THE PHILIPPINE - AMERICAN Academy of Science & Engineering

PHILIPPINE-AMERICAN ACADEMY OF SCIENCE AND ENGINEERING

PAASE Monthly Newsletter

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PAASE Celebrates STEAM Career Month with Inspiring Three-Part Career Series

In celebration of STEAM Career Month, the Philippine-American Academy of Science and Engineering (PAASE) launched its **three-part STEAM Career Series**, a webinar program designed to guide and inspire students, educators, and aspiring professionals by connecting them with experts across Science, Technology, Engineering, Arts, and Mathematics fields. The series aims to highlight the diverse career possibilities within STEAM, showcase real-life stories of impact, and demonstrate how interdisciplinary knowledge can shape a better, more sustainable future.

Leg 1 opened the series with stories that blended technology, innovation, and personal passion. Dr. Anthony Chiu outlined his impactful career in engineering and sustainable development, linking local action to global goals. Dr. Sherwin Uy shared his personal journey of finding his ikigai, his life's purpose, through robotics, encouraging students to align their passions with innovation. Dr. Emmanuel Garcia took participants through the aromatic world of coffee science, bridging academic research with community engagement, while Dr. Riza Batista-Navarro highlighted the power of artificial intelligence and natural language processing to advance social good and sustainability. These talks offered pathways in STEM, emphasizing creativity, curiosity, and care for community and environment.

Leg 2 shifted gears to focus on the human side of STEAM, the social sciences and the role of math in our everyday lives, highlihhting the essential roles they play in a well-rounded STEAM ecosystem. Dr. Mariano Sto. Domingo gave an engaging presentation on the value of careers in social science, demystifying fields such as psychology, sociology, political science, and anthropology. He emphasized how these disciplines help us understand human behavior and societal systems, insights that are crucial in today's complex world. Meanwhile, Dr. Debbie Verzosa explored the evolving role of mathematics in the age of artificial intelligence. Her talk highlighted how math, when taught with empathy and contextual relevance, can promote ethical thinking, data literacy, and civic engagement. Together, they championed a multidisciplinary approach to education that bridges STEM and the liberal arts.

The final leg of PAASE's STEAM Career Series featured Usec. Maridon Sahagun, Dr. Llorente Bonaga, Dr. Joel Ilao, Dr. Lawrence David, and Dr. Kathleen Aviso, who collectively addressed the critical aspects of the scientific ecosystem.

DOST Usec. Sahagun passionately encouraged young attendees to pursue careers as scientists, researchers, and innovators, highlighting the crucial role of STEM in national development and showcasing notable Filipino scientists and their impactful inventions. She also outlined the various scholarship programs, incentives, and research funding opportunities available through DOST to support aspiring STEM professionals in their academic and professional journeys within the public sector. Dr. Bonaga reflected on his extensive 25-year career in the pharmaceutical sector. He emphasized the significant value of combining education received in the Philippines with global opportunities and underscored how education can serve as a powerful social equalizer. Dr. Ilao recounted his entrepreneurial journey, detailing the establishment of his computer vision company, Visa Technologies. He stressed the critical synergy between robust scientific knowledge and sharp business acumen in the realm of technopreneurship. Dr. David shared his personal and inspiring journey into the world of science and research, from his early

inspirations to his current impactful work in food genetics at Duke University. He emphasized the importance of perseverance and the intrinsic rewards of pursuing scientifically engaging projects. Dr. Kathleen Aviso shared her unexpected journey into academia and process systems engineering. Her work now focuses on using computational modeling to develop sustainable solutions, emphasizing that academic institutions are creators of knowledge and encouraging everyone to consider a research career to contribute to global progress.

The PAASE STEAM Career Series concluded with a strong emphasis on the vital importance of collaboration and networking among scientists and industry stakeholders in addressing the Philippines' complex societal challenges, leaving participants inspired and equipped with valuable insights as they navigate their own paths in the exciting world of STEAM.

PAASE and Behind The Science Podcast unite to spotlight Filipino Scientists!

Get ready for an exciting new collaboration that will bring the works of Filipino scientists directly to your ears! The **Philippine-American Academy of Science and Engineering (PAASE)** is thrilled to announce a dynamic partnership between its official journal, ***SciEnggJ***, and the popular podcast, **"Behind The Science" (BTS Podcast)**.

Recognizing the power of accessible storytelling, BTS Podcast, with its impressive track record of over 50 episodes and a growing audience across major platforms like YouTube, Spotify, and Apple Podcasts, has reached out to *SciEnggJ* to amplify the incredible research emerging from the Philippines.

Starting this May 2025 and continuing through April 2026, prepare to delve into the minds of leading Filipino scientists. SciEnggJ will be providing **twelve exceptional guest speakers**, all authors of impactful articles published in the journal. Each month, "Behind The Science" will produce a full podcast episode, offering listeners a unique glimpse into their research, motivations, and the potential impact of their discoveries.

Stay tuned for the first episode dropping in May 2025 – you won't want to miss it!

Behind The Science Podcast

Celebrating Excellence: Dr. Michael Promentilla and Dr. Alfredo Mahar Lagmay Honored with 2025 Severino and Paz Koh Lectureship Awards!

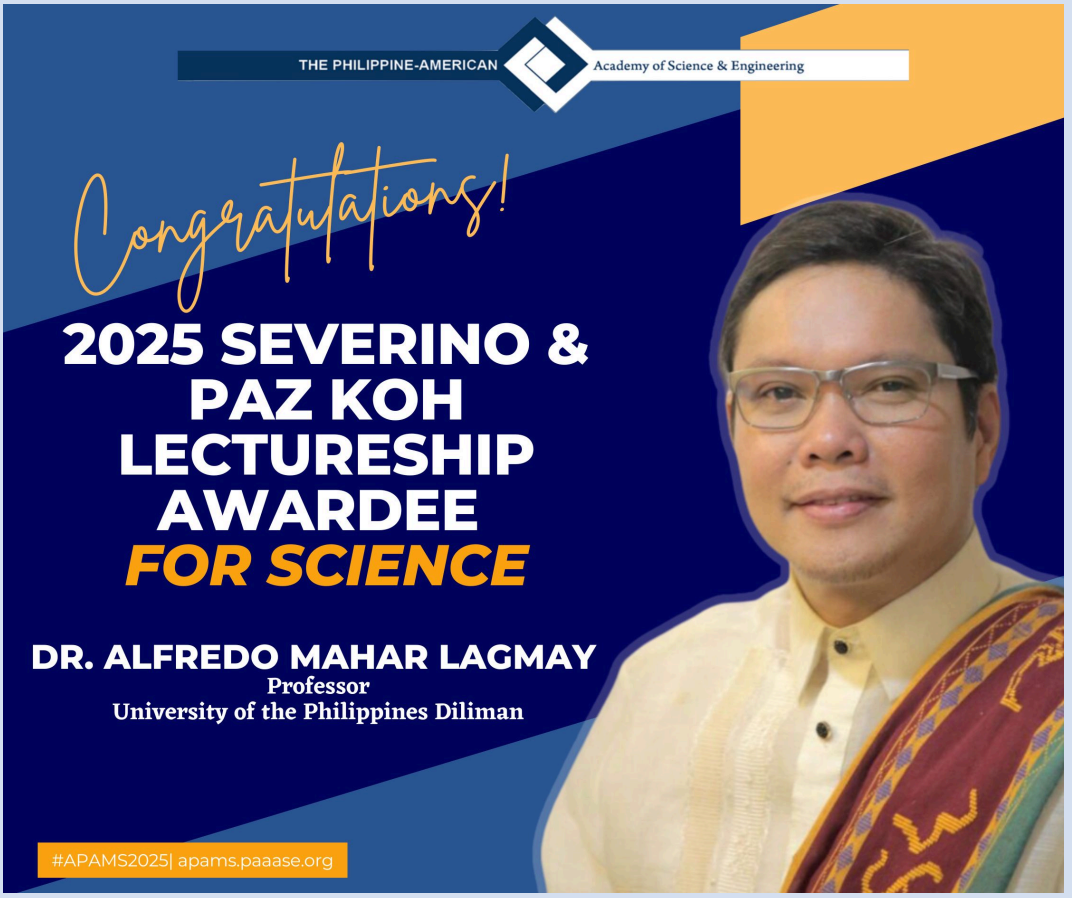
The Philippine American Academy of Science and Engineering (PAASE) proudly announces that **Dr. Michael Promentilla,** Professor at De La Salle University, and **Dr. Alfredo Mahar Lagmay**, Professor at the University of the Philippines Diliman, have been unanimously selected as the distinguished recipients of the 2025 Severino and Paz Koh Lectureship Awards for Science and Engineering.

Dr. Promentilla will be receiving the award for Engineering, while Dr. Lagmay will be honored for Science. Their exemplary contributions to their respective fields embody the spirit of innovation, leadership, and service that PAASE seeks to recognize and celebrate.

The awards will be formally presented during the 45th Annual PAASE Meeting and Symposium (APAMS) hosted by the University of South Carolina in Columbia, USA, on July 19-20, 2025. As part of the celebration, both awardees will deliver lectures showcasing their groundbreaking work. Dr. Lagmay will speak on July 19, 2025, while Dr. Promentilla will address the assembly on July 20, 2025.

In recognition of their achievements, each awardee will receive a $1,000 cash prize and a plaque of recognition. Their attendance and participation will not only honor their own exceptional careers but will also inspire the next generation of Filipino scientists and engineers, contributing to the continued growth and impact of PAASE for decades to come.

Congratulations, Dr. Promentilla and Dr. Lagmay! Your accomplishments are a shining beacon of excellence for the Philippine and global scientific community.



SciEnggJ Featured Article:
The parasite's parasite: Exploring virophages' antiviral strategies in developing current and novel antiviral therapies

The parasite's parasite: Exploring virophages' antiviral strategies in developing current and novel antiviral therapies

Pablo V. Serrano* and Salatiel G. Tacorda

Department of Biology, College of Science, University of the Philippines Baguio

Abstract:

Viruses can have a huge impact on a population by infecting and taking over their hosts. Other than the immune system, scientists know of very few natural ways that stop viruses from spreading inside cells. However, researchers have recently discovered a new kind of tiny particle called a virophage. These virophages actually attack and weaken giant viruses, helping to limit their growth inside infected cells.

In this article, the authors take a closer look at how two of the best-known virophages, sputnik and mavirus, fight against their viral hosts. They also compare their tactics to the ways existing antiviral treatments work today. Finally, they highlight areas where more research could uncover exactly how virophages operate — knowledge that could lead to better ways of treating viral infections in the future.

KEYWORDS: viruses, virophages, host cell, antiviral strategies, therapeutics

Access the full article using this link: https://scienggj.org/2025-64/

SciENGGJ

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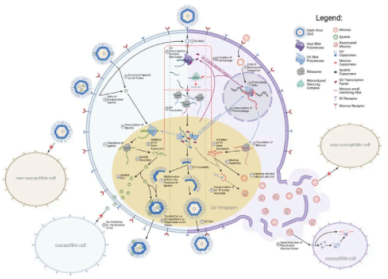

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*Corresponding author
Email Address: pvserrano@up.edu.ph

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ARTICLE

The parasite's parasite: Exploring virophages' antiviral strategies in developing current and novel antiviral therapies

Pablo V. Serrano* and Salatiel G. Tacorda

Department of Biology, College of Science, University of the Philippines Baguio

KEYWORDS: viruses, virophages, host cell, antiviral strategies, therapeutics

Pathogenic viruses exert a profound impact on a population by infecting and parasitizing their hosts. Apart from the immune system, there are few known natural mechanisms that inhibit the replication and propagation of viruses within a cell. Recently, a new class of subviral particles, virophages, has been identified and described. They parasitize giant viruses and limit their growth within a cellular population. In this review, we explore the parasitic and antiviral tactics employed by sputnik and mavirus, the two most well-characterized virophages, against their viral hosts. Additionally, we discuss how their strategies compare to existing antiviral therapies and highlight specific areas of research that may help fully elucidate the virophages' mechanisms, which offer promising insights into the development of existing and novel antiviral therapeutics.

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: May 15, 2025

Submit here: https://bit.ly/40O9Tqb
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 CALL FOR GRADUATE FELLOWS APPLICATION!

Join us in celebrating PAASE@45 at the 2025 Annual PAASE Meeting & Symposium!

We invite submissions for the Graduate Fellows Application.

Application Deadline: May 15, 2025

Submit here: https://forms.gle/Zpv9LmFmsf3BcFVL7
Be part of shaping the future of research, discoveries, and innovations in science and engineering!

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

Online REC Symposium & Poster Competition: July 14-15, 2025 (US) | July 15-16, 2025 (PH)

In-Person Meeting: July 19-20, 2025 | University of South Carolina

Poster Competition with Cash Prizes!

Top 10 posters will be chosen for the Rapid Fire Competition (3-minute talk + 2-minute Q&A).

Submit your abstract by May 15, 2025!

Submit here: https://forms.gle/D23ofhpX7swfbVAdA
For inquiries, email apams.paase@gmail.com.
#APAMS2025 #PAASE

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We appreciate your dedication and commitment to our organization.

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