

American Chemical Society



# SERMACS 2022 FINAL REPORT

October 19-22, 2022  
San Juan, Puerto Rico



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## SERMACS 2022 Theme

”Chemistry transcending boundaries for a sustainable future”

# SERMACS 2022



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# SUSTAINABLE DEVELOPMENT GOALS



# Our uniqueness



- Membership Lounge and Regional Leaders Meeting
- Collaborative effort / Partnership:
  - AAAS
  - Colegio de Químicos de Puerto Rico
  - International Chemical Sciences Chapters (Latin America)
  - International Student Chapters
  - Other sister societies (NOBCChe, SACNAS, among others)

# Our uniqueness



- For the first time in SERMACS, we included a hybrid technical program (in-person/remote).
  - Although limited to two daily symposia, it also included all the plenary lectures
  - virtual poster session for international students (i-RIPS).
- Participants representing 18 different countries
- ACS-on-Campus
- Exhibition of Hispanic women
- Special shows to highlight our culture
- Chemistry Festival as part of National Chemistry Week celebration

# Our uniqueness



## Address Goal 5 of the ACS Strategic Plan: Embrace and Advance Inclusion in Chemistry.

- All the five plenaries were started with an "inclusion moment" led by an ACS Board member;
- All morning and afternoon sessions were also started with a short reflection about inclusiveness.
- All the plenary sessions were also delivered using sign language interpreters and were virtually transmitted,
- A special room was designed for those students that suffer from anxiety.
- In some of the symposia speakers were allowed, especially Hispanic students, to present their talks in Spanish, however slides were in English.

# Saturday, October 22 - Events

8:00 am - 12:00 pm	SERMACS' Board Meeting	208 B
8:30 - 9:30 am	<b>AAAS Plenary Speaker 5 - Erick Carreira</b>	<b>Ballroom A</b>
8:30 - 9:30 am	AAAs Annual Conference	Ballroom A
10:00 am - 12:00 pm	<b>Sci-Mix Poster Session V</b>	<b>Ballroom B</b>
10:00 am - 12:00 pm	<b>i-RIPS Live (Virtual) Poster Session</b>	<b>Ballroom B</b>
1:30 - 5:00 pm	AAAs Annual Conference	209 A/B



2022 Annual Conference

## **PUERTO RICO CONFRONTS CLIMATE CHANGE**

### **AGENDA**

- 07:30 AM • Registration
- 08:25 AM • Welcoming Remarks
- 08:30 AM • Plenary Lecture (SERMACS & AAAS Plenary Speaker)  
– Erick Carreira, Ph.D.
- 09:30 AM • Coffee Break
- 10:00 AM • Dedication Engr. Carl-Axel Soderberg
- 10:10 AM • Panel "Puerto Rico confronts climate change"
- 11:30 PM • Poster Session + Lunch
- 01:30 PM • Panel "Communicating Climate Change to Diverse  
Audiences"
- 03:00 PM • Lucy Gaspar and Robert I. Larus Awards' Ceremony
- 04:30 PM • Networking

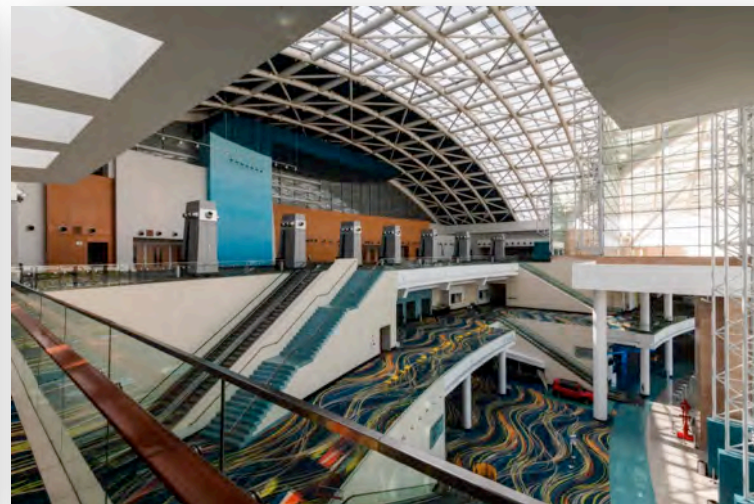
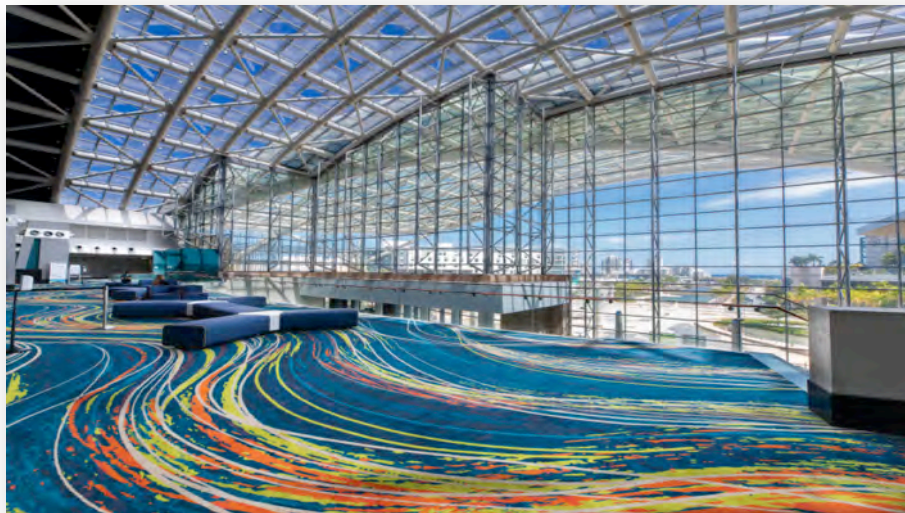


# Puerto Rico Convention Center, San Juan

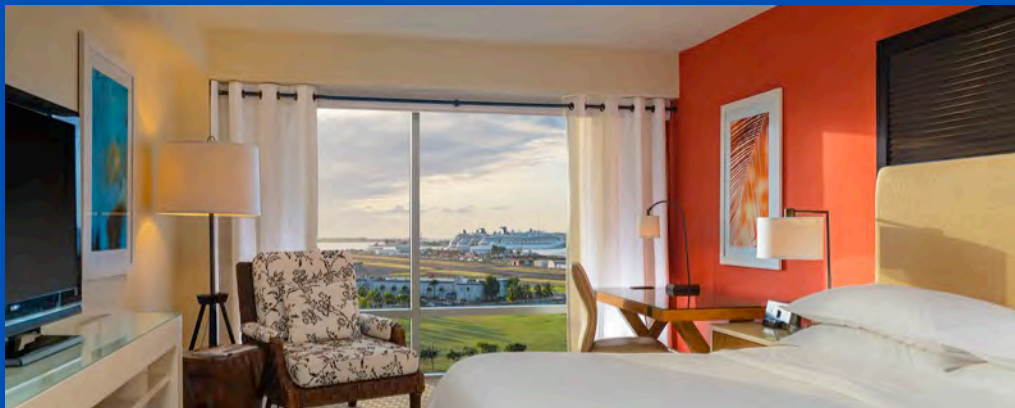


# Rooms

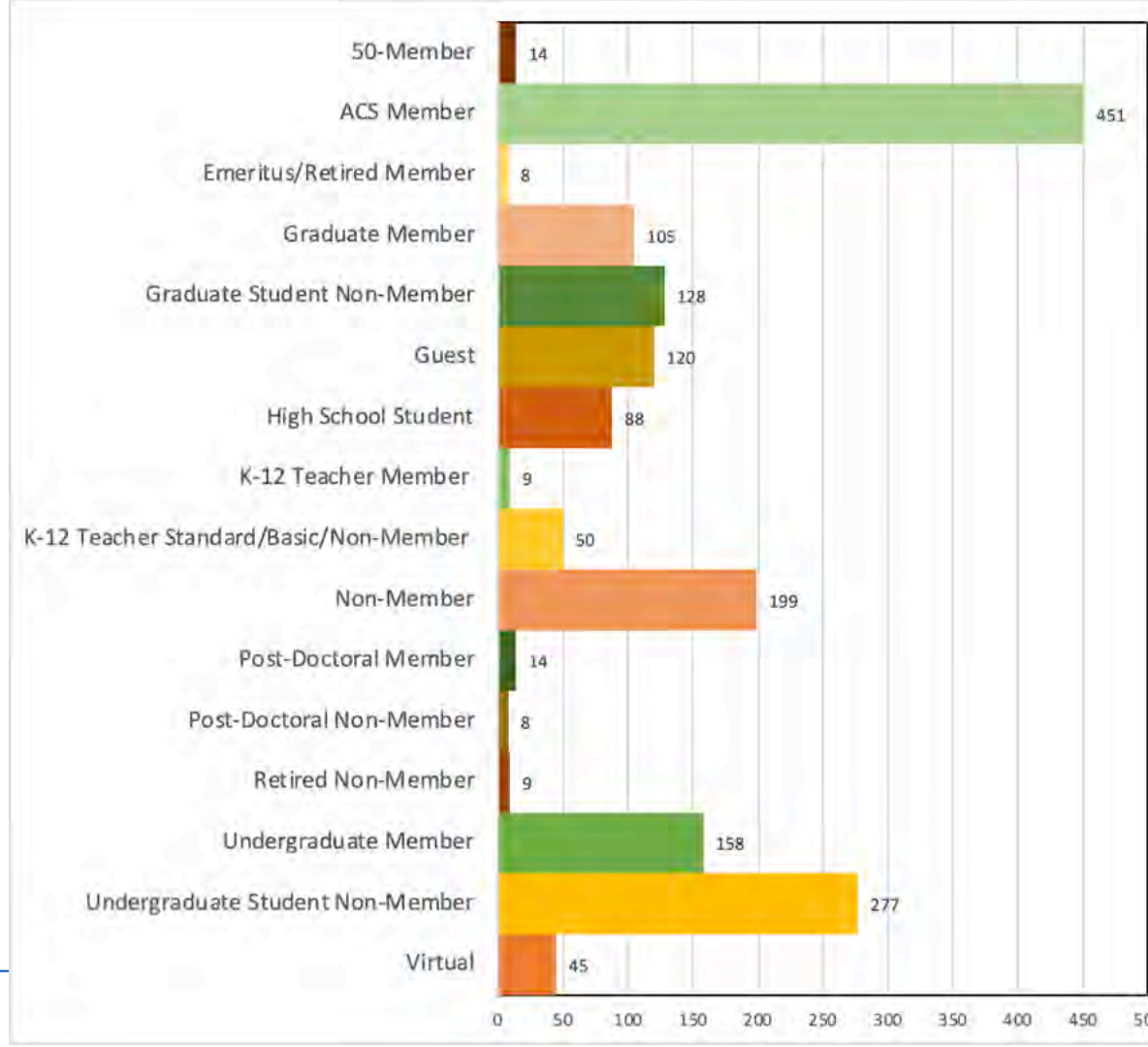
- 16 educational meeting rooms
- 2 Ballrooms (Posters & Graduate School Fair)
- Mezzanine Exhibitors



Sheraton Puerto Rico Hotel -1,018 room nights  
Casino Hyatt Place- 159 room nights



Registration-  
1,683  
participants





# Advertise:

[www.sermacs2022.org](http://www.sermacs2022.org)



facebook

twitter

ACS National Meetings (Spring / Fall)

SERMACS 2021

FLAQ

International Meetings

C&EN

ACS Matters

JChemEd

Local Newspapers

Local News

# SERMACS 2022 Webpage



**SERMACS 2022**

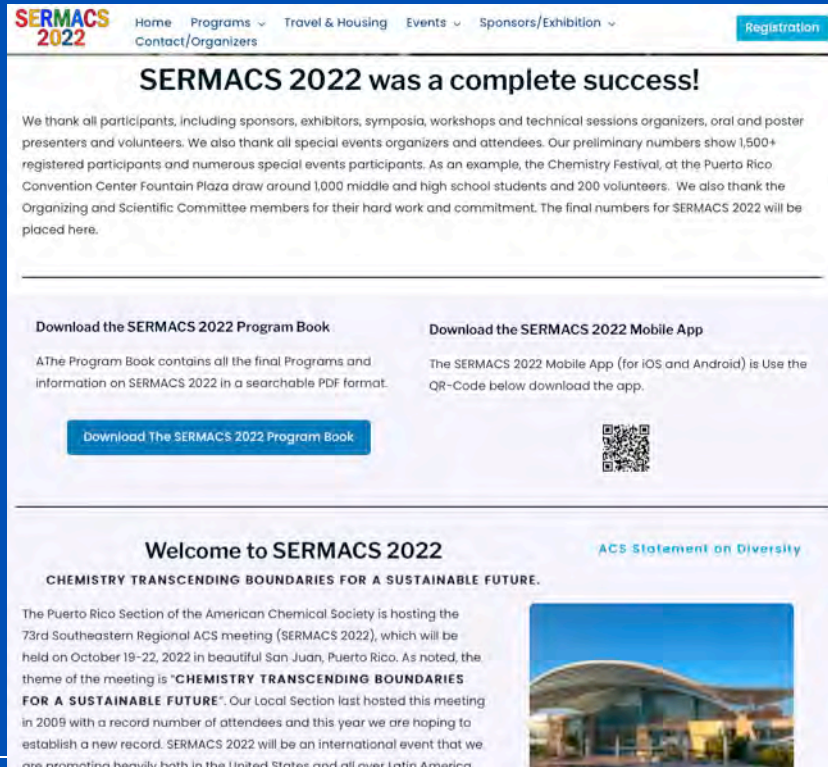
Home Programs Travel & Housing Events Sponsors/Exhibition Contact

WELCOME TO SERMACS 2022

# SOUTHEASTERN REGIONAL MEETING AMERICAN CHEMICAL SOCIETY

OCTOBER 19-22, 2022 – SAN JUAN, PUERTO RICO

Registration



**SERMACS 2022** Home Programs Travel & Housing Events Sponsors/Exhibition Contact/Organizers [Registration](#)

## SERMACS 2022 was a complete success!

We thank all participants, including sponsors, exhibitors, symposia, workshops and technical sessions organizers, oral and poster presenters and volunteers. We also thank all special events organizers and attendees. Our preliminary numbers show 1,500+ registered participants and numerous special events participants. As an example, the Chemistry Festival, at the Puerto Rico Convention Center Fountain Plaza draw around 1,000 middle and high school students and 200 volunteers. We also thank the Organizing and Scientific Committee members for their hard work and commitment. The final numbers for SERMACS 2022 will be placed here.


**Download the SERMACS 2022 Program Book**

The Program Book contains all the final Programs and information on SERMACS 2022 in a searchable PDF format.

[Download The SERMACS 2022 Program Book](#)

**Download the SERMACS 2022 Mobile App**


The SERMACS 2022 Mobile App (for iOS and Android) is Use the QR-Code below download the app.



## Welcome to SERMACS 2022

**CHEMISTRY TRANSCENDING BOUNDARIES FOR A SUSTAINABLE FUTURE.**

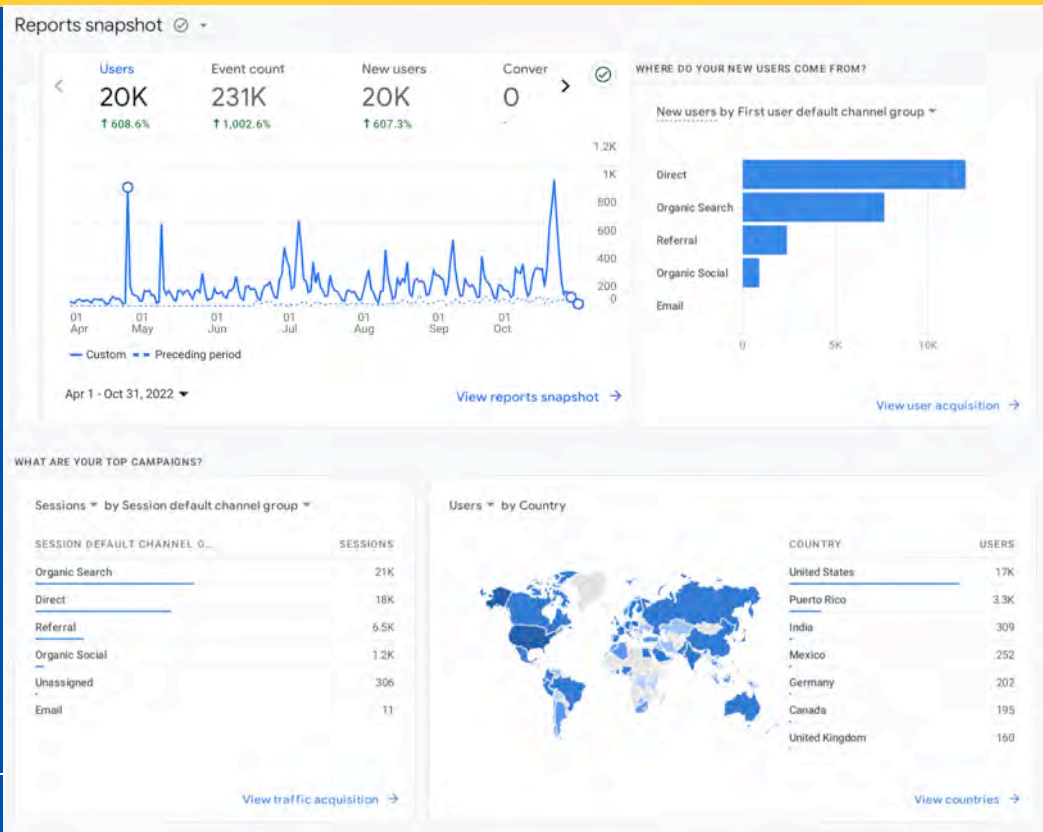
The Puerto Rico Section of the American Chemical Society is hosting the 73rd Southeastern Regional ACS meeting (SERMACS 2022), which will be held on October 19-22, 2022 in beautiful San Juan, Puerto Rico. As noted, the theme of the meeting is **"CHEMISTRY TRANSCENDING BOUNDARIES FOR A SUSTAINABLE FUTURE"**. Our Local Section last hosted this meeting in 2009 with a record number of attendees and this year we are hoping to establish a new record. SERMACS 2022 will be an international event that we are promoting heavily both in the United States and all over Latin America.



[ACS Statement on Diversity](#)

# SERMACS 2022 Webpage Analytics

23K Visits  
231K Views  
9 Countries



1	United States
2	Puerto Rico
3	Brazil
4	Canada
5	China
6	Costa Rica
7	Germany
8	India
9	Spain

# Technical Program



David MacMillan  
Nobel Prize Winner 2021



Angela Wilson  
2022 ACS President



Isiah Warner  
Louisiana State  
University



Erick Carreira  
JACS Editor-in-chief



# Program Book

175 pages  
Included ALL  
SERMACS  
2022 activities



## 73rd Southeastern Regional ACS Meeting

CHEMISTRY TRANSCENDING BOUNDARIES FOR A SUSTAINABLE FUTURE

October 19-22, 2022

## Program Book

PUERTO RICO CONVENTION CENTER, SAN JUAN, PUERTO RICO  
Hosted by the ACS-Puerto Rico Section



### SERMACS 2022 PLENARY LECTURES

#### NOBEL LAUREATE LECTURE

David W. C. MacMillan, Ph.D., McDonnell Distinguished University Professor of Chemistry at Princeton University, Merck Center for Catalysis, Princeton University, Princeton, NJ 08544

Friday, Oct. 20, 5:00 pm, Ballroom A



#### The Development of Asymmetric Organocatalysis and Metallaphotoredox

This lecture will first discuss the advent of organocatalysis in my laboratory. As part of this overview, we will highlight why organic catalysts have become widely explored in modern synthetic chemistry

This lecture will also discuss the application of visible light photocatalysis to the discovery or invention of transformations that will be conceptually or synthetically valuable (and sometimes hopefully both). We will describe why a healthy balance of reaction discovery and mechanistic understanding has been important to the development of a field of research that is now being widely adopted in both industrial and academic settings. In particular, we will discuss the application of photocatalysis to the development of new metallaphotoredox reactions involving copper, a development that we hope will have an impact on the discovery of new biologically relevant molecules.

Thursday, October 20, 5:30 pm, Ballroom A



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## Plenary Lecture



### **NSB Vision 2030: A Call to Action**

*Victor R. McCrary, Ph.D. Vice President for Research, Professor of Chemistry, Office of University Research, The University of the District of Columbia and Vice-Chair National Science Board*

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**Thursday,  
October 20  
12:00 – 1:30 pm  
Room 104 C**

## **Women Chemist DEIR Luncheon**



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**NOBCCChE®**  
National Organization for the Professional Advancement  
of Black Chemists and Chemical Engineers



Special Keynote Address  
Dr. Laura Castillo-Page  
National Academies' Chief Diversity  
and Inclusion Officer

### **73rd Southeastern Regional ACS Meeting Women Chemists Diversity, Equity, Inclusion and Respect (DEIR) Luncheon**

**Thursday, October 20, 2022**

**12:00 – 1:30 pm**

**Puerto Rico Convention Center, Room 208B**

**Sponsored by ACS Women Chemists Committee & NOBCCChE**

*\*Ticketed Event\**

**SERMACS  
2022**



**Scan & Register**

# Technical Program



- Scientific Presentations
- Posters
- Undergraduate Program
- Workshops
- High School Teacher Program
- Graduate School Fair-
  - 50 Universities
- Exposition
  - 35 Exhibitors
- NCW Outreach event
  - Festival de Química
- Social:
  - Opening
  - Puerto Rican night
  - Luncheon (2)
  - Activity in Old San Juan for international participants

# Technical Program



- Grand Total of 1,027 presentations.
  - 31 Theme symposia-370 oral presentations
  - 20 General Sessions-160 oral presentations
  - 5 Poster Sessions- 497 presentations
  - 4 Workshops

# Chemistry Festival

Friday, October 21

8:30 – 11:00 am

Convention Center Grounds



26	55.85	16	32.07	22	47.87	23	50.94	13	26.98
<b>Fe</b>	<b>S</b>	<b>Ti</b>	<b>V</b>	<b>Al</b>					
Iron	Sulfur	Titanium	Vanadium	Aluminium					

**FREE HANDS-ON SCIENCE COMMUNITY EVENT AT  
SERMACS 2022**

Join the Puerto Rico Section of the American Chemical Society (ACS).  
Dr. Angela Wilson-ACS President, USA. International and Puerto Rico  
Student Chapters, ChemClubs, Ecoexploratorio, Colegio de Químicos  
de Puerto Rico and other collaborators, for a free community event,  
as part of the National Chemistry Week Celebration. Come to learn  
of the importance of chemistry in everyday life and about this year's  
theme, "Fabulous Fibers: The Chemistry of Fabrics", with various  
exciting hands-on activities.

**The Chemistry Of Fabrics  
FABULOUS FIBERS**

When: Friday, October 21, 2022  
Time: 8:30-11:30 AM (ET)  
Where: San Juan Convention District

You need to register in  
advance to confirm  
participation through  
the following QR Code or  
visit our website:  
<http://www.sermacs2022.org>

**We hope to see  
you there!**



# K-12 Teachers and Students Day

Friday, October 21

8:30 – 11:00 am



**SERMACS 2022**

Inspire students to think creatively, collaborate, and solve problems.

**SUSTAINABILITY INNOVATION CHALLENGE**

Chemistry - Science - Technology - Engineering - Math

Do you have an idea on how to use chemistry and other STEM discipline to contribute to achieve the sustainable development goal?

This is your opportunity to show your ideas or project. Submit a 3 minute video explaining your idea or project

Registration | SERMACS 2022 - ACS SOUTHEASTERN REGIONAL MEETING

Deadline September 20, 2022 send your proposal to: [sermacschallenge@gmail.com](mailto:sermacschallenge@gmail.com)

The poster features a background image of hands holding a small globe of the Earth. The text is arranged in a clear, hierarchical manner, starting with the event name 'SERMACS 2022' at the top, followed by the challenge title 'SUSTAINABILITY INNOVATION CHALLENGE'. Below this, the disciplines 'Chemistry - Science - Technology - Engineering - Math' are listed. The main body of the poster contains two paragraphs of text explaining the challenge and providing instructions for participation. At the bottom, the registration information and deadline are clearly stated. The poster also includes a small logo for ACS (American Chemical Society) in the top left corner and a stylized molecular structure graphic in the bottom left corner.

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# COMMITTEE ON PROFESSIONAL TRAINING (CPT)

Friday, October 21

10:25 am – 12:00 pm

CPT Listening Session - ACS Graft  
Guidelines for Undergraduate  
Programs

**Join Us @ SERMACS**

**THE ACS APPROVAL PROGRAM**

**2023 DRAFT ACS GUIDELINES  
FOR UNDERGRADUATE  
CHEMISTRY PROGRAMS**

**Listening Session**

**Friday,  
Oct. 21**

- Learn about updates
- Ask questions
- Provide feedback

**PRCC Room 104C  
10:25 am**

Read and download the draft guidelines at  
[www.acs.org/acsapprovalprogram](http://www.acs.org/acsapprovalprogram)



# Friday, October 21



1:45 – 7:15 pm

1:45 - 4:55 pm **Hangout with ACS on Campus at Sci-Mix** *(in Ballroom B)*

6:15 - 7:15 pm **Ask Me Anything Live!**  
David MacMillan, Ph.D., Nobel Laureate  
and James S. McDonnell Distinguished  
University, Professor of Chemistry,

# Award Luncheon

Friday, October 21

12:30 – 1:30 pm

**12:00 pm** Welcome Remarks and Meal Service

**12:30 pm** Introduction of Keynote Speaker

**Keynote Speaker:**

Paul W. Jagodzinski

Chair, ACS Board of Directors

Professor

Department of Chemistry & Biochemistry

Northern Arizona University

**1:00 pm** Presentation of Southeast Regional Awards

Presentation of Local Section awards

Recognition of Local SERMACS Organizing Committee



The poster for the SERMACS 2022 Regional Awards is set against a dark blue background with a subtle pattern of stars and a comet streak. At the top, the text "SERMACS 2022" is displayed in large, colorful, multi-colored letters. Below this, there are six circular portraits of award recipients arranged in two rows of three. Each portrait is accompanied by the recipient's name and a brief description of their award. In the center of the second row is the ACS logo, which features a stylized eagle and the letters "A C S". Below the portraits, the text "Regional Awards" is written in large, bold, orange letters, followed by "Excellence in chemistry" in a smaller, white font. At the bottom right, the event details are listed: "Friday, October 21, 2022", "Awards luncheon, PRCCC Room 208 B", and "San Juan, Puerto Rico".

**SERMACS 2022**

**Pamela Leggett-Robinson**  
Stanley C. Israel  
Regional Award for Advancing Diversity in the Chemical Sciences

**Dr. Linette Watkins**  
Stanley C. Israel  
Regional Award for Advancing Diversity in the Chemical Sciences

**Allan M. Ford**  
Ann Hedley Regional Award for Volunteer Service to the American Chemical Society

**Robert W. Ayton, Jr.**  
Regional Award for Excellence in High School Teaching

**Dr. Bindu Krishnan**  
SERMACS Industrial Innovation Award

**Regional Awards**  
Excellence in chemistry

Friday, October 21, 2022  
Awards luncheon,  
PRCCC Room 208 B  
San Juan, Puerto Rico

# Income and Expenses Report



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# Income and Expense Report



**Revenues: \$402,908.75**

**Expenses: \$334,773.00 (includes the return of the Regional Board \$6,000 loan)**

**Net: \$68,135.75**

**SERMACS, Inc. (20%): \$13,627.15**

**Puerto Rico Section: \$54,508.60**

**For details, see Appendix 10 of the SERMACS 2022 Final Report**

# SERMACS 2022 Organizing Committee



fe<sup>®</sup>

## Executive Committee

<b>General Meeting Chair</b>	Ingrid Montes
<b>Program Chair</b>	Néstor M. Carballeira
<b>Co-Chairs</b>	Jorge L. Colón José Antonio Prieto Arthur Tinoco
<b>Treasurer</b>	Jorge L. Colón.
<b>Meeting Coordinator</b>	Carlos Castañeda LCC Management
<b>ACS Meeting Planner</b>	Brianne Blevins
<b>Webmaster</b>	José Antonio Prieto

## Organizing Committee

### ACS Meeting Planner

Brianne Blevins

### Fundraising/ Exhibit Committee

Lisa Houston, District IV Director -  
ACS Board of Directors  
Chris Bannochie, Savannah River  
National Labs,  
Carlos Tollinche – INDUNIV  
Maria de Lourdes Rivera, CQPR  
Milagros Delgado, FIU

### Graduate School Fair Chair

### Education Program Chair

María Oliver-Hoyo – NCSU

### Undergraduate Program Chair

Brenda J. Ramos – UPR-Aguadilla

### i-RIPS Program Chair

Santiago Urena – Costa Rica, Isaac  
Céspedes Camacho – Costa Rica,  
and Carolina Guzmán - Guatemala

### Teachers Day Chair

Liz Diaz –UPR-Rio Piedras

### SEED Program Chair

Ajay Mallia

### NCW-Festival Chair

Ingrid Montes





# SERMACS 2022 Organizing Committee



## Scientific Committee

Ajay Mallia

Alec H. Christian

Angel A. Martí-Arbona

Arthur D. Tinoco

Asier Unciti-Broceta

Ben A. García

Bob Kane

Brenda J. Ramos-Santana

Bridgette Shannon

Caleb Martin

Carlos R. Cabrera

Christopher D. Chouinard

Cliff W. Padgett

Dalice M. Piñero Cruz

Daniel Cruz-Ramirez de  
Arellano

Daniel Rabinovich

David J. Sanabria-Rios

Douglas Masterson

Elsie I. Pares-Matos

H.N. Cheng

Idalia Ramos

James D. Kubicki

Jenny Lawler

Jenny Y. Yang

Jesús Velázquez

Jillian L. Dempsey

Jorge L. Colón

José Almirall

Joseph Sabal

Juan C. Colberg

Kelley C. Caffin

Liandro Cunci

Lorena Tribe

Luyi Sun

Maresh Narayan

Maria Oliver-Hoyo

Mario V. Ramos-Garcés

Mark Pederson

Marvin J. Bayro

Mary Virginia Orna

Md Nurunnabi

Mitk-El B. Santiago-Berrios

Monica Pica

Paul S. Weiss

Ramonita Diaz Ayala

Randy M. Wadkins

Rená A. S. Robinson

Reni Joseph

Rosalynn Quiñones

Santiago Sandi-Ureña

Santiago-Berrios

Scott R. Goode

Stephen Westcott

Tad Whiteside

Ubaldo M. Córdova-  
Figueroa

Verónica Bermudez Benito

Will E. Lynch

Xu Simon

Yousong Ding

# SERMACS 2022 Sponsors

Diamond



**Oakwood  
Chemical**  
*Enabling Discovery*

Platinum



**ACS**



Gold



Silver



**ACS** Green Chemistry Institute  
Pharmaceutical Roundtable



# SERMACS 2022 Sponsors

## Copper



Puerto Rico  
Science, Technology  
& Research Trust



ACS  
Chemistry for Life®



CHEMICAL  
& CHROMATOGRAPHY  
SUPPLIES INC.



## Nickel



Division of Colloid and  
Surface Chemistry

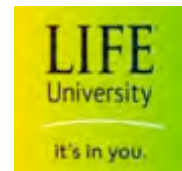




# SERMACS 2022 Exhibitors



## SERMACS 2022 Graduate School Fair Participants



## SERMACS 2022 Graduate School Fair Participants

University of  
Massachusetts  
Amherst



**FIU**  
FLORIDA  
INTERNATIONAL  
UNIVERSITY



MASSACHUSETTS COLLEGE of PHARMACY  
and HEALTH SCIENCES



abbvie