopeat and its Potential as Growing Media."**

Together, these awardees represent the growing impact of CNAS graduate education in preparing students to address complex challenges through data science, sustainable agriculture, food systems, natural resources, and community-centered research. Their achievements reflect the college's commitment to cultivating graduate scholars who contribute to the resilience, innovation, and well-being of Guam and the Pacific region.





GROWING GUAM'S NEXT GENERATION

THROUGH USDA-FUNDED EDUCATION
AND CAREER PATHWAYS

The University of Guam continues to advance higher education and workforce development in the Western Pacific through the USDA-funded "From Learning to Leading: Cultivating the Next Generation of Diverse Food and Agriculture Professionals Program," also known as NextGen. Two initiatives at UOG – NextGen GROW and NextGen COMPASS – are expanding access to scholarships, paid internships, specialized coursework, and professional development experiences to recruit and prepare students for careers in agriculture, food, natural resources, human sciences, STEM, and related fields.

During Fanuchånan (Fall) 2025, **NextGen GROW** provided scholarships to 68 students, totaling \$217,600, and supported 24 paid student internships, totaling \$47,890. During Fañomnåkan 2026, the program provided paid internship opportunities in agriculture and related fields to 19 students, representing an estimated investment of \$109,503 in experiential learning and workforce development. The semester's scholarships supported 68 students with a projected total of \$109,400. During AY25-26, NextGen GROW provided a total of more than \$484,000 in support to 68 students. Eligible students for NextGen GROW include those majoring in the B.S. in Agriculture & Life Sciences, M.S. in Sustainable Agriculture, Food, and Natural Resources, and M.S. in Data Science programs. Through this support, students are gaining the financial assistance and applied experience needed to persist in their degree programs and gain competitive skills for careers that will strengthen Guam's agricultural and STEM workforce.

During the fall internship cycle, **NextGen COMPASS** also expanded its impact, providing \$69,144 in paid internship support to 48 UOG students across a wide range of undergraduate majors, including biology, chemistry, mathematics, agriculture and life sciences, civil engineering, health science, media and communication, accounting, education, psychology, public administration, and business administration. In the spring semester, 41 students completed internships across multiple fields, with an estimated investment of \$119,280. The program also supported nine students in taking online courses not available locally, investing \$11,125 to help them advance academically and build skills in STEM and agriculture-related fields.



NEXTGEN GROW

Supporting Students in Agriculture,
Food, Natural Resources, and Data Science

FALL 2025



68
STUDENTS
\$217,600
IN SCHOLARSHIPS



24
INTERNS
\$47,890
IN PAID
INTERNSHIPS

SPRING 2026



68
STUDENTS
\$109,400
(REIMBURSEMENT BASIS)



19
INTERNS
\$109,503
IN PAID
INTERNSHIPS

\$484,000+

TOTAL SUPPORT DURING AY25-26
TO 68 STUDENTS THROUGH SCHOLARSHIPS
AND PAID INTERNSHIPS



NEXTGEN COMPASS

Broadening Access. Building Skills.
Expanding Opportunities.

FALL 2025



48
STUDENTS
\$69,144.40
IN PAID INTERNSHIP
SUPPORT

SPRING 2026



41
STUDENTS
\$119,280
IN PAID INTERNSHIP
SUPPORT



9
STUDENTS
\$11,125.77
ONLINE COURSES
NOT AVAILABLE LOCALLY



SUPPORTING STUDENTS ACROSS A WIDE RANGE OF MAJORS
INCLUDING STEM, AGRICULTURE, HEALTH SCIENCES,
BUSINESS, ENGINEERING, HUMAN SCIENCES, AND MORE.

HANDS-ON LEARNING FOR REAL-WORLD IMPACT

STUDENTS GAINING EXPERIENCE. FACULTY ADVANCING RESEARCH. COMMUNITIES BENEFITTING.



Across both programs, student interns worked alongside CNAS research and extension faculty in agriculture and natural resources, food and nutrition, horticulture, youth development, and family and consumer sciences. These internships directly strengthened faculty research and extension productivity while giving students hands-on experience in laboratories, field settings, and community-based programs. In one internship, two students supported UOG Extension entomologist Dr. Alfred Daniel Johnson by helping preserve UOG's historical insect collection, which includes specimens dating back to the 1930s. Their work included cleaning, repairing, and digitally documenting specimens, learning scientific nomenclature and insect identification, field-collecting parasitoids for active research, and helping maintain a 30,000-specimen collection that serves as an essential reference for biodiversity, invasive species, island ecology, and cultural research.

The programs also created opportunities for students to engage in national professional development. Eight students from the two NextGen programs received support to participate in the Model USDA experience held in January 2026 at Arizona State University. Through this experience, students took on roles as policymakers in simulations addressing real-world food and agriculture challenges, including healthy dietary guidelines and prescribed burns. The activity provided practical insight into careers within the U.S. Department of Agriculture while strengthening students' understanding of policy, leadership, and public service.

Together, NextGen GROW and NextGen COMPASS are cultivating a pipeline of locally rooted students prepared to become the next generation of leaders in agriculture, food systems, natural resources, public health, STEM, and federal service. By combining financial support, hands-on learning, academic access, and strategic workforce development, UOG's NextGen initiatives are helping build a more skilled, resilient, and self-sustaining workforce for Guam and the broader Pacific region.



UOG AND NYITCOM CREATE GUAM'S FIRST MEDICAL DOCTOR DEGREE PATHWAY FOR ASPIRING PHYSICIANS



On **April 2, 2026**, the University of Guam signed a new academic partnership with the New York Institute of Technology College of Osteopathic Medicine-Arkansas (NYITCOM), creating a direct pathway for aspiring physicians from Guam and the region. The agreement allows UOG students pursuing pre-medical studies (those in the B.S. in Biology, Bio-Medical Track) to complete four years of undergraduate education at UOG, followed by four years at NYITCOM's campus in Jonesboro, Ark., where they may earn a Doctor of Osteopathic Medicine degree.

The partnership represents an important step in strengthening Guam's health care workforce by expanding access to medical education for local students. As Guam continues to face a shortage of healthcare professionals, the pathway provides students with a clearer route to medical school while supporting long-term efforts to increase the number of home-grown physicians serving the island and the broader region.

The agreement also reflects the strength of CNAS's Biology Program and the college's role in preparing students for careers in medicine, health, and science. Through strong faculty mentorship and rigorous academic preparation, CNAS continues to expand opportunities for students to pursue professional pathways while remaining connected to the needs of Guam's community.

Full story: <https://url.uog.edu/nyitcom>

BUILDING PATHWAYS. STRENGTHENING HEALTH CARE.
PREPARING TOMORROW'S PHYSICIANS FOR GUAM AND BEYOND.



CNAS FACULTY



DIVISION OF AGRICULTURE & LIFE SCIENCES

Mark Acosta, B.S.	Extension Agent I/Assistant Instructor of Sustainable Agriculture & Community Wellness
Tanisha F. Aflague, Ph.D., RDN	Extension Specialist/Professor of Nutrition
Jesse P. Bamba, M.S.	Extension Agent III/Assistant Professor of Plant Production
L. Robert Barber, Ph.D.	Extension Specialist/Professor of Agricultural Economics
Peter R. Barcinas, M.S.	Extension Agent III/Assistant Professor of Community Resource Development
Robert F. Bevacqua, Ph.D.	Extension Agent III/Assistant Professor of Horticulture
Jimmy T. Camacho, Ph.D.	Extension Agent III/Assistant Professor of Community Development
Kuan-Ju Chen, Ph.D.	Extension Agent IV/Associate Professor of Agricultural Economics
Tim C. de la Cruz, Ph.D.	Extension Agent III/Assistant Professor of Family & Consumer Sciences
Glenn Dulla, Ph.D.	Assistant Professor of Plant Pathology
Sahena Ferdosh, Ph.D.	Assistant Professor of Natural Product Chemistry
Matthew B. Hales	Extension Agent II/Instructor of Community Development
Hui Gong Jiang, Ph.D.	Associate Professor of Aquaculture
Alfred Daniel Johnson, Ph.D.	Extension Agent III/Assistant Professor of Entomology
Romina King, Ph.D.	Associate Professor of Geography
Clifford J. Kyota, MPA	Extension Agent II/Instructor of 4-H and Youth Development
Michelle B. Laguana, Ph.D.	Extension Agent III/Assistant Professor of Nutrition
Jeng-Hung "Leo" Liu, Ph.D.	Extension Agent III/Assistant Professor of Animal Science



CNAS FACULTY



DIVISION OF AGRICULTURE & LIFE SCIENCES (cont'd)

Mari Marutani, Ph.D.	Professor of Horticulture
Lenora Matanane, M.S., RDN	Extension Agent II/Instructor of Nutrition
James McConnell, Ph.D.	Professor of Ornamental Horticulture
Ross H. Miller, Ph.D.	Professor of Entomology
Christianah Oladoye, Ph.D.	Assistant Professor of Soil Science
Bindu Poudel-Ward, Ph.D.	Extension Agent III/Assistant Professor of Plant Pathology
Roland J. Quitugua, M.S.	Extension Agent II/Instructor of Horticulture
Dareon Rios, M.S.	Extension Agent II/Instructor of 4-H and Youth Development
Richard R. Singh, Ph.D.	Assistant Professor of Sustainable Plant Production
Joseph E. Tuquero, M.S.	Extension Agent III/Assistant Professor of Horticulture
Jian Yang, Ph.D.	Extension Specialist/Professor of Food Science



ARMY ROTC

Lt. Col. Neil G. Armstrong	Professor of Military Sciences
Major Nathan R. Boling	Senior Military Instructor/MS II Instructor
Capt. Joshua P. Morrissey	Assistant Professor of Military Science/MS Instructor
Capt. Rannie Lintag	Assistant Professor of Military Science/MS I Instructor
Master Sgt. Lalani M. Aguon	Assistant Professor of Military Science/MS Instructor
Master Sgt. Roy M. Smith	Assistant Professor of Military Science/MS III Instructor
Staff Sgt. Chase T. Harris	Assistant Professor of Military Science/MS Instructor



CNAS FACULTY



DIVISION OF MATHEMATICS & COMPUTER SCIENCE

Leslie J. Camacho Aquino, Ph.D.	Associate Professor of Mathematics
Grazyna Badowski, Ph.D.	Professor of Mathematics
Jae Yong Choi, Ph.D.	Assistant Professor of Mathematics
Byoung Yong Lee, Ph.D.	Associate Professor of Computer Science
Hideo Nagahashi, Ph.D.	Professor of Mathematics
Hyunju Oh, Ph.D.	Professor of Mathematics
Raymond M. Paulino, Ph.D.	Assistant Professor of Mathematics
Katrina Marie G. Quinata, MAT	Instructor of Mathematics
JunHao "James" Ren, M.A.	Instructor of Mathematics
Carl T. Swanson Jr., Ph.D.	Associate Professor of Computer Science
Zoltan Szekely, Ph.D.	Associate Professor of Mathematics
Yoshifumi Takenouchi, Ph.D.	Assistant Professor of Mathematics
YouSou "Joseph" Zou, Ph.D.	Associate Professor of Computer Science



CNAS FACULTY



DIVISION OF NATURAL SCIENCES

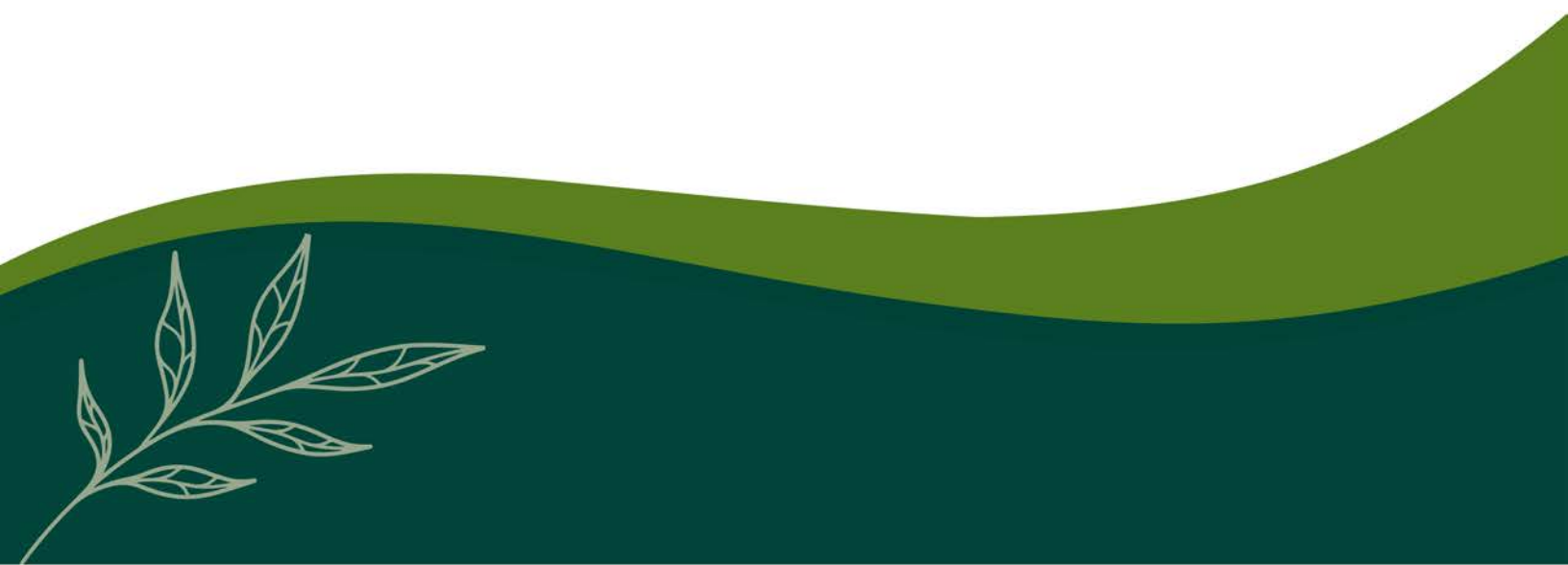
Tedros Bezabeh, Ph.D.	Professor of Chemistry
Kara J. Coffman-Rea, Ph.D.	Assistant Professor of Biology
G. Curt Fiedler, Ph.D.	Professor of Biology
Subir Ghosh, Ph.D.	Professor of Biology
Gregory Hart, Ph.D.	Assistant Professor of Physics
Rachel L. Jolley, Ph.D.	Assistant Professor of Restoration Ecology
Rebecca Kim, M.S.	Instructor of Biology
Sun Kyu Kim, Ph.D.	Associate Professor of Chemistry
John F.K. Limtiaco, Ph.D.	Assistant Professor of Chemistry
Daniel P. Lindstrom, Ph.D.	Associate Professor of Biology
Katharine L. Lofdahl, Ph.D.	Associate Professor of Biology
Kathleen A. Moots, Ph.D.	Associate Professor of Biology
Christina P. Nguyen, M.S.	Instructor of Biology
Michael Orr, Ph.D.	Associate Professor of Biology
Jin Park, Ph.D.	Assistant Professor of Chemistry
Cassandra Paule	Assistant Instructor of Biology
Orion Pritchard	Assistant Instructor of Chemistry
Bulan Wu, Ph.D.	Associate Professor of Chemistry
Wei Xiao, Ph.D.	Associate Professor of Biology
Joo Chul Yoon, Ph.D.	Assistant Professor of Physics



OUTREACH ACTIVITIES



*Empowering our community through
learning, innovation, and extension*



AGRICULTURE
Growing our future.



SCIENCE
Discover. Learn. Innovate.



YOUTH
Empowering tomorrow's
leaders.



FOOD
Nourishing our
community.



SUSTAINABILITY
Building a better
Guam.



4-H
Beyond ready.



UOG LAND GRANT EXTENSION WORKSHOPS

JUNE 1, 2025 - MAY 31, 2026



4-H SUMMER CAMPS

- June 2-6: Crime Scene Investigation
- June 2-6: Up Game Development
- June 2-6: Imagination Art Explorers
- June 2-6: Think Like a Mathematician
- June 9-13: Microbit Masters
- June 9-13: Sew, Stitch and Fun in the Kitchen
- June 9-13: Financial Literacy
- June 16-20: Wisdom of Our Ancestors
- June 30-July 3: Kids in the Kitchen: Food Drying
- June 30-July 3: Insects: Good, Bad, and Ugly
- June 30-July 3: Sustainable Agriculture for the Next Generation
- June 30-July 3: Crime Scene Investigation
- June 30-July 3: Crazy Chemistry
- July 7-July 11: Imagination Art Explorers
- July 7-July 11: Crazy Chemistry
- July 7-July 11: Microbit Adventures
- July 7-July 11: Mini Math Explorers
- July 7-July 11: Insects: Good, Bad, and Ugly
- July 14-July 18: Imagination Art Explorers
- July 14-July 18: Crazy Chemistry
- July 14-July 18: Kids in the Kitchen: Food Drying
- July 14-July 18: Smarts Snacks Lab Explorers
- July 14-July 18: Beats & Bytes with Python
- July 14-July 18: Exploring the Art of Math
- July 22-Aug. 1: Junior Fisheries

EXTENSION WORKSHOPS

- June 3: Garden-to-Fork Workshop Series: Malunggay
- June 5: Garden-to-Fork Workshop Series: Sweet Potato
- June 21: Horticulture Lab Black Pepper Production Forum
- Aug. 2: Meat Processing Workshop: Sausage 101
- Aug. 4: Kusinan CNEP Cooking Demo: Turkey Chili with Taro
- Aug. 5: Kusinan CNEP Cooking Demo: Tofu Veggie Stir Fry
- Aug. 6-16: Nihi ta Fanmama'tinas (Let's Cook!): Diabetes Series
- Aug. 23, 26, 29: Farmer Focus Health Seminars
- Sept. 6: Value-Added Foods Workshop: Dragon Fruit
- Sept. 13: Live Poultry Processing Workshop
- Sept. 19: Head Start Field Trip #1 of AY25-26
- October: Garden-to-Table Workshop Series: Eggplant, Papaya, Chaya, Sweet Potato (4 sessions)
- Oct. 4, 11, 25 and Nov. 1: Fresh & Frugal Cooking Class for Young Adults
- Oct. 11: Value-Added Foods Workshop: Mango Jam & Marmalade
- Oct. 25: Roselle Hibiscus Workshop: Production, Value-Added Products, and Marketing
- Nov. 17-24: Keys to Embracing Aging Workshop Series: Holiday Wellness Week
- Nov. 22: Public Sensory Evaluation: Feral Swine Sausage
- Dec. 13: Value-Added Foods Workshop: Breadfruit Flour
- Dec. 16, 23, 30, and Jan. 6: SNAP-Ed Savor the Season Nutrition Education Workshop Series
- Dec. 16: Sheet Mulching Workshop: Turn Your Lawn into a Productive Garden
- Jan. 16: SNAP-Ed Cooking Matters Grocery Store Tour
- Jan. 31: UOG Land Grant Extension at the Guam Farmers' Market: Plant Clinic, Bug Help Desk, and Meat & Greet
- Feb. 4, 7, 11, 14: Let's Cook: Navigating Diabetes Series Workshop
- Feb. 5, 12, 19, 26: Nutrition Education Workshop: Mindful Chesa & Snacking
- Feb. 7: Insect Pests of Poultry Workshop
- Feb. 25: Utilizing the Soils of Guam for Sustainable Agriculture Webinar
- Feb 27: UOG Land Grant Extension at the Guam Farmers' Market: Plant Clinic, Bug Help Desk



UOG LAND GRANT EXTENSION WORKSHOPS

JUNE 1, 2025 - MAY 31, 2026



EXTENSION WORKSHOPS

- Feb 27: Public Sensory Evaluation: Local Meat Sticks
- March 4: ANR Webinar: The Dirt on Soils
- March 7: Insects & Plant Diseases in Farms & Gardens Workshop
- March 11: ANR Webinar: How to Protect Your Crops from Soil-Borne Diseases
- March 12: Western SARE Grant Writing Workshop for Farmers and Ranchers
- March 14: Value-Added Foods Workshop: Homemade Yogurt
- March 18: ANR Webinar: Composting & Mulching
- March 25: ANR Webinar: Western SARE Grant Writing
- March 25: Pacific Collaborative Agricultural Food Safety Training for Farmers, Food Processors, Food Service Providers, and Extension Agents
- March 27: SNAP-Ed Cooking Matters Grocery Store Tour
- March 28: Basic Sewing & Clothing Repair Workshop
- March 28: UOG Land Grant Extension at the Guam Farmers' Market: Plant Clinic, Bug Help Desk, and Meat & Greet
- March 31: Surinam Cherry Workshop
- April 1-22: SNAP-Ed Nutrition Education Workshop Series: Spring Into Healthy Habits
- April 1: ANR Webinar: Save Your Coconut Trees from Rhinoceros Beetle
- April 8: ANR Webinar: Growing Hot Pepper & Winged Beans
- April 8-18: Nihi/Let's Cook: Navigating Diabetes Workshop Series
- April 11-May 2: Fresh & Frugal Cooking Class Series for Young Adults
- April 11: BBQ Bootcamp: Brisket
- April 18: Workshops postponed due to Sinlaku Typhoon recovery:
 - Fresh & Frugal Cooking Class
 - Nihi ta Fanmama'tinas (Let's Cook!): Navigating Diabetes Series
 - Black Pepper Plant Distribution Workshop
- April 22: ANR Webinar: Health Management in Poultry Production
- April 25: UOG Land Grant Extension at the Guam Farmers' Market: Plant Clinic, Bug Help Desk, and Meat & Greet
- April 29: ANR Webinar: Post-Storm Tree Recovery and Storm-Resilient Tree Planting
- May 2: Fresh & Frugal Cooking Class
- May 6: ANR Webinar: Fruit Care During Maturity, Harvesting, & Post-Harvest
- May 9: Value-Added Foods Workshop: Homemade Yogurt
- May 4-June 1: SNAP-Ed Nutrition Education Workshop: Eat, Hydrate, & Feel Great
- May 5-June 2: Building Foundations for Financial Security Workshop Series
- May 13: ANR Webinar: Save Money with Home Food Production and Urban-Producer Financial Assistance Programs
- May 15: SNAP-Ed Cooking Matters Grocery Store Tour
- May 20: ANR Webinar: Sustainable Ways to Protect Your Crops Against Nematodes
- May 27: ANR Webinar: Fungicide & Pesticide Application & Stewardship
- May 30: UOG Land Grant Extension at the Guam Farmers' Market: Plant Clinic, Bug Help Desk, and Meat & Greet



CNAS

Charter Day Activities



CELEBRATING SCIENCE, COMMUNITY, AND SUSTAINABILITY

At the 2026 UOG Charter Day celebration, held on March 5, 2026, the College of Natural & Applied Sciences once again transformed its buildings and outdoor spaces into vibrant centers of discovery, hands-on learning, and community engagement.

LAND GRANT FESTIVAL AT-A-GLANCE



30+
EXHIBIT BOOTHS



10+
AGRICULTURAL &
RESEARCH DISPLAYS



1,000+
VISITORS ENGAGED



NEW!
NASA GUAM SPACE
GRANT DRONE
OBSTACLE COURSE

CNAS hosted its popular Land Grant Festival, featuring booths from Land Grant Extension programs, agInnovation Research Center laboratories, and government agency partners. Together, these exhibits showcased practical scientific knowledge to help the community live better – from the plants we grow, to the foods we eat, to the activities and practices that support health, sustainability, and well-being. A new and exciting highlight this year was the mini drone obstacle course hosted by the NASA Guam Space Grant, which gave visitors an engaging look at drone technology and STEM applications.

For the second year, the Land Grant Festival also included guided student tours of the Soil Lab and Pomology Lab, the newly invigorated UOG Insect Collection, and agricultural demonstration plots. These tours gave students a first-hand look at how Land Grant scientists conduct experiments to address local challenges in agriculture, natural resources, and the island environment.

The High School Chemistry Titration Competition also returned, drawing one of its largest turnouts to date with 36 students from nine high schools. For the first time, Charter Day tour guides brought visitors to observe the competition, giving the public an opportunity to learn what the competitors were doing and to see chemistry in action.

Across campus, CNAS students, faculty, and staff created additional opportunities for exploration and discovery. In the Science Building, student organizations and faculty hosted walk-through exhibits featuring anatomy, biological specimens, physics, and the UOG Herbarium. In the Math Building, faculty and students showcased student-developed computer software programs, led game development activities, hosted pickup games of chess, and engaged visitors with Math Jeopardy.



SCIENCE
We explore.



COMMUNITY
We engage.



INNOVATION
We create.



WELL-BEING
We care.



SUSTAINABILITY
We protect.



CNAS students, faculty, and administrators also participated in the Charter Day President's Cup challenges as the "Soil Soldiers," earning third place overall. Adding to the celebration, CNAS's band, Hiatus Kamuti, won the UOG Charter Day 2026 Blue Night Battle of the Bands.



Together, these activities reflected CNAS's Land Grant mission in action – promoting science literacy, community engagement, innovation, and environmental stewardship while inspiring students and visitors of all ages to see how science, agriculture, technology, health, and creativity connect to everyday life in Guam.



HIGHLIGHTS FROM CHARTER DAY 2026









ISLANDWIDE SCIENCE FAIR

INSPIRING THE NEXT GENERATION
OF STEM STUDENTS

CNAS played a central role in supporting the University of Guam's 48th Islandwide Science Fair, held on April 11, 2026. The event exemplifies the institution's continued commitment to fostering scientific curiosity, innovation, and academic excellence among Guam's K-12 students.

Hosted at the UOG Science Building, the event brought together more than 350 students from public, private, charter, and DoDEA schools across the island to present research projects spanning ecology and earth science, physical science and mathematics, biology and medical science, chemistry, energy and sustainability, computer science, aerospace, robotics, and engineering. The judging teams were largely comprised of CNAS faculty and undergraduate STEM majors. Through their participation, CNAS faculty and students helped mentor young researchers, encourage scientific communication, and strengthen pathways for future STEM study at UOG.

This year's top projects reflected students' attention to both scientific discovery and real-world issues affecting island communities, from recycled materials and erosion control to health and biomedical applications. The success of the 48th Islandwide Science Fair was also made possible through the generous support of the College of Liberal Arts and Social Sciences and the Margaret Perez Hattori-Uchima School of Health. Together, these university partners helped create a vibrant educational experience that celebrated student achievement, promoted science literacy, and reinforced UOG's role as a regional catalyst for STEM education and workforce development in Guam.



"EVERY EXPERIMENT BEGINS WITH CURIOSITY AND LEADS TO OPPORTUNITY."



15th UOG Math Day

BUILDS CONFIDENCE, CURIOSITY, AND COMMUNITY



The 15th University of Guam Math Day, held on March 14, 2026, brought nearly 80 middle and high school students to campus for a Pi Day celebration designed to make mathematics fun, engaging, and accessible. Students competed in teams to answer timed questions in algebra, geometry, statistics, pre-calculus, and calculus, building confidence while connecting with peers from across Guam's math community. Participating schools included F.B. Leon Guerrero Middle School, Harvest Christian Academy, Okkodo High School, John F. Kennedy High School, St. John's School, Father Dueñas Memorial School, George Washington High School, SIFA Learning Academy, and Tiyan High School.

This year's guest lecturer was Dr. Samantha Pezzimenti, an assistant professor of mathematics at Widener University in Pennsylvania, who brought her passion for the visual and artistic side of math to Guam. Her hands-on lecture used a needle and string to show how connecting points in different patterns can create mathematical curves such as parabolas and cardioids, helping students see mathematics as creative, beautiful, and connected to art.

Organized by UOG's Division of Mathematics and Computer Science, Math Day continues to encourage students to pursue college-level math, STEM degrees, and future careers in science, technology, engineering, and mathematics. The event also highlighted UOG pathways such as the Master of Science in Data Science and reflected CNAS's commitment to strengthening Guam's STEM pipeline through outreach, mentorship, and community engagement.



Full story: <https://url.uog.edu/15th-math-day>



CHEMISTRY OLYMPIAD

*CELEBRATING EXCELLENCE.
INSPIRING FUTURES.*

The University of Guam Chemistry Program and the Chemical Society of Guam held the 6th Chemistry Olympiad on April 25, 2026, bringing together 102 high school students and three middle school students for a competitive academic event focused on the chemical sciences. The Olympiad challenged students through Standard and Honors exams, providing an opportunity for young learners to test their knowledge, strengthen problem-solving skills, and explore pathways in STEM.

Harvest Christian Academy earned top prizes in both the Standard and Honors Exam categories, demonstrating strong preparation and excellence in chemistry education. The continued participation of students from local schools reflects growing interest in chemistry and the STEM fields among Guam's youth.

Through events like the Chemistry Olympiad, CNAS continues to support science education beyond the university classroom by engaging middle and high school students in rigorous, meaningful, and inspiring academic experiences. The event highlights UOG's commitment to cultivating the next generation of scientists, health professionals, educators, and innovators who will contribute to Guam and the region.





CHEMISTRY TITRATION COMPETITION

16 YEARS OF EXCELLENCE IN CHEMICAL ANALYSIS

The University of Guam's annual High School Chemistry Titration Competition celebrated its 16th anniversary as part of UOG's Charter Day, with one of its largest turnouts to date – 36 students from nine high schools across Guam. This significant academic event continues to showcase growing participation from both private and public schools, with public institutions increasingly competitive alongside their private school counterparts. The competition tested students' chemical analysis skills through titration techniques, recognizing excellence in individual performance, laboratory skills, accuracy, and team collaboration, and highlighting the strong science education foundation across Guam's secondary schools. For the first time, Charter Day tour guides brought visitors to observe the competition, giving the public an opportunity to learn what the competitors were doing and see chemistry in action.



Best Individual

- 1st: Colleen Concepcion (Okkodo High School)
- 2nd: Anna Ric (John F. Kennedy High School)
- 3rd: Krishela Austria (Okkodo High School)

Best Team

- 1st: Colleen Concepcion and Krishela Austria (Okkodo High School)
- 2nd: Ian Frick and Bin Jin (Harvest Christian Academy)
- 3rd: Gyubin Suh and Alwyn Lin (St. John's School)

Best Laboratory Skill

- 1st: Logan Osterson (Guam High School)
- 2nd: Gyubin Suh (St. John's School)
- 3rd: Daisy Zhang (St. John's School)



CNAS STEM CONFERENCE HELPS STUDENTS BUILD CONFIDENCE AS RESEARCHERS



The UOG CNAS STEM Conference, held on May 2, 2026, provided an opportunity for UOG STEM students to share their research projects with peers, faculty, and community members. Organized by the UOG Biology Club and held at the CLASS Lecture Hall, the student-led event featured presentations and discussions focused on science, research, and local issues relevant to Guam.

The conference showcased the work of local students, highlighted current research and issues relevant to Guam, and introduced participants to opportunities across STEM fields, including agriculture, plant sciences, biology, chemistry, mathematics, computer science and technology, engineering, and health sciences. Open to high school students, undergraduate and graduate students, and community members interested in STEM, the event created a space for students to share their work, learn from peers and mentors, and explore pathways for future study, research, and careers.

Overall, the event reflected CNAS's continued support for student leadership, undergraduate research, and opportunities that help students build confidence as emerging scientists and professionals.



MAY 2, 2026



**MULTIPLE STEM DISCIPLINES
REPRESENTED**

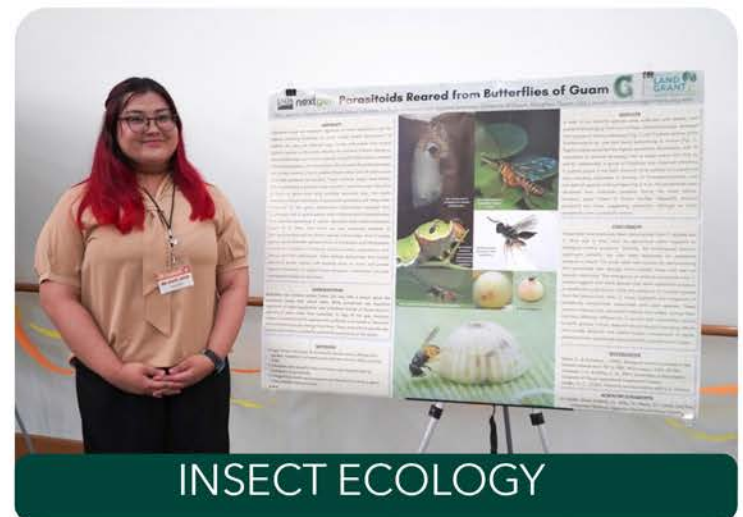
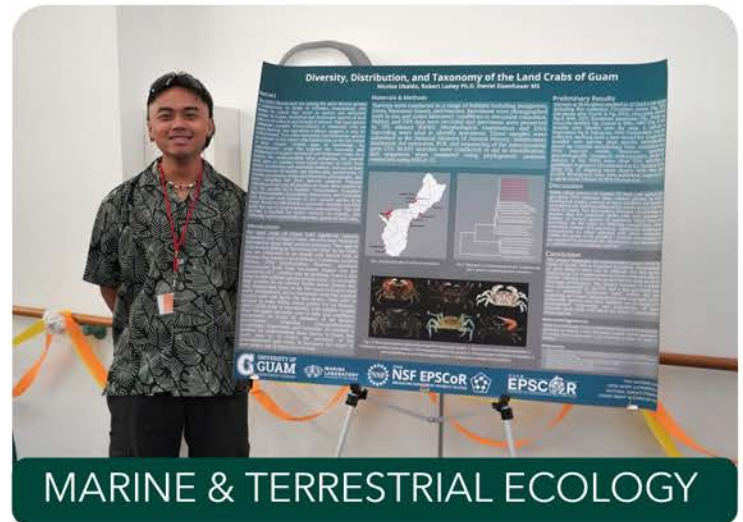
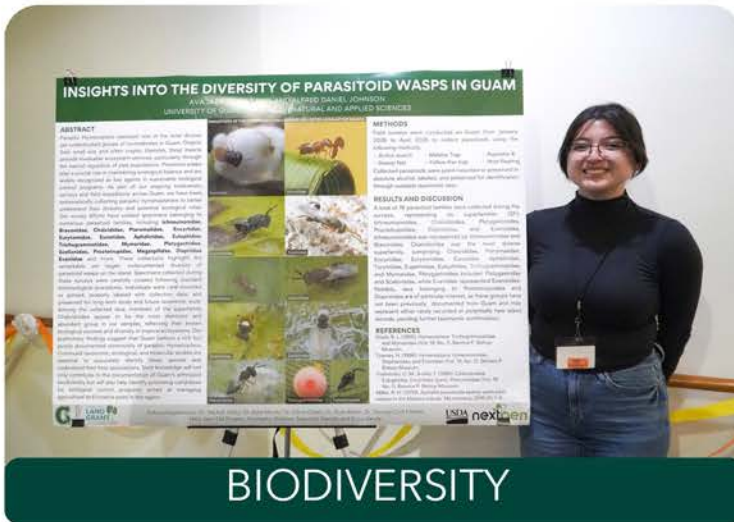


**OPEN TO HIGH SCHOOL,
UNDERGRADUATE, AND
GRADUATE STUDENTS AND
COMMUNITY MEMBERS**



CNAS STEM CONFERENCE

FEATURED STUDENT RESEARCH



"The conference created opportunities for students to share research, develop presentation skills, and connect classroom learning with real-world challenges facing Guam."



CNAS

Family Fun Day



November 21, 2025



ALS Bldg. Courtyard



Faculty, Staff, Administrators, and Families



CNAS celebrated its 2nd annual CNAS Family Fun Day on Nov. 21, 2025, bringing together CNAS faculty, staff, administrators, and their families for an evening of games, music, food, and fellowship.

The event was well attended and provided a fun opportunity for the college community to connect outside of the classroom, laboratory, and office.

As CNAS continues to grow, Family Fun Day has become an important tradition that strengthens relationships across the college and celebrates the people and families who support its work. CNAS plans to continue making this an annual event for the college.

EVENT HIGHLIGHTS



Fun Games
for All Ages



Great Music &
Entertainment



Delicious Food &
Refreshments



Community, Connection
& Camaraderie



*Thank
You!*

TO OUR CNAS COMMUNITY!

Thank you to everyone who joined us and helped make the 2nd Annual CNAS Family Fun Day a great success.

Your energy, participation, and support make CNAS a stronger, more connected college and community.

SEE YOU NEXT YEAR!



Making memories.
Building community.
Strengthening CNAS.



SCHOLARLY ACTIVITIES OF CNAS FACULTY



ADVANCING KNOWLEDGE THROUGH
RESEARCH, INNOVATION AND DISCOVERY



FROM GUAM TO THE GLOBAL SCIENTIFIC COMMUNITY

CNAS FACULTY CONTINUE TO ADVANCE RESEARCH THAT ADDRESSES
LOCAL CHALLENGES, CONTRIBUTES TO GLOBAL KNOWLEDGE,
AND STRENGTHENS EDUCATIONAL OPPORTUNITIES.





PEER-REVIEWED PUBLICATIONS

2025-2026



- Aflague, T. F., Badowski, G.,** Bacalia, KMA, Manibusan, J.R., Dominguez, R-M, Wood, K., Hattori-Uchima, M., & **Leon Guerrero, R.T.** (2025). The association of cardiometabolic risk factors in parent-child dyads in Guam: Pacific Islands Cohort on Cardiometabolic Health study. *International Journal of Environmental Research and Public Health*, 22(4):611. <https://doi.org/10.3390/ijerph22040611>
- Arabesky, V., **Johnson, A. D.**, Rozenberg, T., Lubin, Y., Segoli, M., & Mowery, M. A. (2025). Maternal care thwarts parasitoids in the invasive brown widow spider (*Latrodectus geometricus*). *Proceedings of the Royal Society B: Biological Sciences*, 292(2046), 20242735.
- Brewington, L., Martin, C., Greenwood, L., Parsons, E., Hoffmann, B. D., **Dulla, G.**, et al. (2026). A synthesis of invasive species challenges and policy recommendations across U.S. and U.S.-affiliated islands. *BioScience*. Advance online publication. <https://doi.org/10.1093/biosci/biaf201>
- Cruz A., Aguon C., Cajigal M., de Leon E.C., Evangelista, RFP, Jin, S.B., Macatugal, E., Paras, G.M., Villanueva, LNG, **Badowski, G.**, Paulino, Y.C. (2025). Latent class analysis of cancer risk behaviors among college students on Guam: A Pacific Islands Cohort of College Students (PICCS) study. *Int J Environ Res Public Health*, 22(5):755. doi: 10.3390/ijerph22050755.
- Delfin, M. M. & Marutani, M.** (2025). Studies on phytochemistry and antioxidant capacity of nine *Hibiscus sabdariffa* accessions. *HortScience*, 60(6), 832–840. <https://doi.org/10.21273/HORTSCI18483-25>
- Esquivel, M.K., Hammond, K., Delos Reyes, B.C., Rios, D.C., Mian, N., de Leon, E.C., Torres, S.M., & **Aflague, T. F.** (2025). Part 1: A systematic review to describe existing cultural adaptations in lifestyle, nutrition, and physical activity programs for native Hawaiian, Chamoru, and Filipino populations. *International Journal of Environmental Research and Public Health*, 22(11):1673. <https://doi.org/10.3390/ijerph22111673>
- Ferdosh, S.**, Rahim, N.A, Azmi, N.S.A., Ibrahim, M.A.B. Zaidul, I.S.M. (2025). Extraction of bioactive compounds and evaluation of antioxidant activity from *Senna alata* Linn leaves using subcritical carbon dioxide Soxhlet and conventional methods. *The Natural Products Journal*, 15(8), E250724232281. <https://www.eurekaselect.com/article/141914>
- Ferdosh, S.**, Bari, N., Wu, B., Sarker, M. (2025) Supercritical fluid extraction of phenolics from *Anisophyllea disticha* (Jack) Baill. and evaluation of their antioxidant activities. *The Natural Products Journal*, 15(2):1-11. DOI: 10.2174/2210315513666230607123047
- Fernandez, M., Noda, H., Takayama, K., & **Marutani, M.** (2025). Genetic diversity of cultivated and wild *Capsicum* accessions from Guam and Tinian using MIG-seq. *HortScience*, 60(4), 578–586. <https://doi.org/10.21273/HORTSCI18396-24>
- Fernandez, M., Ogura-Tsujita, Y. & **Marutani, M.** (2026). Mycorrhizal specialization for Tulasnellaceae fungi in *Taeniophyllum marianense*, a leafless epiphytic orchid native to Guam. *Journal of Plant Research*, 139, 409–424. <https://doi.org/10.1007/s10265-026-01699-z>





PEER-REVIEWED PUBLICATIONS

2025-2026



- Ham, S., Jyoti, **Choi, J.**, Nam, Y., & Kim, J. (2025). Stability analysis of a numerical method for the 3D high-order Allen–Cahn equation. *AIP Advances*, 15(1). <https://doi.org/10.1063/5.0248165>
- Kotwal, S., Shin, J.W. & **Bezabeh, T.** (2026). Predicting and monitoring treatment response via 1-H NMR metabolomics of plasma, serum, and urine. *Biophys Rev.* <https://doi.org/10.1007/s12551-026-01405-2>
- Lau, K., **Hart, G.R.** & Deng, J. Predicting time-to-first cancer diagnosis across multiple cancer types. *Sci Rep.*, 15, 24790 (2025). <https://doi.org/10.1038/s41598-025-08790-w>
- Lee, C., & **Zou, Y.** (2025). Oceanic environmental monitoring based on image analysis algorithms of CNN—An application of YOLO on life rescue for beach coastal safety in Guam [Conference abstract]. In Abstract Book of ICEER2025 & ICCIVIL2025 (p. 8). Science Publishing Group. <https://www.sciencepublishinggroup.com/ISBN/979-8-88599-127-8/006>
- Lin, C., Delorm, J.G., Naguit, K., Kang, A.G., & **Dulla, G.F.** (2026). First report of pathogenic *Labyrinthula spp.* in *Enhalus acoroides* (tape grass) in Guam. *Plant Disease*. <https://doi.org/10.1094/PDIS-11-25-2265-PDN>
- Lu, Z., Wang, J., Jiang, D., Wang, Y., & **Jiang, H. G.** (2025). A practical and effective Artemia hatching method to eliminate covert mortality nodavirus (CMNV). *Aquaculture Journal*, 5(1), 5. <https://doi.org/10.3390/aquacj5010005>
- Mabry, T., Klever, J., **Oladoye, C.**, Nowatzki, T., Bing, J. Sethi, A., Price, M. and Liu, L. (2025). Field efficacy, adult emergence, and yield evaluation of the corn rootworm transgenic events in Vorceed™ Enlist® Corn and SmartStax® PRO Hybrid Corn against corn rootworms (Coleoptera: Chrysomelidae). *Crop Protection*. 198. 107371. 10.1016/j.cropro.2025.107371
- Mia, M. A. R., Ahmed, Q. U., **Ferdosh, S.**, Islam, M. S., Samdani, M. S., & Sarker, M. Z. I. (2025). Antidiabetic potential of *Phaleria macrocarpa* fruit liquid CO₂ extract: Bioactivity, cytotoxicity, phytochemicals, and molecular targets. *Phytomedicine Plus*, 100814. <https://www.sciencedirect.com/science/article/pii/S2667031325000867>
- Olatoberu, T. F, Idowu, M. K., **Oladoye, C. T.**, Akinremi, O., Oluponle, I., Adebooye, O., & Adekunle, O. (2025). Optimizing yield, nitrogen uptake and nitrogen use efficiency in fluted pumpkin through fertilizer microdosing. *Journal of Agricultural Sciences*, 70(2), 145-158.
- Paulino, Y. C., **Camacho, F.**, Paulino, T. V., Lee, D. J., Natividad, L. L., Matisoo-Smith, E., Merriman, T. R., & Gosling, A. L. (2025). Conducting genetic epidemiology research on hyperuricaemia and gout in an indigenous community in Guam: A feasibility study. *BMC Public Health*, 25(1), 484. <https://doi.org/10.1186/s12889-025-21643-5>





PEER-REVIEWED PUBLICATIONS

2025-2026



Rosario, C.A., Otis, G.W., Miller, R.H., Groover-Landis, A.A., Stanley, E.S., Mattila, H.R. (2025). Predatory behavior, nesting habits, and impacts on honey bees (*Apis mellifera*) of an invasive hornet (*Vespa tropica*) on the island of Guam. *PLoS One*, 20(9):e0332986. doi: 10.1371/journal.pone.0332986. PMCID: PMC12469110.

Seale, L. A., Yamanaka, A. B., Hammond, K., Lim, E., Wilkens, L. R., McFall, P., **Aflague, T. F.**, Coleman, P., Fleming, T., Shallcross, L., & Deenik, J. (2025). Dietary micronutrient intake and the prevalence of metabolic conditions among children from the United States-affiliated Pacific region in the Children's Healthy Living Program. *Current Developments in Nutrition*, 9(1), 104531. <https://doi.org/10.1016/j.cdnut.2024.104531>

Shvetsov, Y. B., Yamanaka, A. B., Dela Cruz, R., Butel, J., Hammond, K., **Aflague, T. F.**, Coleman, P., Shallcross, L., Fleming, T., Fialkowski, M. K., Wilkens, L. R., & Novotny, R. (2025). Two a priori dietary indices among young children in the Children's Healthy Living (CHL) trial: Validation and association with health outcomes. *The Journal of Nutrition*, 155(5), 1549–1559. <https://doi.org/10.1016/j.tjnut.2025.03.018>

Singh, R.R., & Iyekar, C. (2025). The role of predatory nematodes in managing plant-parasitic nematodes: Community dynamics and microbial implications in tropical soils. *Front Plant Sci.* 16:1715934. doi: 10.3389/fpls.2025.1715934. PMID: 41459453; PMCID: PMC12738920.

Takenouchi, Y. (2025). Canonical form for the zero-one matrix induced by the Markov map. (2025). *Contrib. Math.* 11, 8-13. DOI: 10.47443/cm.2025.015.

Valerio, C. K. U., & **Ferdosh, S.** (2025). A review of extraction techniques of bioactive compounds and pharmacological properties of Guam's invasive vine—*Antigonon leptopus*. *Applied Sciences*, 15(10), 5625. <https://www.mdpi.com/2076-3417/15/10/5625>

Willingham, M. L., Jr., Teria, R. S., Dulana, L., **Badowski, G.**, & Cassel, K. D. (2025). Evaluating health status and risks among Native Hawaiian and Pacific Islander communities in Hawai'i: A respondent-driven sampling approach. *Cancer Causes & Control*, 36(5), 521–530. <https://doi.org/10.1007/s10552-024-01956-3>

Xiao, W. & Sablan, N. (2025) Notes on new *Ruellia* L. (Acanthaceae) species on Guam. *Micronesica* 2025(02): 1–11.

Zou, Y. & Gogue, K. (2025). Expectation of freshman retention rate at University of Guam based on data analysis: A case study. *Current Journal of Applied Science and Technology*, 44(3):1-7. <https://doi.org/10.9734/cjast/2025/v44i34493>.





FACT SHEETS & TECHNICAL REPORTS 2025-2026



Barcinas, P. (2025). COFA closeout and final report: Report to the Bureau of Statistics and Plans. Guam Bureau of Statistics and Plans, Government of Guam.
Barcinas, P., Raetilmwai, B., & Villaverde, L. (2025). Final report on the Consumer Price Index project. Guam Bureau of Statistics and Plans, Government of Guam.
Concepcion, J., Anderson, B., Reyes, X., & Tuquero, J. (2025). Gaogao (<i>Erythrina variegata</i> var. <i>Orientalis</i>) [Fact Sheet EXT-06-2025]. University of Guam Land Grant Extension Service.
Fiedler, G.C., E. Bando, G. Jackson, M. Putnam & M.H. Jingco. (2025). Butterfly and snail monitoring at Andersen Air Force Base Guam. Final Report for NAVFAC Marianas. 119 pp.
Fiedler, G.C. (2025). Annual (FY24) report for USFWS permit: TE76800D-0, Population estimates of listed tree snails in the Marianas. 10 pp.
Fiedler, G.C. (2026). Annual (FY25) report for USFWS permit: TE76800D-1, Population estimates of listed tree snails in the Marianas and captive rearing of Marianas Eight Spot Butterflies. 11 pp.
Johnson, A.D. & Bevacqua, R.F. (2026). Pumpkin beetle (<i>Aulacophora indica</i>). [Fact Sheet EXT-01-2026]. University of Guam Land Grant Extension Service.
Johnson, A.D. & Bevacqua, R.F. (2025). Mango seed weevil (<i>Sternuchetus mangiferae</i>). [Fact Sheet EXT-09-2025]. University of Guam Land Grant Extension Service.
Johnson, A.D. & Bevacqua, R.F. (2025). Banana lace bug (<i>Stephanitis typica</i>). [Fact Sheet EXT-08-2025-02]. University of Guam Land Grant Extension Service.
Liu, J.H. (2025). Poultry welfare essentials: Heat stress, nutrient needs, and data collection. [Fact Sheet EXT-01-2025]. University of Guam Land Grant Extension Service.
Liu, J.H. (2025). Swine welfare essentials: Heat stress, nutrient needs, and data collection. [Fact Sheet EXT-02-2025]. University of Guam Land Grant Extension Service.
Nagahashi, H. (2025). "Fundamental theorem of Calculus" isn't trivial? Undergraduate mathematics Q&A: Calculus/Linear Algebra, 13-27, Nihon-Hyoron-Sha, Tokyo (Japanese)





FACT SHEETS & TECHNICAL REPORTS 2025-2026



Nagahashi, H. (2025). Magic tricks on codes over finite fields [Mathematics seminar]. September, 41-45, Nihon-Hyoron-Sha, Tokyo (Japanese)
Putnam, A., G.C. Fiedler , E. Bandy, & G. Jackson (2025). Federally listed butterfly and snail species monitoring on Andersen Air Force Base (Mod 7: NWF Host Plant Mod. Final Annual report. 45 pp.
Singh, R. , Matanane, F., Quitugua, R. , Alfons, A., Minami, W., Sanele, A., and Snaer, B. (2025). Comparative stress assessment of mango cultivars at Ija Research & Education Center, Guam [Technical Report ARC-01-2025]. UOG Land Grant agInnovation Research Center, University of Guam.
Taiwerpal R.G., Barber L.R. , Aflague, T.F. , Barcinas R. , & Acosta M. (2025). Chaya (<i>Cnidoscolus aconitifolius</i>) [Fact Sheet EXT-05-2025]. University of Guam Land Grant Extension Service.
Yang, J. , Barcinas, C., De Leon, E., & Espulgar, G. (2025). Value-added turmeric products you can make at home [Fact Sheet EXT-07-2025]. University of Guam Land Grant Extension Service.
Yang, J. , Barcinas, C., Santos, S., & Espulgar, G. (2025). Making value-added dragon fruit products at home [Fact Sheet EXT-10-2025]. University of Guam Land Grant Extension Service.
Yang, J. (2025). Egg safety tips for Easter [Brochure]. University of Guam Land Grant Extension Service. https://www.uog.edu/publications/ceo/EggsafetytipsforEaster1051
Yang, J. , Barcinas, C., Santos, S., & Espulgar, G. (Updated in 2025). Homemade soursop products [Fact Sheet EXT-03-2016]. University of Guam Land Grant Extension Service.





PROFESSIONAL PRESENTATIONS

2025-2026



Aguon A, Argao A, Berg I, Berg NB, Tamil L, Badowski G. Estimating lung cancer screening eligibility and utilization in Guam [abstract]. In: Proceedings of the 18th AACR Conference on the Science of Cancer Health Disparities; 2025 Sep 18-21; Baltimore, MD. Philadelphia (PA): AACR; Cancer Epidemiol Biomarkers Prev 2025;34(9 Suppl):Abstract nr C135.

Aguon C, Cruz A, Badowski G, Bordallo G. Projecting lung cancer incidence in Guam: the impact of smoking prevalence, ethnic disparities, and aging population. American Association for Cancer Research. Chicago, IL, April 25-30, 2025.

Aquino L, Oh H (2025); Overview of an established undergraduate summer math research program at the University of Guam. CRM-PIMS-AARMS Special Session on Indigenous Voices in Mathematics Joint Mathematics Meeting(JMM), Seattle, WA. Jan.8, 2025.

Argao A, Aguon A, Bordallo G, Tamil L, Badowski G. Trends and predictors of cigarette smoking in Guam: Analysis of 2011–2023 BRFSS data [abstract]. In: Proceedings of the 18th AACR Conference on the Science of Cancer Health Disparities; 2025 Sep 18-21; Baltimore, MD. Philadelphia (PA): AACR; Cancer Epidemiol Biomarkers Prev 2025;34(9 Suppl):Abstract nr A154.

Badowski G, Argao A, **Aguon C**, Waggener S, Cogan T, Berg N, Bordallo GG, Guerrero M, Beaty C, Tamil L. AI-Driven Insights on Risk Factors from Economic, Behavioral, and Social Determinants for Predicting Lung Cancer in Guam (AIRE): Preliminary Results. AIM-AHEAD Annual Meeting, Dallas, TX, July 8-9, 2025.

Bautista D, Bustamante S, Nguyen M, Reyes E, Oh H, Aquino L, Rychtar J, Taylor D (2026). COVID-19 Vaccination Modeling. 2026 AMS-PME Undergraduate Poster Session, JMM, Washington D.C., January 6, 2026.

Bezabeh, T. (2025) Biomarker Discovery Via NMR Metabolomics. The 11th Annual Conference of AnalytiX, April 23-25, 2025, in Nara, Japan.

Bulatao J, Concepcion C, Laureano L, Wallace E, Oh H, Aquino L, Choi J (2026); Survival Analysis of Outplanted Acropora Corals, 2026 AMS-PME Undergraduate Poster Session, JMM, Washington D.C., January 6, 2026.

Cajigal M, Dulana LJ, Badowski G. Geographic and social determinants of late-stage breast cancer diagnoses in Guam: The role of social vulnerability and access to care. American Association for Cancer Research. Chicago, IL, April 25-30, 2025.

(STUDENT AUTHORS HIGHLIGHTED IN BOLD TEXT)





PROFESSIONAL PRESENTATIONS

2025-2026



Chen, K. & Cheng, Y. (2025). Sensory Evaluation and Market Potential of SPAM Among Young Asia-Pacific Consumers. 71st International Congress of Meat Science and Technology (ICoMST), August 3-8, 2025, Girona, Spain.
Chen, K. (2025). Development and Prospects of Guam's Fruit-Tree Sector: Case Studies on Breadfruit and Dragon Fruit. Symposium on the Development of Emerging Fruit Tree Industries, October 20, 2025, Pingtung, Taiwan.
Chen, K. (2025). Sustainable Food Security Strategies for Small Island Economies in the Asia-Pacific. Animal Business Management Seminar, October 21, 2025, Ilan, Taiwan.
Chen, K. (2025). Unlocking Dragon Fruit Markets on Guam: Consumer Preferences and Value-Added Opportunities. Guam Farmer Focus Conference, October 29-31, Tamuning, GU.
Chen, K., de La Cruz, T., Sharma, R., Whitman, K., & McMoran, D. (2025). Promoting Community Health and Resilience: Addressing Healthcare Barriers Through Culturally Responsive Outreach in the Western Pacific. 2025 AgrAbility National Training Workshop, March 24-27, 2025, Las Cruces, NM.
Chen, K., Dela Cruz, G., de La Cruz, T., & Whitman, K. (2026). From Local Roots to Regional Networks: Reimagining Community and Culture in Agriculture within the Asia Pacific. 2026 AgrAbility National Training Workshop, March 16-19, 2026, Traverse City, MI.
Chen, K., Delmond, A., & Wiley, M. (2025). Cultural and Socio-economic Influences on Consumer Acceptance of Genetically Modified Foods in Guam. 19th International Conference on Business, Economics, and Information Technology (ICBEIT), March 22, 2025, Mactan, Cebu.
Chen, K., Schumann, F., & Shaffer, J. (2025). Cultivating Resilience: Agritourism and Heritage as Drivers of Island Sustainability. 2025 NETtra Tourism Conference, Oct 7-10, 2025, Meredith, NH.
Cruz A, Badowski G, Bordallo G. Ethnic Disparities in Breast and Cervical Cancer Screening in Guam: A Cross-Sectional Analysis (2012-2022). American Association for Cancer Research. Chicago, IL, April 25-30, 2025.
Devi, A. S., Singh, R. R., & Lomavatu, M. F. 2025. Soil nematode communities as indicators of agro-ecosystem health: Implications for sustainable land management in Fiji. Presented at the 5th TropAg International Agriculture Conference (TropAg 2025), Royal International Convention Centre, Brisbane, Queensland, Australia, 11-13 November 2025.

(STUDENT AUTHORS HIGHLIGHTED IN BOLD TEXT)





PROFESSIONAL PRESENTATIONS

2025-2026



Devi, A., Singh, R. R. & Lomavatu, M. F. 2025. Topographical influence on the diversity of plant-parasitic nematodes in ginger (<i>Zingiber officinale</i>) in the Central Division of Viti Levu, Fiji. New Zealand Plant Protection Society (NZPPS) Conference 2025, Christchurch, New Zealand.
Dulla, G. Evaluating Long-Term Efficacy of CRB Management Strategies at Guam's Ports of Entry. 2nd Annual Coconut Rhinoceros Beetle Science Symposium Harnessing Knowledge to Protect Communities & Ecosystems. October 23, 2025.
Espulgar G., Lee E., and Yang J. 2025. Exploring the antioxidant properties and phenolic composition of Guam's local medicinal plants. The 16th UOG Conference on Island Sustainability. (4/7/2025-4/12/2025).
Evangelista R, Dulana LJ, Teria R, Paras G, Jin SB, Gino R, Shepherd J, Badowski G. Prevalence of Mammographically Dense Breasts in Guam. American Association for Cancer Research. Chicago, IL, April 25-30, 2025.
Fausto, K., Hagen, D., King, R., & Aquino, L. (2025, January 23). University of Guam Drone Corps: Building Research & Future Workforce Capacity [Presentation]. University of Guam School of Business and Public Administration.
Fausto, K., Sayama, J., King, R. & Aquino, L. (2025, January 29). Deploying UAV technology to assess typhoon impacts in vulnerable communities in Guam [Presentation]. Coastal Geotools 2.0.
Ferdosh, S. & Valerio C. (2025). Total phenolic content and antioxidant activity of Da'ok oil. CIS conference, April 7-12, 2025, at the Hyatt Regency Guam.
Fiedler, G.C. & A.M. Kerr. 2025. A new trash line spider (<i>Cyclosa</i> sp.) from Guam. 2025 Mariana Islands Conservation Conference. March 10-14, 2025.
Greene A, Bulatao J, Daproza R, Yang J, Oh H, Aquino L, Rychtar J, Taylor D. (2025). A Game-Theoretic Model for Mpox in a Heterogeneous Mixing Population. International Mathematics and Statistics Student Research Symposium (IMSSRS), April 12 2025.
Hagen, D., Fausto, K., King, R., & Aquino, L. (2025, January 17). Above Water: Mapping Guam's Coral Reefs with NASA Fluid Lensing & NeMO-Net [Presentation]. 2025 Guardians of the Reef Workshop.

(STUDENT AUTHORS HIGHLIGHTED IN BOLD TEXT)





PROFESSIONAL PRESENTATIONS

2025-2026



Johnson, AD, **Rios, A**, Miller, R and Moore A, 2025, Hidden Gems in UOG Insect Collection, Entomological Collection Network- Entomological Society of America Annual Meeting Portland, OR.

Johnson AD and Adesso K. 2025 Role of irrigation and covercropping in managing the wood boring Chrysobothris infestation in nurseries. Entomological Society of America Annual Meeting, Portland, OR.

Johnson, A & Poudel-Ward, B. A greener future with sustainable insect management. Farmer Focus Conference, October 29-31, 2025. Tamuning, GU.

Laguana J, Tapia C, Seo Y, Oh H, Aquino L, Choi J. Analysis of Coral Transplantation in Guam's Two Dominant Reefs, International Mathematics and Statistics Student Research Symposium (IMSSRS), April 12 2025.

Lee E. and Yang J. 2025. Antioxidant capacity, total phenolic content, and antimicrobial activity in seven of Guam's widely available native and introduced medicinal plants. The 16th UOG Conference on Island Sustainability. (4/7/2025-4/12/2025).

Lin, C., **Naguit, K., Kang, A.** and Dulla, G. Detection of Labyrinthula spp. in Enhalus acoroides and Potential Seagrass Wasting Disease in Guam. March 9, 2025 Mariana Islands Conservation Conference, Saipan, CNMI.

Macatugal E, Biggs L. Liver disease risk: Cyanotoxins in water and food sources in Guam. American Association for Cancer Research. Chicago, IL, April 25-30, 2025.

McManus L, Galang MI, Velasco A, Oh H, Aquino L, Rychtar J, and Taylor D. (2025); Modeling the Effectiveness of Facial Cleanliness to Combat Trachoma. International Mathematics and Statistics Student Research Symposium (IMSSRS), April 12 2025.

Obias, V. R., Paule, C., Limtiaco, J., Park, J. Investigating the Influence of Seawater Chemistry on Electrolysis Performance. SACNAS Annual Conference (10/30/2025-11/1/2025).

Oladoye, C. 2025. Soil health as an economic asset: Investing today for tomorrow's food security. Abstract presentation at the 2025 Guam Farmer Focus Conference, October 29-31, Tamuning, GU.

(STUDENT AUTHORS HIGHLIGHTED IN BOLD TEXT)





PROFESSIONAL PRESENTATIONS

2025-2026



Orr, M. and Cervera, E. Continuous glucose monitoring in warm-water ocean apnea diving: practical considerations for field deployment. 2026. South Pacific Underwater Medicine Society (SPUMS) 54th Annual Scientific Meeting, May 10-15, 2026, in Koror, Palau.
Orr, M. and Cervera, E. Field Testing Metabolic Shifts in Energy Substrate Use During Breath-Hold Spearfishing: Carbohydrate Depletion and Hypoxia Risk. 2026. South Pacific Underwater Medicine Society (SPUMS) 54th Annual Scientific Meeting, May 10-15, 2026, in Koror, Palau.
Paras G, Teria R, Jin SB, Grino R, Shepherd J, Badowski, G. Epidemiological Factors Associated with Breast Density in Guam. American Association for Cancer Research. Chicago, IL, April 25-30, 2025.
Pineda, A. Dulla, G. Investigating Threats of Insect Infestations on <i>Lumnitzera littorea</i> Mangroves on Guam. March 9, 2025. Mariana Islands Conservation Conference, Saipan, CNMI.
Pobre A, Minas M, Sual JC , Natividad Z, A Small Island with a Big Data Vision: Guam's Approach to Drive School Improvement through Multilevel Analytics, the Council of Chief State School Officers' 2026 National Conference on Student Assessment (NCSA), taking place June 22-24, 2026, in Austin, Texas.
Posas, A. J. , Paule, C., Limtiaco, J., Park, J. The Effects of Selected Small Organic Molecules on Direct Seawater Electrolysis. SACNAS Annual Conference (10/30/2025-11/1/2025).
Poudel-Ward, B & Johnson, A. Propelling towards a better future with integrated crop management. Farmer Focus Conference, October 29-31, Tamuning, GU.
Poudel-Ward, B. 2025, Extension Plant Pathology: From Lab to Field, putting science where it matters. Advancing AIoT-Driven ICM pest management in Rural Agriculture: From Policy to Practice Tainan, Taiwan. September 15, 2025.
Qureshi K, Babauta R, Broadbent M, Cajigal M , Blas T, Badowski G. Healthcare Access Barriers Encountered by People with Disabilities During the COVID Pandemic. WADEM Conference Tokyo, Japan May 2-6, 2025.
Rios A, Anderson K and Johnson AD. (2025). Invasive Whitefly <i>Metatetranychus cardini</i> (Back) and its Native Natural Enemies on Guam. Abstract presentation at the 2025 Guam Farmer Focus Conference, October 29-31, Tamuning, GU.

(STUDENT AUTHORS HIGHLIGHTED IN BOLD TEXT)





PROFESSIONAL PRESENTATIONS

2025-2026



Rychtar J, Taylor D, Udiani O, Stephenson D, Korenok O, Alvarez-Pardo G, Oh H (2025): The Effect of Heterogeneity on Vaccination Decisions, The 1st International Electronic Conference on Games, October 15, 2025.
Sanele, A. , & Singh, R. R. (2025). The role of predatory nematodes in managing plant-parasitic nematodes: Community dynamics and microbial implications in tropical soils. Abstract presentation at the 2025 Farmer Focus Conference, University of Guam, Guam.
Sayama, J., Fausto, K., Velasquez, A., Lee, D. W. , Lujan, F., King, R., & Aquino, L. (2025, March 10). Using UAV-RGB Imagery to Assist in Post-Wildfire Damage & Recovery Assessments for Reforestation Sites on Guam [Poster]. 7th Mariana Islands Conservation Conference.
Ta'afaki M, Diaz T, Badowski G, Cruz A, Evangelista R, Wilkens L, Bodnar R, Willingham M, Sy A, Aguon C , Cassel K. Factors influencing willingness to participate in cancer clinical trials among Pacific Islanders and Filipinos in Hawai'i: A multivariate analysis of knowledge, attitudes, and beliefs. Research Centers in Minority Institutions. Bethesda, MD, March 16-19, 2025.
Tamondong, D. , Cheng, Y., & Chen, K. (2026). Market Potential of Nutritionally Fortified Cookies: An Example From Guam. 20th International Conference on Business, Economics and Information Technology (ICBEIT), March 12-13, 2026, Singapore.
Tay WT, Rane R, Dulla G, Yombai J, Tsatsia F, Yeap HL, Lenancker P, Gordon K, Hoffmann B, Susumu G, Ero M, Sheppard A, "Genomic approach to address biosecurity and IPM challenges in the Pacific" Pacific Regional Research Symposium 2025.
TP Diaz; MR Taafaki; G Badowski; A Cruz; RFP Evangelista; LR Wilkens; R Bodnar; M Willingham; A Sy; CT Aguon; A Mummert; M Blas-Laguana.; KD Cassel, Understanding Indigenous Pacific Islander Awareness and Willingness to Participate in Cancer Clinical Trials in Hawai'i and Guam, World Indigenous Cancer Conference 2026, taking place 20-24 April 2026 in Rotorua, Aotearoa New Zealand.
Velasquez, A. , Taitano, K., & King, R. (2025, March 10). Optimizing Micronesian Farms with Drone Technology [Poster]. 2025 Mariana Islands Conservation Conference.
Willingham Jr. M, Cassel K, Badowski G, Pagano I. Examining social networks within public housing to better direct cancer screening interventions for Pacific Islanders. American Association for Cancer Research. Chicago, IL, April 25-30, 2025.
Yamanaka, Blas Laguana, Chong, Leon Guerrero, Novotny, Badowski, Wilkens. Framework for Pacific Island Cancer and Obesity Across the Lifespan: PICOLI, A Multi-Dataset Analysis Approach. American Association for Cancer Research. Chicago, IL, April 25-30, 2025.

(STUDENT AUTHORS HIGHLIGHTED IN BOLD TEXT)





EXTRAMURAL GRANTS

2025-2026



PROJECT TITLE	FUNDING AGENCY	TOTAL AWARD AMOUNT	PRINCIPAL INVESTIGATOR
Guam Three Year State Professional Development Program Plan FY2024-2026	USDA	\$120,000	Acosta, Mark
Information Network for Sustainable Pacific Islands Research and Education (INSPIRE) Project	USDA	\$98,653	Acosta, Mark
NACD Tungo' I Tano	NACD	\$160,710	Acosta, Mark
Pacific Nutrition Hub	USDA-UH	\$120,000	Aflague, Tanisha
SNAP-Ed Program	USDA-DPHSS	\$294,080	Aflague, Tanisha
Hanom Fresko: Across-Disciplinary Study of Coastal Freshwater Discharge Hydrology and Near-shore and Coastal Ecology	NASA	\$715,014	Aquino, Leslie
NASA Guam EPSCoR Research Infrastructure Development Program (RID)	NASA	\$1,000,000	Aquino, Leslie
AI-Driven Insights on Risk Factors from Economic, Behavioral, and Social Determinants for Predicting Lung Cancer in Guam (AIRE)	NIH-UNTHSC	\$519,934	Badowski, Grazyna
Diverse NextGen Food Policy	USDA-UAF	\$728,660	Bamba, Jesse
Extension Foundation Pest	US EPA	\$19,301	Bamba, Jesse
Extension Foundation Pest	US EPA	\$15,000	Bamba, Jesse
MSU WSARE Five Future Trainers - FCAG	WSARE	\$58,401	Bamba, Jesse
Pesticide Safety Education Program	MSU-USDA	\$99,099	Bamba, Jesse





EXTRAMURAL GRANTS

2025-2026



PROJECT TITLE	FUNDING AGENCY	TOTAL AWARD AMOUNT	PRINCIPAL INVESTIGATOR
Hse 2 and 16 Ag and Aquaculture Demonstration/Workshops	UOG CES Mini-Grant	\$20,000	Barber Jr., L. Robert
Village-Based Agroforestry Extension Demonstration and Workshop Plots		\$11,500	Barber Jr., L. Robert
Walk to Wellness	Walk to Wellness Local Funding	\$104,000	Barber Jr., L. Robert
WSARE Training Five New Extension Agents	WSARE	\$87,881	Barber Jr., L. Robert
Guam Census FY2023	USDA-NASS	\$60,000	Barcinas, Peter
Pacific Islands Oceans Observing System (PacIOOS) Network	RCUH	\$69,300	Biggs, Laura
Develop and Update Production Costs and Returns of Selected Crops Grown on Small Farms in Guam	USDA-NRCS	\$565,052	Chen, Kuan-Ju
Developing Economic Sustainability and Viability of Value-added Products on Guam	USDA	\$99,376	Chen, Kuan-Ju
Market Local Food Project	USDA	\$349,981	Chen, Kuan-Ju
Enhancing International Agriculture Sciences Education for Pacific Islanders	USDA	\$200,000	Chen, Kuan-Ju
Western Region Agricultural Stress Assistance Program V	USDA-WSU	\$100,000	Chen, Kuan-Ju
Preventive Health Project	HHS-DPHSS	\$65,189	Dela Cruz, Timmy
Ant Eradication and POE Pest Monitoring	DOI-OIA	\$130,631	Dulla, Glenn





EXTRAMURAL GRANTS

2025-2026



PROJECT TITLE	FUNDING AGENCY	TOTAL AWARD AMOUNT	PRINCIPAL INVESTIGATOR
CRB Management (Detector Dogs) 2024	USDA-APHIS-PPQ	\$468,284	Dulla, Glenn
CRB Management (Detector Dogs) 2025	USDA-APHIS-PPQ	\$271,621	Dulla, Glenn
CRB Management, Injection and Biocontrol	USDA Forest Service	\$182,719	Dulla, Glenn
Erwinia Survey and Development of a Rapid Detection Assay	USDA	\$82,809	Dulla, Glenn
Feral Pig Exclusion Fencing for Southern Guam	NACD	\$775,000	Dulla, Glenn
Forest Health Technical Assistance for RMI	USDA Forest Service	\$50,000	Dulla, Glenn
Forest Health Technical Assistance for the RMI	USDA	\$50,000	Dulla, Glenn
Guam Coconut Rhinoceros Beetle Interdiction Program to Enhance Detector Dog and Genetic Surveillance Program	DOI-OIA	\$362,460	Dulla, Glenn
Improvement of Plant Pathology Research Lab and Student Nursery Spaces at the University of Guam	USDA-NIFA	\$200,000	Dulla, Glenn
Molecular Detection Methods Developments for Erwinia Papaya Pathogens	USDA-APHIS-PPQ	\$82,809	Dulla, Glenn





EXTRAMURAL GRANTS

2025-2026



PROJECT TITLE	FUNDING AGENCY	TOTAL AWARD AMOUNT	PRINCIPAL INVESTIGATOR
NACD DOD REPI	DOD-NACD	\$453,000	Dulla, Glenn
POE CRB Management - Tree Injection Program	DOI-OIA	\$167,815	Dulla, Glenn
REPI Award to SGSWCD, Partner Development	NACD	\$453,000	Dulla, Glenn
Solanaceous Host Disease and Pest Survey 2024	USDA-APHIS-PPQ	\$56,848	Dulla, Glenn
Solanaceous Host Disease and Pest Survey 2025	USDA-APHIS-PPQ	\$56,848	Dulla, Glenn
USFS Imaging for Rapid Pest and Pathogen Detection	USDA Forest Service	\$240,810	Dulla, Glenn
NextGen: AgriTourism	USDA-NMC	\$290,609	Ferdosh, Sahena
Development of Online Courses in Tropical Wildlife Management	USDA	\$200,000	Fiedler, G. Curt
Listed Butterfly and Snail Species Monitoring on AAFB, Guam	DOD-NAVFAC	\$716,888	Fiedler, G. Curt
Monitoring of Invertebrates Listed Under the Endangered Species Act	DOD-NAVFAC	\$589,360	Fiedler, G. Curt
Sea Turtle Monitoring, Protection, and Educational Outreach on AAFB	DOD-NAVFAC	\$527,623	Fiedler, G. Curt
NextGen: Creation of a Cooperative B.S. Degree Program for the Mariana Islands and Beyond	USDA	\$10,000,000	Jolley, Rachel
Tropical Forest Ecology	USDA	\$105,476	Jolley, Rachel





EXTRAMURAL GRANTS

2025-2026



PROJECT TITLE	FUNDING AGENCY	TOTAL AWARD AMOUNT	PRINCIPAL INVESTIGATOR
Mapping and Prioritizing Potential Privately-Owned Forest Stewardship Lands - Guam	USDA	\$206,022	King, Romina
NASA Space Grant	UH-NASA	\$150,000	King, Romina
National Woodland Owner Forestry Survey	USDA	\$98,168	King, Romina
Predicting and Managing the Future of Onegeim'Tketau (Jellyfish Lake), Palau	UH-USGS	\$243,441	King, Romina
RISC Support at UOG	USDA	\$200,000	King, Romina
USDA Advancing Markets for Producers	USDA-NRCS	\$4,999,999	King, Romina
Military Partnership Outreach and Support	USDA-KSU	\$19,565	Kyota, Clifford
UH PRCCR YEAR 4	UH-DHHS	\$97,050	Leon Guerrero, Rachael
Controlling Reaction Pathways Under the Non-Ideal Conditions of Seawater Electrolysis	DOE	\$1,695,000	Limtiaco, John
Establishing an Educational Pipeline to Strengthen Meat Poultry Industry Workforce	USDA	\$475,001	Liu, Jeng-Heng
CNAS-DOAG USDA Introduction and Establishment of Black Pepper Seed Stock for Local Producers	DOAG-USDA	\$238,188	Marutani, Mari
Growing Roselle	USDA-GU-DOAG	\$97,000	Marutani, Mari





EXTRAMURAL GRANTS

2025-2026



PROJECT TITLE	FUNDING AGENCY	TOTAL AWARD AMOUNT	PRINCIPAL INVESTIGATOR
Promoting Seed Plant Quality	USDA-UC-ANR	\$39,996	Marutani, Mari
USDA NIFA 2023 RIIA Instruction	USDA	\$200,000	Marutani, Mari
USDA NIFA 2023 RIIA/AGFEI Equipment Grant	USDA	\$200,000	Marutani, Mari
Cycad Monitoring at AAFB and Tinian MLA	DOD-NAVFAC	\$1,432,720	McConnell, James
USDA Forestry Inventory Analysis 2025	USDA	\$115,000	McConnell, James
USDA Forestry Inventory and Analysis 2023	USDA	\$55,000	McConnell, James
Biocontrol Agents	USDA	\$230,000	Miller, Ross
CAPS Citrus Pest Survey	USDA	\$43,793	Miller, Ross
CAPS CNMI Honeybee Survey	USDA	\$13,800	Miller, Ross
CAPS Guam Honeybee Survey	USDA	\$13,800	Miller, Ross
CAPS Invasive Ants Survey	USDA	\$22,080	Miller, Ross
CAPS Nursery Survey	USDA	\$24,203	Miller, Ross
CAPS Nursery survey	USDA	\$23,742	Miller, Ross
Developing a Certification Program in Forest Conservation and Management in Micronesia	USDA	\$159,992	Miller, Ross
NMC Insect Collection Curation	USDA	\$6,500	Miller, Ross





EXTRAMURAL GRANTS

2025-2026



PROJECT TITLE	FUNDING AGENCY	TOTAL AWARD AMOUNT	PRINCIPAL INVESTIGATOR
USDA Improving Detection of Vespa tropica	USDA-APHIS	\$51,734	Miller, Ross
USDA Invasive Hornet project	USDA	\$30,167	Miller, Ross
15th Math Day at UOG	MAA	\$3,500	Nagahashi, Hideo
IHBEM Multidisciplinary Analysis of Vaccination Games of Equity (MAVEN)	NSF	\$156,743	Oh, Hyunju
Metabolic Resilience and Energy Substrate	DAN	\$50,000	Orr, Michael
Western Plant Diagnostic Network (2022-2026)	USDA-UCDAVIS	\$60,000	Poudel-Ward, Bindu
DOI OIA Biosecurity training	DOI	\$50,000	Quitugua, Roland
Parasitic Nematode Surveys on Guam	USDA-APHIS	\$113,160	Singh, Richard
RIAA: Developing Multidisciplinary Research Opportunities at UOG	USDA	\$200,000	Wu, Bulan
Pacific Food Safety and Training	USDA-OSU	\$45,000	Yang, Jian





UNIVERSITY OF GUAM
COLLEGE OF NATURAL
& APPLIED SCIENCES



303 University Drive,
Mangilao, Guam 96923-9000



(671) 735-2000



<https://www.uog.edu/cnas>



<https://www.facebook.com/UOGCNAS>



<https://www.instagram.com/uogcnas>

