Building Bridges | WRM 2025

ACS Western Regional Meeting

San Jose, CA - October 25-28, 2025

Building Bridges | WRM 2025

Cosponsored by: California Local Section
Silicon Valley Local Section

AMERICAN CHEMICAL SOCIETY
Chemistry for Life®

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American Chemical Society

OFFICE OF THE PRESIDENT

Dorothy J. Phillips, Ph.D.
President-Elect, 2024
President, 2025
Immediate Past President, 2026

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
Phone 202-872-4461
president@acs.org

October 25, 2025

Dear Western Regional Meeting Participants:

On behalf of the ACS global community, I am delighted to extend my warm personal greetings to all of you attending the 2025 Western Regional Meeting (WRM) in beautiful San Jose, CA.

Under the meeting theme of "Building Bridges" WRM will feature a vast array of thirty-two technical symposia, including sixty half-day sessions and four poster sessions. The meeting will also feature a full day of programming geared towards undergraduate students majoring in chemistry and related fields in the regional universities and community colleges. Along with the technical symposia, there will also be symposia celebrating the many contributions of former California and Silicon Valley Section members Neil D. Byington, John I. Brauman, Harry S. Mosher, and Attila E. Pavlath as well as Robert H. Grubbs.

Throughout the meeting WRM will feature three remarkable plenary lectures from William Tarpeh, Assistant Professor of Chemical Engineering at Stanford University; Judith Giordan, Managing Director of ecosVC and 2023 ACS President; as well as Christopher Sarko, Executive Director, Global Discovery Chemistry, Novartis.

On Sunday, October 26, start your day with the Senior Chemists Breakfast featuring keynote speaker William Carroll 2005 ACS President. That afternoon, the Women Chemists Luncheon will feature keynote speakers Marinda Li Wu, 2013 ACS President and myself. Later that evening, join us for dinner where keynote speaker Glenn Fox will talk about "The Art and Science of Brewing Beer."

I encourage everyone to attend the WRM 2025 Awards Dinner on Monday that includes keynote speaker Richard N. Zare, the Marguerite Blake Wilbur Professor of Natural Science, at Stanford University. There will also be several special events through the conference such as a career, graduate school, and undergraduate student transfer fair, a Welcome Governance Reception, a Trivia Night, as well as Careers in Academia and Industry panel discussions.

With all these great symposia, workshops, and social events, I want to express my special thanks to WRM General Co-Chairs Vanessa Marx and Natalie McClure and Vice Co-Chairs Jigisha Shah and Mariana Alves, and the many organizers and volunteers, ACS staff, and especially to our hosts the California and Silicon Valley Local Sections, for their hard work and dedication to create an intellectually stimulating, and entertaining experience here in San Jose, CA.

Best wishes for the most successful WRM 2025!

Sincerely,

Dorothy J. Phillips

Dorothy J. Phillips
President
American Chemical Society

Silicon Valley Local Section

Amanda Nelson, Ph.D.
Chair-Elect, 2024
Chair, 2025
Immediate Past chair, 2026

October 25, 2025

Dear Western Regional Meeting Participants:

The Silicon Valley Local Section community of scientists welcomes you to our region. It is my utmost pleasure to extend a personal salutation to the attendees of the 2025 Western Regional Meeting (WRM) in San Jose, CA.

Our meeting's theme of "Building Bridges" brings together engaging technical symposia and poster sessions highlighting chemistry conducted across the nation. A full day of programming catering to undergraduate students majoring in chemistry and related fields is dedicated to our future scientists and we are hosting a breakfast and luncheon celebrating our emeritus and women chemists. There will also be a collection of symposia recognizing the contributions of former California and Silicon Valley Section members Neil Byington, John I. Brauman, Robert H. Grubbs, Harry and Carol Mosher, and Attila Pavlath.

Everyone can participate in a meaningful activity going on throughout the conference: the *Tactile Periodic Table Project* invites you to help assemble a tactile Braille periodic table, making science more accessible, inclusive and engaging for individuals who are blind or visually impaired. The table can be found in the Career Fair on Saturday and the Exhibition Hall on Sunday and Monday.

We are excited to deliver a full lineup of special events for your enjoyment. Start the meeting out with one of our stimulating workshops happening Saturday morning from 9:45 am – 12 pm. Following the Welcome Reception that evening, you'll find fun and games at the *YCC Trivia and Game Night* starting at 7pm. Join the discussions of the Academia and Industry Career Panels at 6:00 pm on Saturday and Sunday, respectively. Finally, we hope to see you on Tuesday afternoon for a tour of the Silicon Valley US Patent Office.

With greatest appreciation, the California and Silicon Valley Local Sections call out special thanks to the dedication of our WRM General Co-Chairs, Vanessa Marx and Natalie McClure; Vice Co-Chairs, Jigisha Shah and Mariana Alves; as well as the contributions of our many organizers, volunteers, and ACS staff working behind the scenes to present the San Jose, California Western Regional Meeting of 2025!

Please enjoy our program!

Sincerely,

Amanda Nelson
Silicon Valley Local Section Chair
American Chemical Society

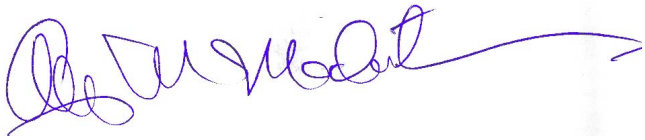
California Section, ACS
October 2025

Welcome to WRM 2025!

Whether you live in the Bay Area, or traveled far to be here, you know that the Bay Area is remarkable for its natural beauty, for world-class research centers at its universities and national laboratories, and for an exceptional concentration of high tech industries and laboratories that are creating the future every single day. To organize a meeting worthy of this setting, the WRM local organizing team has been hard at work for well over two years, and there can be no doubt that they exceeded all expectations as the California and Silicon Valley Sections of the ACS co-host their first WRM since 2013. Whether you are an experienced professional, a seasoned post-doctoral researcher, or a young student attending your first scientific meeting, this meeting has a full program of workshops, technical sessions, and special events that will excite your imagination while providing resources and new contacts to help with your current work or even inspire new directions.

As the 2025 Chair of the California Section, I join with my colleagues and with our neighbors across the Bay in welcoming you. We thank you for bringing your science and your spirit to this meeting, where we hope you will meet many old friends and make many new ones. We also welcome your feedback, so that we can make this meeting and future ACS Regional meetings even better.

Thank you and enjoy your stay in San Jose!



Alex Madonik FACS
2025 Chair
California Section, ACS

WRM 2025 ORGANIZING COMMITTEE

Vanessa Marx (General Co-chair, Program Chair)
Natalie McClure (General Co-chair, Awards Chair)
Jigisha Shah (Vice Co-chair, Special Events Chair)
Mariana Alves (Vice Co-chair, Special Events Chair)
Madalyn Radlauer (Undergraduate Program Chair)
Lee Latimer (Fundraising Chair)
Paul Vartanian (Co-Treasurer)
Ihab Darwish (Co-Treasurer)
Alex Madonik (Webmaster)
Romit Chakraborty (Program Book Coordinator)
Bonnie Charpentier (Advisor)
Chuck Weidner (Advisor)

REGISTRATION HOURS

The registration location is in the Market Street Foyer on the event level (outside the Imperial Ballroom).

Western Regional Meeting Registration Hours:

- Friday, 10/24/25-4:30 p.m. -- 6:30 p.m
- Saturday, 10/25/25- 7:00 a.m. – 6:00 p.m.
- Sunday, 10/26/25- 7:00 a.m. – 7:00 p.m.
- Monday, 10/27/25- 7:00 a.m. – 7:00 p.m.
- Tuesday, 10/28/25- 8:00 a.m. – 12:00 p.m.

ACCESSING WIRELESS NETWORKS AT WRM 2025

Wireless network details

Network: Hilton Honors

Meeting Password: 2025ACSWRM

PRESENTER INFORMATION

Poster Presenters

If you are presenting in the lunch hour session, please plan to set-up your poster anytime between 9:00 am - 12:00 pm in Regency Ballroom 2. If you are presenting in the evening session, please plan to set-up your poster anytime between 2:30-5:30 pm in Regency Ballroom 2. All posters need to be taken down immediately following the conclusion of the session. Please also make sure you set-up your poster, according to your presentation number which can be found on the detailed schedule. Posters for WRM should not exceed the maximum available size which is 4 feet high by 8 feet wide.

Oral Presenters

All presenters will need to bring their own laptops. If you are not able to do so please contact the organizer for your session. If you are presenting in a morning session, please arrive 30 minutes before the session is set to begin, to confirm you are able to connect your laptop without issue. If you are presenting in an afternoon session, please plan to meet your session's presider in your room at 12 pm the day of your presentation.

PLENARY AND KEYNOTE SPEAKERS

Saturday, Oct 25 | 4:00 PM Imperial Ballroom

Electrochemical Wastewater Refining: Building Bridges Across Length Scales

Prof. William Tarpeh, Ph.D.

Assistant Professor of Chemistry, Stanford University

Over the past century, humans have altered the global nitrogen cycle so drastically that managing nitrogen has emerged as a grand engineering challenge and urgent need. The emissions-intensive Haber-Bosch process for industrial fertilizer production, which converts nitrogen gas into ammonia, outpaces wastewater nitrogen removal due to fertilizer runoff and 80% of wastewater being discharged without treatment. Refining nitrate and ammonia into valuable products through reactive separations, which integrate catalysis and separations, is a useful approach for addressing both water pollution and chemical manufacturing. For example, selective membranes and adsorbents can be leveraged to control catalytic performance by tuning microenvironments near catalyst active sites. This seminar will focus on recent work designing nitrogen-selective processes, materials, and molecular mechanisms to systematically probe and valorize real wastewaters.

Congratulations to Professor Tarpeh who was recently awarded the prestigious MacArthur Genius Grant!

Sunday, Oct 26 | 1:30 PM, Imperial Ballroom

Where Has the Trust Gone: Changing Attitudes in America's Trust in Science and Scientists

Dr. Judith Giordan, Ph.D.

ecosVC; 2023 ACS President

Trust in science doesn't exist in a vacuum—it's part of a broader trust landscape. And today, that landscape is rocky. According to the Pew General Social Survey, the percentage of U.S. adults who believe that "most people can be trusted" has dropped from 46% in 1972 to just 34% in 2018—and it remains at that low level today. Trust in other institutions isn't faring much better: only about one-third of Americans say they trust the federal government or the media. Simply put, trust in almost anything is low. That's because trust is hard to earn—and easy to lose. But here's the good news: periods of disruption also create space for reflection, growth, and positive change. In moments like these, we have a powerful opportunity to rebuild trust—starting with science and scientists.

CALL TO ACTION: Let's come together to talk honestly about what's at stake, and how we can strengthen public trust in science. Let's build the plans, develop the skills, and take the actions that move us forward—because if we don't, who will?

Monday, Oct 27 | 1:30 PM, Imperial Ballroom

Overcoming the Challenges of Drug Discovery in Global Health: Novel Approaches to Malaria and Cryptosporidiosis

Dr. Christopher Sarko, Ph.D.

Executive Director, Global Discovery Chemistry, Biomedical Research, Novartis, Emeryville

Novartis Global Health is a leader in addressing the unmet needs in the treatment of neglected tropical diseases. Developing drugs to tackle these infectious diseases requires overcoming challenges associated with all areas of modern drug discovery with the added concerns for cost of goods, minimizing risk of resistance, and patient access/compliance. This presentation will highlight two projects that demonstrate our approach to developing innovative therapies for the developing world. IWY357 is a promising novel anti-malarial compound that demonstrates long-lasting suppression of the *Plasmodium falciparum* blood stages and has the potential to be a single-dose cure for uncomplicated malaria. This compound was identified through a virtual screen using a machine learning profile QSAR model, optimization of this initial hit for efficacy, and demonstrated safety in pre-clinical models.

EDI048 is a potent Cryptosporidium PI(4)K inhibitor designed to deliver drug substance to intestinal epithelial cells and upon systemic absorption is rapidly metabolized and excreted by the liver. This "soft-drug" approach allowed for elevated GI exposure while minimizing the risks inherent to human kinase inhibition. Structure-based compound design and in vitro clearance data was used to optimize EDI048 to achieve sufficient exposure in the intestine to eliminate the parasite while maintaining low systemic exposure to maximize safety.

WOMEN CHEMISTS COMMITTEE / EMPOWERING WOMEN IN ORGANIC CHEMISTRY (EWOC) LUNCHEON

Sunday, October 26th, 2025 | 12:15-1:30 pm, Regency Ballroom 1

Journey of an Industrial Chemist and Trailblazer

Dr. Dorothy Phillips, Ph.D.

2025 President of the American Chemical Society

Dr. Dorothy J. Phillips is the 2025 American Chemical Society (ACS) President. She is the first African American woman to be elected to the ACS presidential succession and the first African American woman to be elected to the ACS Board of Directors, where she served three terms from 2014-2022. In 1967, Dorothy was the first African American woman to complete a bachelor's degree at Vanderbilt University and completed her doctoral studies at the University of Cincinnati and was the first African American woman in Cincinnati to earn a Ph.D. in chemistry in 1974.

After graduation, she worked for Dow Chemical, where she developed growth promoters for livestock and poultry. Dr. Phillips then worked at Waters Corporation, where she prepared solid supports to purify proteins and then helped to develop novel solid-phase extraction techniques for determining the levels of drugs and pesticides in complex media such as serum, food, and water. She became a manager at Waters, retiring as their Director of Strategic Marketing in 2013. Her works in circular dichroism and bio separation are well known, in essence, her work helps scientists better understand biological processes and produce high-quality treatments.

Among her honors are the Roland H. Hirsch Award for Distinguished Service in the Advancement of Analytical Chemistry from the Division of Analytical Chemistry, 2023; The Percy L. Julian Award, from National Organization for the Professional Advancement of Chemists and Chemical Engineers (NOBCChE) 2022; Lifetime Achievement Award from NOBCChE, 2020; the Vanderbilt University Dr. Dorothy J. Wingfield Phillips Endowed Chair, 2015 with investiture of Professor Renõ Robinson in the chair, 2023; Vanderbilt University Trailblazer, Class of 2019; American Chemical Society Fellow, Class of 2010; and Distinguished Alumni, University of Cincinnati, College of Arts and Sciences, 1995 and Center for Women Studies, 1993.

Evolving Role of Women in the Chemical Enterprise"

Dr. Marinda Li Wu, Ph.D.

2013 ACS President of the American Chemical Society
Past Board Chair of the Chinese American Chemical Society

Marinda Li Wu is an American chemist with a distinguished career in industry and a long record of service to the chemical community. She earned a Ph.D. in inorganic chemistry from the University of Illinois Urbana-Champaign and began her career as a research chemist at Dow Chemical, later moving into marketing and executive roles at other chemical companies. Throughout her career, Wu has promoted science education and career development through public outreach programs, youth science camps, and volunteering as an ACS career consultant. An ACS member for over five decades, she has held numerous leadership roles – including election as the 2013 ACS President, making her the Society's eighth female and first Asian American to hold that office. She is also an ACS Fellow who holds seven patents and has earned honors such as the Shirley B. Radding Award for her contributions to chemistry and the chemical profession.

COMMITTEE ON ECONOMIC AND PROFESSIONAL AFFAIRS / SENIOR CHEMISTS COMMITTEE BREAKFAST

Sunday, October 26th, 2025 | 7:30-9:00 am, Imperial Ballroom

Working for Yourself: Turning Your Idea into Your Own Business

Dr. William Carroll, Ph.D.

Carroll Applied Science, 2005 ACS President

This presentation will highlight a strategic planning approach to retirement and will discuss the importance of personal identity, creating structure, and finding purpose at the intersection of your values, skills and interests.

Dr. William F. Carroll, Jr. holds a PhD in Organic Chemistry from Indiana University (1978), an MS from Tulane University (1975), and a BA from DePauw University (1973). He retired in 2015 and now heads his own company, Carroll Applied Science, LLC.

Bill has been an Adjunct Professor of Chemistry at Indiana for over 25 years, with activities ranging from teaching courses to department career counselor for the graduate students, his current assignment.

He served as President (2005) and later as Chair of the Board of Directors (2012-14) of the American Chemical Society (ACS), one of only two living members to hold both offices. He is a Fellow of ACS as well as the American Association for the Advancement of Science and the Royal Society of Chemistry. In 2009 he was chair of the Council of Scientific Society Presidents.

Bill has received Distinguished Alumni Awards from both Indiana and DePauw, and an honorary Doctor of Science from DePauw. He is active in the ACS Committee on Committees, the ACS Insurance Trust Board of Trustees, ACS Careers, and is a Certified Professional Retirement Coach. He holds two patents, has published seven books and has nearly 100 publications in the fields of organic electrochemistry, polymer chemistry, combustion chemistry, incineration, plastics recycling, sustainability and popular music history and analytics.

THE ART AND SCIENCE OF BREWING BEER DINNER

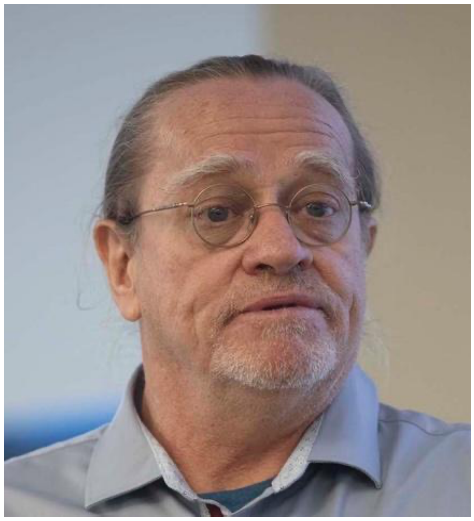
Sunday, October 26th, 2025 | 7:00-10:00 pm, Imperial Ballroom

"Brewing Science Answers Your Questions about Your Favorite Beer"

Prof. Glen Fox, Ph.D

Professor of Malting & Brewing Science, Food Science & Technology
UC Davis

Since 2019, Glen Fox has been the Anheuser-Busch Endowed Professor of Malting & Brewing Science in the Department of Food Science and Technology at University of California, Davis. Before coming to California, he was a Senior Research Fellow at the University of Queensland, Australia. He holds a Ph.D. from Southern Cross University, Australia and a D.Sc. from Stellenbosch University, South Africa.



Dr. Fox's areas of research are barley, malt and brewing quality. His current research focus is on starch structure and its impact on wort and beer quality. Another research interest is using a number of 'omics platforms to understand the complex biochemical changes during malting and brewing and the final compositional profile of beer. In 2018, he was made a Fellow of the Institute of Brewing. He has been on a number of methods committees for the American Society of Brewing Chemists. Dr Fox has also been on organizing committees for a number of national and international conferences.

He has numerous book chapters and over 100 peer-reviewed journal articles and is senior editor of the book "Achieving sustainable cultivation of barley"; Burleigh Dodds Science Publishing. Dr. Fox is co-author (with Dr. Charles Bamforth) of "Scientific Principles of Malting & Brewing Science (Second Edition)".

He is associate editor for the Master Brewers Association Technical Quarterly, the Journal of Near Infrared Spectroscopy, and the Journal for the Science of Food and Agriculture.

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WRM 2025 AWARDS DINNER

Monday, October 27th, 2025 | 7:00-10:00 pm, Club Regent

Could 'Microlightning' Have Sparked the Building Blocks of Life on Earth?

Prof. Richard Zare, Ph.D.

Marguerite Blake Wilbur Professor of Natural Science, Department of Chemistry
Stanford University

Richard N. Zare is a renowned American chemist and longtime Stanford University professor, celebrated for pioneering the use of lasers to study chemical reactions at the molecular level. He developed laser-induced fluorescence as a sensitive technique for probing reaction dynamics, a breakthrough that revolutionized physical and analytical chemistry and even enabled applications like automated DNA sequencing. Zare's wide-ranging research has advanced understanding of molecular processes on the nanoscale and produced innovative tools for chemical analysis, from studying reaction mechanisms in microdroplets to detecting biomolecules with high sensitivity. He has also been a dedicated leader in science, chairing the National Science Board in the 1990s and mentoring over 150 graduate students and postdoctoral researchers. In recognition of his contributions, Zare has received the National Medal of Science, the ACS Priestley Medal, the Wolf Prize in Chemistry, and numerous other honors over his career.

ABSTRACT:

The atmosphere of early Earth was nearly devoid of carbon–nitrogen bonds—bonds essential for forming amino acids, RNA, and DNA. Where did these bonds come from? In 1953, Miller and Urey proposed that lightning from storm clouds striking Earth could have generated them. However, this hypothesis has faced criticism: it is not enough to merely produce small molecules containing carbon–nitrogen bonds; these molecules must also accumulate and polymerize into the larger macromolecules required for life. The high energy of lightning bolts tearing through the atmosphere or striking the ocean makes such accumulation unlikely. Recently, we have discovered that spraying water into droplets generates tiny electrical discharges between oppositely charged droplets—phenomena we term "microlightning." We present evidence that microlightning produced by water sprays can form all the carbon–nitrogen bonds originally observed by Miller and Urey more than half a century ago.

Western Regional Meeting Awards

The Western Regional Board and the Regional meeting organizers are pleased to recognize and celebrate the achievements of the regional meeting award winners

Stanley C. Israel Regional Award for Advancing Diversity

Ozcan Gulacar, PhD
Professor of Chemical Education
University of California, Davis

Dr. Ozcan Gulacar has dedicated his career to creating equitable and inclusive learning environments in the chemical sciences. He has demonstrated a deep and sustained commitment to supporting students from all backgrounds, especially those from historically underrepresented and underserved groups. His work in curriculum development, mentoring, and education research reflects a holistic and impactful approach to fostering diversity and inclusion within and beyond the university.

Regional Award for Excellence in High School Teaching

Zeynep Araci, PhD
Honors and AP Chemistry, Drug Discovery and Development Capstone
BASIS Independent Fremont Upper School

Dr. Araci is recognized for her dedication to education in the classroom and throughout the community. Her classes take high school students on a deep learning journey, akin to a college setting, students slowly but surely become independent learners, seeking answers through discussions and laboratory work. She also runs workshops on academic integrity and classroom engagement, and advise student-led clubs and academic competitions such as Kids Against Hunger and You Be the Chemist. She brings the whole school together (including parents) in her famous Honor's Chemistry Debate on Valentine's Day where students debate controversial topics such as 'What makes the world go around, Money or Love'?

E. Ann Nalley Award for Volunteer Service

Veronica I. Jaramillo, PhD
Dean of Natural Sciences
Pasadena City College

Dr. Jaramillo has been involved in ACS since 2011 at the Local, Regional and National levels. She has served as chair and councilor for the Southern California local section, organized regional meetings served on WCC and CCA.
In the very busy year of 2024-2025, despite being displaced by the wildfires which spread through the Pasadena/Altadena section of the Los Angeles Basin, Veronica has continued to volunteer her time. In 2024, she coordinated her students and section members to represent SCALACS at the Los Angeles Maker Fair and City of STEM Festival
.

Partners for Progress & Prosperity (P^3) Western Region Award

Mikki Larner
Vice Chair, Golden Gate Polymer Forum
And
Jane Frommer, PhD
Councilor, Silicon Valley Local section

Established in 2015, the Silicon Valley ACS–Golden Gate Polymer Forum partnership has enjoyed sustained support from the two memberships for providing local opportunity to connect chemists and polymer scientists from a broad range of work environments. The eleventh year of successful annual seminars was marked on May 14, 2025 with the presentation of Polymers for Capacitors, Transistors, and Fun by Dr. Yi Liu of the Molecular Foundry & Lawrence Berkeley National Labs. Every year a topic is chosen for our joint seminar that appeals to the partnering scientific organizations' areas of expertise. While chemistry provides the underpinnings of polymers, polymeric macromolecules have their own set of properties and challenges.

SPECIAL EVENTS

ACS Governance Reception

Albert G. Horvath
Chief Executive Officer

ACS Corporate Governance Reception

Saturday, Oct 25, 5-7 PM

Club Regent

Come have appetizers and a beverage with

Al Horvath, ACS CEO

Bring your questions!

ACS Chemistry for Life®
AMERICAN CHEMICAL SOCIETY

YCC
The Future of Chemistry

invites you to

Trivia Night

SATURDAY

OCTOBER | 25

7:00-10:00 PM

Garden Room, Signia by Hilton

Come meet new friends
Test your chemical trivia knowledge
Open to chemists of all ages

ACS Braile Periodic Table (Do it Yourself Exhibit)

Saturday Location: Career Fair, Sunday and Monday Location: Exhibition

The Tactile Periodic Table Project

ACS Committee Chemists with Disabilities

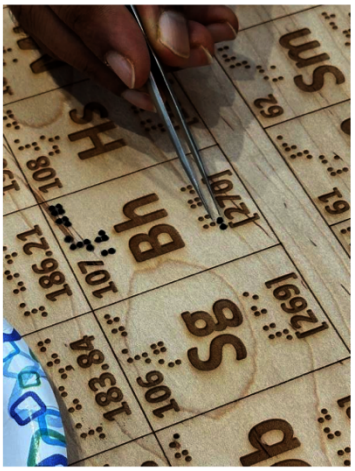
Join us at the ACS Western Regional Meeting

Signia by Hilton, San Jose, CA

Saturday, Oct 25, 12 – 2 pm

Sunday, October 26, 9:00 am – 5:30 pm

Monday, October 27, 9:00 am until finished



- Promote **accessibility and inclusion** in chemistry.
- Contribute to an **educational tool** that supports STEM learning for visually impaired students.
- Learn about the ongoing efforts of the **ACS Committee on Chemists with Disabilities (CWD)** to create a more inclusive scientific community.

Be part of an interactive and meaningful activity!
You are invited to help assemble a tactile Braille periodic table. This hands-on experience supports CWD's mission to make chemistry more accessible, inclusive, and engaging for individuals who are blind or visually impaired.

Make chemistry accessible for all.

ACS Committee Chemists with Disabilities

For more information:
CWD, https://www.acs.org/about/governance/committees/chemists-with-disabilities.html
Fricke, M. Minkara, M. Presenting the tactile periodic table. *Nat Rev Chem* **9**, 1-2 (2025), https://doi.org/10.1038/s41570-024-00675-2

California Agriculture Tour

Saturday October 25, 2025
WRM Tour of California Agriculture

Join us for a special educational tour of scenic California agriculture sponsored by the ACS Agrochemical Division.

Please see the agenda below and plan on spending the day with us discovering the many aspects of California agriculture!

Agenda	
Time	*Activity*
7:30 AM	Board Chartered Bus at Conference Hotel
8:00 AM	Bus departs for Watsonville/Santa Cruz area
8:00-9:00 AM	Games and presentations by AGRO members on bus while driving past farm fields
9:00 AM – 10:00 PM	Tour of Driscoll's
10:15 AM – 11:45 PM	Agricultural History Project. Docent-led tour through the history of crops, people, food processing, and farm equipment. Drive a tractor and learn how to milk a cow!
11:45 AM -12:30 PM	Lunch on grounds of Agricultural History Project.
12:30-1:00 PM	Drive to Tri Cal, passing farm fields along the way.
1:00 – 2:15 PM	Tour Tri Cal soil pathogen lab followed by a soil fumigation demo. Learn about their stewardship and sustainability practices.
2:30-3:45 PM	Stop at Hideaway in San Juan Bautista. Presentation by Cal Leafy Greens on research and regulatory needs. Sampling of fresh produce, local craft brews and wine.
4:00 pm	Return to San Jose. (In time for the Governance Reception.)

Participation is limited to 30. Agenda and stops are subject to change. Check our website: www.wrm2025.org for updates to the Tour agenda, fees and the registration process.

You can also contact Jeanette Van Emon at jmvanemon@gmail.com and Spencer Walse sswalse@ucdavis.edu

美國化學與化工學會
北加州分會

CHINESE AMERICAN CHEMICAL SOCIETY
華美化學與化工學會

CACS-NCC Events at WRM2025

CACS Northern California Chapter x ACS Western Regional Meeting 2025

SAN JOSE, CA | OCTOBER 25-28

CACS-NCC BANQUET

Ultrasensitive Optical Detection of Bioelectric Signals Using Electrochromic Polymers

OCTOBER 25, 2025 | 6:30 - 9 PM

TICKET: $60 OR SIGN UP VIA WRM2025

MAYFLOWER SEAFOOD RESTAURANT (428 Barber Ln, Milpitas, CA 95035)

Purchase Ticket

Purchase event tickets if you do NOT attend WRM 2025. Contact cacs.norcal@gmail.com for details.

Guest Speaker:
Prof. Bianxiao Cui, Stanford Univ.

CACS-NCC SYMPOSIUM

Building Bridges through Alliances and Advances in Technology

OCTOBER 26, 2025 | 9 AM - 12 PM

This symposium is being organized by the CACS-NCC (Chinese American Chemical Society -Northern California Chapter). This will be a multidisciplinary symposium featuring distinguished scientists and senior leaders from academia, government labs, and industry across the Western region as well as graduate students representing the laboratories of Professor Zhenan Bao (Stanford) and Professor Peidong Yang (UC Berkeley).

ACS
Chemistry for Life®

SUNDAY, OCTOBER 26
5:30PM - 7:00 PM
REGENCY BALLROOM 1

Come enjoy a cocktail featuring LOLIWARE's seaweed-based straws. #designedtodisappear

Limited quantities — first come, first serve.
(Cash bar after initial complimentary drinks are gone.)

COCKTAIL RECEPTION@ UNDERGRADUATE POSTER SESSION

LOLIWARE®

SPONSORED BY LOLIWARE

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Chemistry for Life®

PLEASE ENJOY OUR

ACS *Cocktail*

FEATURING: LOLIWARE
SEAWEED-BASED STRAWS

AN AQUEOUS ETHANOL-BASED SUSPENSION OF CITRUS-DERIVED CITRIC ACID AND SUCROSE, INFUSED WITH AROMATIC TERPENOID AND ESTER COMPOUNDS FROM FLORAL BITTERS

LOLIWARE®

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US Patent Office Tour

Silicon Valley US Patent Office Tours | Tuesday, October 28

Option A: 2:00-3:45 pm

Option B: 3:00-3:45 pm

These tours are free on a first-come-first-served basis to registered attendees of WRM 2025.

The Western Office of the United States Patent and Trademark Office (USPTO) is located a few blocks from the Signia Hotel in San Jose, CA. It is an extension of USPTO headquarters in Alexandria, VA, bringing services and resources to the western region that it serves. This tour will showcase how the Western Office promotes innovation and stimulates the economy by providing access to government resources, educating the public about intellectual property, and recruiting talent from the region.

Please note this is a federal facility, located in the 3-story wing building of San Jose City Hall. Visitors must present state-issued identification that is REAL ID-compliant. Alternatively, visitors can present another form of government-issued photo identification listed on the Department of Homeland Security Transportation Security Administration's Acceptable IDs webpage, such as a passport.

CAREER AND PROFESSIONAL DEVELOPMENT

Student-Focused Workshop Information

Saturday, Oct 25
(Track sessions "A" 9:45–10:45 AM; "B" 11:00 AM–12:00 PM)

Track 1: Science Communication
1A Science in Translation: The Art of Communicating Science to the Public.

Location: Imperial Ballroom

For scientific research to have a widespread impact, it must be effectively communicated. During this panel, you will hear from four writers who are experts in communicating complex technical and scientific concepts to general audiences. By the end of the discussion, you should walk away with new insights into the world of science communication and its importance in expanding your reach and impact as a scientist

1B Presentation Pointers: Sharpen Your Skills

Location: Gold Room

Whether you're presenting a poster or giving a talk, this interactive workshop is designed to help you present your work with confidence and clarity. You'll join small groups to practice key presentation skills, get personalized feedback, and discuss common challenges with supportive peers and experienced mentors. From structuring your message to handling questions, you'll pick up practical strategies to make your presentation more effective and engaging. Ideal for undergraduate students preparing to present at this conference, but open to anyone looking to improve their science communication skills.

Track 2: Well-Being & Mentorship
2A Mental Health in STEM: Strategies and Perspectives

Location: Empire Room

Mental health plays a critical role in academic success and personal well-being, yet it is often overlooked in the high-pressure environment of STEM fields. This workshop brings together STEM professionals to share personal insights and strategies for maintaining mental wellness throughout academic and professional journeys. Through brief talks, guided reflection exercises, and opportunities for anonymous engagement via journaling and digital tools like PollEverywhere, participants will explore how they understand and manage their mental health. The session will encourage open dialogue, self-awareness, and practical approaches to fostering resilience and balance. Attendees will leave with a broader understanding of mental health challenges in STEM and tools to support a healthier, more sustainable experience in academia and beyond.

2B Surviving Academia: Experiences and Advice

Location: Crystal Room

Navigating graduate and professional programs can be both rewarding and overwhelming, with challenges that extend beyond academics. This panel features a diverse group of recent graduates from PhD programs, medical school, and other post-graduate experiences who will share their perspectives on managing the demands of academia—both expected and unexpected. Panelists will reflect on what they wish they had known when starting their journeys and offer practical advice on balancing mental health, academic responsibilities, and personal life. Following the panel discussion, attendees will break into small groups for more personalized conversations with panelists, offering space for open dialogue and tailored advice. Whether you're considering post-graduate education or simply curious about the realities of academic life, this session provides valuable insights and a supportive environment to ask questions, make connections, and reflect on your own academic path.

Track 3: Study Skills & Ethics
3A Study Smarter for STEM Success

Location: Crystal Room

Success in college-level chemistry requires more than just memorization—it demands critical thinking, problem-solving, and effective study strategies. This presentation will discuss science-specific study techniques to use before, during, and after your classes. We will explore active learning methods, such as lecture previews, intense study sessions, note-taking strategies and concept mapping. Additionally, we will discuss time management and the importance of maximizing tutoring and academic resources. Whether you're struggling in class or or just aiming to refine your study habits, this session will equip you with the tools needed for academic success in chemistry.

3B Ethical & Effective Strategies for AI-Enhanced Learning

Location: Empire Room

Whether or not your professors are using AI in class, chances are you're already using it to help you complete your coursework and to help you study. So why not learn to get the most out of it? In this hands-on workshop, you'll dive into AI-powered study tools, learn how to maintain academic integrity, and build the skills you need to use AI effectively and ethically. Even if you don't plan to focus on AI in your career, from smartphone apps feeding your interests and spending habits into machine learning algorithms that select targeted advertisements, to computer vision AI models analyzing your tissue sample if you have a mole removed, AI is now deeply embedded in society. Join us to learn how harnessing AI thoughtfully can improve your academic performance now and prepare you for future success in an AI-driven world.

Track 4: Career Pathways
4A Finding the Science You Want to Do (Gold Room)

Choosing a research area or career path in chemistry can feel overwhelming—especially if you're not sure what excites you most. This workshop is designed to help you explore your options. Recent PhD graduates will give short pitches about their fields, sharing what drew them in, what their work looks like day to day, and how it connects to real-world applications. They'll also reflect on the job market and the kinds of opportunities available in their areas of expertise. You'll have a chance to ask questions in small group settings, helping you clarify your own interests and take the next step toward a field that's right for you.

4B Pathways Forward: Research & Grad School Prep (Imperial Room)

If you've found your interest in chemistry or a related field, this workshop will help you turn that passion into action. A panel of advisors, admissions professionals, and mentors will share strategies for finding undergraduate research opportunities and navigating the graduate school application process. You'll learn how to decide between MS and PhD programs, identify programs that align with your goals, and present yourself as a strong, prepared candidate. Whether you're just starting to explore research or actively planning your next steps toward graduate school, this session will give you the tools and guidance to move forward with confidence.

Track 5: Technical Careers
5A/B No PhD Required: Careers with an AA/AS or BA/BS (Regency Ballroom 1)

The session will be in symposium format with speakers and a panel discussion. This program will highlight diverse laboratory career opportunities in the chemical sciences that do not require a PhD. It is meant to inform and inspire students who want to work in the chemical sciences but are considering alternatives to graduate school. It is also meant to inform and support community college faculty to help prepare students for potential careers as Chemical Technical Professionals (CTP). The symposium will be a platform where students, faculty and industry professionals can engage in discussion and share valuable knowledge about career options. The program supports ACS President Phillips' Strategic Initiative on Fostering a Skilled Technical Workforce. President Phillips has agreed to open the session. Speakers will include professionals who work as CTPs who will describe their careers and community college faculty who have programs designed to prepare students for roles as CTPs.

Professional Development Workshops

Saturday, Oct 25 | 9:45 AM–12:00 PM

Cracking the Code: Navigating Trust in Science Conversations (Valley Room)
Facilitated by Dr. Judy Giordan (ecosVC, 2023 ACS President, 2025 WRM Plenary Lecturer)

In today's world, trust in science and scientists is more critical than ever. As we face global challenges, from healthcare to sustainability, the need for reliable information and solutions is paramount. However, distrust in scientific findings and experts is on the rise, fueled by misinformation, social media, and personal perceptions. Fear not! The Cracking the Code: How to Navigate Trust in Science Conversations workshop is here to equip you with the tools and skills you need to foster trust in science through meaningful conversations and become a trusted advocate for science in your community. Whether you're a seasoned researcher or just passionate about scientific topics, you'll learn how to engage in constructive dialogues, listen actively with empathy, and navigate potentially divisive discussions with confidence. By the end of the workshop, you'll emerge with a deeper understanding of how to communicate controversial scientific topics effectively, build trust in interpersonal interactions, and approach discussions with newfound ease.

Career Transitions: Making Them Your Best Opportunity (Garden Room)
Facilitated by Dr. Lucinda Jackson (LJ Ventures)

During this workshop, you will be provided with a 5-step process to help you focus on making the most of your career transition. The five steps will help you: (1) Identify Your Opportunity – Create a personal vision statement and find your core values; (2) Generate and Select Alternatives – Use your research and science tools to brainstorm ideas based on core value criteria; (3) Develop Your Preferred Alternative – Map out the plan; (4) Execute – Take action; (5) Operate and Evaluate – Use metrics and a scorecard to see if you are on the right track or need to recycle. Whether you are finishing school and heading off to your first job, thinking of changing jobs, recovering from a lay-off or re-organization, moving to a new career, or considering post-career options, you'll be faced with how to cope and make the change as positive and fulfilling as possible.

Working for Yourself: Turning Your Idea into a Business (California Room)
Facilitated by Dr. Bill Carroll (Carroll Applied Science, 2005 ACS President)

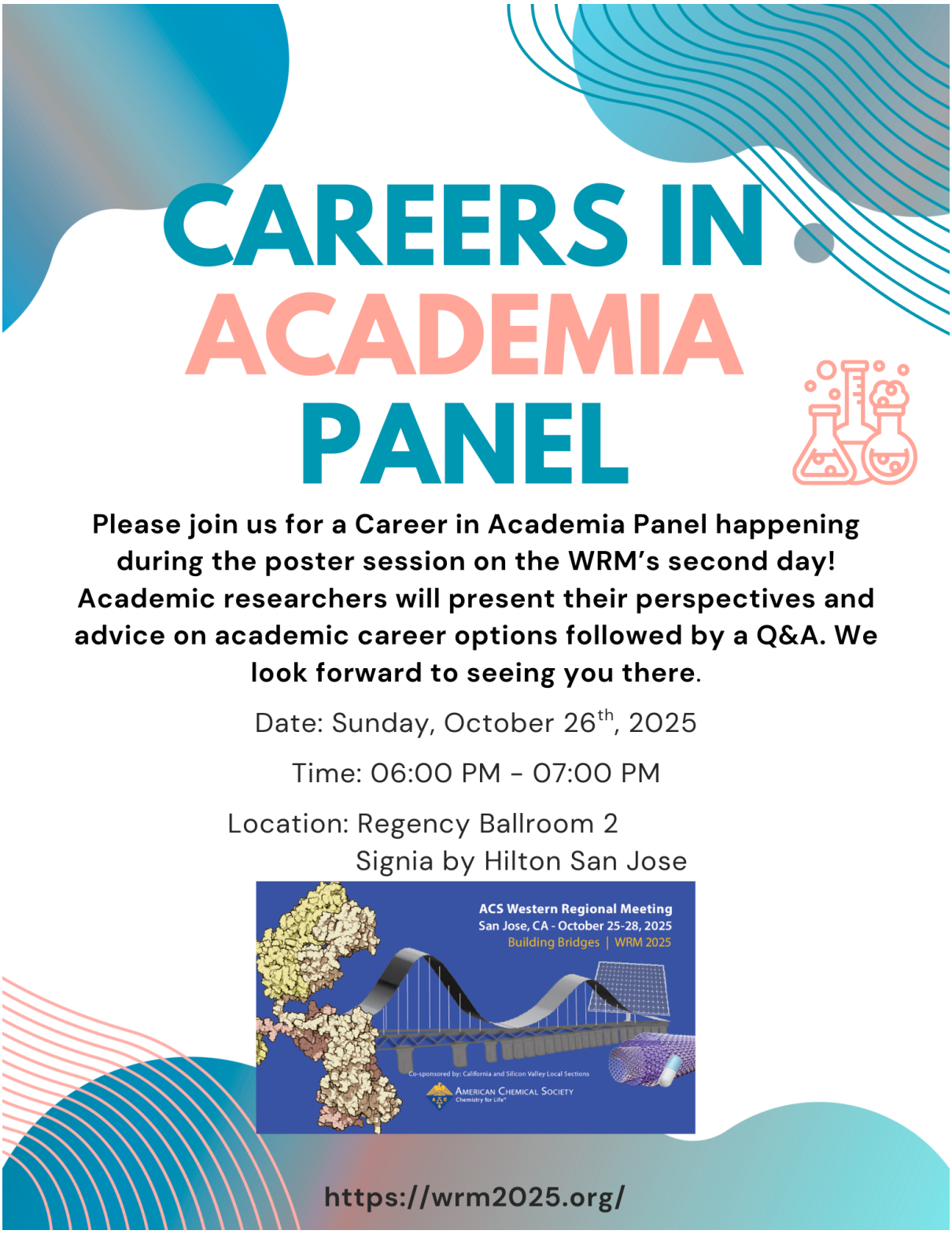
This workshop combines both parts of the "Working for Yourself" ACS Career Pathways™ series and will help you determine if self-employment is a viable career option. You will learn about different modes of self-employment in chemistry and examine common chemistry-based entrepreneurial businesses. The workshop will provide tools to create a preliminary business plan by defining your goals, structure, the marketing and sales strategy, and financing. After completion of the workshop, attendees will be able to understand the components of a business plan, describe four entrepreneurial chemistry business models, define key factors in creating a sales and marketing plan, as well as create key deliverables in a high-level financing plan.

Career, Graduate School & Undergraduate Student Transfer Fair

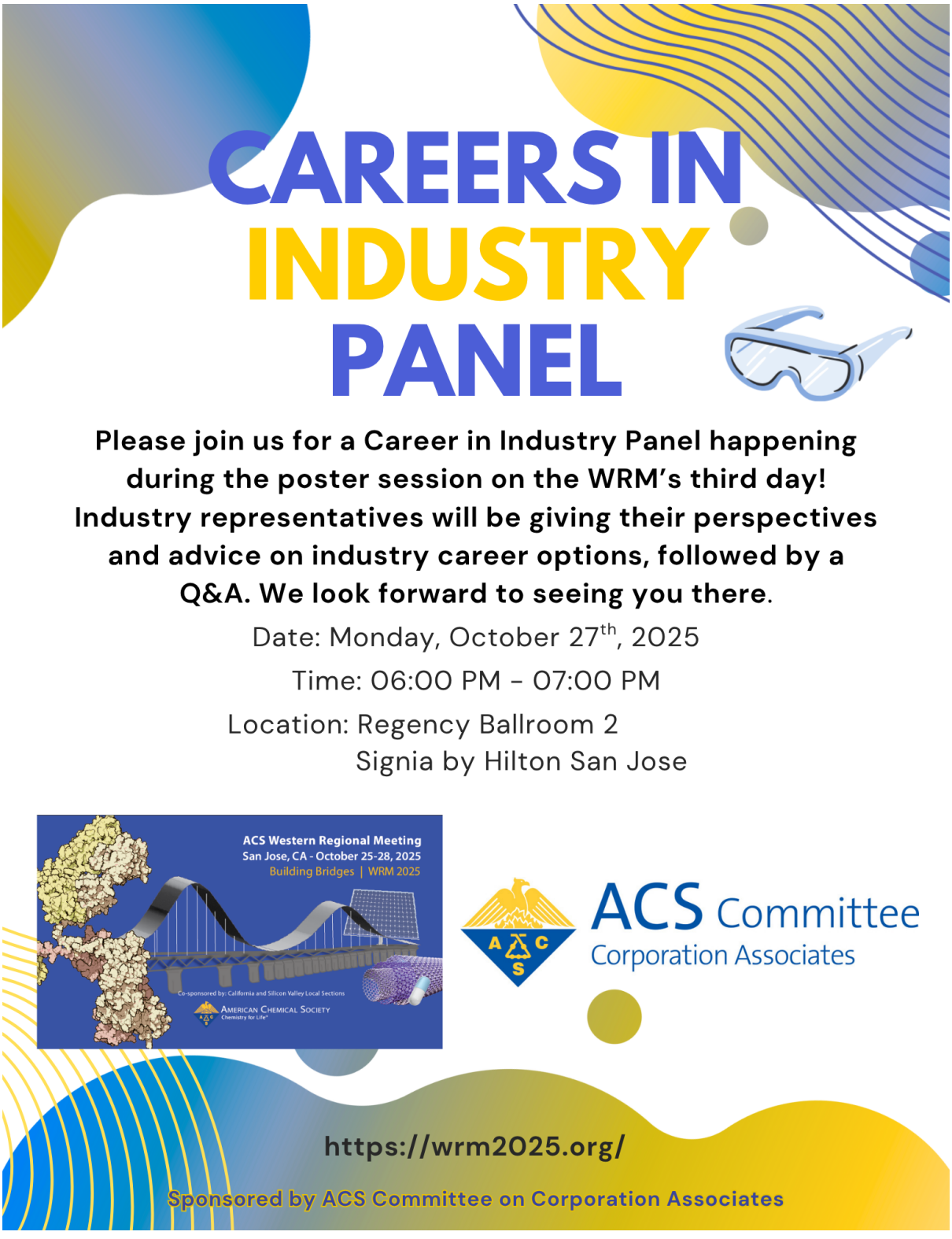
Attendance at the career fair is included with the cost of meeting registration and open to all meeting attendees.

Saturday, Oct 25 | 12:00–2:00 PM (included with registration)
Location: Exhibit Hall Foyer
Recruiters register in advance at the main WRM website

Careers in Academia Panel



Careers in Industry Panel



Career Fair: Floor Plan and Seat Assignments

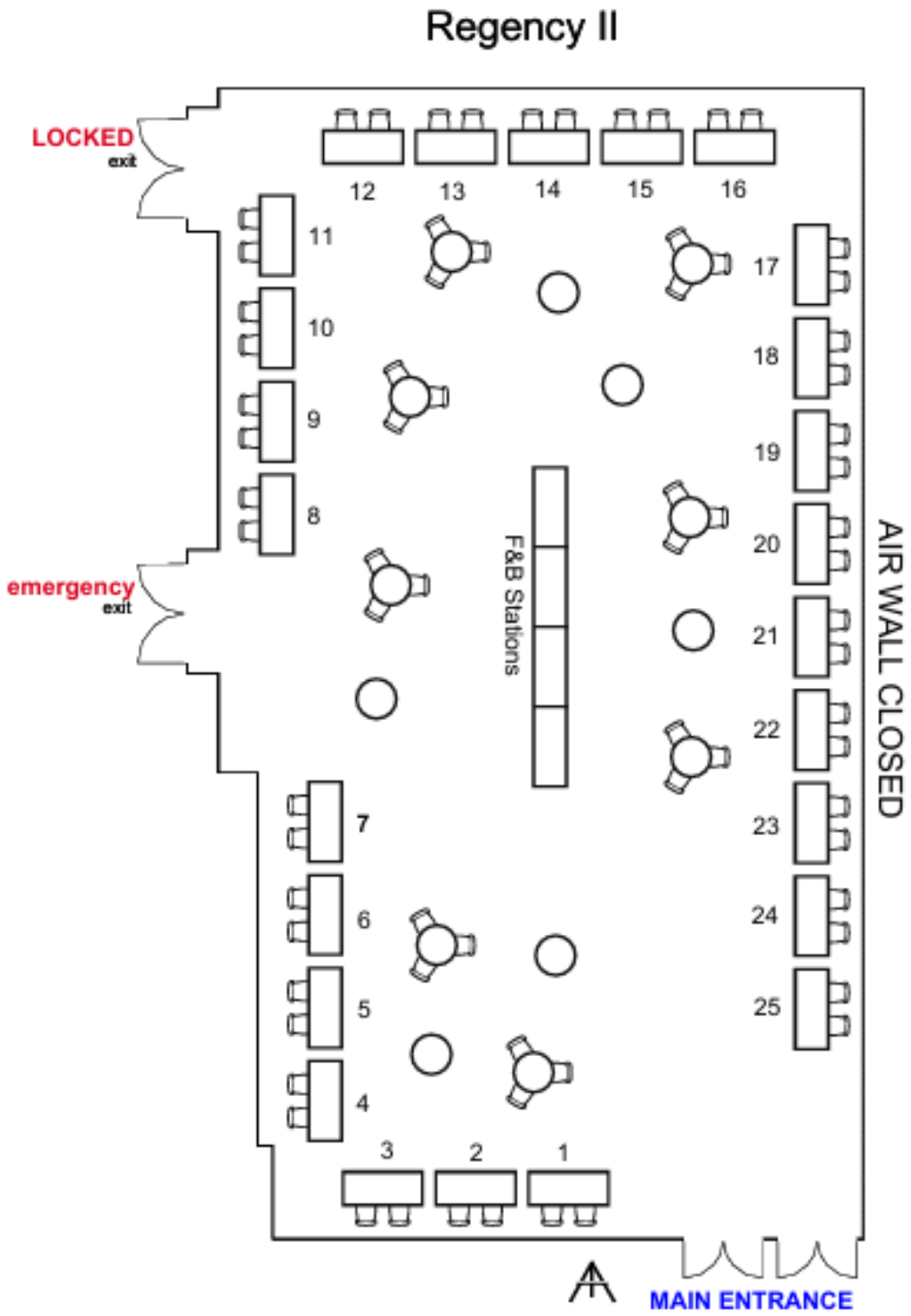


Table	
1	University of California, Merced
2	Centrillion Technologies
3	California Polytechnic State University, San Luis Obispo
4	Bakersfield College-Research Laboratory Technology Program
5	University of California, Riverside
6	Merck
7	University of California, Davis
8	California State University, East Bay
9	Genentech
10	University of California, San Francisco
11	California State University, San Marcos
12	California Baptist University
13	Acelot
14	San Francisco State University
15	San Diego State University
16	Gilead Sciences
17	Keck Graduate Institute (KGI)
18	California State University, Fresno
19	University of the Pacific
20	University of California, Santa Cruz
21	University of Nevada, Reno
22	Novartis
23	San Diego State University
24	ACS Committee on Chemical Technical Professionals
25	ACS Career Services

WRM 2025 EXHIBITORS

- Sunday, Oct 26 & Monday, Oct 27 • 9:00 AM–5:00 PM (Imperial Foyer)
- Set-Up Times: Sunday, Oct 26, 2025, 7:00 AM - 9:00 AM
- Clean-Up Times: Monday, Oct 27th, 2025, 5:00 - 7:00 PM

WRM Exhibitors	
ACS Chemistry for Life® American Chemical Society	UCLA
umicore materials for a better life	CAS A division of the American Chemical Society
Advion Interchim scientific®	ACHEMBLOCK Advanced ChemBlocks Inc
AmBeed	BioChromato Mining ideas, Aiding laboratories
ChemScene Chemical Reagents For Life Science	DAICEL Chiral Technologies

WRM Exhibitors	
ELSEVIER	IKA
magritek www.magritek.com	nanalysis™
Oakwood Chemical Enabling Discovery	PharmaBlock
TELEDYNE | LABS	BRUKER BIOSPIN
ACS Chemistry for Life® | California Section	
ACS Local Section Silicon Valley	

WRM Exhibitors	
CHEMISTRY AND THE LAW A DIVISION OF THE AMERICAN CHEMICAL SOCIETY	
ENFL ACS Division of Energy & Fuels	Rubber Division American Chemical Society

SCHEDULE OF EVENTS (NON-TICKETED)

SATURDAY, OCT 25

9:00–9:30 AM Chair's Address & "Making the Most of WRM"
9:45–12:00 PM Student-Focused & Professional-Development Workshops
12:00–2:00 PM Career / Internship / Graduate School / Undergraduate Transfer Fair
2:15–3:45 PM Undergraduate Student Oral Presentations (7 concurrent sessions)
4:00–5:00 PM Plenary Lecture: Prof. William Tarpeh (Stanford University)
5:00–7:00 PM Welcome Governance Reception (Meet & Greet with the ACS CEO)
7:00–10:00 PM YCC Trivia and Game Night

SUNDAY, OCT 26

9:00 AM–12:00 PM Parallel Symposia (8 concurrent sessions) & Exposition
12:00-1:30 PM Building Bridges Undergraduate Poster Session 1
1:30–2:30 PM Plenary Lecture: Dr. Judith Giordan (ecosVC, 2023 ACS President)
2:30–5:30 PM Parallel Symposia (8 concurrent sessions) & Exposition
5:30-7:00 PM Building Bridges Undergraduate Poster Session 2
6:00-7:00 PM Careers in Academia Panel

MONDAY, OCT 27

9:00 AM–12:00 PM Parallel Symposia (8 concurrent sessions) & Exposition
12:00-1:30 PM Building Bridges Poster Session 1
1:30–2:30 PM Plenary Lecture: Dr. Christopher Sarko (Biomedical Research, Novartis)
2:30–5:30 PM Parallel Symposia (8 concurrent sessions) & Exposition
5:30-7:00 PM Building Bridges Poster Session 2
6:00-7:00 PM Careers in Industry Panel

TUESDAY, OCT 28

8:30 AM–12:30 PM Parallel Symposia (9 concurrent sessions)

WRM 2025: SATURDAY (OCTOBER 25, 2025)

8:00 AM – 9:00 AM	**WELCOME NETWORKING BREAKFAST (Ticketed)**							**AGRICULTURE TOUR**
9:00 AM – 9:30 AM	**CHAIR'S ADDRESS & MAKING THE MOST OF YOUR WRM EXPERIENCE PRESENTATION**							
9:45 AM – 12:00 PM	**WORKSHOPS (Included With Conference Registration)**							
	UNDERGRADUATE-STUDENT FOCUSED				**PROFESSIONAL DEVELOPMENT FOCUSED**			
12:00 PM – 2:00 PM	**CAREER, INTERNSHIP, GRADUATE STUDENT, & UNDERGRADUATE STUDENT TRANSFER FAIR (Included with Conference Registration) and LUNCH RECEPTION (Ticketed)**							
2:15 PM – 3:45 PM	**UNDERGRADUATE STUDENT ORAL PRESENTATIONS**							
	ORGANIC CHEMISTRY	**CHEMICAL BIOLOGY AND BIOCHEMISTRY**	**CHEMICAL BIOLOGY AND BIOCHEMISTRY** ---------- **ANALYTICAL CHEMISTRY**	**COMPUTATIONAL AND PHYSICAL CHEMISTRY**	**COMPUTATIONAL AND PHYSICAL CHEMISTRY**	**INORGANIC AND MATERIALS CHEMISTRY**	**INORGANIC AND MATERIALS CHEMISTRY** ---------- **POLYMER CHEMISTRY**	
4:00 PM – 5:00 PM	**PLENARY LECTURE**: Prof. Will Tarpeh (Stanford University) *"Electrochemical Wastewater Refining: Building Bridges Across Length Scales"*							
5:00 PM – 7:00 PM	**WELCOME GOVERNANCE RECEPTION (Included with Conference Registration)** *Featuring a Meet and Greet with ACS CEO Al Horvath*							
7:00 PM – 10:00 PM	**YCC TRIVIA AND GAME NIGHT (Included with Conference Registration)**				**CACS-NCC BANQUET (Off-Site, Ticketed)**			

WRM 2025: SUNDAY (OCTOBER 26, 2025)									
7:30 AM – 8:30 AM	**SCC / CEPA BREAKFAST (Ticketed):** Dr. Bill Carroll (2005 ACS President) *"Skydiving Into Retirement: Enjoy the Ride and Land Softly"*								
9:00 AM – 12:00 PM	**RESEARCH FEATURING EMPOWERING WOMEN IN ORGANIC CHEMISTRY (EWOC)**	**CHEMICAL BIOLOGY APPROACHES IN DRUG DISCOVERY**	**ADVANCES IN GPCR DRUG DISCOVERY AND THERAPEUTICS APPLICATIONS**	**MEMORIAL SYMPOSIUM IN HONOR OF JOHN BRAUMAN**	**PRECISION CHEMISTRY AT ALL LENGTH-SCALES AND DIMENSIONS**	**BUILDING BRIDGES THROUGH ALLIANCES AND ADVANCES IN TECHNOLOGY**	**BEST PRACTICES TO INSPIRE THE NEXT GENERATION OF CHEMISTRY STUDENTS**	**MEMORIAL SYMPOSIUM IN HONOR OF ROBERT H. GRUBBS**	**EXPOSITION**
12:00 PM – 1:30 PM	**BUILDING BRIDGES UNDERGRADUATE POSTER SESSION**								
	WCC / EWOC LUNCHEON (Ticketed): Dr. Dorothy Phillips (2025 ACS President) & Dr. Marinda Wu (2013 ACS President) *"Journey of an Industrial Chemist and Trailblazer" and "Evolving Role of Women in the Chemical Enterprise"*								
1:30 PM – 2:30 PM	**PLENARY LECTURE:** Dr. Judy Giordan (ecosVC, 2023 ACS President) *"Where has the Trust Gone: Changing Attitudes in America's Trust in Science and Scientists"*								
2:30 PM – 5:30 PM	**CHARTING A NEW COURSE THROUGH PROJECT SEED**	**SYNTHETICALLY MODIFIED NUCLEOSIDES AND NUCLEIC ACIDS**	**BRIDGING CHEMISTRY AND BIOLOGY: COVALENT INHIBITION IN DRUG DISCOVERY** --- **THE ART AND SCIENCE OF BREWING BEER**	**INNOVATIVE APPROACHES IN BIOANALYTICAL CHEMISTRY**	**EXPANDING BEST PRACTICES IN LABORATORY SAFETY**	**CHEMISTRY OF AGRICULTURE**	**BEST PRACTICES TO INSPIRE THE NEXT GENERATION OF CHEMISTRY STUDENTS**	**MEMORIAL SYMPOSIUM IN HONOR OF ROBERT H. GRUBBS**	
5:30 PM – 7:00 PM	**BUILDING BRIDGES UNDERGRADUATE POSTER SESSION**								
	CAREERS IN ACADEMIA PANEL								
7:00 PM – 10:00 PM	**THE ART AND SCIENCE OF BREWING BEER DINNER (Ticketed):** Dr. Glen Fox (UC Davis) *"Brewing Science Answers Your Questions about Your Favorite Beer"*								

WRM 2025: MONDAY (OCTOBER 27, 2025)

7:30 AM – 8:30 AM	**SCC / PROF BREAKFAST (Ticketed):** *"Celebrating the Life, Achievements, and Contributions of Dr. Attila Pavlath to the American Chemical Society and Beyond"*								
9:00 AM – 12:00 PM	**MATERIALS AND PROCESSES FOR ENERGY STORAGE AND CONVERSION**	**POTION TO PRODUCTION – THE API MANUFACTURING ADVENTURE**	**INDUCED PROXIMITY: UNLOCKING NEW THERAPEUTIC AVENUES**	**MONETIZING MOLECULES: USING ML & AI TO BRIDGE THE GAP BETWEEN COMPUTATION & INFORMATICS**	**MEMORIAL SYMPOSIUM IN HONOR OF ATTILA PAVLATH** ---------- **ANALYTICAL FRONTIERS IN ENERGY AND FUELS – SYMPOSIUM IN HONOR OF NEAL BYINGTON**	**EMERGING LEADERS IN ORGANIC CHEMISTRY**	**BRIDGING MATERIALS, DEVICES, AND SIMULATION: ADVANCES IN POLYMERS FOR ELECTRONICS**	**MEMORIAL SYMPOSIUM IN HONOR OF ROBERT H. GRUBBS**	**EXPOSITION**
12:00 PM – 1:30 PM	**BUILDING BRIDGES POSTER SESSION**								
1:30 PM – 2:30 PM	**PLENARY LECTURE:** Dr. Christopher Sarko (Biomedical Research, Novartis) *"Overcoming the Challenges of Drug Discovery in Global Health: Novel Approaches to Malaria and Cryptosporidiosis"*								
2:30 PM – 5:30 PM	**CARBON CAPTURE AND CONVERSION FOR A SUSTAINABLE FUTURE**	**EXTRAHEPATIC-TARGETED DELIVERY OF xRNA THERAPEUTICS**	**INDUCED PROXIMITY: UNLOCKING NEW THERAPEUTIC AVENUES** ---------- **POTION TO PRODUCTION – THE API MANUFACTURING ADVENTURE**	**MONETIZING MOLECULES: USING ML & AI TO BRIDGE THE GAP BETWEEN COMPUTATION & INFORMATICS**	**CHEMISTRY AT THE CUTTING EDGE OF CATALYSIS**	**EMERGING LEADERS IN INORGANIC AND MATERIALS CHEMISTRY**	**TRUE STORIES OF ENTREPRENEURS**	**MEMORIAL SYMPOSIUM IN HONOR OF ROBERT H. GRUBBS**	
5:30 PM – 7:00 PM	**BUILDING BRIDGES POSTER SESSION**								
	CAREERS IN INDUSTRY PANEL								
7:00 PM – 10:00 PM	**WRM 2025 AWARDS DINNER (Ticketed)**: Prof. Richard Zare (Stanford University) *"Could 'Microlightning' Have Sparked the Building Blocks of Life on Earth"*								

WRM 2025: TUESDAY (OCTOBER 28, 2025)									
8:30 AM – 12:30 PM	CHEMICAL BIOLOGY, BIOCHEMISTRY, AND MEDICINAL CHEMISTRY GENERAL SESSION	INORGANIC AND MATERIALS CHEMISTRY GENERAL SESSION	ANALYTICAL CHEMISTRY GENERAL SESSION --- ANALYTICAL CHEMISTRY IN DRUG DEVELOPMENT AND MANUFACTURING	ORGANIC CHEMISTRY GENERAL SESSION --- PHYSICAL AND COMPUTATIONAL CHEMISTRY GENERAL SESSION	POLYMER CHEMISTRY GENERAL SESSION --- SUSTAINABLE MATERIALS FROM BIORENEWABLE SOURCES	ENERGY AND FUELS GENERAL SESSION --- MATERIALS AND PROCESSES FOR ENERGY STORAGE AND CONVERSION	EXTRAHEPATIC-TARGETED DELIVERY OF xRNA THERAPEUTICS --- CARBON CAPTURE AND CONVERSION FOR A SUSTAINABLE FUTURE	INTELLECTUAL PROPERTY RESOURCES AND TECHNOLOGY TRANSFER --- ADVANCES IN NATURAL PRODUCTS CHEMISTRY – SYMPOSIUM IN HONOR OF HARRY MOSHER	MEMORIAL SYMPOSIUM IN HONOR OF ROBERT H. GRUBBS
12:30 PM – 1:30 PM	WESTERN REGIONAL BOARD MEETING (Closed)								
2:00 PM – 2:45 PM	SILICON VALLEY US PATENT OFFICE TOUR OPTION A (Off-site, Ticketed)								
3:00 PM – 3:45 PM	SILICON VALLEY US PATENT OFFICE TOUR OPTION B (Off-site, Ticketed)								

DETAILED SYMPOSIA SCHEDULE

Undergraduate Oral Presentations

Symposium	Day	Time	Room
Analytical Chemistry	Saturday	3:30pm - 3:45pm	Empire
Chemical Biology and Biochemistry	Saturday Saturday	2:15pm-3:30pm 2:15pm-3:30pm	Empire Regency Ballroom 1
Inorganic and Materials Chemistry	Saturday Saturday	2:15pm-3:45pm 2:15pm-3:15pm	Valley Crystal
Organic Chemistry	Saturday	2:15pm-3:45pm	Gold
Physical and Computational Chemistry	Saturday	2:15pm-3:45pm 2:15pm-3:30pm	Garden California
Polymer Chemistry	Saturday	3:15pm - 3:45pm	Crystal

Technical Symposia

Symposium	Day	Time	Room
Advances in GPCR Drug Discovery and Therapeutic Applications	Sunday	9:00am-11:30pm	Crystal
Advances in Natural Products Chemistry – Symposium in Honor of Harry Mosher	Tuesday	10:30am-12:30pm	Gold
Analytical Chemistry General Session	Tuesday	9:00am-10:15am	Garden
Analytical Chemistry in Drug Development and Manufacturing	Tuesday	10:30am-12:00pm	Garden

Symposium	Day	Time	Room
Analytical Frontiers in Energy and Fuels – Symposium in Honor of Neal Byington	Monday	10:00am-12:00 pm	Regency Ballroom 1
Best Practices to Inspire the Next Generation of Chemistry Students	Sunday Sunday	9:00am-12:00pm 2:30pm-5:30pm	California California
Bridging Chemistry and Biology: Covalent Inhibition in Drug Discovery	Sunday Sunday	11:30-12:00pm 2:30-4:05pm	Crystal Crystal
Bridging Materials, Devices, and Simulation: Advances in Polymers for Electronics	Monday	9:00am-12:00pm	California
Building Bridges through Alliances and Advances in Technology (sponsored by the Chinese American Chemical Society)	Sunday	9:00am-12:00pm	Gold
Carbon Capture and Conversion for a Sustainable Future	Monday Tuesday	2:30pm-5:30pm 10:30am-12:30pm	Garden Regency Ballroom 1
Charting a New Course Through Project SEED	Sunday	2:30pm-5:30pm	Empire
Chemical Biology Approaches in Drug Discovery	Sunday	9:00am-12:00pm	Empire
Chemical Biology, Biochemistry, and Medicinal Chemistry General Session	Tuesday	9:00am-12:00pm	Regency Ballroom 2
Chemistry of Agriculture	Sunday	2:30pm-5:30pm	Gold
Chemistry at the Cutting Edge of Catalysis	Monday	2:30pm-5:30pm	Regency Ballroom 1
Emerging Leaders in Inorganic and Materials Chemistry	Monday	2:30pm-5:30pm	Valley
Emerging Leaders in Organic Chemistry	Monday	9:00am-12:00pm	Valley
Empowering Women in Organic Chemistry Research Symposium (EWOC)	Sunday	9:00am-12:00pm	Regency Ballroom 1

Symposium	Day	Time	Room
Energy and Fuels General Session	Tuesday	8:30am-11:00am	Crystal
Expanding Best Practices in Laboratory Safety	Sunday	2:30pm-5:30pm	Valley
Extrahepatic-targeted Delivery of xRNA Therapeutics (sponsored by Novartis)	Monday Tuesday	2:30pm-5:30pm 8:30am-10:30am	Empire Regency Ballroom 1
Induced Proximity: Unlocking New Therapeutic Avenues (sponsored by Nurix Therapeutics)	Monday Monday	9:00am-12:00pm 2:30pm-4:00pm	Crystal Crystal
Innovative Approaches in Bioanalytical Chemistry	Sunday	2:30pm-5:30pm	Garden
Inorganic and Materials Chemistry General Session	Tuesday	8:30am-12:30pm	Valley
Intellectual Property Resources and Technology Transfer	Tuesday	8:30am-10:30am	Gold
Materials and Processes for Energy Storage and Conversion	Monday Tuesday	9:00am-12:00pm 11:05am-12:30pm	Garden Crystal
Memorial Symposium in Honor of Attila Pavlath	Monday	9:00am-10:00am	Regency Ballroom 1
Memorial Symposium in Honor of John I. Brauman	Sunday	9:00 am–12:00pm	Garden
Memorial Symposium in Honor of Robert H. Grubbs (sponsored by BioPACIFIC MIP and Umicore)	Sunday Sunday Monday Monday Tuesday	9:00am-12:00pm 2:30pm-5:30pm 9:00am-12:00pm 2:30pm-5:30pm 9:00am-12:15pm	Club Regent Club Regent Club Regent Club Regent Club Regent
Monetizing Molecules: Using ML & AI to Bridge the Gap Between Computation and Informatics (sponsored by CAS, a division of the ACS)	Monday Monday	9:00am-12:00pm 2:30pm-5:30pm	Gold Gold
Organic Chemistry General Session	Tuesday	8:30am-9:40am	California
Physical and Computational Chemistry General Session	Tuesday	9:45am-12:30pm	California

Symposium	Day	Time	Room
Polymer Chemistry General Session	Tuesday	8:30am-9:30am	Empire
Potion to Production: The API Manufacturing Adventure (sponsored by Gilead Sciences)	Monday Monday	9:00am-12:00pm 4:00pm-5:30pm	Empire Crystal
Precision Chemistry at all Length Scales and Dimensions	Sunday	9:00am-12:00pm	Valley
Sustainable Materials from Biorenewable Sources	Tuesday	9:30am-12:30pm	Empire
Synthetically Modified Nucleosides and Nucleic Acids	Sunday	2:30pm-5:15pm	Regency Ballroom 1
The Art and Science of Brewing Beer	Sunday	4:15pm-5:30pm	Crystal
True Stories of Entrepreneurs	Monday	2:30pm-5:30pm	California

SYMPOSIA DESCRIPTIONS

Symposium	Description
Advances in GPCR Drug Discovery and Therapeutic Applications	G-protein-coupled receptors (GPCRs) represent one of the largest and most versatile families of cell surface receptors, playing a critical role in cellular communication and signal transduction. As pivotal regulators of numerous physiological processes, GPCRs have emerged as a crucial class of biological targets in drug discovery. This symposium will delve into the latest breakthroughs and innovative strategies in GPCR research. We will explore cutting-edge techniques and technologies that are accelerating the discovery of novel GPCR-targeted therapies across a spectrum of disease areas, such as oncology, neurology, and metabolic disorders.
Advances in Natural Products Chemistry - Symposium in Honor of Harry Mosher	Structure elucidation and total synthesis of natural products chemistry has an important place in organic chemistry. This symposium honors the work of Harry and Carol Mosher, founders of the Silicon Valley ACS section with a lifelong interest in stereochemistry, and natural product chemistry.
Analytical Chemistry in Drug Development and Manufacturing	This symposium will delve into the crucial role of analytical chemistry in drug development and manufacturing. Topics will include innovative techniques, regulatory compliance, and quality control. Attendees will gain valuable insights into modern analytical methods and their applications in ensuring the safety and efficacy of pharmaceutical products.
Analytical Frontiers in Energy and Fuels - Symposium In Honor of Neal Byington	This symposium invites contributions at the intersection of analytical chemistry and energy-related research, with a focus on petroleum, fuels, and related materials. Topics include, but are not limited to, advancements in: analytical techniques for crude oil characterization, refined product authentication, fuel additives, combustion byproducts, and detection of illicit or non-compliant substances in energy systems. This session is dedicated to the memory of Dr. Neal Byington, a trailblazer in petroleum analysis and longtime National Petroleum Chemist in San Francisco. Dr. Byington's legacy in advancing analytical methodology, as well as his leadership within the ACS Division of Petroleum Chemistry and California local section, continues to inspire progress in these fields. We welcome abstracts from academia, industry, and government laboratories that showcase innovative research, novel instrumentation, regulatory applications, or case studies related to energy and fuels.
Best Practices to Inspire the Next Generation of Chemistry Students	This symposium highlights current research in chemical education and includes a broad range of topics such as innovative classroom and laboratory practices, quantitative pedagogical research, novel uses of educational technology, and curricular developments.

Symposium	Description
Bridging Chemistry and Biology: Covalent inhibition in Drug Discovery	Targeted covalent inhibitors (TCIs) have emerged as a transformative class of small-molecule therapeutics, offering the potential for highly selective and durable inhibition of disease-driving proteins. This session will explore the latest advancements in the design, discovery, and application of TCIs. The session will cover the strategic approaches for identifying and optimizing covalent warheads, the role of chemical biology in designing TCIs with high specificity, and the integration of these compounds into drug discovery pipelines. Case studies of TCIs in oncology and/or other therapeutic areas, demonstrating the power of covalent inhibition in overcoming challenges associated with traditional reversible inhibitors will be covered.
Bridging Materials, Devices and Simulation: Advances in Polymers for Electronics	Polymers are critical to the functioning of electronic devices, be it as efficient insulators in printed circuit boards or as binder materials for batteries. They have long served as key enablers of multiple innovations in the electronics industry and continue to drive development of new technologies. This symposium aims to bring together researchers that work in the interdisciplinary areas of polymer science, electrical engineering, and electronic devices. Areas of interest include novel polymer materials for electrical and electronic devices [insulators, batteries, biomedical devices, sensors, solar cells, wearables, flexible electronics, electronics packaging, display technologies and other consumer goods], methods of device fabrication, novel device architectures involving polymers, characterization techniques of polymeric materials for device applications, computer simulation and predictive modeling of polymer behavior.
Building Bridges through Alliances and Advances in Technology	This symposium is being organized by the CACS-NCC (Chinese American Chemical Society - Northern California Chapter). This will be a multidisciplinary symposium featuring distinguished scientists and senior leaders from academia, government labs, and industry across the Western region as well as graduate students representing the laboratories of Professor Zhenan Bao (Stanford) and Professor Peidong Yang (UC Berkeley).
Carbon Capture and Conversion for a Sustainable Future	The continuous increase in the global demand for energy has led to a need for sustainable solutions. The catalytic transformation of waste CO2 has potential to provide a clean source of energy as well as the production of common feedstock chemicals such as formate, carbon monoxide, or methanol. The implementation of these technologies relies on the co-development of carbon capture and catalysis systems as well as the development of scalable electrolyzers and fuel cells. This one-day symposium will bring together researchers from diverse disciplines to discuss cutting-edge developments that bridge fundamental chemistry and scalable industrial applications in sustainable energy and fuels.

Symposium	Description
Charting a New Course Through Project SEED	As one of the largest SEED programs in the country, the CA Section SEED program has many parts that must work smoothly together. This symposium describes these important parts and hears from the SEED students themselves.
Chemical Biology Approaches in Drug Discovery	This symposium will highlight innovative chemical biology approaches that are transforming drug discovery by expanding the druggable proteome and accelerating the development of novel therapeutics
Chemistry at the Cutting Edge of Catalysis	The Cope Scholar Symposium will honor Professor Keary Engle, a 2024 Cope Scholar, as our keynote speaker. The symposium celebrates his contributions to catalytic reaction development and student mentoring
Chemistry of Agriculture	Chemistry impacts all areas of agriculture and is key to developing best management practices for sustainability, crop production and protection to provide a steady supply of nutritious food. Analytical methods monitor residues for food safety and pesticide registration. Agriculture provides many opportunities to use a broad range of chemistry skills as presented in this symposium.
Emerging Leaders in Inorganic and Materials Chemistry	This symposium will spotlight emerging leaders in inorganic chemistry who are shaping the future of the field through innovative research and fresh academic perspectives. Featuring early-career faculty from across the region the program will highlight a diverse array of topics spanning synthetic methodology, catalysis, bioinorganic chemistry, solid-state materials, and more. By bringing together the next generation of academic trailblazers, this forum aims to foster collaboration, showcase groundbreaking work, and provide a platform for rising voices in the inorganic community.
Emerging Leaders in Organic Chemistry	This symposium celebrates several the early career achievements of young investigators from academia and industry with ties to the Western region of ACS
Empowering Women in Organic Chemistry (EWOC) Research Symposium	This symposium will highlight research from women in organic, medicinal, and process chemistry
Expanding Best Practices in Laboratory Safety	Speakers in this symposium will be sharing best practices for inclusion and belonging, the RAMP concept of risk management (Recognize, Assess, and Minimize Hazards, then Prepare for Emergencies), and case studies in lab safety.

Symposium	Description
Extrahepatic-targeted Delivery of xRNA Therapeutics	xRNA-based therapeutics have received considerable research investment in recent years due to their potential to treat various difficult diseases. Nonetheless, delivery remains a major challenge, particularly for targeting extrahepatic tissues. This symposium will cover advancements and challenges in developing xRNA therapeutics. Discussions will include siRNA, ASO, and miRNA; their recent chemical modifications, conjugation chemistries, linker strategies and delivery methods, such as utilizing peptides/small molecule ligands, lipids and biologics. Attendees will have the chance to participate in exchange of information and engage in thought-provoking discussions on how to expedite the next waves of extrahepatic xRNA drug discovery.
Induced Proximity: Unlocking New Therapeutic Avenues	The concept of induced proximity represents a paradigm shift in drug discovery, separating binding from function. Inducers of proximity utilize the cell's own mechanisms to bring target proteins into close physical proximity with functional effectors to modulate biological activities in novel ways. This session will explore key advancements in the field, from classical bivalents, engineered protein-protein interactions, molecular glues to steric blockers. These strategies offer promising opportunities for previously "undruggable" targets, expanding the scope of therapeutic interventions across a range of diseases, including cancer, neurodegenerative disorders, infectious diseases and inflammatory conditions
Innovative Approaches in Bioanalytical Chemistry	The field of bioanalytical chemistry is rapidly evolving, driven by the need for more precise, sensitive, and high-throughput analytical techniques. This session will explore cutting-edge methodologies and technologies that are revolutionizing the way we analyze biological samples. Topics will include advancements in mass spectrometry, chromatography, novel biosensors, microfluidic devices, and computational approaches for data analysis. Attendees will gain insights into how these innovative tools are being applied to address complex biological questions, improve diagnostic accuracy, and enhance drug development processes. Join us to discover the future of bioanalytical chemistry and its impact on healthcare and research.
Intellectual Property Resources and Technology Transfer	Speakers will include technology transfer agents from local colleges and universities with accounts of their procedures, problems, and successes. This session will also include speakers from universities, companies, and IP law firms about the past, current and possible future state of intellectual property in the US.

Symposium	Description
Materials and Processes for Energy Storage and Conversion	Development of technologies that improve the performance and economic viability of energy production and storage is enabled by fundamental understanding and rational design of new material systems. This symposium will address current topics in the fields of energy storage and conversion including batteries, capacitors, photovoltaics, and photocatalytic processes.
Memorial Symposium in Honor of Attila E. Pavlath	This symposium will celebrate the life and contributions of Attila E. Pavlath: scientist, role model, mentor, and leader for the American Chemical Society.
Memorial Symposium in Honor of John I. Brauman	This symposium will celebrate the life and many contributions of John I. Brauman, J.G. Jackson and C.J. Wood Professor of Chemistry at Stanford University, Deputy Editor for Physical Sciences at Science Magazine, and recipient of the National Medal of Science (2002).
Memorial Symposium in Honor of Robert H. Grubbs	This symposium will celebrate the life and achievements of Robert H. Grubbs, Victor and Elizabeth Atkins Professor of Chemistry at the California Institute of Technology and co-recipient of the 2005 Nobel Prize in Chemistry for his work on olefin metathesis.
Monetizing Molecules: Using Machine Learning and Artificial Intelligence to Bridge the Gap between Computation and Informatics	The convergence of Chemical Informatics (CINF) and Computational Chemistry (COMP) has become increasingly vital in the age of Big Data, Machine Learning (ML), and Artificial Intelligence (AI). This interdisciplinary fusion is central to unlocking the value of molecular assets across diverse scientific sectors, including pharmaceuticals, agriculture, and materials science. This session will highlight key scientific advancements, opportunities, challenges, and real-world applications that harness the power of these emerging transformative technologies.

Symposium	Description
Potion to Production: The API Manufacturing Adventure	This symposium is dedicated to the field of Process Development, exploring the journey of scaling synthetic processes from the laboratory to commercial manufacture and life cycle management. The event will delve into the interdisciplinary nature of Process Development, bridging synthetic organic chemistry, process technology, and chemical engineering. Attendees will gain valuable insights into the latest research and advancements in modern synthetic organic chemistry and enabling technologies, addressing the challenges and innovations that drive this critical area of chemistry
Precision Chemistry at all Length-Scales and Dimensions	The symposium will serve as a platform for both regional and national leaders in the field to share and discuss the latest, cutting-edge advancements in this rapidly emerging area of research. Precision chemistry is gaining prominence across diverse disciplines, including inorganic nanoscience, polymer chemistry, materials science, and engineering. Speakers will be thoughtfully selected to represent this broad and interdisciplinary landscape, fostering meaningful exchange and collaboration across fields.
Sustainable Materials from Biorenewable Sources	This symposium will highlight recent developments and progress in replacing conventional petroleum-derived plastics with bio-derived alternatives from both academic and industrial perspectives. It will cover biopolymer modification and processing strategies, as well as address challenges related to cost parity and scalability of bio-derived materials.
Synthetically Modified Nucleosides and Nucleic Acids	This symposium will showcase recent advances in synthetic chemistry and chemical biology within the domain of nucleic acids. Chemically modified nucleosides, nucleotides, and nucleic acids have applications spanning medicinal chemistry, biotechnology, and chemical biology tools for basic research. By enabling the communication of a diverse portfolio of the latest developments in this area, this symposium seeks to foster discussion and collaboration aimed at further advancing the field.
The Art and Science of Brewing Beer	Dr. Glen Fox of UC Davis has promised a "hands-on" symposium that will introduce attendees to the raw materials of beer (hops, malt, and yeast) combined with current research on the chemistry of brewing.
True Stories of Entrepreneurs	Starting a company is filled with challenges (both anticipated and unanticipated). This symposium will provide learnings from entrepreneurs from their experiences and highlight some resources available to those starting new science-based ventures.

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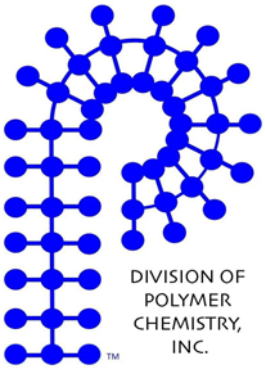

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WRM 2025 FINAL PROGRAM

SATURDAY AFTERNOON

Chemical Biology and Biochemistry Undergraduate Session
Empire Room
Cosponsored by BIOL
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
N. Wang, *Presiding*
2:15 006. Synthesis and characterization of *N*-alkylated amino acids for ribosomal translation. **N. Angelisanti**, I. Piper, M. Pressimone, A. Solivan, A. Schepartz
2:30 007. Identification of novel compounds targeting Mycobacterium tuberculosis replicative DNA polymerase using parallel docking and de novo molecule generation. **R. Rajasekar**, K. Singh, A. Eiichi
2:45 008. Bridging carbohydrate chemistry and AI: Calibrated NLP models for glycemic index assignment in nutritional epidemiology. **J. Ebbert**, S. Titensor, D. Della Corte
3:00 009. Synthesis, biological evaluation, and structure-activity relationship of diversified C-4 analogs of podophyllotoxin as tubulin inhibitors. **S. Somani**, **S. Yang**, E. Njoo
3:15 010. Deciphering the acidic patch interactions of the human H2A.Z variant nucleosome. **N. Gimranov**, I. Franco, A. Skrajna

Chemical Biology and Biochemistry Undergraduate Session
Regency Ballroom 1
Cosponsored by BIOL
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
E. Carroll, *Presiding*
2:15 001. Developing chemical tools to explore how site-specific ubiquitination drives protein destabilization and influences amyloid formation. **J.S. Hopham**, J. Villalpando, N. Dinh, E. Carroll
2:30 002. Education before execution: Rationally constraining AI for effective protein engineering. **W. Heaps**, D. Della Corte, C. Kubalek, M. Argyle, J. Ebbert
2:45 003. Decoding H3.3 variant nucleosome interactome. **E. Krebs**, N. Gimranov, I. Franco, A. Skrajna
3:00 004. Uncovering regulation of bifunctional NAD-kinase/NADP-phosphatase enzymes. **C. Geluz**, **H. Alkabbani**, V. Jayaraman, E.R. Greene
3:15 005. Investigating cellular metabolites and mutations driving p53 amyloid formation. **A. Bhattacharya**, T. Pham, J. Trinh, K.K. Airen, K. Hoang, E. Carroll

Inorganic and Materials Chemistry Undergraduate Session
Valley Room
Cosponsored by INOR
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
A. A. Fuller, *Presiding*
2:15 015. Surface functionalized gold nanospheres in biologically relevant solutions using unique peptoids. **I. Matusich**, A.A. Fuller
2:30 016. Electrochemical oxidation of benzyl alcohol at the interface of gold and nickel electrocatalyst. **E.A. Guzman**, S.T. Spriggs, J. Qiu
2:45 017. Galium-aluminum-based hydrogen production from water at ambient conditions: The path toward sustainable energy. **R. Waterson**, K. Lofgren, R. Ball, S.R. Oliver
3:00 018. Evaluating metal-organic framework-coated kombucha membranes for removal of wildfire contaminants in water. **E. Reznick**, M.C. So
3:15 019. Baking with salt: Exploring thermal dehydration and decomposition of hydrated cerium chloride. **R.C. Riley**, E.A. Espinoza, A. Chemey, D. McGlamery
3:30 020. Synergistic effect of artificial solid electrolyte interphase with lithophilic seed layers for homogenous lithium plating on lithium metal battery anodes. **R. Lam**, J. Lee, Y. Cui

Inorganic and Materials Chemistry Undergraduate Session
Crystal Room
Cosponsored by INOR
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
D. J. Brook, *Presiding*
2:15 011. Design and synthesis of polymer-supported ruthenium-based catalysts for olefin cross metathesis. **D. Balcer**, **M. Woo**, **J. Amador Flores**, **S. Ceja**, A. Acosta, M. Omar, S. Velasquez, T. Sapp, K. Huynh, M.R. Radlauer
2:30 012. Where dendrites begin: Spatial and temporal solid electrolyte interphase evolution as a mechanism for non-uniform lithium plating. **S.D. Liu**, J. Lee, C. Serrao, S. Shuchi, A. Cai, W. Zhang, Y. Cui
2:45 013. Influence of excitation energy on semiconductor nanoparticle photocatalytic performance. **C. Peak**, K. Lee, E. Aguilar, T. Harris, R. Lam, G. Vazquez, M. Enright
3:00 014. Characterizing protein corona formation on functionalized aminofullerenes. **R. Gardner**, R. An, C. Alford, S. Billow, M. Serda, K. Wheeler

Organic Chemistry Undergraduate Session
Gold Room
Cosponsored by ORGN
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
R. P. Abrams, *Presiding*
2:15 021. Reactivity-informed pharmacophore editing and biological evaluation of andrographolide and its a-ring analogs: Closing the loop on the oxetane. **R. Raval**, **G. Liu**, **A. Chyu**, **S. Xi**, **Y. Noh**, E. Njoo
2:30 022. Synthesis of a photoaffinity probe to identify antivirulence target protein in *Pseudomonas aeruginosa*. **K. Maiseyeva**, L.C. Miller Conrad
2:45 023. Structure-activity relationships of dioxo molybdenum(VI) complexes for deoxydehydration reactions. **N. Nickolov**, O.M. Ogba
3:00 024. Synthesis of quaternary arene-containing aldehydes by a zinc-mediated palladium-catalyzed α-arylation of silyl enol ethers. **A.C. Graf**, J.E. Rosenow, A.B. Van Lare, L.R. Alleyne, B.J. Stokes
3:15 025. Investigation into the electronics of para and meta-substituted phenolic esters for selective acylations of amines. **A. Chalasani**, **N. Sathish**, **C. Chen**, **E. Leo**, E. Njoo
3:30 026. Designing adjuvants to improve colistin treatment of *Pseudomonas aeruginosa*. **O. Kaka**

Physical and Computational Chemistry Undergraduate Session
Garden Room
Cosponsored by COMP and PHYS
M. R. Radlauer, V. Wheaton, *Organizers*
L. C. Miller Conrad, *Presiding*
2:15 032. Performance of range-separated local hybrid functionals for metalloenzyme reactions: Importance of the strong-correlation correction. **T.T. Nguyen**, A. Kai, R. Grotjahn
2:30 033. Empowering biomedical research with AI: Development of a drug-target interaction agent. **J. Abdelrazik**
2:45 034. First principles modeling of 2D conductive MOFs for Li-S battery applications. **N. Lopez**, K. Kim, L. Wan, M.C. So
3:00 035. Enhancing interpretability in nutritional epidemiology through Bayesian statistical approaches: Applications to dose-response synthesis and longitudinal modeling. **S. Titensor**
3:15 036. Cracking the carbon cage: Accurate predictions of fullerene isomerization energies with strong-correlation-corrected range-separated local hybrids. **A. Kai**, R. Grotjahn
3:30 554. Using Electrochemical Impedance Spectroscopy to evaluate semitransparent agrivoltaics. **J.C. Salazar**, A. Vicini, K. Meehan, M.C. So

Physical and Computational Chemistry Undergraduate Session
California Room
Cosponsored by COMP and PHYS
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
N. E. Esker, *Presiding*
2:15 027. Enhanced biphenyl fluorescence caused by 1,6-Dichlorohexane on Al_2O_3. **A. Lopez**, C. Tobey, B.X. Moses, A.M. Nishimura
2:30 028. Comparative analysis of ground-state energies in pyrethrins and pyrethroids. K.D. Closser, **A.S. Bawa**, **N. Brockie**
2:45 029. Conformational dynamics and disorder of HPV-16 E6. **L. Kwak**, R. Garza
3:00 030. Interpretability in protein design machine learning programs: Decoding ProteinMPNN. **N. Mukkavilli**, M. McCully, D.A. Beck
3:15 031. Evaluating antimicrobial peptide potency and selectivity using supported lipid bilayers as predictive ex vivo models. **E. Tan**, S. Yang

Polymer Chemistry Undergraduate Session
Crystal Room
Cosponsored by PMSE and POLY
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
D. J. Brook, *Presiding*
3:15 037. Multifunctional MOF-polymer composites: From materials design to catalytic detoxification of warfare agents. **A. Rahman**, N.M. Kharji, R. Smaldone
3:30 038. Catalyzing plastic degradation: Novel mechanochemistry treatment for sustainable plastic waste management. **J. Zhang**

Analytical Chemistry Undergraduate Session
Empire Room
Cosponsored by ANYL
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
E. Carroll, *Presiding*
3:30 039. Label-free blocking immunoassay to evaluate anti-Adalimumab antibody activity in clinical samples. **J. Abdelrazik**, R.Y. Luo

SUNDAY MORNING

Advances in GPCR Drug Discovery and Therapeutic Applications
Crystal Room
Cosponsored by MEDI
I. S. Darwish, *Organizer*
E. Villemure, *Organizer, Presiding*
9:00 Introductory Remarks.
9:05 040. Discovery of small molecule rhodopsin correctors for the treatment of *RHO*-adRP using a high-throughput (HT) drug discovery platform approach. **J.R. Sanzone**, N. Abel, M. Albert, Z. Casey, H. Chan, L.Y. Chan, J. Enquist, E. Jones, S. Kim, S. Kosuri, N. Lubock, M. Mackenzie, N. Mohammed, N. Narasimman, C. Sinz, E. Thompson, R. Warneford-Thomson, T. Zheng
9:30 041. Efficient exploration of vast chemical spaces using a combinatorial docking approach. **A. Kyrylchuk**, I.S. Knight, J. Irwin, B. Shoichet
9:55 042. Discovery of Mu and kappa opioid receptor antagonists from a bespoke virtual library of tangible isoquinuclidines. **S. Vigneron**, S. Ohno, J. Braz, J. Kim, O. Kweon, C. Webb, C. Billesbølle, K. Srinivasan, K. Bhardwaj, J. Irwin, A. Manglik, A. Basbaum, J.A. Ellman, B. Shoichet
10:20 Intermission.
10:30 043. Large library docking identifies positive allosteric modulators of the calcium-sensing receptor. **F. Liu**
10:55 044. Enhanced glucose lowering and weight loss with dual biased agonism of the GLP-1 and GIP receptors. **S. Krishnan**
11:20 Concluding Remarks.

Best Practices to Inspire the Next Generation of Chemistry Students
California Room
Cosponsored by CHED
B. Bekker, *Organizer, Presiding*
9:00 045. Promoting higher-order learning within a flipped classroom: a randomized controlled trial experiment. **M.D. Casselman**
9:30 046. My journey in giving back through the graphical language of organic chemistry. **J.T. Njardarson**
10:00 047. Chemical Technology at Sacramento City College: Hands-on training for career and transfer success. **T.M. Atkins**
10:30 048. Progress towards establishing a useful undergraduate research group. **W.J. Miller**
11:00 049. Overcoming obstacles in course-based undergraduate research. **M. Sommerhalter**
11:30 050. Introducing team-based mentorship: a culture-building approach for research groups in STEMM (science, technology, engineering, math, and medicine). **M.T. Dulay**, J.M. DeSimone

Building Bridges through Alliances and Advances in Technology
Gold Room
Cosponsored by MPPG
A. M. Madonik, *Organizer*
H. Luo, M. P. Wu, *Organizers, Presiding*
9:00 Introductory Remarks.
9:05 051. Advancement of renewable energy in South Texas: Engineering nanostructured catalysts for sustainable solutions. **J.L. Liu**, S. Bashir
9:25 052. Criminal investigations at the U.S.-Mexico border: Nanoforensics advancing accuracy and efficiency with fingerprinting and blood-spatter analysis. **S. Bashir**, j. Lawrence, **J.L. Liu**
9:45 053. Regenerative manufacturing of high-performance pDCPD thermosets. **Y. Xia**, X. Luo, Y.M. Kim
10:05 054. Shape-memory-assisted self-healing of macroscopic punctures via high-energy-density periodic dynamic polymers with tunable actuation temperature. **Y. Shi**, Z. Bao
10:25 Intermission.
10:35 055. New class of dual Ion-electron polymer conductors for electrochemical energy storage. **G. Liu**
10:55 056. Trash to Treasure: upgrading of organic and plastic waste streams through chemical catalysis and biological conversion. **N. Sun**
11:15 057. Enhancing water and oxygen transport through electrode engineering for AEM water electrolyzers. **x. peng**
11:35 058. Converting CO_2 into valuable chemicals by artificial photosynthesis. **Y. Shan**, P. Yang
11:55 Concluding Remarks.

Chemical Biology Approaches in Drug Discovery
Empire Room
Cosponsored by BIOL
E. Villemure, *Organizer*
D. Nomura, *Organizer, Presiding*
9:00 Introductory Remarks.
9:05 059. Chemical strategies to rewire immune signaling. **Z. Zhang**
9:45 060. Chemical tools to modulate the “undruggable” human proteome. **L. Dassama**
10:25 Intermission.
10:35 061. Engineering modular biologics for selective rewiring of inflammatory signals. **R. Saxton**
11:15 062. Reimagining druggability using chemoproteomic platforms. **D. Nomura**
11:55 Concluding Remarks.

Empowering Women in Organic Chemistry (EWOC) Research Symposium
Regency Ballroom 1
Cosponsored by MEDI and ORGN
J. Gustafson, E. Villemure, *Organizers*
R. P. Abrams, L. C. Miller Conrad, *Organizers, Presiding*
9:00 Introductory Remarks.
9:05 063. Selective C-F, S-F, and C-S activation of aryl fluorides and aryl sulfonyl fluorides using nickel catalysts. **S.E. Stieber**
9:30 064. Photoredox properties of tetra-alkyl core substituted phenazine photoredox catalysts and their performance in organocatalyzed atom transfer radical polymerization. **A.M. Wolff**, G. Miyake, R.S. Paton, S.A. Lopez, A. Sau, T. Clark, L. Gomes, K. Puffer, N.H. Damrauer, Y. Lamb, B. Portela
9:55 065. Identification of novel coronavirus main protease inhibitors targeting broad spectrum coverage for pandemic preparedness. **K. Garland**
10:20 066. Exploring the unique properties and reactivities of the pentafluorosulfanyl group, its congeners, and reagents. **A. Ragan**
10:45 Intermission.
10:55 067. The evolution of drug discovery for breast cancer. **X. Wang**
11:55 Concluding Remarks.

Memorial Symposium in Honor of John I. Brauman
Garden Room
Cosponsored by PHYS
A. M. Madonik, N. L. McClure, *Organizers, Presiding*
9:00 Introductory Remarks.
9:25 068. Pseudo-Elementary steps: A key concept in elucidating the kinetics and mechanisms of complex systems such as nanoparticle synthesis and assembly. **R.G. Finke**
10:10 Intermission.
10:20 069. Optoelectronic nose: An adventure in molecular recognition. **K.S. Suslick**
11:05 070. Energy transfer and the oxygen-17 anomaly in ozone. **K.A. Boering**
11:50 Concluding Remarks.

Memorial Symposium in Honor of Robert H. Grubbs (Sponsored by Craig Hawker / BioPACIFIC MIP)
Club Regent
Cosponsored by MPPG
J. S. Cannon, K. M. Engle, V. M. Marx, G. Miyake, H. Nelson, D. O'Leary, V. A. Piunova, F. Toste, R. Weitekamp, *Organizers*
C. M. Bates, R. B. Grubbs, *Organizers, Presiding*
9:00 Introductory Remarks.
9:15 071. Electrocatalysis for energy storage. **R.M. Waymouth**, J. Dressel, K.H. Lui, T.W. Funk
9:40 072. Nucleophilic substitution reactions: A radical alternative to S_N1 and S_N2 reactions. **G.C. Fu**
10:05 073. Cooperative reactions at late-metal silyl and silylene complexes. **M.T. Whited**
10:30 Intermission.
10:45 074. Au(III) oxidative addition complexes for complex protein-polymer conjugate synthesis. **H.D. Maynard**
11:10 075. Living the Grubbs' entrepreneurial spirit. **J.M. Berlin**
11:35 076. Atom swap in sp^3-rich scaffolds. **G. Dong**

Precision Chemistry at all Length-Scales and Dimensions
Valley Room
Cosponsored by INOR
A. M. Spokoyny, *Organizer, Presiding*
9:00 077. Metal-mediated ring fusions in scalable syntheses of conjugated nanocarbons. **T. Tilley**
9:30 078. Precision control of supramolecular glycan architectures for biomolecular recognition. **J. Stauber**
10:00 079. Amphidynamic crystals with ultrafast molecular rotors. **M.A. Garcia-Garibay**, J. Shan
10:30 080. Precise synthesis of open shell transition metal nanoclusters. **T.W. Hayton**
11:00 081. Cluster chemistry one metal atom at a time. M. Osei, H. Xu, N. La, A. Valles, V. Espinoza Castro, **R. Hernandez Sanchez**
11:30 082. Organometallic strategies for precise modification of biomolecules. **A.M. Spokoyny**

Bridging Chemistry and Biology: Covalent Inhibition in Drug Discovery
Crystal Room
Cosponsored by MEDI
E. Villemure, *Organizer*
J. Blair, D. Lapointe, *Organizers, Presiding*
11:30 Introductory Remarks.
11:35 083. Discovery of a picolinamide series of covalent inhibitors of Trypanosoma cruzi protein kinase CLK1 for the treatment of Chagas Disease. **O. Rene**

SUNDAY AFTERNOON

Building Bridges Undergraduate Posters
Regency Ballroom 2
Cosponsored by MPPG
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
12:00 - 1:30
084. Compositional Study of Leaves of Toyon, a Native plant to California, Oregon, and the Baja California Peninsula. **Z.R. Jensen**, B.A. Rayson, L.J. Naaktgeboren, Y. Hu
085. Antioxidant Activity and Heavy Metal Uptake Capability Study of White Sage. K.M. Rasmussen, R. Solorio, A.J. Benson, A. Minium, K. Duran, J. Obligar, M. Nunley, **A.G. DeHaro**, B. Koo, Y. Hu
086. Hydrogen Atom Transfer (HAT) or Electron Transfer (ET)? An Undergraduate Mechanism Investigation of the Reduction Reaction of 2,2-Diphenyl-1-picrylhydrazyl (DPPH) in n-Butanol and t-Butanol. **L.J. Naaktgeboren**, B.A. Rayson, Z.R. Jensen, E.B. Torres, A.G. Frala, Y. Hu
087. Towards the synthesis of albicidin. **S. Gonzalez**, S. Heller
088. The first total synthesis of Lorneic Acid F and H. **M. Rios**, C. Lucero
089. Mechanistic studies and reactivity in rhodium Bis(phosphinoalkynyl) pincer ligands. **E. Norton**, M. Deegan, G.P. Yap
090. Investigating the effect of post-translational modifications on Cu2+ binding on the antimicrobial peptide PG-KI. **A. Batchelor**
091. Synthesis of homotryptamine derivatives as potential serotonergic antidepressants. **S. Verma**, **A. Marks**, A. Chabroux, R. Iyer, D.E. Olson, C. Arpin
092. Enhancing PHA production in *Pseudomonas putida* via targeted genetic modification. **V. Arreola**, K. Lee, F. Zhang
093. Mild elimination of alcohols to alkenes using sulfonylimidazoles and DBU. **A.R. Smith**, S. Heller
094. Determining the pH profile of DesD. **S. Ivanez**
095. Recovery and Analysis of desferrioxamines via HPLC and LC-MS. **L. Larson**
096. Lighting the path to sustainable pest control: fluorescent chalcones for soil parasite studies. **M. Kiernan**, **G. Hamilton**, A. Calderon-Urrea, C. Arpin
097. Exploring acetaldehyde photodissociation pathways using interpretable AI models. J.H. Kim, **H. Dang**, H. Joshi, D.H. Vyas, A. Wong, S. Sridharan, J.D. Spitzer, E. Bojeh, D. Andreasyan, G. Grazioli
098. Simulated mechanical testing of amyloid fibrils via large-scale explicit solvent molecular dynamics. **J. Gadingan**, A. Ingwerson, B. Rusconi, H. Dang, A. Youngquist, A. Pham, J. Vinod, B. Wong, D. Andreasyan, A. Iyer, G. Grazioli
099. The efficiency of antibiotic adjuvants on *Pseudomonas aeruginosa*. L.C. Miller Conrad, **R. Shamoon**
100. Evaluating colistin adjuvants in *Pseudomonas aeruginosa*. **R. Rajesh**
101. Molecular mechanisms and energetic characterization of peptide-mediated reversible nanoparticle aggregation via atomistic molecular dynamics. **M. Mullooly**, R. Ramji, K.D. Closser, T. Pascal, J.V. Jokerst
102. Quantification of oligosaccharides from bovine Alpha-Acid Glycoprotein. **N. Diep**, A. Franz
103. Binding study of FslA. **U. Ganbaatar**

104. Applications of electron microscopy in immunotherapy: Visualizing nanoparticle delivery and immune responses. **Z. Seedat**
105. Structural studies of NIS synthetase FslA. **S. Ojha**
106. Establishing a catalytic residue in the *R351Q* variant of FslA, an NIS synthetase. **H. Seyedebrahimnazhad**
107. Engineering hybrid surfactants derived from an intrinsically disordered protein sequence. **R. Koparde**, P. Whitworth, P. Pratakshya, M.B. Francis
108. Water oxidation by a Cobalt(II) compound with redox active ligands. **S. Almutairi**, M. Escudero, T. Mann, **D.J. Brook**
109. Design and synthesis of calamitic promesogenic amine capping ligands for CdSe/ZnS quantum dots. **A.B. Van Lare**, J.Q. Vu, P.S. Morihara, N.J. Licauco, B.J. Stokes
110. Synthesis and reactivity of a bis-bidentate N-heterocyclic carbene nickel complex with a phenyl-substituted backbone. **A. Bryant**, A. Alvarez, C. Stieber
111. Investigating how endogenous human metabolites affect p53 thermodynamic stability. **T. Pham**, **J. Trinh**, A. Bhattacharya, K.K. Airen, K. Hoang, N. Nguyen, E. Carroll
112. Chiral quaternary aldehyde synthesis by the palladium-catalyzed α-arylation of unsymmetrical silyl enol ethers. **J.E. Rosenow**, A.C. Graf, A.B. Van Lare, B.J. Stokes
113. Synthesis of α-substituted β-nitroalkene scaffolds for use in organocatalyzed reactions. **L.B. Garman**, F.K. Kekessie, J.A. Pigza
114. Determining how chemical analogs of pyruvic acid modulate p53 conformation function. **K.K. Airen**, A. Alagtash, A. Bhattacharya, T. Pham, J. Trinh, K. Hoang, L. Cobb, S. Crudo, V. Ta, T. Vaddiraj, A. Rios, E. Carroll
115. How's it binding? Investigating the binding specificity of DesD in the presence of multiple different cofactors. **A. Bacconi**
116. Understanding the effects of phosphorylation on the binding properties between motif A and SIRT1. **S. Bennett**, C. Tannous, **Q. Nguyen Minh Luu**, N. Wang
117. Heteroatomic and substituent effects on [3,3] sigmatropic rearrangements: Theoretical mechanistic and reactivity study. **K. Share**, J.S. Cannon
118. Synthesis of N-heterocyclic carbene nickel(0) complexes for C-F bond activation of octafluoronaphthalene. **E. Pham**, M. Bravo, C. Stieber
119. Methods for PLA surface smoothing: A comparison between vapor and immersion smoothing with organic solvents. **R. Sidhu**, N. Fanopoulos, J. Hout
120. Recovery and identification of desferrioxamine intermediates. **D. Olsson**
121. Non-polar bond activation via bimetallic Salen-rhenium complexes containing appended nitrogen groups. **D.A. Seymour**, M. Deegan, L. Miller, G.P. Yap
122. Development of kinetic assay for the FSLA enzyme involved in siderophore biosynthesis in *Francisella tularensis*. **D.C. Pat-Onuoha**
123. Insights into the mechanism of the copper chaperone for copper-zinc superoxide dismutase. **M. Lafon**, L. Kane-Barnese
124. Chemical preparation and reactivity of acyl phosphates under prebiotic conditions. **V. Ta**, **S. Crudo**, **T. Vaddiraj**, A. Rios
125. Sustained linalool releasing polyvinyl alcohol/Gellam gum hydrogel for infectious burn wounds: Characterized *in-vitro*. **F. Rashid**, **Q. Faheem**, M. Ikram
126. Understanding drug-induced and hormone-mediated cardiac risks through computational analysis of hERG and CaV1.2-ligand interactions. **S. Brunkow**

127. Characterizing the sequence determinants of a novel interaction between the E. coli molecular chaperones DnaK and CbpA. **S. Virgen Ordaz**, Q. Nguyen, S. Chin, V. Chau, D. Quach, A. Mateo, S. Ramirez, T.P. Nguyen, T. Arhar
128. Characterizing the stimulation of DnaK ATPase activity by CbpA: Insights into CbpA's interactions with DnaK in *E.coli*. **A. Mateo**, **D. Quach**, **S. Ramirez**, **T.P. Nguyen**, S. Virgen Ordaz, Q. Nguyen, S. Chin, V. Chau, T. Arhar
129. Optimizing the mono-mesylation of polyethylene glycol. **E. Jaminet**, S. Swartz, B. Grosscup, P. Reist, S. Ward
130. Reactive molecular dynamics study of water droplet boiling on nanoparticle-functionalized surfaces. **M. Vazquez**, L. Hong
131. Carbodicarbenes as hydride donor catalysts in heteroallene reductions. **M.W. Schernikau**, O.M. Ogba
132. Reusable oxidizing agent, polymer-supported IBX. **L. Andersen**, R. Mouawad, B. Pelletier
133. Understanding oligomeric states of decoration (Dec) protein via integration of computational modeling and experimental analysis. **A. Vergara**, **I. Lopez**, R. Fukazawa, I. Heu, P. Tare, M. Zepeda-Esquivel, M. Buendia, M. Zhao, K. Khakh, G. Terashi, D. Kihara, M. Uchida
134. Optimizing polydopamine coating on cellulose nanocrystals in biopolymer composites for increased biocompatibility. **I.Z. Dumitriu**, Z. Wang, M.B. Foston
135. Toward clinically viable HyperCEST MRI agents: trisresorcinarene derivatives for targeted bioconjugation. **C. Hasselbrink**, E. Pourshah, E. FIshwick, K. Morris
136. Mutational analyses of nucleotide-binding domains of a bacterial methionine ABC importer. **E. Uohara**, M. Gardner, B. Quinn, C. Foster, J. Yang
137. Role of ligand rotation in ISC rates of two coordinate complexes. **R. Orozco**, T. Nattikallungal, S.E. Bradforth, M. Di Nero, M.E. Thompson
138. Antiviral & bactericidal activity of silver lipoate clusters. **C. Shabani**, **L. Astoyan**, **R. Ohanyan**, **R. Yakubov**, E. Apelian, S. Iskandaryan, E. Avedian
139. Enhanced naphthalene fluorescence via 1,6-dichlorohexane induced morphological reordering. **C. Tobey**, A. Lopez, B. Moses, A.M. Nishimura
140. Beam energy calibrations for FN tandem accelerator using nuclear monitor reactions. **J.C. Wilkes**, J. Shusterman, M. Anastasiou, J. Wilkinson, N.E. Esker
141. Synthesis of selective HDAC6 inhibitors: HPOB. **Z. Cervantes**, **E. Oliva**, **C. Wilcox**, L.C. Bradford
142. Targeting bacterial biofilm formation: Investigating novel small molecule inhibitors of curli and phosphoethanolamine cellulose. **A. Zhou**
143. Determining n and k values for biphenyl and naphthalene using Avrami program. **B.X. Moses**
144. Assessing feasibility of tape casting for nuclear targetry. **S. Malmhall**, K.J. Maxwell, A.M. Hastings, J. Shusterman
145. Empowering undergraduate students in chemistry through inquiry-driven molecular simulations. **R. Garcia**, **I. Patil**, **O. Sanchez**, L. Hwang, T. Meyerott, J. Santner, L. Hong
146. Simulating structure and diffusivity in the inorganic components of the cathode electrolyte interface. **E. Liu**, W. Jeong, L. Wan, N. Adelstein
147. Cobalt 2,5-diaminobenzene 1,4-dithiolate (CoDABDT) electrocatalysts in the hydrogen evolution reaction (HER). A.T. Nguyen, **V. Chan**, M. Kawakami, S. Marinescu

148. Calibrating beam energy of FN tandem accelerator using monitor reactions across multi-foil stacks. J. Ngo, **S.J. Tumey**, M. Anastasiou, J. Shusterman, J. Wilkinson, N.E. Esker
149. Synthesizing three unique amino acid linkers to incorporate into anti-viral glycodendrimers. **L. Lawrence**, D. Zamudio, K.D. McReynolds
150. Development of nickel-catalyzed cross-coupling reactions of oxetanes. **M. Polino**

Best Practices to Inspire the Next Generation of Chemistry Students
California Room
Cosponsored by CHED
B. Bekker, *Organizer, Presiding*
2:30 151. Specifications grading in introductory and general chemistry. **B.K. Tenn**
3:00 152. Chemistry self-efficacy (4-Yr combined data 2021 to 2024) and ACS placement exam means and DFWI rates (2014 to 2024) in general chemistry I at Fresno Pacific University, a small private Hispanic serving institution in Central Valley of California. **M. Cheung**
3:30 153. Creative conversion to atoms-first approach in general chemistry curriculum: Engaging lecture and engaging laboratory. **T.M. Owen**, **R. Edwards**
4:00 154. Critical raw materials as a socio-scientific issue in chemistry education. **O. Gulacar**, I. Eilks, J. Butow
4:30 155. REAL chem: A data-driven catalyst for improving learning. **M. Blaser**
5:00 156. OER AI tools in chemistry education. **T.J. Lund**

Bridging Chemistry and Biology: Covalent Inhibition in Drug Discovery
Crystal Room
Cosponsored by MEDI
E. Villemure, *Organizer*
J. Blair, D. Lapointe, *Organizers, Presiding*
2:30 157. Bridging distal binding sites on the same target with bitopic inhibitors. **K. Lou**, J.W. Stevenson, K.M. Shokat
3:00 158. Discovery of a brain-penetrant covalent inhibitor of KRAS G12C. **M. Landry**
3:30 159. Harnessing chemical reactivity to target driver oncogenes. **Z. Zhang**
4:00 Concluding Remarks.

Charting a New Course Through Project SEED
Empire Room
Cosponsored by CPS
A. M. Madonik, *Organizer*
A. Merg, E. S. Yamaguchi, *Organizers, Presiding*
2:30 Introductory Remarks (Part One).
2:35 160. Organizing the CA section SEED program. **E.S. Yamaguchi**
2:45 161. Project SEED, a win-win-win situation. **M.T. Cheng**
2:55 162. Enhancing student lab experience through Project SEED. **J. Brewer**
3:05 163. Cultivating STEM communication through Project SEED. **E. Li**
3:15 164. The roles of the chemistry department at UOP in serving locals. **Q. Zhao**
3:25 165. Teaching high school students about biochemistry in the ACS SEED program at the University of Merced, in California's Central Valley. **P.J. Liwang**

3:35 166. ACS Project SEED at UC Merced: Transforming the lives of students in Merced County. **A. Merg**
3:45 Intermission.
4:00 Introductory Remarks (Part Two).
4:05 167. Understanding carbon transformation from whole orchard recycling. **J. Ergo**
4:17 168. Application of matrix-assisted laser desorption/ionization time-of-flight mass spectrometry for hair identification of various species. **Z. Anwar**, M. Lin, A. Franz
4:29 169. Investigating the health effects of agricultural chemicals in a mouse model. **I.C. Sánchez**, J. Manilay
4:41 170. Project SEED research - two case studies: (I) the role the nBAF complex plays in transcription of rapid immediate early genes (rIEGs) and (II) the effects of pyraclostrobin on hematopoietic cells. **L. Valenzuela**, J. Manilay, R. Saha
4:53 171. Analyzing high-dimensional vibrational quantum wavefunctions of the Zundel ion. **E. Aguilar**, W. Kern, H.R. Larsson
5:05 172. The role of IDR's, in nBAF activity-induced neuronal gene transcription. **M. Rivera-Reyes**, C. Karen, R. Saha
5:17 Concluding Remarks.

Chemistry of Agriculture
Gold Room
Cosponsored by AGFD and AGRO
J. M. Van Emon, S. Walse, *Organizers, Presiding*
2:30 Introductory Remarks.
2:35 173. Considerations and progress in developing Multiresidue analysis methods for the residues of postharvest and preplant fumigants. **W.A. Hall**, S. Walse, S.M. Corbett, K. Stiglmeier
2:58 174. Key chemical considerations for commercial-scale wet scrubbing of sulfuryl fluoride. **J. Ramirez-Hernandez**, S.S. Walse
3:21 175. Elimination of sulfuryl fluoride fumigant emissions by electrochemically generated reagents. **C. Napier**, H. Badr, T.F. Jaramillo, S.S. Walse, W. Mitch
3:44 176. Super Q alternatives for trapping plant and insect semiochemicals. **B.A. Pinney**, S.S. Walse
4:07 Intermission.
4:21 177. Abiotic release of mealybug sex pheromones. **K.E. Thiesen**, S.S. Walse
4:44 178. Cold storage phosphine applications for control of Tephritid fruit flies. **G. Gidiglo**, S.S. Walse
5:07 179. High-dose gaseous ozone for pest control in table grapes. **E.R. Rivera**, S.S. Walse

Expanding Best Practices in Laboratory Safety
Valley Room
Cosponsored by CHAS, CWD and ORGN
D. R. Kuespert, *Organizer*
D. Decker, *Organizer, Presiding*
2:30 Introductory Remarks.
2:35 180. Psychological safety is lab safety: Using RAMP to assess DEIR hazards. **D. Decker**

3:00 181. Chemical safety information resources to help you RAMP up before working in the lab. **G. Baysinger**
3:25 182. How risk assessment mitigated an explosion. **J. Reidy**
3:50 183. Can the disabled pursue, preach and practice STEM: An SCC member's response and efforts to propagate the ACS vision/mission. **K.M. Kallury**
4:15 184. Making chemistry accessible to individuals with disabilities. **K. Vasquez**
4:40 185. Making chemistry accessible to all: Recognizing and advancing the contributions of scientists with disabilities through the work of the ACS Committee on chemists with disabilities. **M.T. Dulay**
5:05 186. Strategies for accessibility. **B. Blaser**

Innovative Approaches in Bioanalytical Chemistry
Garden Room
Cosponsored by ANYL
E. Hecht, E. Jamalzade, *Organizers, Presiding*
2:30 Introductory Remarks.
2:35 187. Methods for high throughput discovery of fluoroprobes that recognize amyloid fibril polymorphs. **E. Carroll**, J.E. Gestwicki
3:01 188. SYMPHONY: Accelerating a cellular-level understanding of coral-symbiosis breakdown using AI. **I. Rossi**, E. Meier, D.N. Safarti, F.G. Zamora, s. fung, P. Cleves, A.E. Herr
3:18 189. Comparison of H-ELISA and stem loop RT-qPCR for siRNA quantification. **S. Miao**
3:44 190. Quantitative phosphorus-31 (^{31}P) NMR spectroscopy for quality assessment of RNA-based therapeutics: Applications, advantages, and limitations. **J.G. Napolitano**
4:10 Intermission.
4:20 191. Analytical strategies for impurity detection and quantification in therapeutic bispecific antibodies. **X. Niu**
4:46 192. ProteoParcel: Multimodal single-cell proteomics via microfluidically integrated immunoblotting and LC-MS. **M. Overton**, C. DeRoy, E. Wang, a. lennon, N. Goldhammer, j. rosenbluth, r. mcclure, A.E. Herr
5:03 193. Towards cracking the glycan code: Elucidating glycosylation pathways using mass spectrometry. **M. Alvarez**, S. Chen, Y. Xie, Q. Zhou, y. sheng, S.J. Grijaldo-Alvarez, A. Oloumi, R. Schindler, R. Gogte, A. Adeyemi, K. Pakulski, Y. Bouchibti, C.B. Lebrilla
5:29 Concluding Remarks.

Memorial Symposium in Honor of Robert H. Grubbs (Sponsored by Craig Hawker / BioPACIFIC MIP)
Club Regent
Cosponsored by MPPG
C. M. Bates, J. S. Cannon, R. B. Grubbs, V. M. Marx, G. Miyake, H. Nelson, D. O'Leary, V. A. Piunova, R. Weitekamp, *Organizers*
K. M. Engle, F. Toste, *Organizers, Presiding*
2:30 Introductory Remarks.
2:45 194. From catalyst to commerce: Commercializing specialty materials produced via ring opening metathesis polymerization. **M. Ryan**
3:10 195. Mechanisms for organometallic reactions with large isotope effects. **M. Bowring**, S. Ellis, M. Nguyen, T. Denton, E. Feldman, M. Surbeck

3:35 196. Electrification and decarbonization of chemical synthesis. **K. Manthiram**
4:00 Intermission.
4:15 197. Overturning E2 stereoselectivity: A new route to Z-selective C–H functionalization via paired electrolysis. **Z.K. Wickens**
4:40 198. Ring expansion metathesis polymerization (REMP): Catalysts, polymers, and applications. **A.S. Veige**
5:05 199. Reactivity of carbones as metal-free catalysts in hydroboration reactions. **O.M. Ogba**

Synthetically Modified Nucleosides and Nucleic Acids
Regency Ballroom 1
Cosponsored by ORGN
J. Gustafson, *Organizer*
B. W. Purse, *Organizer, Presiding*
2:30 200. Discovery of GS-7682, a novel 4′-cyano-modified C-nucleoside prodrug with broad activity against pneumo- and picornaviruses and efficacy in RSV-infected African green monkeys. **M.O. Clarke**, D.S. Siegel, J. Pitts, M.S. Vermillion, K. Ishida, B. Chun, G. Chin, B. Goyal, H. Yang, C. Palmiotti, A. Vijjapurapu, T. Wang, X. Zhao, Y. Xu, G. Lee, B. Marchand, M. Seung, A. Nayak, A. Tomkinson, N. Kadrichu, J.K. Perry, J.P. Bilello, P. Kuehl, R. Subramanian, T. Cihlar, R.L. Mackman, D. Byun, G. Birkus, K. Karki, M. Perron, E.M. Doerffler, O. Barauskas, J. Feng, H. Irshad
3:10 201. Discovery and mechanistic study of highly specific steroid aptamers using a high-throughput array platform. **H. Fujita**, Y. Gidi, L. Wan, L. Hein, T. Soh
3:30 202. Design and synthesis of fluorescent nucleoside analogues for metabolic labeling of RNA in live cells. **A. Shalamberidze**, H. Pearce, A.L. Cooksy, R. Kleiner, B.W. Purse
3:50 Intermission.
4:05 204. In vitro selection of an RNA analog bearing unnatural phosphoramidate linkages. **L. Zhou**
4:25 205. The unprecedented reactivity of RNA in water. **E.T. Kool**

The Art and Science of Brewing Beer
Crystal Room
Cosponsored by AGFD
G. Fox, A. M. Madonik, *Organizers, Presiding*
4:15 Introductory Remarks.
4:20 206. The chemistry of beer. **G. Fox**
5:00 207. Assessing method viability for providing insight into the overall “health” of hoppy beverages: Future directions for optimizing antioxidant stability. **E. Weintraut**, G. Fox
5:25 Concluding Remarks.

SUNDAY EVENING

Building Bridges Undergraduate Posters
Regency Ballroom 2
Cosponsored by MPPG
L. C. Miller Conrad, M. R. Radlauer, V. Wheaton, *Organizers*
5:30 - 7:00

208. Chemistry of the Mexican fruit fly. **T. Issaian**, S.S. Walse
209. Methyl bromide sorption by bulk cut peony stems. **S.M. Corbett**, S.S. Walse
210. Hooked! - Molecular Dynamics of Type IV Pili and ecDNA. E. Amponsah, **A. Robinson**, L. Rakesh
211. Mixed-valence thiophene/verdazyl systems. **Y. Pham**, J. Vo, S. Crudo, Y. Mufti, D.J. Brook
212. Investigation of an iron-verdazyl coordination compound. **E. Schweizer**, **D. Hoang**, **W. Lee**, **L. Rehman**, D.J. Brook
213. Minisici coupling approach to (-)-Ardeemin analogs. **R.R. Frink-Sobierajski**
214. Amphiphilic molecules to membrane filtration: Harnessing controlled self-assembly of lyotropic liquid crystals for next-generation water purification. R. Abate, **M. Murai**, S. Zhang
215. Synthesizing star polymer supports for copper catalysts via RAFT. **S. Omar**, **H. Pell**, **N. Oluseyi-Oke**, M.R. Radlauer
216. CRISPRi knockdown of J-domain proteins in pseudomonas putida. **J. Do**, T. Arhar, M. Ramos, J. Raab
217. Synthesis of polymer-supported iridium alkane dehydrogenation catalysts. **B. Mai**, **V. Nguyen**, R. Srinivasan, T. Sapp, J. Rojas, N. Roubineau, A. Bargstadt, J.C. Hickey, T. Myint, M.R. Radlauer
218. Organic synthesis for conductive metal organic frameworks. **L. Garcia Martinez**, D. Miranda, J. Lee, S. Marquez, P.T. Dirlam
219. Mitigating hydrophobic recovery in polyurethane via Ar/O_2 plasma surface modification. **D. Malik**, M.J. Hawker
220. Harnessing bioelectricity from organic waste: A microbial fuel cell-enhanced compost system for renewable energy generation. **P. Aquino**, S. Chen
221. Tethered molecular catalyst on CdS nanorods for 1,4 NADH generation: A model subsystem for photosynthetic biohybrids. **J. Wei**
222. Development of a PCET-enabled radical cyclization for oxetane and azetidine synthesis. **T. Tran**, **J. Montes**, T. Thane
223. Electrocatalytic ability of metal-organic frameworks in lithium-sulfur batteries. **L. Kovacevic**, P.T. Dirlam
224. Synthesis & spectral characterization of odorants for database construction. **A.E. Leonard**, **M. Espinoza**
225. Small molecule studies on imine bond formation equilibria relevant to the formation of colloidal COF-300 covalent organic frameworks. **S. Valencia**, H. Negri, L. Hamachi
226. Organic acid catalysts' effects on imine formation and condensation kinetics relevant to COF synthesis. **M. Nelson**, J. Johnson, W. Untung, M. Velasquez, E. Wang, C. Nakamoto, A. Mojica, Z. Jackson Delos Angeles, L. Hamachi
227. Synthesis of verdazyl radical substituted carboranes and approaches to verdazyl substituted metallocarboranes. **T. Jackson**, K. Ong, N. Adams, N. Palomares, D.J. Brook
228. Verdazyl free radical coordination compounds with f-block metal ions. D.J. Brook, **J. Lu**, **A. Buryachenko**, **J. Tamayo**, **K. Liu**
229. Impact of nitrogen plasma treatment on polylactic acid degradation. **I.S. Bual**, M.J. Hawker
230. Examining cellular iron homeostasis of highly glycolytic T cells utilizing sorting by interfacial tension (SIFT). **A. Trivedi**, P. Abbyad

231. Temperature-dependent fluorescence spectroscopy and molecular dynamics of single tryptophan rubredoxins: Comparison of psychrophilic and hyperthermophilic proteins. **M.C. Cole**, I. Leontyev, F.E. Jenney, K. Drumright, S.P. Cramer
232. Using photoactive rhenium sites to investigate proton coupled transfer reactions. **L. Miller**, M. Deegan, O. Sargent, D. Seymour, G.P. Yap
233. Dynamics of extremophile rubredoxins under physiological conditions: Comparisons using synchrotron radiation circular dichroism (SRCD), temperature dependent crystallography, and molecular dynamics. **K. Drumright**, C. Cole, T. Doukov, I. Leontyev, F.E. Jenney, D. George, N. Jones, S.P. Cramer
234. Micellar catalysis of a click reaction. **S. Fulton**, D.B. Ball
235. Thiol nucleophile induced fragmentation kinetics of mono ester carboxylate ylidenenorbornadienes derivatives. **D.J. Alamillo**, J. Landa, M.N. Cunningham, D.A. Bercovici
236. Sulphonic acid extraction from Murchison meteorite: Application of ion chromatography. **R. Boucher**
237. Investigation of kinetics of ester amide ylidenenorbornadiene fragmentation and stereoelectronic effects of amide substrates. **H. Gamsaragan**, S. Patil, A. Schulte, S. Larson, J. Bellamah, D.A. Bercovici
238. Undergraduate research on water quality in the high sierras in and around Yosemite national park, California. **L.N. Anaya**, **A. Braga**, **T. King**, **A. Leeland**, **P. Stockdale**, **C. Yee**, D. Dormedy
239. Lipid extraction from sedimentary rock. **S. Pingree**, **S. Hayes**
240. :Spectrochemical characterization of Electrode during CO2 reduction. **E. Madrid**
241. Synthesis of zero-valent group 10 complexes featuring tert-butyl and phenyl PCCP pincer ligands. **A. Smith**, G.P. Yap, M. Deegan
242. Exploring functional consequences of posttranslational modifications to Argininosuccinate synthetase. **L. Gurung**, M. Von Merta Sustarich, E.R. Greene
243. Photoelectrochemical response of Cdse quantum dot photoelectrodes under illumination. **S. Tanabe**, Z. Lambert, J. Qiu, M. Enright
244. Analyzing the effect of excitation energy on quantum dot and nanorod photocatalysis. **K. Lee**, C. Peak, E. Aguilar, M. Enright
245. Enhancing colistin efficacy through adjuvant compounds. **B. Rodriguez**
246. *In-silico* investigation of small-molecule inhibitors for the treatment of Alzheimer's disease. **A. Chung**, I.W. Tam, G. Ancajas, R. Garza
247. Temperature-dependent dynamics using NMR and MD simulations: Application to the Kalata B1 protein. **E. Kahn**, S.L. Gerlach, K.V. Krishnan
248. Medium-throughput vessel for hydrothermal synthesis reactions: TiO2 synthesis case study. **M. Sack**, B. Le, J.A. Coronado Sarmiento, A.S. Ichimura
249. CRISPRi knockdown of J-domain proteins in *Pseudomonas putida*. **M. Martinez**, G. Libozada, T. Arhar
250. Stepwise isolation of diverse metabolic cell populations using sorting by interfacial tension (SIFT). **T.J. Mathew**
251. Investigation of colistin adjuvants in Gram-negative pathogens. **A. Lim**, **L.C. Miller Conrad**
252. Investigating the metal binding site on Holothurodin 2 and its implications for antimicrobial activity. **I. Wang**, C. Molina-Rodriguez, K. Davis, M.J. Stevenson

253. Comparing the effects of small molecule modulators on SIRT1. **T. Jagannathan**, **K. Castro**, **I. Perez**, C. Garcia, J. Trieu Dang, N. Wang
254. PEG-Thiol hydrogel coatings for sustained Gentamicin delivery on Polydimethylsiloxane (PDMS) surfaces. **Y.A. Polischuk**, P. Contos, S. Ward
255. Peptoid capping ligands for gold nanospheres in aqueous solutions. **N. Raman**, **E. Filner-Hutchison**, I. Matusich, M. Batek, A.A. Fuller
256. Furthering progress on the synthesis of (−)-ardeemin utilizing convergent one-electron Minisci-type cyclization. **E. Awad**, **E. Boldbaatar**
257. In silico screening of small-molecule inhibitors for multiple sclerosis. **C. King**, R. Garza
258. Carbon monoxide poisoning antidote accessed prophylactically by a bis-pocket Fe(II) porphyrin complex. **L.H. Boretto**, L. Parker, T.C. Johnstone
259. Transforming the gut microbiome through diet: Exploring connections to mental health. **A. Tieu**
260. Exploring switch-like and related regions in sirtuins via ensemble modeling. **B. Nguyen**, **L. Alvarez**, R. Pearson, S. Trikannad, B. Bellinghausen, B. Lustig
261. Evaluation of pyridyl thioesters as carbonyl activator in intramolecular Friedel-Crafts acylation reaction. **A. Leggett**, **A. Cano**, A. Ayala, H. Muchalski
262. Post-translational modification integration on clock protein PER2 regulates CK1 kinase activity within circadian clock. **N. Lee**, M. Torgrimson, C. Partch
263. Data-Driven approach to the optimization of a palladium-catalyzed decarboxylative coupling reaction. **K. Amsden**, M. Alvarado, E. Custo, M. Carrano, R. Navarro
264. Organometallic macromolecule complexes for improving performance of redox flow batteries. **K. Hertz**, E. Despagnet-Ayoub
265. Total synthesis of 4-methyl aziridine carboxylic acid. **A. Mercado**, S. Heller
266. Synthesis of bidentate benzimidazole ligand precursors for nickel complexation. **K.P. Gindratt**
267. Optimization of Fe_3O_4@MIL-100(Fe) magnetic core-shells. **E. Lam**, J. Houston
268. In-silico investigations of flavonoid inhibitors of human tyrosinase. **I.W. Tam**, L. Kwak, R. Garza
269. Influence of solvent polarity and hydrogen bonding ability on the rate of Hünig's base catalyzed acylation. **I. Garcia Ascencio**, S. Heller
270. Toward the synthesis of psychrophilin F using fluorine labeling. **M. Ghanavat**, S. Heller
271. Variability of PM 2.5 at UC Merced: Hand-held particle counter vs. PurpleAir monitor. **A. Biswas**, M. Kibria, A. Adebiyi, A. Adebiyi
272. Synthesis of a biomaterial LEGO block: LA-sNHS-ester silver cluster model. **V. Carrion**, **J. Gallardo**, **J. Lee**, **C. Linsao**, **S. Rodas**
273. Odorless nosyl deprotection by in-situ formation of a thiolate. **I.T. May**, S. Heller
274. Spin-optotronic properties of Europium (II) doped $CsPbBr_3$ perovskite quantum dots. **E. Finn**, M. Khvichia, D. Zeitz, K. Chou, J.Z. Zhang
275. Characterization of molybdenum disulfide nanoparticles and carbon quantum dots for use in nanocomposites with PLLA. **X. Duan**, T. Di Luccio, A. Sheng
276. Quantifying the thermodynamics of metal ions binding to the antimicrobial peptide Holothuroidin-2. **C. Molina**, I. Wang, K. Davis, T. Nguyen, M.J. Stevenson
277. Establishing the design rules for aryl-amide atropisomerism in macrocyclic peptides. **E. Lawler**, A. Solivan, A. Schepartz

278. Chemical aging of organic films on sulfuric acid aerosols under upper troposphere/lower stratosphere (UT/LS) conditions. **K. Nguyen**, S. Colina, A. Deepak, M. Elango, O. Lozano, S. Wadhwa, A.K. Chahal, E. Guidicotti, R. Farahani, A.L. Van Wyngarden
279. Flavonoid-tyrosinase interactions: Binding affinities and inhibition mechanisms revealed by microscale thermophoresis and QSAR. **J. Lee**, **T. Overdeck**

MONDAY MORNING

Bridging Materials, Devices and Simulation: Advances in Polymers for Electronics
California Room
Cosponsored by PMSE and POLY
K. V. Dikshit, *Organizer, Presiding*
9:00 Introductory Remarks.
9:05 280. Chemical identification of polymers at nanoscale by nano-IR methods. **A. Danilov**, L. Mester, F. Weston
9:28 281. Liquid crystal enabled anisotropic mixed-conduction of electrons and ions in supramolecular complexes of polythiophene and ionic liquids. **S. Zhang**, N. Bondar
9:51 282. Studying-polymers-on a-chip: High-throughput screening of polymer electrolytes for energy applications. **M.K. McBride**, J.J. Schwartz
10:14 283. Stretchable and biodegradable piezoelectric composite films. **Z. Zhang**, Z. Xu, H. Cai, V. Feig
10:37 Intermission.
10:47 284. Submicron IR microscopy combined with simultaneous Raman and co-located fluorescence for polymer characterization and other applications. **T. Yan**, E. Dillon, M. Kansiz
11:10 285. Magnetic spin pair fluid mechanics. **J.L. Acrivos**
11:33 286. Utilizing mesoporous metal oxide matrices as a platform for studies of polymer nanoconfinement to improve mechanical and dielectric performance. **S. Bindon**, R.H. Dauskardt
11:56 Concluding remarks.

Emerging Leaders in Organic Chemistry
Valley Room
Cosponsored by ORGN
J. Gustafson, *Organizer, Presiding*
9:00 Introductory Remarks .
9:05 287. Synthetic methods to generate and transform benzylic quaternary carbon-containing organic compounds. **B.J. Stokes**, A.C. Graf, J.E. Rosenow, A.B. Van Lare, L.R. Alleyne, R.V. Amsbaugh, X. Cai, A. Tothi, V. Lerda, C. Ramirez
9:30 288. Chemoenzymatic clickable kainoids for chemical neuroscience applications. **S. McKinnie**
9:55 289. Property-based lead optimization of orally bioavailable HPK1 inhibitors. **T. Brewer**
10:20 Intermission.
10:40 290. Voltage-controlled strategies towards selective late-stage functionalization. **J. Derosa**
11:05 291. Regiodivergent Pd-catalyzed decarboxylative coupling reactions. **R. Navarro**
11:30 292. Beginning to understand light-mediated Ni catalysis using physical organic techniques. **A. Bahamonde**
11:55 Concluding Remarks.

Induced Proximity: Unlocking New Therapeutic Avenues (Sponsored by Nurix Therapeutics)
Crystal Room
Cosponsored by MEDI
E. Villemure, *Organizer*
D. Koester, C. Peukert, L. Thai-Savard, *Organizers, Presiding*
9:00 Introductory Remarks.
9:05 293. Death by Design. **S. Malhotra**
9:30 294. Bivalent molecular glues linking lysine acetyltransferases to oncogene-induced cell death. **M. Nix**, S.P. Gourisankar, R. Sarott, B. Dwyer, S. Nettles, H. Abuzaid, M. Martinez, H. Yang, M. Green, S. Hinshaw, N. Gray, G. Crabtree
9:55 295. Exploring two proximity-inducing strategies: From KRAS degradation to KRAS relocation. **A.T. Tran**
10:20 Intermission.
10:35 296. Discovery of NX-5948, an oral targeted degrader of Bruton's Tyrosine Kinase (BTK) for the treatment of B-cell malignancies. **M. Zak**
11:00 297. Molecular glue discovery enabled by targeted degron display. **Z. Zhuang**
11:25 298. Turning up the gain on native protein-protein interactions with molecular glues. **M. Arkin**

Materials and Processes for Energy Storage and Conversion
Garden Room
Cosponsored by INOR
M. J. Greaney, *Organizer, Presiding*
9:00 Introductory Remarks.
9:05 299. Investigating the effect of the Nafion ionomer on cobalt electrocatalysts in the oxygen evolution reaction. **T. Lin**, J. Qiu
9:32 300. Effect of electronic substituents on the electrochemical oxidation of benzyl alcohol. **S.T. Spriggs**, J. Qiu
9:59 301. Development of a polymeric-sulfur/MOF composite for viable lithium-sulfur battery chemistries. **D. Miranda**, P.T. Dirlam
10:26 Intermission.
10:39 302. Cobalt and nickel naphthaleneoctathiol-based metal-organic frameworks for electrochemical hydrogen evolution. **A.T. Nguyen**, S. Mörsel, S. Marinescu
11:06 303. WO_3-$BiVO_4$ core-shell nanoporous film photoanodes for photoelectrochemical water oxidation. **L. Brennan**, M. Law
11:33 304. Effect of secondary coordination sphere amines on electrocatalytic hydride transfer reactions. **R. Siegel**, S. Pattanayak, Y. Liu, J.C. Fettinger, L.A. Berben

Memorial Symposium in Honor of Attila E. Pavlath
Regency Ballroom 1
Cosponsored by AGFD and PROF
F. Frausto Arellano, *Organizer, Presiding*

9:00 305. Quantifying methionine oxidation as a means of sequencing a prion's conformation. **C.J. Silva**, M.L. Erickson-Beltran
9:25 306. Honoring contributions of Attila Pavlath: Scientist, role model, mentor, and leader for ACS. **N. Davis**, **M.P. Wu**

Memorial Symposium in Honor of Robert H. Grubbs (Sponsored by Craig Hawker / BioPACIFIC MIP)
Club Regent
Cosponsored by MPPG
C. M. Bates, K. M. Engle, R. B. Grubbs, V. M. Marx, G. Miyake, H. Nelson, V. A. Piunova, F. Toste, R. Weitekamp, *Organizers*
J. S. Cannon, D. O'Leary, *Organizers, Presiding*
9:00 Introductory Remarks.
9:15 307. ROMPing around: Indispensable metathesis chemistry using Grubbs catalysts for the development of novel polymers. **Y. Xia**
9:40 308. Silver and serendipity: Adventures in chemical catalysis. **A.G. Wenzel**
10:05 309. Medicinal chemistry approaches for developing a clinical pipeline for global health. **A.K. Chatterjee**
10:30 Intermission.
10:45 310. New catalytic reactions and methods for structural elucidation. **H. Nelson**
11:10 311. Synthetic innovations with Grubbs catalysts: From alkene protection to Silicon heterocycles. **G.W. O'Neil**
11:35 312. Necessity is the mother of invention: Natural products and the chemistry they inspire. **S.E. Reisman**

Monetizing Molecules: Using Machine Learning and Artificial Intelligence to Bridge the Gap between Computation and Informatics (Sponsored by CAS, a division of the American Chemical Society)
Gold Room
Cosponsored by CINF and COMP
S. Boyer, *Organizer, Presiding*
9:00 Introductory Remarks.
9:05 313. What's a prediction worth? The economics of small molecule machine learning. **T.I. Oprea**
9:33 314. From computational chemistry to commercial value: Strategic AI implementation in molecular discovery. **A. Heifets**
10:01 315. Augmenting and accelerating hit finding with Generative AI. J. Fang, S. Cook, L. Shen, P. Kutchukian, **W. Godinez**
10:29 Intermission.
10:36 316. PFACTS: Faster solutions for forever chemicals. **B. Ransom**, D.P. Sanders, J.W. Pitera, C. Ng, D.E. Helbling
11:04 317. Accelerating drug target screening using ML and Gen-AI. **N.N. Vaidya**
11:32 318. Specialized text search of physical properties, tables and molecular formulas using custom parsers and Apache Solr subdocument search. **T. Griffin**, K. Schmidt

Potion to Production: The API Manufacturing Adventure (Sponsored by Gilead Sciences)
Empire Room

Cosponsored by ORGN
J. Gustafson, *Organizer*
J. R. Dunetz, R. Yousefi, *Organizers, Presiding*
9:00 Introductory Remarks .
9:05 319. Developing remdesivir to meet the needs of a global pandemic. **T. Wenderski**
9:33 320. Development of a chemo- and biocatalytic process to the HPK1 Inhibitor GNE-6893. **D. Xu**, A. Stumpf, R. Angelaud, F. Gosselin
10:01 321. Process development of an HIV protease inhibitor. **M. Ischay**
10:26 Intermission .
10:36 322. Navigating polymorphic transformation to obtain drug substance with desired powder properties. **E. Horstman**, C. Lai, O. Lapina, D. Bykowski, V. Dhand
11:04 323. Process development for the first GMP synthesis of a novel drug-linker, SGD-9501-TFA. **A.M. Whittaker**
11:32 324. Process optimization of Zamzetoclax: Addressing RCM challenges for manufacturing readiness. **R. Yousefi**

Analytical Frontiers in Energy and Fuels - Symposium In Honor of Neal Byington
Regency Ballroom 1
Cosponsored by ANYL and ENFL
I. Ferrer-Lassala, A. Taheri, *Organizers, Presiding*
10:00 Introductory Remarks.
10:05 325. Neal Byington and the 200 meter gas chromatograph column. **M.T. Cheng**
10:30 Intermission.
10:40 326. Analytical chemistry for the energy transition: Some thoughts. **F.A. Lopez-Linares**, E. Rogel
11:05 327. Automating pipeline joint identification for free-floating pipeline inspection tools to enhance feature localization using neural networks. **M. Byington**, A. van Pol, J. van Pol
11:30 328. Wireless potentiometry of thermochemical heterogeneous catalysis. **N.K. Razdan**, K. Westendorff, Y. Surendranath
11:55 Concluding Remarks.

MONDAY AFTERNOON

Building Bridges General Posters
Regency Ballroom 2
Cosponsored by MPPG
V. M. Marx, N. L. McClure, *Organizers*
12:00 - 1:30
329. Integrating sequence-based modeling and multiscale simulations to probe and engineer haloalkane dehalogenases. **N. Gelfand**, V. Orel, W. Cui, J. Damborsky, C. Li, Z. Prokop, W. Xie, A. Warshel
330. Anomalous ionic current in charged boron-nitride nanotubes. **P. Rehak**, P. Kral
331. Temperature dependence of photoinduced carrier spin relaxation dynamics in $CsPbBr_3$ and $MAPbBr_3$ perovskite quantum dots. **M. Khvichia**, D. Zeitz, K. Chou, Y. Ping, J.Z. Zhang
332. In-depth literature review focused on PFAS (per- and poly-fluoroalkyl substances) chemicals and PCB's (polychlorinated biphenyls). **S. Begum**

333. Temperature dependent exciton dynamics of $Cs_4CuSb_2Cl_{12}$ layered double perovskite nanocrystal thin films. **K. Chou**, R. Wu, O. Chen, J.Z. Zhang
334. Selective reduction and oxidation of aromatic compounds by hot electrons and hot holes. **P. Poorjafari Jafroodi**
335. Investigation of the fluorescent properties of $^{DEA}tC^{O}$ and its SNP Discrimination. **M.K. Nguyen**, D. Rosansky, B.W. Purse
336. Oxidative treatment of tetracycline via persulfate activation using cross-linked $MnFe_2O_4$@green mussel shell chitosan hybrid catalyst in a fixed-bed column reactor. H.D. Villanueva, M.V. Tampos, R.E. Mina III, M.M. Baldivino, **L.E. Borromeo**
337. Real-time enzyme kinetics by ^{19}F NMR: Hydrolysis of N-trifluoroacetylglycine (TFAG) by Acylase I. **S. Amer**
338. Discovery of Epoxysuccinates as Potent, Covalent Inhibitors of SARS-CoV-2 Papain-Like Protease (PLpro). **F. Soleymani**, G.R. Velma, Z. Shen, C. Holdberg, J. Fu, D. Indukuri, S.R. Musku, E. Lazarova, S. Slilaty, Z. Li, K. Ratia, R. Xiong, G. Thatcher
339. Sulfinyl aziridines as stereoselective covalent destabilizing degraders of the oncogenic transcription factor MYC. **K. Li**, H.T. Rosen, E. Li, T.J. Maimone, D. Nomura
340. Effect of structural variations between Surrogate Reference Standards and Target Analyte on assay values in isocratic HPLC-UV quantitation. **J.O. Ofosu**, S. Asare-Nkansah, J.S. Ayim, W.A. Asamoah
341. Alkyl sulfonyl fluorides as ambiphiles in the stereoselective, palladium(II)-catalyzed cyclopropanation of unactivated alkenes. **Y. Cao**, W. Rodphon, T. Alturaifi, A. Lisboa, Z. Ren, J. Struijs, H. Ni, T. Savchuk, R. Loach, S. Yang, I. McAlpine, D. Blackmond, P. Mykhailiuk, P. Liu, K.B. Sharpless, K.M. Engle
342. Investigating the role of lipoxygenases in mediation platelet function through the endocannabinoid anandamide. **G. Magalang**, K. Goerger, M. Holinstat, T.R. Holman
343. Back to the fungimentals: Antimycotic activity of glycogen synthase kinase inhibitors. **N. Lach**, A. Yokomizo, B.A. Haubrich
344. Inhibition of ERK kinase from an ERKsome parasite. **J. Dolendo**, S.H. Naqvi, A. Yokomizo, D.C. Swinney, B.A. Haubrich
345. A novel pump-probe IR spectroscopy system to investigate the catalytic cycle of hydrogenase. **C. Robertson**, **M. Hassan**, S.J. George, S. Cramer
346. Repurposing protease inhibitors to target *Acanthamoeba castellanii*: A phenotypic approach. **A. Ghotra**, A. Yang, Q. Ha, A. Yokomizo, B.A. Haubrich
347. PKIqued my interest: Repurposing protein kinase inhibitors for Acanthamoeba keratitis. **A. Yang**, A. Ghotra, Q. Ha, A. Yokomizo, B.A. Haubrich
348. Chemical profiling and anti-proliferative effects of central California-grown hairy fleabane on prostate cancer cells. **D. Hidalgo**, E.Y. Chen, d. Sumrein, K.V. Krishnan, A. Shrestha, Q. Chen
349. Photovoltage of $BiVO_4$ photoelectrode junctions from applied bias vibrating kelvin probe measurements. **S. Jain**, F.E. Osterloh
350. Synthesis of colistin adjuvants. **S. Vinjamuri**
351. Screening with a quick, qualitative assessment of inhibition kinetics using a parasitic glycogen synthase kinase. **J.A. Solorzano**, J.A. Ma, A. Yokomizo, D.C. Swinney, B.A. Haubrich
352. Studies towards the development of an off-switchable DNA intercalator. **K. McIntyre**, H. Nikolayevskiy

353. Calibration of beam energy for a tandem accelerator. **S. Ahmed**, J. Wilkinson, M. Anastasiou, N.E. Esker
354. Synthesis and exploration of shapeshifting phosphines. **V. Gonzalez**, K. Tomota, D. Berger, T.J. Maimone
355. Biophysical analysis of cyclic substituted flavones. **T. Jiang**, N. Tran, C. Brown, A. Franz, B. Ruvalcaba, B. Bushaw, L. Xue
356. Fungal aficioNADo: Reversible reaction and chemical inhibition of an NAD homeostatic enzyme from *Candida*. **N. Deng**, T. Tran, S.H. Naqvi, A. Yokomizo, B.A. Haubrich
357. Developing a differential scanning fluorimetry (DSF) platform for ubiquitin proteoform detection. **A. Trinh**, J. Ho, E. Carroll
358. Optimizing fluorine enhanced TiO_2 thin films for energy and environmental applications. **B. Le**, A.S. Ichimura
359. Development of highly selective NUAK1 inhibitors with improved potency for cancer treatment. **s. jang**, D. Kim, Y. Kwon, K. Lee, J. Kim, K. Jung
360. Bioassay guided fractionation of aquatic fungal extracts for antimicrobial activity. **P.L. Lee**, **S. Carlson**
361. Exploring how destabilization by site-specific ubiquitination influences amyloid formation. **E. Lopez Ruiz**
362. Ultrafast spin relaxation of charge carriers in strongly quantum confined methylammonium lead bromide perovskite magic-sized clusters. **D. Zeitz**, J.Z. Zhang
363. Optimizing TiO2 anatase thin film growth for photocatalysis. **G.B. Chavez**
364. Investigating the effect of disease-associated mutations on glutamine synthetase stability. **K. Martinez**, E. Mejia, H. Yamamura, M. Tecson, E. Carroll, E.R. Greene
365. Adsorption and catalytic degradation for clean water solutions. **J.C. Buckley**, C. Lew
366. Ensemble simulations: Folding dynamics of the high-efficiency transfer-messenger RNA PK1 pseudoknot. **D. Chavez-Bonilla**, N. Nguyen, V.X. Ngo, M. Bakhom, T. Gerdes, E.J. Sorin
367. Enhanced ligand exchange in polypyridine ruthenium complexes: New inner-sphere transfer hydrogenation catalysts. **R.J. Engeseth**, E.P. Kelson
368. Mechanism of inhibition underlying glutamine synthetase inhibition by adenylation. **A. Bautista**, E.R. Greene
369. Chiroptical activity of CdSe quantum dots with enantiopure mandelic acid ligands. **J. Etchingham**, M. Enright
370. Phase transitions kinetics study in potassium-intercalated manganese mioxide for energy storage applications. **Z. Erdyneev**
371. Conformational landscape alteration by covalent modification of pesticide to argininosuccinate synthetase revealed by cryoEM. **M. Von Merta Sustarich**, E.R. Greene
372. CryoEM structures of in vitro induced full-length tau amyloids. **E. Hernandez**, J.E. Gestwicki, E.R. Greene
373. Synthesis and characterization of a W-substituted Chevrel phase: $Cu_2Mo_5WS_8$. **C.A. Nagasaka**, J. Velazquez
374. Carbohydrate composition and structural characterization of *Plantago major* Mucilage: Implications for functional food applications. **B. Tobar**, D. Barile, h. peng
375. Synthesis of small molecule and star polymer supported iron complexes as electrocatalysts for nitrate and nitrite reduction. **R. Chiang**, **A. Lykins**, **D. Lin**, **T. Nguyen**, M.R. Radlauer
376. Exploring regioselectivity of pincer–iridium catalyzed transfer dehydrogenation. **R. Srinivasan**, B. Mai, V. Nguyen, J.C. Hickey, M.R. Radlauer

377. Deaminative ring contraction for the modular synthesis of phenanthrenes and efforts toward (–)-artapilosine A & santiagonamine. **C. Valiton**, A.G. Roberts, W. Dalton
378. Fast-track vasculature engineering for tissue constructs: Light-based 3D printing of synthetic angiosomes. **A. Kwan**, I.A. Coates, Y. Tan, C.A. Kohnke, D.I. Alnasir, A.N. Nguyen, E.E. Heng, M.T. Dulay, S.C. Heilshorn, A. Thakor, E.S. Shaqfeh, J.W. MacArthur, J.M. DeSimone
379. TRAINs: An adsorption-based polymeric gene delivery platform for targeted vaccines and therapeutic applications. **A. Laturski**, V. Duran, M.T. Dulay, B. Schaar, S. Einav, J.M. DeSimone
380. Optimizing an adapter for transferring air- and moisture-sensitive chemicals. **A. Jones**, K. Hekker, G.W. O'Neil
381. Varying selectivity in C-F activation of aryl fluorides as a result of catalyst modifications in bis-bidentate N-heterocyclic carbene nickel complexes. **A.C. Garcia Alvarez**, A. Bryant, D. Huerta, Z. Marr, C. Stieber
382. Ag(I)/$K_2S_2O_8$-mediated selective oxidation of ynamide-Yne *via* structural reshuffling and consecutive *N*-desulfonylation. **M. Mutra**, C. T. L., T. Wang, J. Wang
383. Sustainable delivery of a bioactive agent via environmentally degradable poly(anhydride-ester)s for agricultural applications. **M. Hasan**, B. Truong, K. Uhrich
384. Predictive correlation between ground-state orbitals and photophysical properties in organic crystals. **A. Abou Taka**, L. McCaslin, H.P. Hratchian

Carbon Capture and Conversion for a Sustainable Future
Garden Room
Cosponsored by ENFL
R. Kowalski, A. Taheri, J. Velazquez, *Organizers*
H. Kaur, B. O. Okoye, R. Siegel, *Organizers, Presiding*
2:30 Introductory Remarks.
2:35 385. Advancing carbon management with cost-effective porous materials: Breakthroughs from simulation and experimental research. **J.L. Liu**, j. Lawrence, J. Choi, **S. Bashir**
3:02 386. Technology landscape in accelerated mineralization technology for carbon capture, utilization, and storage. **C.F. Ovalles**, F.A. Lopez-Linares, B. Fayyaz
3:29 387. Electrochemical CO_2 reduction to C2+ products with remarkably high Faradaic efficiency in the presence of a proton permeable membrane. **H. Pan**, C. Barile
3:56 Intermission.
4:09 388. Design of a computational framework for circular carbon chemistry. **R.D. Cormia**
4:36 389. Performance analysis of CO2 absorption in flat-plate gas/liquid membrane contactors enhanced with S-ribbed carbon-fiber slots. **C. Ho**, P. Hsieh, J. Chen
5:03 390. Withdrawn
Chemistry at the Cutting Edge of Catalysis
Regency Ballroom 1
Cosponsored by ORGN
J. Gustafson, *Organizer*
J. Derosa, *Organizer, Presiding*
2:30 Introductory Remarks.
2:35 391. Combining synthetic chemistry and biology for streamlining access to complex molecules. **H. Renata**

3:00 392. Identification of novel *plasmodium* phosphatidylinositol 4-kinase (PI4K) inhibitors for the treatment of malaria. **V.M. Marx**
3:25 393. *De novo* approaches to the synthesis of heteroarene building blocks. **A.C. Sather**
3:50 394. Metallocene mediators for tandem electrocatalytic redox reactions. **J. Derosa**
4:15 Intermission.
4:25 395. Selective olefin functionalization: Strategies, mechanisms, and catalysts. **K.M. Engle**
5:25 Concluding Remarks.

Emerging Leaders in Inorganic and Materials Chemistry
Valley Room
Cosponsored by INOR
A. M. Spokoyny, *Organizer, Presiding*
2:30 396. Understanding nonlinear mechanics of associative polymer networks. **Y. Yang**
3:00 397. Nanoparticle-based bonds to design dynamic polymer networks. **S. Seo**
3:30 398. Reversible room temperature heterolytic activation of vinylic sp^2 C–H bonds at a gallium center. **M. Nava**, K. Liu, M.Y. Riu, J. Shan, L. Zarnitsa, K.N. Houk
4:00 399. Design of dilute alloy catalysts for efficient oxidation and hydrogenation reactions. **J.D. Lee**
4:30 400. Manganese-dependent Monooxygenases. **J. Rittle**
5:00 401. Macroscopic 2D moiré structures for exploring ultrafast dynamics and thermal properties. **F. Liu**

Extrahepatic-targeted Delivery of xRNA Therapeutics (Sponsored by Novartis)
Empire Room
Cosponsored by MEDI
J. Cao, E. Villemure, *Organizers*
L. Ofori, *Presiding*
2:30 Introductory Remarks.
2:35 402. Advancing extrahepatic delivery of oligonucleotides: The promise of antibody oligonucleotide conjugates. V.R. Doppalapudi, **M. Bird**
3:15 403. Directed evolution reversion analysis produces minimally evolved adenine base editor variants with improved efficiency and precision. **A. Komor**, M. Evanoff, S. Korpal, Z. Krill, Q. Cowan
3:55 Intermission.
4:10 404. In vivo delivery of mRNA with lipid nanoparticles that non-immunogenic. **N. Murthy**
4:50 405. RNA revolution: New delivery systems enable new organ- and cell-selective therapies. **Z. LI**, **J.L. Hamad**, L. Amaya, A. Ee, S. Wang, P. Yadav, R. Pi, C. Blish, R. Levy, H. Chang, R.M. Waymouth, P.A. Wender

Induced Proximity: Unlocking New Therapeutic Avenues (Sponsored by Nurix Therapeutics)
Crystal Room
Cosponsored by MEDI
E. Villemure, *Organizer*
D. Koester, C. Peukert, L. Thai-Savard, *Organizers, Presiding*
2:30 406. Accelerating molecular glue discovery through computational approaches. **S. Ou**

2:55 407. TrogoTACs for targeted protein transfer between cells. **N. Till**, M. Ramanathan, K. Loh, C.R. Bertozzi
3:20 408. ByeTAC: Bypassing E-ligase-targeting chimeras for direct proteasome degradation. **D.J. Trader**, C. Loy, T. Harris Jr.
3:45 Concluding Remarks.

Memorial Symposium in Honor of Robert H. Grubbs (Sponsored by Umicore)
Club Regent
Cosponsored by MPPG
C. M. Bates, J. S. Cannon, K. M. Engle, R. B. Grubbs, V. M. Marx, G. Miyake, H. Nelson, D. O'Leary, F. Toste, *Organizers*
V. A. Piunova, R. Weitekamp, *Organizers, Presiding*
2:30 Introductory Remarks.
2:45 409. Cyclic polymers accessed through ring-expansion metathesis polymerization. **M.R. Golder**
3:10 410. Beyond the benchtop: Commercializing ruthenium metathesis catalysts. **A. Johns**
3:35 411. Chemically recyclable multiblock plastics. **G. Miyake**
4:00 Intermission.
4:15 412. Mentoring focus: From research with undergraduates to grant management. **A.L. Liberman-Martin**
4:40 413. Organometallic complexes for non-aqueous flow batteries. **E. Despagnet-Ayoub**
5:05 414. Complex natural products as a driving force for discovery in organic chemistry. **B.M. Stoltz**

Monetizing Molecules: Using Machine Learning and Artificial Intelligence to Bridge the Gap between Computation and Informatics (Sponsored by CAS, a division of the American Chemical Society)
Gold Room
Cosponsored by CINF and COMP
S. Boyer, *Organizer, Presiding*
2:30 415. Monetizing molecules through digital disruption of the drug discovery pipeline. **A. Tropsha**, A. Cherkasov
2:58 416. An open-access web service to classify compounds. **L. Weber**
3:26 417. PubChem: a wealth of information to advance science. **E. Bolton**
3:54 Intermission.
4:01 418. 3D, structure-based, deep learning approach for predicting the regioselectivity of transition-metal catalysis. **N. Hadler**, I. Rinehart, M. Elkin, J. Nicolai, G. Gheibi, J. Chen, M. Avaylon, R. Maciejewski, M.W. Mahoney, T. Perciano, J.F. Hartwig
4:29 419. IBM ChemChat - An agentic conversational assistant and platform for material science. **T. Erdmann**, R. Le Metayer, S. Zecevic, K. Lionti, B. Ransom, H. Bui, N. Park, J. Hedrick, K. Schmidt
4:57 420. Natural language searches of authoritative data using a Large Language Model (LLM). **M. Moser**, S.K. Boyer
5:25 Concluding remarks.

True Stories of Entrepreneurs

California Room
Cosponsored by SCHB
B. A. Charpentier, *Organizer, Presiding*
N. L. McClure, *Presiding*
2:30 Introductory Remarks.
2:35 421. True stories of entrepreneurs: Challenges and successes of a serial agbio entrepreneur. **P.G. Marrone**
2:55 422. Sugar, surfactants, and a splash of innovation. **C. Boxley**
3:10 423. Where is the AI in drug discovery, and where should it be instead?. **A. Heifets**
3:25 424. From bench to breakthrough: Why chemists should found biotech startups and how we're helping them succeed. **D. Crawford**
3:50 Intermission.
4:00 425. Entrepreneurship: Is it for me? **G. Went**
4:20 426. Entrepreneurship journey of Mango Materials: From lab to commercialization. **M. Morse**
4:40 427. How to choose the right incubator to accelerate your startup's growth. **G. Segre**
5:00 Panel Discussion.

Potion to Production: The API Manufacturing Adventure (Sponsored by Gilead Sciences)
Crystal Room
Cosponsored by ORGN
J. Gustafson, *Organizer*
J. R. Dunetz, R. Yousefi, *Organizers, Presiding*
4:00 428. Lenacapavir: Process development of a Suzuki reaction. **A. Wagner**
4:28 429. Adapting new chemistry to Kilo scale: Catalytic nitroarene reductions in pharmaceutical manufacturing. **C.V. Credille**, A. Mohammadlou, M. Dweck, K. Rees, S. Torabi Kohlbouni, J. Kimbrough, C. Farley, J. Graham
4:56 430. Data science and mechanistic tools in process development: Enabling synthesis of NLRP3 modulator building blocks. **J. Jermaks**
5:24 Concluding Remarks .

MONDAY EVENING

Building Bridges General Posters
Regency Ballroom 2
Cosponsored by MPPG
V. M. Marx, N. L. McClure, *Organizers*
5:30 - 7:00
431. Total synthesis of natural products scrophuloside a and scrophuloside B from Neopicrorhiza scrophulariiflora. **Y. Noh**, **T. Zhang**, **L. Lam**, E. Njoo
432. Protease-assisted decoding of methacrylation in photo-crosslinkable gelatin methacryloyl (GelMA) with LC/MS. **S. Munjal**, **I. Adapala**, **A. Fong**, S. Kasibhotla, E. Hui, K. Luong, C. Sofuoglu, **A. Yamamoto**
433. Polycation and alkylchain-modified calcium phosphate nanoparticles for non-covalent multiple drug delivery. **A. Fong**, **R. Bellis**, C. Sofuoglu, S. Presswala, S. Kasibhotla, **A. Yamamoto**

434. Bridging the broad spectrum of chemistry: Applications of small molecule amino triester lipids as biodegradable surfactants for small molecule drug delivery and for precise control of quantum dot formation. **E. Hsen**, **A. Gribok**, **E. Yu**, **C. Chou**, **T. Zhang**, **A. Liu**, **Y. Noh**, **A. Chia**, E. Njoo
435. Synthesis, anticancer properties, and *in vivo* profiling of synthetic glycan analogs of proscillaridin A. **S. Somani**, F. Wang-Johanning, G. Johanning, E. Njoo
436. Anticancer synthetic arylsulfonamides with Wnt-1 modulating activity. **A. Chalasani**, **A. Yu**, **K. Hsu**, **L. Chen**, **V. Sharma**, **L. Kim**, **D. Boom**, **K. Huey**, **A. Wu**, E. Njoo
437. Evaluation of machine learning models for the classification of optimal coupling agents in diverse Amide Coupling Reactions. **A. Chalasani**, **S. Deb**, **A. Anand**, **Y. Li**, R. Downing, E. Njoo
438. Synthesis and evaluation of carmofur analogs as membrane rupture-inducing agents. **C. Chou**, **E. Yuyama**, **S. Vaidya**, **L. Chen**, **K. Hsu**, **I. Chepurna**, **M. Gupta**, **O. Kwok**, **J. Zhang**, **K. Huang**, **F. Leung**, **E. Du**, **A. Zhu**, **L. Chang**, **D. Devendiran**, **K. Fung**, **M. Chen**, J. Pazzi, E. Njoo
439. Discovery of A4P1W1, a fluorinated atropisomeric Arylisoxazole acrylamide covalent inhibitor for the treatment of solid cancers. **L. Lam**, **S. Chau**, **A. Chia**, **E. Yuyama**, **I. Chepurna**, **A. Yu**, **J. McChesney**, **S. Vaidya**, E. Njoo
440. Progress towards the asymmetric total synthesis of the sporovexin natural products. **J. McChesney**, **C. Zhou**, **A. Gribok**, **C. Chen**, **E. Lin**, **E. Yao**, **A. Stefan**, **I. Chepurna**, **G. Liu**, **T. Zhang**, **Y. Noh**, E. Njoo
441. Cathepsin-B responsive hydrogels for the targeted delivery and controlled release of T-cell immunotherapy to tumors. **N. Kaleekal**, **A. Yamamoto**
442. Blue fluorescent siloxytecans exhibit potent anti-cancer activity and enable direct real time quantification of intracellular uptake. **S. Vaidya**, **A. Mo**, **A. Chia**, **K. Li**, **J. Parvin**, **S. Sadagopan**, **O. Kwok**, **J. Zhang**, J. Pazzi, E. Njoo
443. Scaleable formal synthesis of (R)-(+)-etomoxir. **R. Raval**, **E. Lin**, E. Njoo
444. PROTAC-based targeting strategies for the selective degradation of PDE1A and TDP-43 in neurodegenerative disease. **S. Xi**, **M. Tsui**, **S. Yang**, E. Njoo
445. Conformational perturbations and functional dynamics of SCN1A sodium channel mutants in Dravet syndrome. **T. Bang**
446. Computational simulations of RNA-based aptamers targeting EpCAM+ breast cancer cells. **A. Shivaprasath**, G. Sharma
447. Designing L-RNA-based Spiegelmers against Ecto-GPR37: A novel approach for Parkinson's disease biomarker detection. **A. Kodumuri**, G. Sharma
448. Structure-guided modeling of proteolysis-targeting chimera PROTAC targeting nucleolin protein in glioblastoma. **M. Mishra**, G. Sharma
449. Unlocking medulloblastoma detection: Transketolase (TkT) as a novel biomarker for early diagnosis. **V. Murali**, G. Sharma
450. Therapeutic inhibition of mutant MnSOD using aptamers to attenuate mitochondrial oxidative stress in depression. **N. Arun**, G. Sharma
451. Novel progressive supranuclear palsy detection method utilizing ATP6AP2 protein. **S. Sharma**, G. Sharma
452. Extending the lifespan of *Arundo donax* bassoon and oboe reeds: Evaluating maintenance strategies against enzymatic and microbial degradation. **N. Rao**
453. Chromatographic analysis of lipid-conjugated oligonucleotides. **B. Nguyen**

454. Optimization of permeation agents for transdermal cannabinoid delivery applications. R. Del Sesto, **M.E. Bulloch**, K. Holm, B. Jenkins
455. Biogasoline. **S.R. Vatcha**
456. Early prediction of lithium-ion battery degradation: Using six health indicators to analyze long short-term memory and random forest in battery health prognostics. Y. Zou, **K. Zhao**, I. Lu, E. Liu, M. Hung, R. Song, C. Lin, A. Cha, L. Shi
457. Optimizing Arg detection in lysimeter system: A comparative evaluation of Bactopia and leading genomic pipelines. C. Lee, A. Zhang, C. Zheng, C. Zhang, H. Ming, S. Vadlamudi, **S. Eyunni**, D. Vinegrad, E. Eisenbeis, D. Lam, A. Fang, M. Cho, **R. Poluru**, I. Chin, B. Wu, A. Gownipalli, L. Shi, Y. Men
458. Future of Agriculture: how ABA influences tomato fruit quality under heat stress. **B. Yuan**, B. Stevens, P. Leng
459. Endogenous metabolite activity screening of human glutamine synthetase reveals inflammation link. **R. Jacobs**, **R. Leung**, E.R. Greene
460. Reactive molecular dynamics study of Fe–Ni–Al alloy nanoparticles: Oxidation, aggregation, and energetic behavior. **L. Hong**, **L. Hwang**, P. Luhar, R. Ramirez\
461. Enhancing food and biological science education through molecular dynamics and inquiry-based learning. **L. Hwang**, **L. Hong**
462. Development of Prussian blue-coated 3D-printed electrodes for ammonium removal from water via electro-sorption. **S. Park**
463. GenX degradation by micelle formation using 2-hydroxyphenyl acetic acid and cetyl trimethyl ammonium bromide under UV-LED irradiation. S. Eom, **K. Zoh**
464. Fungi and actinomycete co-culture on solid agar for drug discovery. **A. Parmar**, **G. Merino**, S.N. Carlson
465. Leveraging ACS membership for finding industry contacts, and building and enhancing chemical industry companies' success. **J.L. Bryant**, M. Hurrey
466. Strengthening professional skills education in chemistry for all students through Universal Design. **M.T. Dulay**, S. Podowitz-Thomas, C.B. Monroe, A.C. Mody
467. Release of elements from disposable aluminum cookware during conventional cooking with water. **A. Akhdhar**, M. Binkadem, D. Abd El-Hady, A. Alowaifeer, M. Almutairi, K. Alnabati, K. Elwakeel, F. Zainy, H. Baeissa, S. Alhayyani, H. Albishri, A. AlBogami, J. Feldmann
468. Biocatalytic aza-Michael addition of aromatic amines to enone using α-amylase in water. **S. DUTT**
469. Least square, Theil-Sen and Musgrave models for product yield simulation of oxazoline. P. Johnson, **L. Huang**
470. Spectroscopic study of cyanine dyes behavior in aqueous solutions of metal cations and on surfaces of organic monolayers containing amino silanes. **H. Samha**
471. Ultra-high spatial resolution mass spectrometry techniques for single cell imaging. **W. Hang**, X. Yan, Y. Meng
472. High-throughput single-mitochondrion ATP profiling reveals OXPHOS addiction for precision cancer therapy. **X. Yan**, X. Xiao
473. Explaining the trifecta functions of the dineutron particle and its signifcance to nuclear energy production. **A. Angus**
474. Colorful connections: Jacaranda flowers as teaching tools in time-limited labs. **A. Kaspi-Kaneti**, H. Aranki, B. Morris, D. Zeng, M. Cornejo, A. Rice, H. Ung

475. Multi-laboratory validation of a robust analytical method for Saxitoxins in aqueous environmental matrices. **J.E. Kelly**, M. Chehelamirani, S. Balachandra, T. Bowers
476. Multi-laboratory validation of a robust analytical method for Trifluoroacetate (TFA) in aqueous environmental matrices. **J.E. Kelly**, M. Chehelamirani, S. Balachandra, T. Bowers
477. *N*,*N*′-Diarylformamidines in an unusual *E*-*syn* configuration. **D. Han**, Q. Zhao
478. Characterization and chemical inhibition of glycogen synthase kinase from parasitic and fungal pathogens. M. Arslanian, C. Hartwell, A. Yokomizo, D.C. Swinney, **B.A. Haubrich**
479. Toward a more efficient continuous flow synthesis of tetraphenylporphyrin. N. Gebhards, A. Wiersma, E. Carlson, **M.A. Cranswick**
480. Harnessing novel in-silico techniques: A modern approach for identity testing in large molecule Biologics. **J. Rodriguez**

TUESDAY MORNING

Energy and Fuels General Session
Crystal Room
Cosponsored by ENFL
J. Velazquez, *Organizer*
A. Taheri, *Organizer, Presiding*
8:30 Introductory Remarks.
8:32 481. Discovery of dual ion-electron conductivity of metal-organic frameworks via machine learning-guided experimentation. **M.C. So**, R. Bashiri, P. Lawson, S. He, S. Nanayakkara, K. Kim, V. Stavila, F. El-Gabaly, J. Lee, E. Ayars
8:52 482. Electrochemical reactive conversion of captured CO_2 that are comp

Molecular Iron electrocatalyst. **B.O. Okoye**, L.A. Berben
9:12 483. Understanding interfacial phenomena in hydrogen technologies. **A.Z. Weber**
9:32 Intermission.
9:37 484. Fast and selective hydride transfer (electro)catalysis for CO2 reduction with metal clusters. **L.A. Berben**
9:57 485. Advanced X-ray and electron based techniques for material and cell-level battery analysis. **Z. Wang**
10:17 486. Heterointercalation in chevrel-phase sulfides: A model periodic solid for the investigation of chain electron transfer. **K. Mason**, J. Velazquez
10:37 487. Improved $SrNbO_2N$ photoanodes for solar fuel generation via ammonolysis under mixed NH_3/N_2 atmosphere. **R. Kandel**, F.E. Osterloh, L. Wang, Z. Najaf, M. Salmanion, G. Rao, R.D. Britt, J. Madrigal
10:57 Concluding Remarks .

Extrahepatic-targeted Delivery of xRNA Therapeutics (Sponsored by Novartis)
Regency Ballroom 1
Cosponsored by MEDI
L. Ofori, E. Villemure, *Organizers*
J. Cao, *Presiding*

8:30 488. CARTs: A versatile platform for RNA delivery and therapeutic applications. **Y. Jia**, P.J. Hurst, N. Warlin, S. Zhou, A. Colina, J. Arens, S. Khasnavis, S. Ramsay-Burrough, M. Abdelwakil Abdelrazik, D. Felsher, M. Porteus, R.M. Waymouth
9:05 489. Library screening to discover novel ADAR Guide sequence motifs. **R. Ouye**, K. Campbell, S. Mozumder, C. Tang, P.A. Beal
9:40 490. Modular single component polymeric systems for pulmonary and splenic mRNA Delivery. **S. Khasnavis**, M. AbdElwakil, J. Ni, S. Ramsay-Burrough, P.J. Hurst, Y. Jia, S. Musad, M. Kumar, R.M. Waymouth
10:15 Concluding Remarks.

Inorganic and Materials Chemistry General Session
Valley Room
Cosponsored by INOR
V. M. Marx, *Organizer*
M. Alves, *Presiding*
8:30 Introductory Remarks.
8:35 491. Novel structure formation of hybrid chiral biomolecular crystals and nanosurface systems. **P. Rehak**, P. Kral
8:55 492. Tuning near-infrared luminescence in InAs-based quantum dots for optoelectronic integration. **M. Garbo**, M. Enright
9:15 493. Transition metal complexes supported by an alkyne-based pincer ligand. **M. Deegan**, I. Fejes, D. Gordon, A. Smith, E. Norton, R. Lara Belaunzaran, R. Chafin, G.P. Yap
9:35 Intermission.
9:50 494. Formation of Gold-Cyanide Complexes on Gold Nanoparticles in Aerobic and Anaerobic Conditions: Details and Mechanisms for Complex Formation. **P.W. Jagodzinski**, M.B. Jacobs
10:10 495. Oxidation of emerging contaminants using a metal-organic framework (MIL-100Fe) with an Fe_3O_4 core. **J.R. Houston**, E. Lam, J.A. Watkins
10:30 496. C-S and S-F bond cleavage of aryl sulfonyl fluorides using Bis-Bidentate NHC Nickel(0) complexes. **e. Lopes**, D.S. Galindo, e. Chavarin, C. Stieber
10:50 497. Molten salt synthesis of lanthanide and actinide borides. **E.A. Espinoza**, V. Augustine, D. McGlamery, A. Chemey
11:10 Intermission.
11:25 498. Extending metallocene chemistry to scandium and copper with tri-*tert*-butylcyclopentadienyl ligands. **J. Queen**, W.J. Evans
11:45 499. Trivalent actinide and lanthanide separation by derivatives of Invest species. **G. Odonkor**
12:05 500. Rare-earth terphenylthiolate complexes revisited. **C.R. Stennett**, M.R. Luevano, E. Ma, R. Grotjahn, J.W. Ziller, F.U. Furche, W.J. Evans
12:25 Concluding Remarks.

Intellectual Property Resources and Technology Transfer (Sponsored by the Peters-Bhatt STEM family)
Gold Room
Cosponsored by CHAL
H. M. Peters, *Organizer, Presiding*

8:30 Introductory Remarks.
8:35 501. Technology transfer at Stanford's Office of Technology Licensing. **E. Elder**
9:00 502. Innovation transfer at UC Santa Cruz. **J. Jackson**
9:25 503. Where the rubber meets the road: Charles Goodyear, vulcanization, and the struggle to protect innovation. **J.L. Krieger**
9:50 504. The ACS Division of Chemistry and the Law. **H.M. Peters**
10:05 Panel Discussion.

Organic Chemistry General Session
California Room
Cosponsored by ORGN
J. Gustafson, *Organizer, Presiding*
N. L. McClure, *Presiding*
8:30 Introductory Remarks.
8:35 505. Impact of oxygen and sulfur heteroatom core substitution on catalyst properties of phenoxazines and their performance in organocatalyzed atom transfer radical polymerization (O-ATRP). **J. Lathrop**, B. Portela
8:55 506. Sustainable synthesis of E-alkenylboronate esters and alkyl gem-diboronate esters catalyzed by triethoxysilane through sequential regioselective hydroboration of terminal alkynes. **H. Kaur**, h. ahuja, R. Arevalo
9:15 507. Total synthesis of analgesic diterpenoid alkaloids: Aconicarmisulfonine a and analogs. **S. Ning**, T.J. Maimone
9:35 Concluding Remarks.

Polymer Chemistry General Session
Empire Room
Cosponsored by PMSE and POLY
K. V. Dikshit, *Presiding*
8:30 Introductory Remarks.
8:35 508. Controlled single bond functionalities incorporation in CANAL ladder polymers: Their properties and gas separation performance. **R. Yin**, A. Robinson, Y. Xia
8:55 509. Low-force, reversible, non-scissile mechanophore enables efficient solid and solution state mechanoactivation. **V. Bhat**, M. Horst, Y. Xia
9:15 Concluding remarks.

Analytical Chemistry General Session
Garden Room
Cosponsored by ANYL
E. Jamalzade, *Organizer*
E. Hecht, *Presiding*
9:00 Introductory Remarks.
9:05 510. Non-chemistry processes needed for a functioning chemistry lab: A case study of the role of staff development and organizational structure. **B. Moradi**
9:25 511. Multi-laboratory validation of a robust analytical method for benzotriazole in environmental matrices. **D. Cordova**

9:45 512. Compositional profiling and prebiotic potential of oligosaccharides in plant-based beverages: comparative insights from oat, soy, coconut, and almond beverages. **H. Peng**, Y. Gu, D. Barile
10:05 Concluding Remarks.

Chemical Biology, Biochemistry, and Medicinal Chemistry General Session
Regency Ballroom 2
Cosponsored by BIOL and MEDI
E. Villemure, *Organizer*
I. S. Darwish, *Organizer, Presiding*
9:00 Introductory Remarks.
9:05 513. *De Novo* design and evolution of a generalist binding protein. **S. Bhattacharya**, Y. Chen, A.N. Volkov, I.V. Korendovych, W.F. Degrado
9:25 514. Rapid antibiotic susceptibility determination by fluorescence lifetime tracking of bacterial metabolism. **M.D. Rojas-Andrade**, K. Perinbam, Q.T. Nguyen, J.S. Kim, F. Palomba, K. Whiteson, M. Digman, A. Siryaporn, A. Hochbaum
9:45 515. CyclicCAE: An autoencoder for heterochiral macrocycle sampling. **P. Hosseinzadeh**
10:05 516. Harnessing protein backbone modification to engineer functional biomaterials. **P. Pratakshya**, M.B. Francis
10:25 Intermission.
10:35 517. Machine learning approach to identify determinants of WNT family protein-protein interactions. **S. Capponi**
10:55 518. Finding druggable transcription factors: A data-driven journey from identification to small-molecule synthesis. **S. Newman**
11:15 519. Role of the identical nucleotide binding domains in the Escherichia coli ABC transporter MetNI-Q. **M. Gardner**, J. Yang
11:35 520. Oligomeric state-dependent activity changes and conferred allostery in human glutamine synthetase. **M. Tecson**, H. Yamamura, C. Geluz, M. Hales, D. Fournier, E.R. Greene
11:55 Concluding Remarks.

Memorial Symposium in Honor of Robert H. Grubbs (Sponsored by Umicore)
Club Regent
Cosponsored by MPPG
C. M. Bates, J. S. Cannon, K. M. Engle, R. B. Grubbs, V. M. Marx, D. O'Leary, V. A. Piunova, F. Toste, R. Weitekamp, *Organizers*
G. Miyake, H. Nelson, *Organizers, Presiding*
9:00 Introductory Remarks.
9:15 521. Carbon pronucleophiles as a new tool in sulfur fluoride exchange (SuFEx). **N.D. Ball**
9:40 522. Catalyst initiation and its effects on Pd-catalyzed couplings. **W. Wolf**, D.T. George, S.R. Wisniewski, K.M. Engle, D.G. Blackmond, R. Daley, s. ma, S. Yang, A. Daru, M. Deng, B. Werley
10:05 523. Megasupramolecules and fluoride-ion batteries: a tale of a couple of Grubbs chemistry startups. **S. Jones**
10:30 Intermission.
10:45 524. Photocatalytic crosslinking-activated sorting (PhoCAS): Library-scale parallel sorting of single cells and biomolecules. **L. Luo**

11:10 525. Supporting (Grubbs) catalysts in structured polymers. D. Balcer, M. Woo, J. Amador Flores, S. Ceja, A. Acosta, M. Omar, S. Velasquez, T. Sapp, M.S. Griffin, K. Huynh, J. Bryant, Y. Mo, J.J. Ramirez, **M.R. Radlauer**
11:35 526. An enantioselective synthesis of indolizidine alkaloids. **J.S. Cannon**
12:00 Concluding Remarks.

Sustainable Materials from Biorenewable Sources
Empire Room
Cosponsored by PMSE and POLY
V. A. Piunova, *Organizer, Presiding*
9:30 Introductory Remarks.
9:35 527. How customer collaboration drives breakthrough discovery. **K. Ingalls**
9:58 528. Machine learning-guided discovery of sustainable biomaterials: A Bayesian optimization framework with embedded domain expertise. **I. Kaur**
10:21 529. Replacing single-use plastics with regenerative materials. **M. Rolandi**
10:44 Intermission.
10:58 530. Engineered Silk Proteins as Bio-Derived Alternatives in Skin and Hair Care. **C. Rasmussen**
11:21 531. Seaweed solutions: Building a new economy beyond single-use plastics. **K. Barker**, **V.A. Piunova**
11:44 532. Withdrawn
12:07 533. Field evaluation of moisture harvesting biopolymer hydrogels for soil water retention and microclimate enhancement. **S. Li**

Physical and Computational Chemistry General Session
California Room
Cosponsored by COMP and PHYS
V. M. Marx, *Organizer, Presiding*
R. Chakraborty, *Presiding*
9:45 Introductory Remarks.
9:50 534. Solvent effects on cresyl violet: A hybrid QM/MM and spectral simulation study. **G. Carlson**, C. Isborn, L. Shi
10:10 535. The isotopic composition of nitrous oxide formed in a low temperature non-equilibrium plasma. **E. Hazen**, K.A. Boering
10:30 536. Temperature dependence of the oxygen-17 anomaly in ozone. **G. Cazares**, K.A. Boering
10:50 Intermission.
11:05 537. Interplay between stereochemically active lone pair repulsions, Sigma hole interactions, and delocalized redox processes in topochemical fluoride-ion insertion. **A. Pakhira**, S. Hariyani
11:25 538. Rational design and control of mixed ionic-electronic conducting metal organic frameworks for Li-S batteries. **S. Nanayakkara**, N. Lopez, K. Kim, L. Wan, M.C. So
11:45 539. How subtle interactions drive selectivity in intramolecular cyclizations: A computational insight. **P. Bianchi**, K.N. Houk
12:05 540. Crystallization of calcium oxalate in presence of citrate and Ni ions. **P. Rehak**, P. Kral
12:25 Concluding Remarks.

Advances in Natural Products Chemistry - Symposium in Honor of Harry Mosher
Gold Room
Cosponsored by ORGN
N. L. McClure, *Organizer, Presiding*
10:30 Introductory Remarks.
10:35 541. Harry and Carol Mosher: Lifetimes of the advancement of chemistry and service for ACS. **N.L. McClure**
10:55 542. Inspired by nature, informed by design: Exploring the bounties and redefining the boundaries of natural product synthesis in a non-canonical academic setting. **E. Njoo**
11:15 Intermission.
11:25 543. Natural Products Magnetic Resonance Database (NP-MRD): Comprehensive database and repository for NMR data of natural products. **J.R. Cort**
11:45 544. Metabolomic profiling of Taraxacum kok-saghyz reveals tissue-specific bioactive compounds with therapeutic potential. **M. Tan**, D. Swiger, C.S. Jeffrey
12:05 545. Breeding healthier blueberries: Genomic and analytical insights into Monotropein production. **I. Kaur**, C.P. Leisner, D.P. Cladis
12:25 Concluding Remarks.

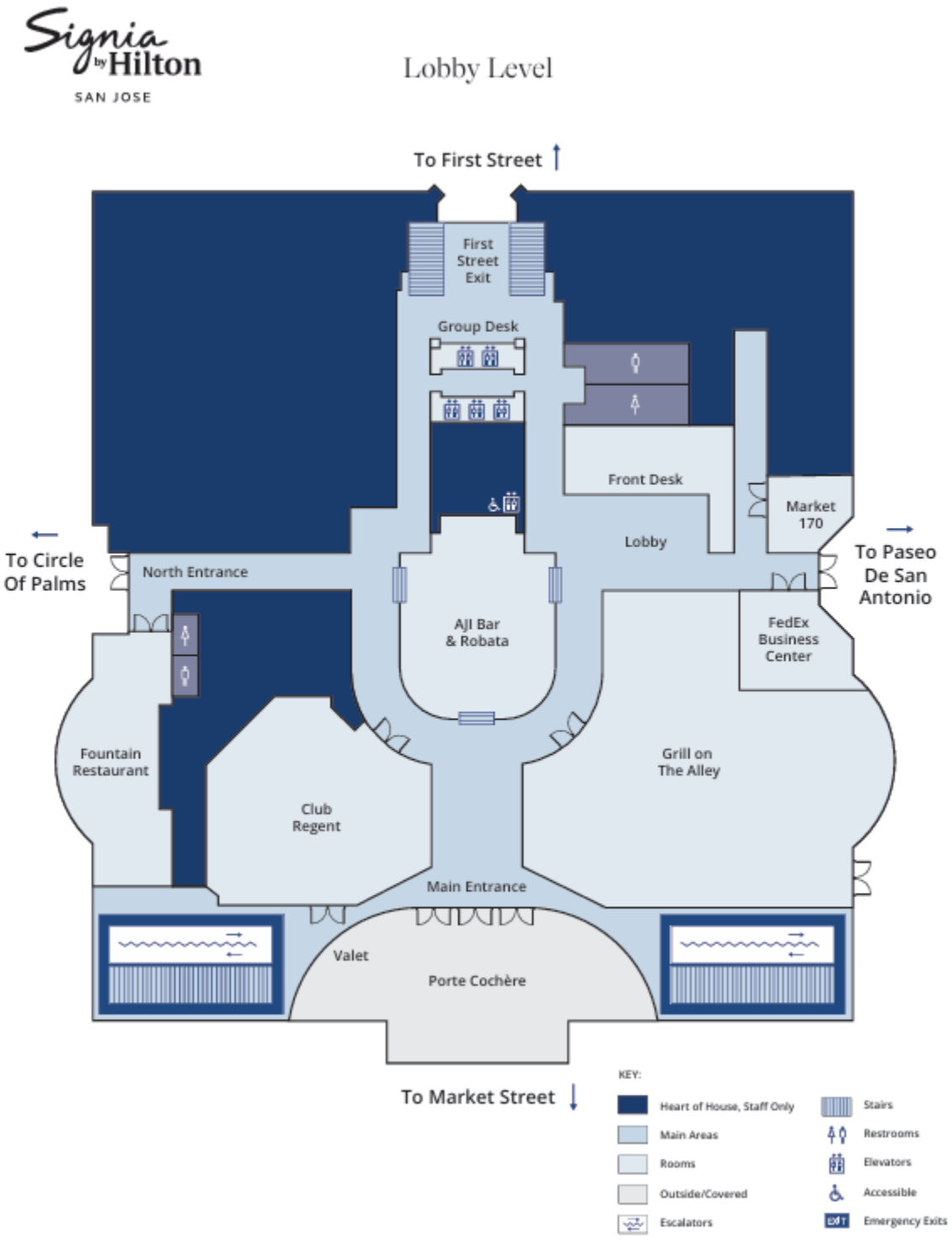
Analytical Chemistry in Drug Development and Manufacturing
Garden Room
Cosponsored by ANYL
T. Chen, *Organizer*
E. Jamalzade, B. Wei, *Organizers, Presiding*
10:30 Introductory Remarks.
10:35 546. Derivatization strategy to enable quantitation of trace-level boronic acids and boronic esters by LC-MS: Application in pharmaceutical PMI control. **P. ZHANG**
11:15 547. Quality by Design approach for efficient development of robust and discriminatory dissolution methods. **L. Meng**, L. Zhang
11:55 Concluding Remarks.

Carbon Capture and Conversion for a Sustainable Future
Regency Ballroom 1
Cosponsored by ENFL
R. Kowalski, A. Taheri, J. Velazquez, *Organizers*
H. Kaur, B. O. Okoye, R. Siegel, *Organizers, Presiding*
10:30 548. Improving performance and cost of direct air capture in dynamic conditions through modeling and system design. **N. Cross**, A. Aui, W. Li, S.H. Pang
10:50 549. Understanding the unique reactivity of Cu for electrochemical CO_2 reduction through atomistic simulations. **J. Varley**
11:20 Intermission.
11:35 550. Direct air reactive capture and conversion for utility-scale energy storage. **S.H. Pang**, A. Aui, N.C. Ellebracht, H.M. Goldstein, S. Halingstad, M.L. Jue, W. Li, M.J. Rasmussen, M. Yung
12:05 551. Probing corrosion in the electrochemical reduction of captured CO_2 sources using in-situ UV-vis and EPR spectroelectrochemistry. **S.E. Stieber**

12:25 Concluding Remarks

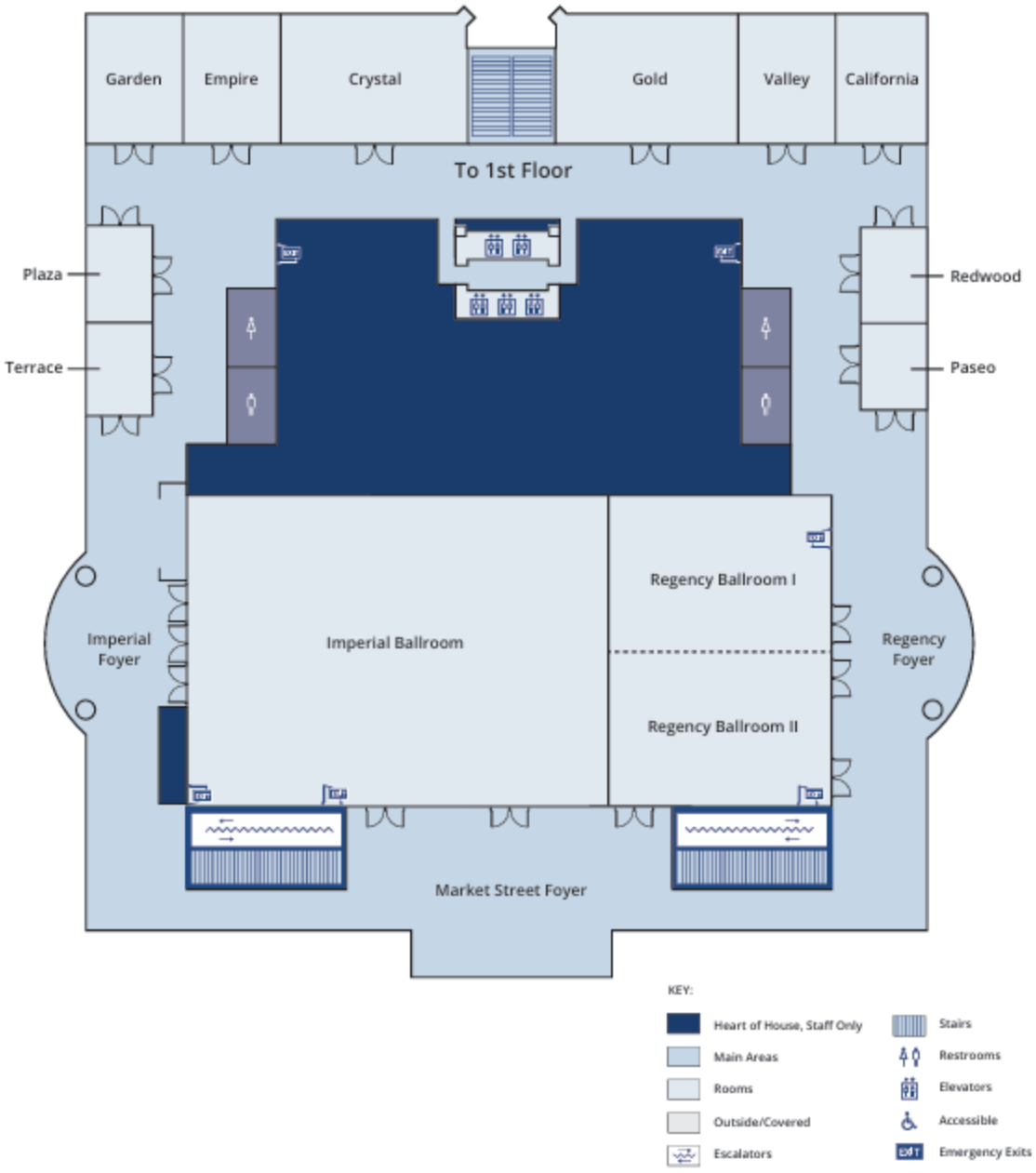
Materials and Processes for Energy Storage and Conversion
Crystal Room
Cosponsored by INOR
M. J. Greaney, *Organizer, Presiding*
11:05 552. Additive manufacturing of polymer-derived ceramics for Sustainable Systems. **J. Dobson**, P. Onffroy, M.A. Saccone, M.T. Dulay, J.M. DeSimone
11:32 553. Design and fabrication of micro-architected 3D printed carbon structures for Sustainable Systems. **P. Onffroy**, J. Dobson, M. Lagat, S. Chiovoloni, M.T. Dulay, J. Lu, M.A. Saccone, J.M. DeSimone
11:59 Concluding Remarks.

HOTEL FLOOR PLANS



Signia by Hilton
SAN JOSE

Event Level



PARKING

Reef Valet Parking is available at Signia by Hilton San Jose Hotel. Attendees will receive a 25% discount on the Hotel Parking Rate, which is $50, and with the 25% discount, it will be $37.50. **Attendees will need to request parking vouchers at the conference registration desk (Market Street Foyer)**, and will need to hand these over to the Reef Valet team when retrieving their car.

Instructions: Guests to drive into the Porte cochere and an attendant will greet upon arrival and park vehicle underground. For guests to retrieve vehicle, please go directly to Valet Parking level (elevator level- choose option P). Guests not staying overnight, payment can be handled directly at Valet Desk. **See below image pathway to Valet Desk Lobby for reference.**

From Guest Elevators:

For off-site parking closest to the hotel see two options below:

(1) **50 W San Fernando St Garage**

Daily Max Parking is $22

Rates Info Link: https://www.parkme.com/lot/22188/50-west-san-jose-ca

(2) **285 S Market St Parking Lot**

Daily Max Parking is $23

Rates Info Link: https://www.parkvel.com/california/san-jose/285-s-market-st-parking/

2025 Western Regional Meeting

Signia by Hilton - 170 S Market St, San Jose, CA

Coffee/Cafes

Name	Approx distance	Highlights
Bijan Bakery and Cafe	~0.05 mi 1 min walk	European-style bakery, pastries, cakes, sandwiches, casual seating
Nirvana Soul Coffee	Near SoFA district ~0.2 mi, 5 min walk	Bright, community-focused, colorful interior, good for group meetups
Voltaire Coffee Roasters	Near SoFA district ~0.3 mi, 5 min walk	Small-batch local roaster, modern vibe, specialty espresso drinks
Playback coffee	San Pedro Square ~0.4 mi, 10 min walk	Variety of drinks, spacious seating, next to other eateries
Academic Coffee	10 min walk, 0.5 mi	Trendy café known for its banana matcha and creative seasonal drinks

Restaurants

Name	Approx distance	Highlights
Scott’s Seafood	~0.1 mi, 1 min walk	Upscale seafood and steaks, rooftop views of downtown
Mezcal	~0.1 mi, 3 min walk	Oaxacan Mexican cuisine, excellent moles, colorful décor
Il Fornaio	Near SoFA district ~0.2 mi, 5 min walk	Classic Italian trattoria, wood-fired pizza, house-made pasta
Original Joes	Near SoFA district ~0.2 mi, 5 min walk	San Jose institution, hearty Italian-American, retro vibe
San Pedro Square	~0.4 mi, 10 min walk	Bustling food hall and plaza with a mix of cuisines, casual indoor/outdoor seating, and a lively social vibe.
- Hinodeya Ramen	~0.3 mi, 6 min walk	Tokyo-style ramen, cozy interior
- The Farmers Union	~0.3 mi, 7 min walk	Large American gastropub &burgers
- Sushi Confidential	~0.3 mi, 7 min walk	Creative sushi rolls
- The Old Spaghetti Factory	~0.4 mi, 10 min walk	Family-friendly Italian, vintage setting

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