

The San Diego Chemist San Diego Section

Volume 36, Number 7 August 2024

(PHOTO) ELECTROCHEMICAL CONVERSION FOR SUSTAINABLE FUELS, CHEMICALS, AND FERTILIZER

Learn about the electrification of the chemical manufacturing industry, and the challenges of using light as a propulsion for converting harmful emissions into valuable products!

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Dear valued members,

As I welcome you into the month of August, I am sure many have recently returned from summer trips and/or are preparing themselves for **fall semesters to begin**. For those returning to studies or those who are entering a new career environment, I wish you the best of luck and great experiences.

This past month, our Local Section had the privilege of honoring some of our esteemed senior members. It was truly a delightful event, where we gathered, not only to celebrate their contributions, but also to express our heartfelt reflections about how the modern achievements of our Local Section are only made possible from the **trailblazing strides that were enacted from those who came before us.**

Looking ahead, I am excited to announce our upcoming August event, titled "(Photo) Electrochemical Conversion for Sustainable Fuels, Chemicals, and Fertilizer", scheduled for Thursday evening, August 13th, from 6:30 - 8:30 PM on Zoom. Our featured speaker, Dr. Elizabeth Corson (University of Kansas), will graciously provide us with an enriching talk about her work with the pursuit of sustainable solutions for fertilizer production using electrochemical approaches. This event will not only showcase cutting-edge research with an emphasis on in situ spectroscopic techniques, but also foster discussions that could pave the way for innovative advancements in the field.

I encourage all members to mark their calendars and join us for what promises to be a stimulating exchange of ideas and knowledge. Whether you are actively engaged in research or simply curious about the future of sustainable energy and chemicals, this event offers a unique opportunity to delve into the **latest developments** and connect with like-minded peers.

Let us continue to build upon the momentum of our recent celebrations and channel our collective enthusiasm towards a future where scientific excellence and sustainability go hand in hand.

Warm regards,

Christina Vialva American Chemical Society - San Diego Local Section - Chair

EVENT



(Photo)Electrochemical Conversion for Sustainable Fuels, Chemicals, and Fertilizer

Dr. Elizabeth Corson Fred Kurata Assistant Professor Chemical & Petroleum Engineering The University of Kansas



About the Speaker:

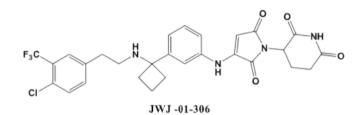
Elizabeth R. Corson started as the Fred Kurata Assistant Professor in the Chemical and Petroleum Engineering Department at the University of Kansas in January 2024. She was a TomKat Center Postdoctoral Fellow in Sustainable Energy working with Prof. William Tarpeh in the department of Chemical Engineering at Stanford University where she investigated electrochemical nitrate reduction to recover ammonia from wastewater. Elizabeth was an NSF Graduate Research Fellow at the University of California, Berkeley where she completed her Ph.D. in Chemical Engineering with Prof. Bryan McCloskey. She conducted her dissertation research on plasmon-enhanced electrochemical carbon dioxide reduction at the Joint Center for Artificial Photosynthesis at Lawrence Berkeley National Lab. Originally from lowa, Elizabeth received her B.S. in Chemical Engineering with a specialization in Energy, Environment, and Economics from the Illinois Institute of Technology in Chicago.

About the Talk:

Electrification of the chemical manufacturing industry is a promising pathway to reduce the use of fossil fuels and decrease carbon dioxide emissions. Unlike the traditional thermochemical processes to create fuels and chemicals, electrochemical conversion can use solely renewable electricity, can occur in a wide range of temperatures and pressures (including ambient), and can be performed in modular reactors that permit flexible-scale operation. In my research I address the challenges of low selectivity and low efficiency with nanostructured electrodes, using light and potential bias as driving forces to convert emissions into valuable products. In this talk I will discuss both plasmon-enhanced electrochemical carbon dioxide reduction and electrochemical nitrate reduction, with an emphasis on in situ spectroscopic techniques that can be used to better understand the local reaction environment at the electrode–electrolyte interface.

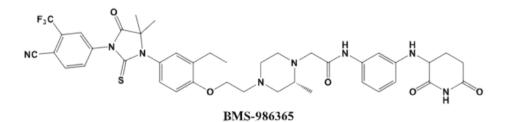
THE 25th ANNUAL SAN DIEGO MEDICINAL CHEMISTRY SYMPOSIUM

The 25th Annual San Diego Medicinal Chemistry Symposium took place on July 12th at UC San Diego. Hojel Hall in the Institute of the Americas was filled with over 200 attendees who came to hear talks from an outstanding set of local speakers. This year, the opening talk by Assistant Professor Eric Wang from Sanford Burnham described promising results using the ZBTB11 degrader, JWJ-01-306, to treat KRAS inhibitor resistant pancreatic ductal adenocarcinoma (PDAC).

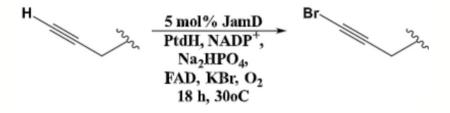


Next, Associate Professor Michael Erb from Scripps spoke about using SuFEx-based high-throughput chemical synthesis for the discovery of Cereblon (CRBN) molecular glues. The ENL (eleven-nineteen leukemia) degrader, (S)-dHTC1, was identified as having anti-leukemic effects.

Finally, Dr. Stephen Norris from BMS elaborated on his group's discovery of BMS-986365, a high affinity androgen receptor (AR) binder that potently degrades AR while also showing receptor antagonism. In a first-in-human study, BMS-986365 induced PSA reduction in patients with metastatic castration-resistant prostate cancer (mCRPC) irrespective of prior treatment and across all AR status.



After the coffee break, Assistant Professor April Lukowski from SIO presented on her group's discovery and biocatalytic development enzymes for use in the enzymatic halogenation of terminal alkynes. JamD, VatD, and PhmJ, homologues of AetF, one of the most efficient flavin-dependent halogenases (FDHs), were discovered.



Dr. Ryan Patman from Pfizer delivered the final lecture of the day, presenting on the design of a new series of pyrrolopyridones as Cbl-b inhibitors leading to the discovery of PF-07943775. The application of Rhodium (III)-catalyzed C-H activation to the formation of the 2-pyridone was discussed.

The event was free for attendees because of the generous financial support of our sponsors, BMS, Chemaxon, Chemveda, Duane Morris, J&J, TargetMoi, Viva, Vertex, Wilson Sonsini, and WuXi AppTec. The San Diego ACS, SABPA, UCSD are eager to collaborate on another symposium next year. Please contact Ben Pratt (<u>bpratt@sandiegoacs.org</u>), Mark Tichenor (<u>mtichenor@sandiegoacs.org</u>), David Wallace (<u>davidmw@san.rr.com</u>), or Tao Wu (<u>tao.wu@sabpa.org</u>), if your organization would like to sponsor the event or has an exciting new disclosure for this symposium in 2025!



Assistant Professor Eric Wang Sanford Burnham Prebys



Associate Professor Michael Erb Scripps Research Institute



Dr. Stephen Norris Bristol-Myers Squibb



Assistant Professor April Lukowski Scripps Institution of Oceanography



Dr. Ryan Patman Pfizer

Text: David Wallace Photo Credits: David Wallace

THE 25th ANNUAL SAN DIEGO MEDICINAL CHEMISTRY SYMPOSIUM



Dr. Fleur Furguson



Dr. Tao Wu



Dr. Eric Wang



Dr. Michael Erb

THE 25th ANNUAL SAN DIEGO MEDICINAL CHEMISTRY SYMPOSIUM





Dr. Stephen Norris

Dr. April Lukowski



Dr. Ryan Patman

50.60.70-YEAR MEMBERS!

On July 20, we held a special luncheon to commemorate our esteemed and longest-serving members. It was a heartwarming occasion filled with reflections on their years of service and involvement.









50.60.70-YEAR MEMBERS!

















50.60.70-YEAR MEMBERS!

































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Demystifying the ACS Election Process ACS Webinars August 7, 2024 @ 11AM PST <u>Click here</u>

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Emerging Areas in Biomaterials: Reshaping Medicine and Human Health ACS Webinars August 14, 2024 @ 8AM PST Facebook LinkedIn X Pinterest Email



Executive Committee Meeting Dates 2024

6:30-8:00 PM

August 1st September 5th October 3rd November 7th December 5th Zoom Meeting

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Who can participate :

ACS Student Chapters 🗸

Graduate Student Organizations

What to do :

Send your info. before the 15th 🔊 of each month Fill in this form 🗸



Register here

More Info. contact cibarra@sandiegoacs.org



(PHOTO) ELECTROCHEMICAL CONVERSION FOR SUSTAINABLE FUELS, CHEMICALS, AND FERTILIZER

Learn about the electrification of the chemical manufacturing industry, and the challenges of using light as a propulsion for converting harmful emissions into valuable products!

ELIZABETH CORSON PH.D

August 13th, 2024 ♂ 6:30-7:30 PM PST







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The annual San Diego BioPharma Conference, hosted by SABPA, is a cornerstone event in the San Diego life science community. With over 500 researchers, industry leaders, entrepreneurs, and investors convening, this is your prime opportunity to stay at the forefront of scientific innovations and biotech advancements. We look forward to seeing you at the 22nd San Diego BioPharma Conference, 2024!

HIGHLIGHTS

Fireside chat M&A and startup mega-raises

Breakthrough prize awardee Repairing defective proteins

From academia to industry Neuroscience IPO

Moores' new director: World-renowned pancreatic surgeon

Next-gen chemoproteomicsplatform transforming drug discovery

Premier radiopharmaM&A

And more...

Previous events program can be found here

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Fireside Chat

Prometheus Biosciences

Yi Liu, PhD Co-founder, CEO Kumquat Biosciences **Plenary Speakers**

> David Bredt, MD, PhD Founder. CSO Rapport Therapeutics

Sabine Hadida. PhD SVP, San Diego Site Head Vertex Pharmaceuticals

Christopher G. Parker, PhD Co-founder BelharraTherapeutics

Diane Simeone, MD MooresCancer Center UCSD Health

Ken Song, PhD Former president and CEO RayzeBio

Panel Discussion

Phillip S. McGill, JD (Moderator) Of Counsel, San Diego office, Wilson SonsiniGoodrich & Rosati

> David Chacko, MD CFO/CBO Erasca

Sergio G. Duron, PhD Co-founder, CEO Enlaza Therapeutics

Zachary Hornby, MBA CEO, President Boundless Bio

Tim Luker. PhD VP, Head of West Coast Lilly Ventures

Nishant Tyagi Senior Manager, Business Development Ionis Pharmaceuticals, Inc.



















Graduate Student Symposium ACS Spring 2025

Bonds that Matter Soft Materials for a Sustainable World

March 25 | San Diego, CA







2024

DISTINGUISHED SCIENTIST AWARD BANQUET

Liangfang Zhang, PhD

Department of Chemical and Nano Engineering

UCSD

DATE: Tuesday, October 16, 2024

TIME: 6:00 PM No host bar

7:00 PM Dinner

8:00 PM Award lecture

PLACE: The Butcher Shop

5255 Kearny Villa Rd, San Diego, CA 92123

MINUTES



San Diego Section, American Chemical Society Executive Committee – Zoom Meeting July 11, 2024, 6:30 p.m.

<u>Attendees</u> Desiree Grubusha, Jackie Trischman, Christina Vailva, Jim Shih, Hui Cai, Ryan Smith, Max, Suriya De, Jiyue, Marta Meeting convened: 6:30 pm

<u>Changes/Approval of April Minutes</u> **Motion**: Approve May 2024 Minutes — **Approved**

Treasurer's Report (DG)

→ Revenues:

Line 1- Annual allotment \$21,989 Line 3- IPG Grant \$1,200 Line 3a- Spring ACS meeting council travel \$12,000 Line 9- Sponsorships for MedChem Symposium \$4,500

→ Expenses:

Line 23b- Chem Olympiad \$187.50 Line 24- 50/60 Year Member Luncheon Deposit \$500 Line 30a- Food and Drinks for STEM Portfolio Event \$1,110 Line 30b- Photos for STEM Portfolio Event \$646.50 Line 30c- Eventbrite Fees \$30 Line 31- Annual Picnic Park Site Deposit \$211.25 Line 40- Supplies for Muslim Community Science Fair Event \$34 Line 61- Awards for Chem Olympiad Students \$600 Line 79- May Newsletter \$1700 Line 85a- Social Media Activities \$462

Contacts from SD ACS Website (CV)

 Sustainability Symposium: National Spring ACS Meeting. Titled "Materials that Matter: Soft Materials for a Sustainable World". Focused on the production of high performance and sustainable soft matter and its role in achieving a circular economy. Seeking sponsorship from SD ACS; have multiple donation tiers(\$500, \$1000, \$2000 and \$5000). Not typically the type of request SD ACS sponsors but can be promoted in the newsletter and social media outlets to seek other donations.



- Zoltan, safety officer for a small biotech company in SD, seeking to find use of extra chemicals that would otherwise be disposed of due to the closure of Triton Algae Innovations Lab. Circulate inventory of compounds to advisors within student groups/community colleges/chemistry department heads to review possible hazards and utility. SD ACS will not be responsible for the handling, storage, or distribution of the compounds.
- Establishing a collaboration between National ACS SCC and SD ACS. Purpose of the effort is to inform local sections of the grants that SCC is offering, establish connections between senior chemists in local sections and YCC and WCC and encourage joint proposals for grants offered. Share activities of our local section and identify someone to be a point person for this effort.

<u>Recap of Catalyzing Careers: Showcasing STEM Portfolio's for Success (CV/JG)</u> Good turnout of participants, successful event. Had some participants express interest in being more involved in local section activities, as well as having this event again next year.

<u>50/60- Year Luncheon (JT)</u>

4 members have RSVP'd. Retired chemist committee also attending (4-5 people). 8 members total in addition to spouses. Need more people to attend to bring attendance up to around 20 people. Send emails/LinkedIn announcements to contact past members. Deadline to finalize number of meals is July 15th.

August Event: Searching for Speakers (CV)

CV reached out to a potential speaker through the ACS speakers directory (Elizabeth Corson, Assistant Professor, University of Kansas). Corson specializes in electrochemistry and can speak on the electrification of the chemical manufacturing industry to reduce the use of fossil fuels and decrease carbon dioxide emissions. Event will tentatively take place on Tuesday, August 13th from 6:30-7:30 pm. Send out event information to the MedChem Symposium attendees roster (reach out to Jefree Rances at UCSD), in addition to social media/email advertisement.

Revising the Local Section Bylaws (CV)

Revision of local bylaws began in January. Needed multiple corrections on terminology, CV's chairmanship due to her being a student. Reached out to Mark O Brien about bylaw issues. Even though CV was a student at the time of her election, electoral procedure was followed so operations can continue as they are for now. 15 months are allotted to complete the revisions. Potentially have an in person meeting to complete revision and submit the bylaws.



Walk In Item: WCC Event (Jiyue)

Nominate 10 distinguished women chemists in the San Diego area and give them an award to recognize their contributions/achievements. Create a 20 minute video and interview them about their careers and advice for younger women chemists. Use the newsletter to invite members to put forth nominations. Open to women chemists in academia or industry. Need to finalize additional event details: Could incorporate this event into a social. Need to set up an eligibility

criteria, need executive committee approval to give out awards. Can also give out a certificate for recognition of achievement instead of financial awards.

Walk In Item: Chem Expo (JT)

JT has sent the paperwork to begin the process for Chem Expo. Will have a set date by next week. Will have more information at the next meeting.

Next meeting: August 1, 2024 Meeting adjourned: 8:00 pm



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Does your non-profit organization have an upcoming event that might be of interest to members of the ACS – San Diego Section? If so, please send your announcement to our 2022 Chair, **Juan Gonzalez-Gonzalez** at jpgg@sandiegoacs.org. Once approved, Juan will see that your announcement is published on our website (www.sandiegoacs.org) and, if received by the 20th of the month before the event, in The San Diego Chemist newsletter. This is a free service of the ACS – San Diego Section. Take advantage of it!

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For more information, please contact: Carolina Ibarra at <u>cibarra@sandiegoacs.org</u> **THE SAN DIEGO CHEMIST**, the official newsletter of the San Diego Section of the American Chemical Society, published on a monthly basis, can be viewed at

http://www.sandiegoacs.org/newsletter/. All contents are published at the discretion of the Section's Executive Committee. Events of interest to chemistry professionals in the community may be included in the events calendar as space permits and are subject to editing for brevity. Advertisements and announcements from the chemistry community are accepted at published rates. The deadline for items submitted is the 20th of the month for publication by the end of that month.

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2″ x 3″	\$ 75	\$ 68	\$ 58
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full page	\$655	\$590	\$510

Discounts will be available for issues not shown. Please send your jpg to:

Carolina Ibarra at cibarra@sandiegoacs.org





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Do you hire student workers?

If you have open positions in chemistry and biochemistry that would be of interest to college students, such as summer internship opportunities, here is a list of contacts you'll want to keep handy. The people listed below are the faculty advisors of the ACS Student Affiliate groups for all chemistry programs in San Diego County. These professors can get the word out to all chemistry and biochemistry majors at their schools about jobs, career fairs, open houses, etc.

California State University, San Marcos

Jacqueline Trischman trischma@csusm.edu 760-750-4206

Point Loma Nazarene University Vacant

San Diego Mesa College Synthia Chang schang001@sdccd.edu

San Diego Miramar College Vacant

Southwestern College, Chula Vista Juan Gonzalez jgonzalez3@swccd.edu 619-421-6700x5947

University of California, San Diego Jeremy Klosterman jkk@ucsd.edu

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Valerie Kuck	(2024)	973-744-5510
Jackie Trischman, CSUSM	(2027)	858-414-3323
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Jim Shih, Eli Lilly & Co	(2024)	626-826-3561
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Bill Szabo	(2025)	858-550-0306
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