

THE VORTEX

The American Chemical Society - California Section Newsletter www.calacs.org

April 2024

Volume 86, Issue 4

UpComing Events / News

History, Education, Employment, and Career

- 3 April 20th - Earth Day at the John Muir Historical Site
- 4 April 22nd – Northern California Section Virtual Speaker Jennifer Doudna on STEM the Pathway to Finding Mentorship...
- 5 May 4th – “Got Fakes? Paper microfluidics and the hunt for bad quality medicines”



- 6 May 4th - Sonoma Marin Mosquito and Vector Control District Open House

Marin/Sonoma Mosquito & Vector Control District

OPEN HOUSE

SATURDAY MAY 4th
11am to 3pm

Marin/Sonoma Mosquito & Vector Control District
595 Helman Lane, Cotati 94931

Live Mosquito & Tick Exhibits
Backyard Bugs Contest for the Kids
Bug Tasting Booth
Carnival Games & Prizes
Free Lunch & Much More!!
www.msmosquito.org



- 7 May 14th LBNL's Advanced Biofuels and Bioproducts Process Development Unit Tour



- 9 Position Open Board of Trustees

- 10 Chemistry in Action: “Bee Beard”



- 11 Nature Science Recommendation - Waterfalls

Review

- 13 Molecular Scale Engineering of Polymer Membranes for Environment, Energy and Health
- 15 American Chemical Society ACS Spring 2024 Meeting New Orleans, Louisiana March 17 – 21, 2024 – Council and Committee Report

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MAGAZINE OF THE CALIFORNIA SECTION, AMERICAN CHEMICAL SOCIETY

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Left: May 4th Speaker Dr Marya Lieberman, provided by Elaine Yamaguchi

Bottom Left: May 4th Mosquito and Vector Control Open House, Sonoma Marin Mosquito and
Vector Control

Top Center: May 14th LBNL's Advanced Biofuels and Bioproducts Process Development Unit
Tour

Bottom Center: "Bee Beard" by Donald MacLean

If you have material you think is worthy, submit it to donald.maclean.acs@gmail.com.



Upcoming Events

Julie Mason, Alex Madonik, Jim Postma, and Donald MacLean

1. Saturday April 20th - Earth Day at the John Muir Historical Site, 4202 Alhambra Ave, Martinez, CA 94553.
2. Monday April 22 at 1 p.m., virtual – Northern California Subsection (Chico) – Nobel Laureate Dr, Jennifer Doudna speaking virtually about her success and challenges as a woman in STEM on the pathway to finding mentorship and to help you flourish in your career and life, as well as how these factors shaped her identity as a scientist and ultimately contributed to her inspiring research and life.
3. Saturday May 4 at 11:00 a.m., Zoom – “Got Fakes? Paper microfluidics and the hunt for bad quality medicines”, Dr. Marya Lieberman.
4. Saturday May 4th 11 a.m. to 3 p.m., 595 Helman Lane, Cotati CA 94931 - Sonoma / Marin Mosquito and Vector Control District Open House.
5. Thursday May 14th, In person, see advertisement - LBNL's Advanced Biofuels and Bioproducts Process Development Unit Tour.

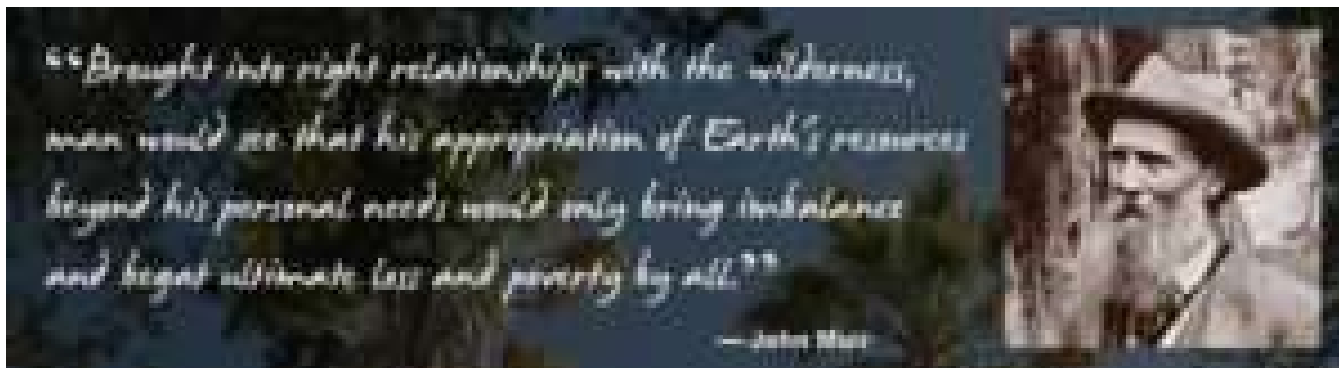
Earth Day At the John Muir Historical Site

By Alex Madonik

April 20, 2024 @ 10:00 am – 4:00 pm

John Muir Historical Site

4202 Alhambra Ave Martinez CA 94553



Celebrating John Muir's 186th Birthday And The 54rd Anniversary Of Earth Day

Cal ACS will be there with hands-on chemistry, featuring the 2024 Earth Week theme,

Get A Charge Out Of Chemistry Recárgate Con La Química

The California Section will join numerous other communities and educational organizations for the return of this Earth Day celebration to Martinez. Look for the Cal ACS canopy, where visitors will discover how to build a battery like the one Alessandro Volta invented in 1799. They can also try splitting water by electrolysis, using electricity from photovoltaic panels. And they can make their own UV light-detecting bracelet using photochromic beads.



If you can help out at the ACS booth, please contact [Sushila Kanodia](#). See you there!

2020 CHEMISTRY NOBEL LAUREATE DR. JENNIFER DOUDNA "HOW BACTERIA TAUGHT US TO CURE GENETIC DISEASE"

PRESENTED BY CSU, CHICO



Dr. Jennifer Doudna
*Li Ka Shing Chancellor's
Professor of Biomedical
Science,
UC Berkeley*

Scan to RSVP!



<https://forms.office.com/r/NClowZ3aaJ>

Date

Monday,
April 22, 2024
12:00 pm to 3:00 pm

Location

CSU, Chico
Performing Arts Center
Room 144

Abstract

Fundamental research to understand how bacteria fight viral infections uncovered the function of CRISPR-Cas programmable proteins that detect and cut specific DNA or RNA sequences. I will discuss my personal and professional journey to this breakthrough.

Highlights

Free food, drink, and prize giveaways!

Schedule

12:00 pm: Refreshments
12:30 pm: Women Chemist Panel
12:55 pm: Introduction
1:00 pm: Seminar
1:30 pm: Q&A with Dr. Doudna
1:45 pm: Breakout Group Discussion
2:30 pm: Debrief & Prize Giveaways



*Co-sponsored by California Section of the American Chemical Society,
CSU Chico's Women in STEM, & Department of Chemistry and Biochemistry*

California Section American Chemical Society **About the Speaker**



Dr. Marya Lieberman enjoys making stained glass, cooking, and solving fiendish cryptic crosswords. She loves chemistry so much she did a chemistry demonstration at her wedding. As a kid in Berkeley, California, she missed all the exciting stuff in the 60's and 70's, although her mother tells her she was gassed in her stroller. She developed an interest in science that was deepened and focused by an undergraduate

degree in chemistry at MIT and a PhD from the University of Washington, Seattle, where Marya Lieberman, PhD she designed and built an artificial metalloprotein. A high point in this project was finally understanding her protein's energy landscape; a low point was sleeping on the floor of the lab during the marathon HPLC kinetics runs required to get to the energy landscape. She received a prestigious NSF Postdoctoral Fellowship to study at Caltech, where she discovered that the NSF had not considered that Fellows might get pregnant and had no maternity leave policy. After the birth of her first child, she and her husband became faculty members at the University of Notre Dame, where they have happily occupied neighboring offices for 28 years. Her second child was born the day before she received tenure. For most of her career, she studied DNA nanostructures and cool molecular electronics with high-vacuum instrumentation and scanning probe microscopes. She took pictures of single molecules sitting on surfaces, knitted DNA into tiny carpets, and studied quantum-dot cellular automata. In 2012, she started a new research program using paper microfluidics to develop technologies for use in low resource settings. For the past 12 years, she has been on the hunt for substandard and falsified medicines with collaborators in Kenya, Tanzania, Malawi, Ethiopia, Cameroon, Palestine, and Bangladesh. This work received coverage by numerous news outlets, including Bloomberg News, Chemical and Engineering News, the Voice of America, and BBC Worldwide.

All are welcome
Saturday, May 4, 2024

Title

Got Fakes? Paper microfluidics and the hunt for bad quality medicines

Time

10:30 – 11:00 am Chatting

11:00 am Talk and Discussion

Reservation

Please visit the CalACS website www.calacs.org to register for this meeting or use Brown Paper Tickets. RSVP here!

Please register before Thursday, May 2, 2024, 12 noon. Your email address is needed to send the ZOOM link, which will be shared with attendees on or before the day of the event via Brown Paper Tickets.

Cost

Free!

Abstract

In low- and middle-income countries, about one in ten medicine products is substandard or falsified. In my lab, I have samples of antimalarial drugs made from starch and chalk, antibiotics "cut" with talcum powder, and chemotherapy drugs that were manufactured at half the concentration they should have been. How do these products get into the supply chain, and more importantly, how can chemists help to get them out? This talk will focus on a point-of-use testing device that my group invented twelve years ago, the paper analytical device or PAD. I'll explain how this paper microfluidic device works and how we are implementing it with partners in sub-Saharan Africa to discover bad quality medicines.

Questions?

Please contact Elaine Yamaguchi at eyamaguchi08@gmail.com

Our Open House Event is BACK!

SAVE THE DATE!

Marin/Sonoma Mosquito & Vector Control District

OPEN HOUSE



Live Mosquito & Tick Exhibits
Backyard Bugs Contest for the Kids
Bug Tasting Booth
Carnival Games & Prizes
Free Lunch & Much More!!
www.msosquito.org



SATURDAY MAY 4th
11am to 3pm
Marin/Sonoma Mosquito
& Vector Control District
595 Helman Lane, Cotati 94931

DON'T MISS THIS FREE EDUCATIONAL EVENT FOR ALL AGES!

Join us for a fun-filled, educational day at the 2024 Marin/Sonoma Mosquito and Vector Control District Open House! Discover the world of mosquito and vector control while having a blast finding ways to reduce vectors around your home.

This family-friendly event is not only informative but also entirely free, with hands-on activities for both kids and adults, and free lunch provided!

If you are interested in the vector control topic, check out the references below. There are other vector control organizations that hold open house such as San Mateo County (last held in Burlingame in August 2023), Santa Clara County (April 2018), Santa Cruz County (Oct 2018), and Mount Shasta (June 2019). You will have to check out your local area. Last time the Marin / Sonoma Mosquito and Vector Control District event had edible bugs as snacks.

References:

1. Marin Sonoma Mosquito and Vector Control District: <https://www.msosquito.org/>
2. San Mateo County Mosquito and Vector Control District: <https://www.smcvcd.org/open-house>
3. Alameda County Vector Control Services District: https://www.acgov.org/ehs/vector_control/introduction.htm
4. Greater Los Angeles County Vector Control District: <https://www.glamosquito.org/california-mosquito-awareness-week>
5. Sacramento-Yolo Mosquito and Vector Control District: <https://www.fightthebite.net/>

Donald MacLean

LBL's Advanced Biofuels and Bioproducts Process Development Unit Tour

May 14th

Cal ACS invites you to join us for a unique tour of LBNL's Advanced Biofuels and Bioproducts Process Development Unit ([ABPDU](#)) in Emeryville, CA on Thursday, May 14th, 2024. Program Manager James Gardner, Senior Process Engineer Dupeng Liu, and their colleagues will introduce us to this cutting-edge facility, which works with other laboratories and companies to develop the next generation of sustainable manufacturing processes. You will hear from experts about continuous bioprocessing, purification methods, and more.

We will meet at Summer Summer Thai Eatery (5885 Hollis St #50, Emeryville CA 94608), at 5 PM for drinks and a buffet dinner. Tour groups will leave at 5:30, 6:00, and 6:30 PM to visit the ABPDU facility next door. It is essential that you reserve for your preferred tour time, because this is a Federal facility and you must provide your name and citizenship status in advance. Advance payment is also required for tour registration: \$30 for professional members and \$15 for students or unemployed members. Please use the link on the Cal ACS web site to register for this event. Deadline for reservations: Friday, May 3rd.

Note: if you show up without a reservation, you are welcome to join us for the buffet dinner and networking, but it will not be possible to accommodate you on the tour.



Position Open

The California Section, ACS, has a five member Board of Trustees who oversee the trust funds held by the Section. The Section is seeking a qualified individual to assume an unexpired term that is now open.

The Trustees meet about four times a year to discuss investments held in the trust fund. Each member is expected to be familiar with basic investments and be able to offer informed discussion to help the Trustees reach good decisions.

The California Section Board of Directors appoints the Trustees. If you would like to be considered for an appointment, or would like additional information about the Trustees, please contact Paul Vartanian, California Section Treasurer, at pfvartanian@gmail.com or (510) 763-0195.

Chemistry in Action - “Bee Beard”

Donald MacLean

The following is the effect of pheromone on bees as seen in the scary situation last May with a swarm of bees making a temporary resting spot on one of my apricot trees. They were gone the next day, a few buzzing around. See the Wikipedia link for a list of pheromones.



References:

1. Stephen Buchmann, Honey Bees, Letters from the Hive, Ember, New York, USA, 2011.
2. List of honey bee pheromones:
https://en.wikipedia.org/wiki/List_of_honey_bee_pheromones
3. Liam Fetherstonhaugh, Joseph Grotzky, Chloe Jacquet, and Samuel Nidelli, Courtship and Mating: The Chemistry of Pheromones and Their Evolutionary Function,
<https://bioengineering.hyperbook.mcgill.ca/courtship-and-mating-the-chemistry-of-pheromones-and-their-evolutionary-function/>

Recommended Science – Visit Waterfalls Seasonal and Year Round

Donald MacLean

This month's science activity is visiting waterfalls. Because Northern California is a Mediterranean region, the summer and autumn months are dry, resulting in seasonal waterfalls with an unusually high percentage in Marin, Sonoma, and Mendocino Counties. During the summer and fall, the best falls are fed by springs such as Burney Falls in Shasta County and the snowpack such as Yosemite Valley in Mariposa County. I will separate out the natural waterfalls by their water source and geology.

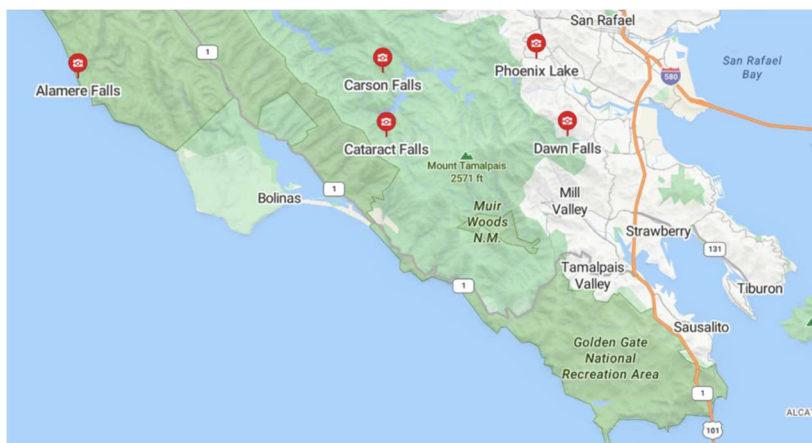


Figure 1. Snip and Clip Showing the Waterfalls Around Marin County's Mount Tamalpais and Alamere Falls in Point Reyes National Seashore.

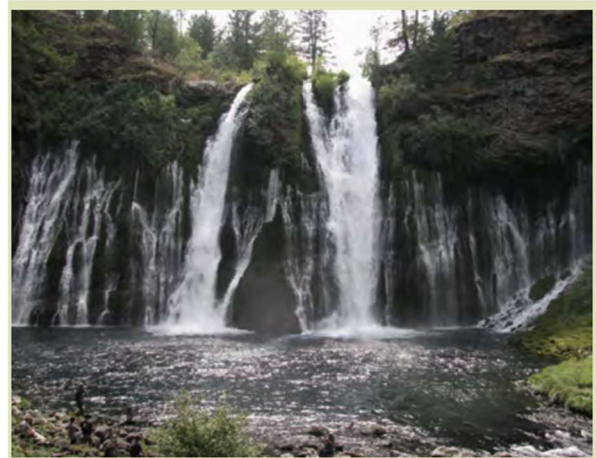
The most abundant rainfall in the Bay Area occurs at Mount Tamalpais, the Coastal Mountains in Sonoma, Mendocino, and Santa Cruz Counties. Mount Tamalpais is the watershed for Marin County (Figure 1) and contains a number of man-made reservoirs, but also a number of hikable trails that lead to natural waterfalls. Technically the water bypass can have a waterfall action but those are not dependable and not natural.

Local Rainfall Source Waterfalls:

1. Sonoma Creek Falls, Sugarloaf Ridge State Park, Kenwood, Sonoma County – 25-foot waterfall.¹ Only viable after the rainy season as Sonoma Creek flow decreases. Easy to access on Adobe Canyon Road.
2. Alamere Falls, Point Reyes National Seashore, Bolinas, Marin County – 13-mile round trip trek to site. The water empties into the ocean. See the website before taking this trek.
3. Cataract Falls, Mount Tamalpais Watershed, Fairfax, Marin County – Easy walk to falls, but the parking can be difficult to deal with. The water feeds into Alpine Lake.
4. Cascade Falls, Cascade Canyon Open Space Preserve, Fairfax, Marin County - Close to civilization. Water goes to San Anselmo Creek.
5. Dawn Falls, Baltimore Canyon Open Space Preserve, Kentfield, Marin County – access from top has easier parking, but must walk on a gravel fire road, then down a path to the base. Not something I would recommend if muddy. Access from bottom trail has a different challenge as parking is very difficult with narrow road and limited parking opportunity.
6. Russian Gulch Waterfall, Mendocino, Mendocino County.
7. Linda Falls Preserve Hiking, Angwin, Napa County.
8. Sempervirens Falls, Boulder Creek, Santa Cruz County.

Non-Snowmelt Year Around Waterfall:

Burney Falls is located within McArthur-Burney Falls Memorial State, Park Burney, CA (Shasta County). This is a good place to RV camp. The stream is fed by large springs that are commonly associated with areas covered by recent lava flows, creating a 129-foot waterfall formed by the undercutting of horizontal rock layers. The soft white rock is diatomite (from diatoms). The fall flows year around. Note that the waterfall base and pool area are closed through summer 2024 due to trail repair.

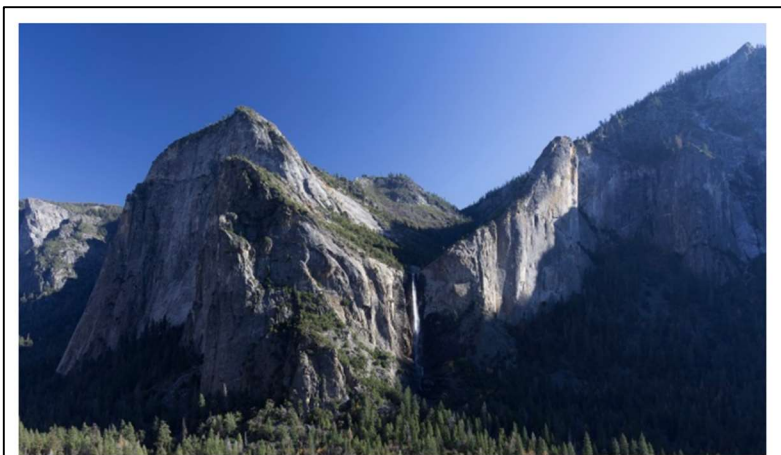


(Photograph by Michael Wopat)

Figure 2. Burney Falls.⁴

Snow Melt Source Waterfall:

Yosemite National Park has several falls: Yosemite Falls, Horseshoe Fall, Vernal Fall (Tuolumne, Mariposa and Madera counties). Yosemite Valley was created through downslope glacier movement cutting and sculpting the U-shaped Yosemite Valley from granite rock. The



Bridalveil Fall in Yosemite National Park (California) cascades down from a classic U-shaped hanging valley.

NPS Photo/Michael Hernandez

larger the glacier, the deeper the cut. The hanging valley waterfalls comes from the intersection of a small glacier and the Yosemite Valley glacier. When the glaciers retreated, the smaller glacier base was higher than the larger glacier base, resulting in a hanging valley cliff. Snow melt feeds streams in the higher valleys that fall off the cliff seen today. This is the headwater for the Tuolumne River. Because the source is snow melt the flow is dependent upon the amount of snow, with the flow diminishing in the summer as the snow pack lessens.

Figure 3. Example of Hanging Valley.⁴

References:

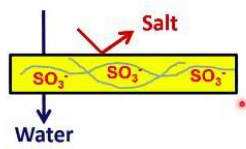
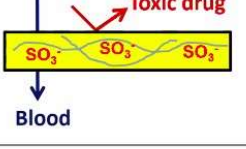
1. 15 Stunning Waterfalls in Sonoma, Marin and Mendocino, Sonoma Magazine, March 2023 - <https://www.sonomamag.com/waterfalls-in-sonoma-marin-and-mendocino/>
2. Alamere Falls - https://www.nps.gov/pore/planyourvisit/alamere_falls.htm
3. State Park Site for Burney Falls - https://www.parks.ca.gov/?page_id=455
4. Burney Falls - https://en.wikipedia.org/wiki/Burney_Falls
5. Hanging Valley - <https://www.nps.gov/articles/ushapedvalleysfjordshangingvalleys.htm>


Molecular Scale Engineering of Polymer Membranes for Environment, Energy and Health

By [Alex Madonik](#)

On Thursday, March 28th, Assistant Professor Hee Jeung Oh of Penn State University presented a webinar on novel, solvent-free methods for preparing semipermeable membranes used in water purification and in selective absorption of bioactive molecules.

Overview of Presentation

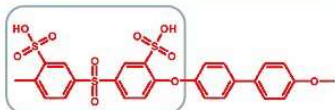
Water Purification  Water	<ul style="list-style-type: none">• Old challenge• Well known platform <p>Can we make chemically robust thin film membranes without using toxic solvents?</p>
Biomedical Separation  Blood	<ul style="list-style-type: none">• New challenge• Little known platform <p>Can we remove toxic chemotherapy drugs before they spread through the body?</p>



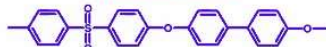
Professor Oh had just returned from the New Orleans National Meeting, where the ACS Polymer Chemistry and Polymeric Materials Divisions (POLY and PMSE) had just celebrated their 100th anniversary. Her presentation focused on a novel method of melt-processing semipermeable membrane materials, their characterization, and their application to water purification and selective retention of pharmaceuticals.

In her introduction, Professor Oh explained that the crosslinked polyamide films currently used for large scale desalination of water are susceptible to degradation by chlorine, which is essential for controlling bacteria in drinking water. The chlorine must be neutralized before desalination, and then added back after the filtration step, increasing the cost and complexity of the process. Sulfonated polyethersulfone polymers are a chlorine resistant alternative material that can be melt-processed, without the use of potentially toxic solvents:

Chlorine Tolerant Membranes Can be Prepared Without Using Toxic Solvents



Hydrophilic block



Hydrophobic block

- High chlorine tolerance
- Good transport properties
- May be melt processed to form thin films

Park, et al., *Angew. Chem.-Int. Edit.*, 2008, 47, 6019

8



The difficulty is the very high glass transition temperatures for the sulfonated polymers, which require processing above 400°C. To lower the melt temperature, Professor Oh's group added varying amounts of polyethylene glycol (PEG, molecular weight 400 or 600). PEG is miscible with the sulfonated polyether sulfone material because it complexes the cations associated with the sulfonate groups. After processing into films at around 200°C, water extraction removes the PEG and leaves a membrane with increased permeability due to the expanded "free volume" between the polymer chains. Never before have such films been prepared in a solvent-free process. Professor Oh's group has continued to study the diffusion properties of these new films, showing how their permeability and selectivity depends on processing parameters.

In the second part of her talk, Professor Oh described a novel cation-exchange resin prepared as block copolymer containing both hydrophobic and hydrophilic segments. This polymer can be coated onto custom-engineered porous structures created through 3D printing, because the hydrophobic segments adsorb strongly on the surface of the polymer used in the 3D printing process. The resulting devices can be threaded onto a catheter and inserted into a vein where they can selectively absorb bioactive molecules such as the chemotherapy agent doxorubicin. The goal is to prevent excess doxorubicin from leaving the site of treatment (e.g. the liver) and entering the heart, which can be damaged by this drug. Professor Oh's group has demonstrated this device *in vivo* using pigs, and it captured approximately two thirds of the doxorubicin leaving the liver.

A lively discussion followed the talk, showing the power of Zoom to bring together scientists across borders and long distances. The talk was recorded, and [the link has been posted to the Cal ACS web site](#). We will invite additional speakers from the ACS Speaker Directory, and we welcome your suggestions!

American Chemical Society ACS Spring 2024 Meeting New Orleans, Louisiana March 17 – 21, 2024 – Council and Committee Report

Jim Postma, Lee Latimer, Vanessa Marx, Patrick Lee, Bryan Balazs, Marinda Wu, Alex Madonik, Sushila Kanodia, Atefeh Taheri

Compiled and edited by Jim Postma and Donald MacLean

The Council Meeting opened with a Bang, Bang, Bang! A brass band parade. (See photo.)



Actions of the Council

The Council selected **Rigoberto Hernandez and Laura Sremaniak** as candidates for **2025 President-Elect**. These two candidates will join **Mukund Chorghade**, a petition candidate, and any additional candidates selected via petitions to stand for election in the fall 2024 national election.

The Committee on Nominations and Elections announced the results of the election to identify candidates for Districts I, V, and International on the Board of Directors for the term 2025-2027. **Katherine L. Lee and Matthew Grandbois** were selected as District I candidates; **Lisa M. Balbes, Mark C. Cesa, and Silvia S. Jurisson** as District V candidates; and **David Wu and Hooi-Ling Lee** as International District candidates. [Editor's note: California section is in District 6].

The Committee on Nominations and Elections announced the selection of the following candidates for Director-at-Large for the 2025-2027 term: **Christopher J. Bannochie, Natalie A. LaFranzo, and Sergio C. Nanita**.

By electronic ballot, the Council elected **Debbie C. Crans** to the Committee on Nominations and Elections (N&E) for an unexpired term of less than one year (2024) and a subsequent full three-year term (2025-2027).

Highlights from Committee Reports and Key Actions

On the recommendation of the Council Policy Committee (CPC), the Council approved the Petition to Remove Inconsistencies and Add Missing Provisions.

On the recommendation of the Committee on Committees (ConC), and with the concurrence of the Council Policy Committee, Council approved the Petition to Amend the Duties of the Committee on Budget and Finance (B&F) to better reflect their charge of making recommendations on the Society's budget for approval by the Board of Directors.

ConC announced that the opening of the online preference form to **all ACS members** began on March 1 and will run through July 1, Councilors interested in serving on an ACS Committee in 2025 should go to [CMTE.acs.org](https://cmte.acs.org) to complete their preferences.

On the recommendation of the Committee on Divisional Activities (DAC), the Council approved changing the name of the Division of Biological Chemistry (BIOL) to the Division of Biochemistry and Chemical Biology (BIOL).

On the recommendation of DAC, Council approved an amendment to the distribution formula for Division funding. This will allow a greater amount of funding to be distributed to Divisions.

On the recommendation of the Committee on International Activities (IAC), Council approved the creation of International Chemical Sciences Chapters in Egypt and Guangdong, China, subject to the concurrence of the ACS Board of Directors.

On the recommendation of the Committee on Local Section Activities (LSAC), Council approved changing the name of the Auburn Section to the East Alabama/West Georgia Section.

On the recommendation of the Committee on Membership Affairs (MAC) and with the concurrence of the Council Policy Committee, Council approved the Petition on Dues and Benefits to change the name of the Schedule of Membership to the Schedule of Dues and Benefits. The petition also defines the role of Community Associates.

On the recommendation of MAC and with the concurrence of the Council Policy Committee, the Council approved the 2025 Schedule of Dues and Benefits.

The Committee on Constitution and Bylaws (C&B) reported the certification of bylaws for four Local Sections (Columbus, Permian Basin, University of Arkansas, and Central Pennsylvania), five technical Divisions (Colloid and Surface Chemistry, Biological Chemistry, Analytical Chemistry, Industrial and Engineering Chemistry, and Environmental Chemistry), and two International Chemical Sciences Chapters (Singapore and Switzerland) since the fall 2023 meeting.

The Committee on Younger Chemists (YCC) plans to expand the concept of Local Section Younger Chemists Committees to include International Chemical Sciences Chapters and reported on the inaugural Younger Chemists' Caucus and their plans to continue holding this event.

Resolutions

The Council passed several resolutions:

- In memory of deceased Councilors.
- In recognition of ACS Secretary, Flint Lewis, on the occasion of his retirement after 28 years.
- In sincere appreciation of the Louisiana Section, host Section for the ACS Spring 2024 meeting, the Divisional program chairs, symposium organizers, and ACS staff for the planning and execution of the meeting.

The ACS Fall 2024 meeting will be held in Denver, CO from August 18 – 22, 2024.

The ACS Board of Directors also met in Executive Session while in New Orleans. For a report on this and more details on the above issues, see <https://www.acs.org/about/governance/councilors/councilor-talking-points.html>.

Cal ACS Councilor Reports:

Patrick Lee (Chemistry and Public Affairs):

Each subcommittee provided updates from past progress and future plans. The subcommittees are: Fellowship, Policy, and Member Engagement.

Report was provided by ACS Public Policy Fellows, Angela Cleri and Sarah Ackenhusen. Both of them highly recommend the fellowship and there was a brainstorm around alumni networking events. Plans were put in place to identify candidates for this program at HBCUs. There will also be a roadmap of past fellows to act as a guide for potential fellowship applicants.

CCPA may modify an ACS policy statement on innovation, with Patrick Lee serving as one of the co-authors.

Bryan Balazs (Membership Affairs Committee (MAC), Younger Chemists Committee (YCC):

1. I served as a liaison from the Membership Affairs Committee (MAC) to the Younger Chemists Committee during the YCC meeting on Saturday, listening to their concerns regarding ACS membership, and conveying these thoughts back to MAC. Of particular interest to the YCC was the issue that, while Students Members (those working towards a 4-year degree in chemistry or an allied field) could vote in national elections, Student Members cannot run for national elected positions such as ACS President-Elect, local section or division Councilor, Director, etc.
2. MAC was encouraged in the recent uptick in ACS members, as well as large increases in the number of Community Associates (individuals who receive a limited set of ACS benefits but pay no dues). The data are complex, and MAC continues to work with ACS Staff to seek ways to increase ACS involvement.
3. On the Council agenda for consideration was a petition for international representation on Council, and this topic generated much discussion. While the sense (of people that I talked to) was that international members should have a representative on Council, “the devil is in the details” as to the most equitable way to achieve this.
4. Attila Pavlath was the featured speaker at the Senior Chemists Committee breakfast. I believe this was on Monday although I wasn’t able to go. Maybe you were there.
5. In contrast to what the weather in New Orleans can often be like, the week was surprisingly cool and windy.

Marinda Wu (Past President Ex-Officio Councilor):

1. In New Orleans, the CACS hosted a successful joint Banquet with the Energy & Fuels Division at Zhang Bistro in the French Quarter which sold out with around 120 attendees including ACS Board members, Past ACS Presidents as well as visiting scholars from China, Taiwan and around the world. The keynote address was delivered by Past ACS President Dr. H. N. Cheng on “Tackling the Plastic Pollution Problem.” Here are links to photos for the good time had by all taken by a professional photographer and from Norm Wu.

<https://www.snappr.com/gallery/4aadb1b0-512d-474c-9af4-572f6a49f5cf>

<https://1drv.ms/f/s!Ah74M-7F5zRRgYdNyp86nivopAJxHg>

2. A successful Committee on Economic and Professional Affairs & Career Consultants Dinner in appreciation of the ACS Career Consultants was held at Vyoone’s in New Orleans. As always, it was truly rewarding to help graduate students, post-docs and mid-career chemists in transition needing one-on-one career consultations. Here are the latest statistics from ACS Career Services:
 - a. **How many ACS members did the ACS Career Consultants help with the one-on-one career consultations at the spring ACS meeting?** 295 – which is above our average of 276 consultations/meeting since we returned to in-person programming.

b. How many ACS Career workshops were delivered at the spring ACS meeting?
37 Career Pathways Workshops.

c. How many ACS Career Consultants attended the spring ACS meeting to help ACS members? 28 Career Consultants.

Alex Madonik (Meetings and Expositions (M&E), Divisional Activities Committee (DAC)):

1. The Regional Meetings Subcommittee has considered numerous ways to make it easier for Local Organizing Committees (LOCs) to plan and execute Regional Meetings. The ACS Department of Meetings and Exposition Services (DMES) has created standardized templates for the Memorandum of Understanding (MOU) used by the host Section(s) to determine organizational and financial responsibilities with the Regional Meeting Board, and for the Meeting Management Agreement (MMA) that is required to engage the services of DMES in planning a meeting. The subcommittee has designated liaisons to each of the Regional Meeting Boards; I am the liaison to the Western Regional Meeting Board.
2. DMES has also created a web site with extensive resources for planning Regional Meetings:

<https://web.cvent.com/event/d2645e5c-9aca-4467-918a-5b4af40f6a33/summary>

3. M&E's agenda included updates on the "Future of Meetings" task force, which has set the following objectives for National Meetings:
 - Creating greater collaboration in joint programming opportunities
 - Offering fewer concurrent sessions.
 - Providing Hot or Late Breaking programming topics.
 - Presenting more engaging topics and networking opportunities.

In the future, preferred National Meeting venues will concentrate all parallel sessions in the convention center, reducing the number of satellite hotel locations used. At the New Orleans meeting, CHED (the Chemical Education Division) used a large convention center hall, divided into small enclosures for parallel sessions. Noise was a problem if sessions began or finished on different schedules. Coordination/cooperation needed in scheduling.

4. 2024 meeting initiatives:
 - Launch Global Virtual Symposia (in round-the-clock timeslots)
 - Pilot New Attendee Orientation and Sunday Networking event
 - Pilot new half-day joint interdisciplinary sessions led by ACS Committee on Science
 - Pilot new formats, including integrated poster sessions
5. The Divisional Activities Committee (DAC) is providing input on new programming initiatives.

- Measurements – Monitoring program chair work – Abstract system needs
 - Joint programming guidelines – technical vs. non-technical sessions – optimizing sessions
 - Division award programs
 - Assist ComSci with innovative content – guidelines for Divisions
 - Criteria for virtual only sessions – optimize hybrid experience, while reducing expense
6. New Orleans meeting registration was 13,320 as of Friday, March 14th.

Sushila Kanodia (Committee on Ethics):

Awards

1. ACS Undergraduate Award for Excellence in Chemical Safety and Ethics
2. Nominations are now being accepted for the 2024 ACS Undergraduate Award for Excellence in Chemical Safety and Ethics. Deadline for submissions: June 1, 2024.
3. ChemLuminary Award: The Committee on Ethics' ChemLuminary Award recognizes outstanding programming by a local section related to the promotion of ethics in chemistry.

ACS Ethics Programming Ideas for Local Sections

Canned / Predeveloped Programs • Webinar • Program-in-a-Box • Case study videos • Responsible Conduct of Research (RCR) programming / interactive video • ACS leadership course on Ethics and Professionalism with certificate of completion Flexible Programs • Ethics panel and discussion • Ethics awareness workshop • Ethics Bowl – student competition (in collaboration with AACT) • Presentation on problematic and exemplary ethical behavior • Ethics Café • Ethics case study discussions (from de novo or repository of cases from videos, books, or papers) • Kahoot! Jeopardy-like Ethics game • Journal Club on Ethics paper • ACS Speakers Bureau

Fall ACS National Meeting Programming

Research ethics & safety ethics: Linking laboratory practices to the core values of the Society.

This symposium will examine the role of professional ethics in chemical health & safety. Papers are solicited addressing what constitutes ethical behavior in the laboratory; how we determine what is ethical in a lab; and how laboratory practices and experiences intersect, reinforce, and conflict with ethical behavior.

Besides Ethics and safety [core values of ACS] the committee is also focused on DEIR coined as DEIRB [B for Belonging]

Please check the site at acsethics.org [you will see the link on our local site under education]

I attended the C&EN with Carolyn B. and have the signed copy of the news magazine. If interested, we can auction the copy to raise funds for our section if there is interest.

Jim Postma (Constitutions and Bylaws):

Most of the work of my committee is reported above.

Atefeh Taheri (Cal ACS Councilor, Women Chemists Committee Associate):

This year, I had the opportunity to attend the National Women Chemists Committee (WCC) meeting for the first time as a new associate. Due to the timing of the national conference, which was close to my due date and subsequent maternity leave, I could only participate virtually. Despite this, I successfully attended critical council and committee meetings sessions, engaging in the voting process on several crucial activities and decisions.

Our WCC Chair, [Lorena Tribe](#), recently published a commentary in C&EN about the WCC's activities this year. The full article can be accessed here: [C&EN Commentary by Lorena Tribe on WCC Activities](#).

In the article, Lorena Tribe, chair of the American Chemical Society Women Chemists Committee (WCC), elaborates on the committee's dedication to engagement, advancement, and advocacy for women in chemistry since its foundation in 1927. The WCC's strategic plan aims to empower members, recognize their achievements, and foster diversity and awareness through various events, awards, and networking opportunities.

The year 2024 has been highlighted by initiatives such as the Global Women's Breakfast, numerous webinars, and the Women in the Chemical Enterprise Networking Breakfast during the ACS Spring meeting. Introducing new award programs like the WCC Rising Star Award and the WCC Pfizer Emergent Leader Award celebrates the contributions of women chemists from diverse backgrounds. The WCC is committed to inclusivity, welcoming cisgender women, trans women, and nonbinary individuals, and strives to eliminate barriers to equity and success in the field. Reflecting on the committee's evolution since 1927, Tribe calls for continued participation in the WCC's mission to secure equal representation and influence in chemistry, emphasizing the necessity of collaborative approaches to address global challenges.

My primary involvement this year will focus on advocacy initiatives within the WCC, mainly aimed at increasing industry member participation and advocating for activities that support women in industry or assist students and postdocs in transitioning from academia to industry. Given that our local ACS section is situated in a region with several colleges and universities as well as many small and large companies, we are uniquely positioned to make a significant impact.

If you are passionate about advancing gender equity in your professional sphere, if you are in the process of seeking or have recently secured a job in industry and wish to assist others by sharing your insights, or if you have ideas on how to leverage ACS resources within your current workplace or in collaboration with internal women's resource groups, I encourage you to reach out to me.