THE PHILIPPINE - AMERICAN



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PHILIPPINE-AMERICAN ACADEMY OF SCIENCE AND ENGINEERING

PAASE Monthly Newsletter

Volume: Year 2025 | May Issue

PAASE Board Convenes, Charts Course for Growth and Impact

The Philippine-American Academy of Science and Engineering (PAASE) Board of Directors convened on May 25, 2025, for a crucial meeting focused on organizational strategy, ongoing initiatives, and future plans. The session underscored PAASE's commitment to advancing scientific excellence, fostering collaboration, and advocating for a stronger scientific ecosystem in the Philippines and abroad.

Strengthening Publications and Financial Foundations

The Board received an encouraging update on the **SciEnggJ proposal**, confirming its official submission via the Department of Science and Technology's (DOST) DPMIS portal. This initiative is a vital part of PAASE's broader strategy to enhance scientific publishing within the country, and the PAASE eagerly awaits the evaluation results.

Financially, PAASE remains robust. The Finance Committee reported a stable financial standing, affirming the organization's capacity to support its current programs and drive proposed new initiatives.

Expanding Our Community: New Members Welcome

The Membership Committee is pleased to share that the Board has endorsed a new cohort of members composed of 18 new Full Members and 13 new Associate Members to the PAASE community. Please note that the Full Members will still require confirmation through a vote by the General Membership following the Board's endorsement. This expansion reflects the Academy's growing influence and its commitment to fostering a diverse network of scientific talent.

APAMS 2025: A Hybrid Experience Awaits!

Excitement is building for the upcoming **APAMS 2025 conference**, set to deliver a dynamic hybrid experience with both in-person and online components. The program promises comprehensive engagement:

- Online Program: Features 11 parallel sessions across two days (6 on Day 1, 5 on Day 2), including keynote addresses, plenary sessions, REC sessions, and an interactive poster viewing. Day 2 highlights include the "Mentoring the Future" Rising Mentor Program and a Rapid Fire Poster Competition, culminating in final REC sessions and a closing ceremony.
- In-Person Program (at the University of South Carolina, Columbia, SC): Kicks off with a Welcome Mixer Dinner on Day 0. Day 1 includes the Opening Ceremony, the prestigious Koh Lectureship Award in Science, recognition of PAASE Rising Stars, scientific sessions, and cultural presentations. Day 2 continues with the Koh Lectureship in Engineering and further parallel and scientific sessions, leading to closing remarks. An optional field trip to Magnolia Plantation is scheduled for Day 3.

Key Programs and Partnerships Driving Impact

PAASE continues to lead impactful programs:

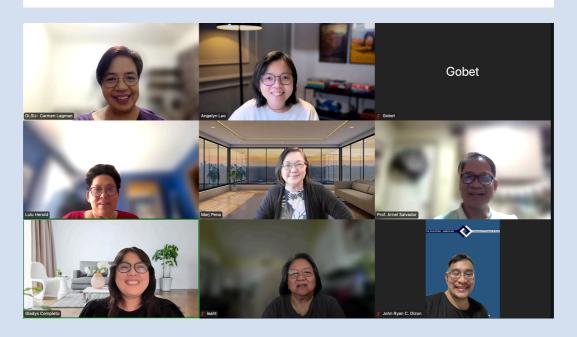
• LINANG STEM Scholars Program: PAASE is a proud co-implementer in the launch of LINANG, a new cohort-based STEM education initiative. Modeled after the successful Meyerhoff Scholars Program, LINANG emphasizes academic excellence, mentorship, and social innovation. In partnership with the UPLB Institute of Chemistry, the inaugural cohort of two scholars, sponsored by RainPhil Inc., is anticipated to begin in the upcoming academic year. • **PAGTANAW 2050 Review Series:** A series of crucial fireside chats and external reviews of the Pagtanaw 2050 agenda is set for June 20, June 27, and July 1. These sessions will feature experts affiliated with NAST as speakers, with active participation from PAASE members as reactors.

Enhanced Communications and Legislative Advocacy

In response to valuable member feedback, PAASE is rolling out a new communication strategy. The existing Google Group will transition into a dedicated discussion forum, while a new "The Filipino Scientists" group (tentative name) will be established as an announcement-only, no-reply channel. The formal rollout of this enhanced strategy is planned for APAMS 2025.

Finally, PAASE expressed strong support for **Senate Bill 2733**. This vital legislative advocacy seeks to amend RA 9225, allowing dual citizens to serve in public higher education institutions in the Philippines as faculty, researchers, or administrators without renouncing their foreign allegiance. This move aligns perfectly with PAASE's mission to foster a globally inclusive academic workforce and leverage the expertise of Filipino scientists worldwide. Actions include soliciting potential Senate questions and preparing data-driven answers to support lobbying efforts.

The Board's productive meeting reinforces PAASE's dynamic role in advancing science and engineering, ensuring its continued relevance and impact on national and global scales.



DOST Renews PAASE Foundation's <u>Certificat</u>ion, Solidifying Partnership

The Philippine-American Academy of Science and Engineering (PAASE) Foundation Philippines, Inc. proudly announces the successful renewal of its certification as a Science Foundation by the Department of Science and Technology (DOST). This crucial approval reaffirms the Foundation's status and its continued eligibility to contribute significantly to the nation's scientific and technological advancement.

The renewal process involved a thorough evaluation by the DOST, reflecting PAASE Foundation's unwavering commitment to transparency, accountability, and impactful scientific programming. The approval was granted upon the meticulous submission and assessment of a comprehensive set of documents, showcasing the Foundation's operations and future vision.

The renewal process required the Foundation to submit a formal Letter of Intent to the DOST Secretary. This was supported by a detailed report of accomplishments for the preceding three years and proposed programs for the upcoming three. To further demonstrate integrity and financial stability, results of financial operations, and a Notarized Affidavit attesting to the veracity of all submitted information were also provided.

This renewed certification is a testament to the PAASE Foundation's consistent dedication to its mission of promoting excellence in science and engineering. It ensures the Foundation can continue to foster groundbreaking research, support

educational initiatives, and build vital partnerships that advance scientific knowledge and benefit Filipino communities.

The PAASE Foundation expresses its gratitude to the DOST for its rigorous evaluation process and continued trust. With this renewal, the Foundation looks forward to deepening its collaboration with government agencies, academic institutions, and industry partners to further strengthen the scientific environment in the Philippines.

The ceremonial awarding of the certificate and meeting with Undersecretary Sancho A. Mabborang is scheduled on 03 June 2025, at the DOST Central Office, DOST Compound, Central Bicutan, Taguig.

Dr. Purugganan Named NYU Interim Dean

Congratulations to Dr. Michael Purugganan on His Appointment as Interim Dean of NYU Faculty of Arts and Science

The Philippine-American Academy of Science and Engineering (PAASE) proudly congratulates **Dr. Michael Purugganan** on his appointment as **Interim Dean of the Faculty of Arts and Science at New York University (NYU)**. This prestigious announcement was made by the NYU President and Provost on May 28, 2025.

Dr. Purugganan, a longtime member of PAASE and a globally recognized Filipino-American scientist, now assumes leadership of NYU's largest academic unit, which includes the College of Arts & Science, Liberal Studies, and the Graduate School of Arts & Science. With over 17,000 students and more than 1,100 full-time faculty across 57 departments, 33 research centers, and 7 international houses, the Faculty of Arts & Science stands as the founding and academic heart of NYU.

In this new role, Dr. Purugganan will oversee an intellectually diverse and dynamic community of scholars spanning the Sciences, Social Sciences, and Humanities. His leadership comes at a critical juncture for U.S. higher education, and his steady hand and strategic vision are expected to guide the school through the challenges ahead.

We are confident that Dr. Purugganan will bring wisdom, integrity, and a collaborative spirit to his deanship, as he has in every leadership role he has taken throughout his illustrious academic career.

Read the full NYU announcement here: <u>Interim Dean Michael Purugganan | NYU</u> <u>Faculty of Arts and Science</u>

Mabuhay ka, Dr. Michael! Your PAASE family celebrates this milestone with you.



Dr. Agrupis Appointed as CHED Chairperson

Congratulations to Dr. Shirley Agrupis, New CHED Chairperson!

The Philippine-American Academy of Science and Engineering (PAASE) proudly congratulates Dr. Shirley C. Agrupis, a distinguished PAASE member, on her appointment as the Chairperson of the Commission on Higher Education (CHED).

Dr. Agrupis brings to CHED a wealth of leadership experience and academic excellence. She previously served as President of Mariano Marcos State University (MMSU) in Ilocos Norte, first from 2017 to 2021, and was re-elected for a second term. Her appointment as CHED Commissioner in 2024 paved the way for this latest milestone in her career.

Her commitment to higher education, research, and public service embodies the mission and values of PAASE. We are confident that she will lead CHED with vision, integrity, and dedication to advancing quality, inclusive, and innovative education in the Philippines.

Read news here:

https://www.philstar.com/headlines/2025/05/29/2446744/marcos-appoints-new-ched-chairperson-accepts-de-veras-resignation/amp/

Mabuhay ka, Dr. Agrupis! We are proud to celebrate this historic achievement with you.



SciEnggJ Featured Article: Comparative sequence analysis of candidate antifungal defense genes within the SH3 genomic region of Arabica, Robusta, Liberica, and Excelsa coffee grown in the Philippines

Comparative sequence analysis of candidate antifungal defense genes within the *SH3* genomic region of Arabica, Robusta, Liberica, and Excelsa coffee grown in the Philippines

Nick Rainier S. Santos^{*1}, Monaliza B. Magat^{1,2}, Jomari P. Urmatan¹, Ernelea P. Cao¹, and Daisy May C. Santos¹

 ¹Plant Molecular Biology and Genetics Laboratory, Institute of Biology, College of Science University of the Philippines Diliman, Quezon City, 1101
 ²Science and Technology Scholarship Division, Science Education Institute, Department of Science and Technology, Bicutan, Taguig City, 1631

Abstract:

Scientists are studying genes in coffee plants that help them fight off diseases like coffee leaf rust and coffee berry disease. They focused on three specific genes (ERF1B, CHS2, and Pru ar 1-like) in different Philippine coffee varieties (Arabica, Robusta, Liberica, Excelsa).

They extracted DNA from coffee leaves, copied the genes, and then sequenced them to read their genetic code. They found some technical issues with one gene (CHS2) so it was excluded from further analysis.

For the remaining genes (ERF1B and Pru ar 1-like), they compared the sequences and found new, unique versions, especially in Liberica and Excelsa coffee. Most notably, they identified specific versions of the ERF1B gene in two Arabica samples (Red Bourbon and Mundo Novo) that appear to be linked to stronger disease resistance. These promising gene versions are recommended for further study, as they could be used in the future to breed more disease-resistant coffee plants.

KEYWORDS: Coffea, disease, fungi, locus, resistance



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VOLUME 18 NUMBER 1 (January to June 2025)

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SciEnggJ. 2025 18 (1) 177-190 available online: 19 May 2025 DOI: <u>https://doi.org/10.54645/2025181XOI-52</u>

> *Corresponding author Email Address: nssantos1@up.edu.ph Date received: 17 July 2024 Dates revised: 23 September 2024; 02 November 2024; 24 February 2025 Date accepted: 27 April 2025

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ARTICLE

Comparative sequence analysis of candidate antifungal defense genes within the $S_H 3$ genomic region of Arabica, Robusta, Liberica, and Excelsa coffee grown in the Philippines

Nick Rainier S. Santos^{*1}, Monaliza B. Magat^{1,2}, Jomari P. Urmatan¹, Ernelea P. Cao¹, and Daisy May C. Santos¹

- ¹Plant Molecular Biology and Genetics Laboratory, Institute of Biology, College of Science University of the Philippines
- Diliman, Quezon City, 1101 ²Science and Technology Scholarship Division, Science Education
- Institute, Department of Science and Technology, Bicutan, Taguig City, 1631

KEYWORDS: Coffea, disease, fungi, locus, resistance

The S_H3 genes are a group of well-studied antifungal coffee defense genes, which have been localized to a region in chromosome 3. A previous study screened this region for other antifungal defense genes, particularly, those implicated in defense against coffee leaf rust (CLR) and coffee berry disease (CBD). Three candidate defense gene loci have been identified, namely, an ethylene-responsive transcription factor 1B (*ERF1B*) gene, a chalcone synthase 2-like (*CHS2*) gene, and a major allergen Pru ar 1-like gene. For this study, the main goal is to evaluate and compare the sequences of these selected loci from a sample of Philippine coffee accessions, which consist of the four main varieties utilized in local production: Arabica (*Coffea arabica*), Robusta (*C. canephora*), Liberica (*C. liberica* var. *liberica*) and Excelsa (*C. liberica* var. *dewevrei*). DNA was extracted from young leaves and subjected to PCR amplification using newly designed primers. The PCR products, were run throuch agarose gel electrophoresis after

First of Three-Part Climate Change Webinar Series Held

The Philippine-American Academy of Science and Engineering (PAASE) held the first session of its three-part Climate Change Webinar Series today. The session focused on how the Philippines is responding to climate change, including its impacts, policies, and programs to improve resilience.

Speakers:

Dr. Emma Porio, Professor of Sociology, Ateneo de Manila University; Research Fellow, Manila Observatory

Atty. Romell Antonio O. Cuenca, Deputy Executive Director, Climate Change Commission (CCC)

Dr. Emma Porio shared the work of the Coastal Cities at Risk in the Philippines (CCARPH) project, which aims to link science, policy, and local action to build safer and more prepared communities. She stressed the need to reduce risks and help people adapt to the effects of climate change.

Dr. Porio also talked about the importance of long-term partnerships and working together across different groups and levels of government. She gave examples of how science can help guide local development plans and encouraged building strong cooperation between government, schools, and the private sector.

Atty. Romell Cuenca presented an overview of the climate risks the Philippines faces. These include around 20 typhoons per year, extreme heat, rising sea levels, and heavy rainfall, all of which have caused around ₱673.31 billion in damages over the past ten years.

He explained the National Adaptation Plan (NAP) 2023–2050, which sets climate goals for eight major sectors and identifies 18 provinces at high risk. He also discussed the Nationally Determined Contribution (NDC), the country's climate pledge to cut greenhouse gas emissions by 75% by 2030, mostly through clean energy investments.

Atty. Cuenca also spoke about funding tools like the People's Survival Fund and how climate spending is now tracked in government programs to make sure that planning includes climate resilience.

This first webinar provided a clear picture of the challenges and efforts related to climate change in the Philippines. The next sessions in the series will continue these discussions, with a focus on local solutions and best practices to protect communities and the environment.



Climate Change Webinar Series

We are excited to announce the second installment of the Climate Change Webinar Series organized by the Philippine-American Academy of Science and Engineering (PAASE), taking place on **Friday**, **June 6**, **2025**, **at 8:30 AM Philippine Time (PHT)**.

Session 2 Theme: Innovation, Industry, and the Energy Sector: Advancing Climate-Responsive Industries

Featured Speakers: **Raymond Tan, PhD** Vice President for Research and Innovation Distinguished Professor of Engineering De La Salle University

Neil Aldrin Mallari, PhD

Founder and President Center for Conservation Innovations

Gerry Alava

Strategy and Family Business Advisory former COO ACMI Office System Philippines VP/ Strategic Business Unit Head of Stellar Equipment and Machinery President and Managing Director, Goodyear Philippines

Register here to attend: <u>https://bit.ly/4jYLvt6</u> Meeting ID: 830 5895 3823 Passcode: PAASE2025

We warmly invite you to attend and participate in this session.

Also, mark your calendars for the concluding session:

June 13, 2025 – Academic and Scientific Contributions to Climate Action: Plans and Collaborative Efforts

Join us in this important dialogue toward climate action. Please share this invitation with your colleagues and networks.



PAGTANAW 2050 Fireside Chat Series

The Philippine-American Academy of Science and Engineering (PAASE), in collaboration with the National Academy of Science and Technology, Philippines (NAST PHL), is launching a three-part Fireside Chat Series from June 20 to July 1, 2025. This initiative aims to contribute to the external review of *PAGTANAW* 2050, the country's official long-term STI foresight plan.

This initiative reflects a shared commitment to strengthening evidence-based, future-oriented policy development and fostering dialogue between scientists in the Philippines and the broader Filipino scientific community.

As a background, *PAGTANAW 2050*, developed by NAST PHL, outlines the country's long-term vision for science, technology, and innovation (STI) in nationbuilding. It highlights key strategic sectors and thematic areas that will drive the Philippines toward a sustainable and inclusive future. Recognizing the importance of scholarly feedback and inclusive review, PAASE is organizing the Fireside Chats to engage members with deep expertise in key domains covered by the foresight document.

Fireside Chat Schedule, Speakers, and Reactors

June 20, 2025 (8:30 AM – 10:00 AM, PHT) Themes: *Food, Nutrition, Health, and Education* Featured Speakers from NAST:

- Acd. Jaime C. Montoya Health Systems, Food Security, and Nutrition
- Acd. William G. Padolina Science Education and Talent Retention

Invited Reactors from PAASE:

- Dr. Joel Cello
- Dr. Leah Tolosa Croucher
- Dr. Mario Sto. Domingo
- Dr. Fe Lacbawan

June 27, 2025 (8:30 AM – 10:00 AM, PHT) Theme: *Environment and Climate Change* Featured Speaker from NAST:

- Acd. Rhodora V. Azanza Invited Reactors from PAASE:
 - Dr. Joost Santos
 - Dr. Rigoberto Advincula

July 1, 2025 (8:30 AM – 10:00 AM, PHT) Themes: *Water, Energy, and Artificial Intelligence* Featured Speaker from NAST:

• Acd. Fortunato T. de la Peña Invited Reactors from PAASE:

- Dr. Pros Naval
- Dr. Ralph Turingan

Strategic Areas Covered

The Fireside Chat Series will focus on significant sections of *PAGTANAW 2050*, including:

- Section 4.1 Blue Economy
- Section 4.3 Business and Trade
- Section 4.4 Information and Communications Technology
- Section 4.5 Science Education and Talent Retention
- Section 4.6 Food Security and Nutrition
- Section 4.7 Health Systems
- Section 4.8 Energy
- Section 4.10 Environment and Climate Change
- Section 4.11 Shelter, Transportation, and Other Infrastructure

This Fireside Chat Series affirms the value of scholarly exchange and foresightdriven collaboration between NAST PHL and PAASE. By bringing together leading Filipino scientists and leaders across disciplines, the initiative aims to foster a critical, forward-looking review of *PAGTANAW 2050* and generate actionable insights to enhance the document's relevance, inclusivity, and scientific rigor.

APAMS 2025

APAMS 2025 CALL FOR ABSTRACTS!

Join us in celebrating PAASE@45 at the 2025 Annual PAASE Meeting & Symposium at the University of South Carolina, USA!

We invite submissions for oral and poster presentations for the Online REC Symposium and Poster Competition (July 14-15, 2025, US) and In-Person Meeting (July 19-20, 2025, US).

Abstract Submission Deadline: June1, 2025

Submit here: https://bit.ly/4009Tqb

Be part of shaping the future of research, discoveries, and innovations in science and engineering!

For inquiries, email apams.paase@gmail.com. #APAMS2025 #CallForAbstracts #PAASE45



APAMS 2025 POSTER COMPETITION!

Join us in celebrating PAASE@45 at the 2025 Annual PAASE Meeting & Symposium at the University of South Carolina, USA!



PAASE and Behind The Science Podcast unite to spotlight Filipino Scientists! PAASE x Behind the Science Podcast Series Launches Installment Episodes Highlighting Filipino Scientific Excellence (May 2025–May 2026)

The Philippine-American Academy of Science and Engineering (PAASE) and SciEnggJ, in partnership with the *Behind the Science* podcast team, proudly announces the launch of an installment podcast series running from May 2025 to May 2026, spotlighting the achievements, research, and perspectives of distinguished Filipino scientists across a wide array of disciplines.

The PAASE x SciEnggj x Behind the Science Podcast Series will offer a platform for sharing compelling research stories, professional journeys, and insights on the broader impact of science on Philippine and global development. Each episode will highlight one scientist and their contribution to emerging fields, with the goal of inspiring dialogue and collaboration within the scientific community and beyond.

Here are the featured speakers and topics from the first set of episodes:

Recommended Possible Speakers by SciEnggJ

Dr. Clarissa Velayo

Special Issue on Medical Physiology: Sheng Zhen Gong in pregnancy: The effects of a traditional low intensity exercise form on maternofetal health and wellbeing.

Dr. Noel Tan Gana Special Issue on Microbiology

Dr. Mario Tan Special Issue on Microbiology

Dr. Lilibeth Salvador-Reyes Special Issue on Marine Natural Products and Microbial Diversity

Dr. Arturo Lluisma Special Issue on Marine Natural Products and Microbial Diversity

Dr. Edjohn Aaron Macauyag Research Article published March 28, 2025

Dr. Leilani Sumabat-Dacones Research Article published February 15, 2024

With monthly episodes scheduled through May 2026, this podcast series aims to broaden public appreciation of science, support early-career researchers, and connect the Filipino scientific diaspora with audiences worldwide.

Tune in each month to hear these stories of scientific discovery, collaboration, and impact. Episodes are available on Spotify, Apple Podcasts, and other major platforms.

Behind The Science Podcast

in partnership with

UP Resilience Institute

Philippine Agricultural Scientist UP Los Baños, College of Agriculture and Food Science

Philippine Journal of Fisheries

The Official Journal of the Department of Agriculture -National Fisheries Research and Development Institute

SciEnggJ

The Official Journal of the Philippine-American Academy of Science and Engineering

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Thank you for your continued support and participation in PAASE.

We appreciate your dedication and commitment to our organization.

<u>Gladys Cherisse J. Completo</u> Technical Editor

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Philippine-American Academy of Science & Engineering

https://www.paase.org

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