

The San Diego Chemist



American Chemical Society Volume 31, Number 6

San Diego Section June 2019



Family Picnic & Social Event

DATE: Sunday, June 30, 2019

WHERE: San Dieguito County Park, Solana Beach, at Lomas Santa

Fe Drive and El Camino Real. Lomas Santa Fe exit off of I-5, one mile east to Highland Drive park entrance. Left onto Highland, immediate right into the park. Pay parking fee (\$3.00/car, free for seniors), at booth proceed to Area #3. Note: the San Diego County Fair will cause heavy traffic on I-5 near the Lomas Santa Fe exit. Please allow

extra driving time!

TIME: 11:30AM – 4:00PM (food served from approx. noon to 3PM)

WHO: All ACS members, families & friends (as potential members!)

WHAT: BBQ, cold drinks, games and prizes for children of all ages. **Please bring a homemade dessert**

to enter the Best Dessert Contest (Prizes will be awarded)! If you bring a cold dessert, bring a

cooler. Guests with special dietary needs should provide for them.

RSVP: As early as possible but no later than Thursday, June 27th by registering at

http://sdacs2019picnic.eventbrite.com/

Please tell us how many adults and how many children (with their ages) will be in your party.

Volunteers Needed for Morning Setup!

Please contact James Caldwell to sign up: tel. 815-262-9697

e-mail: jcaldwell@sandiegoacs.org



Area Map

JUNE NOTES

Dear ACS Members,

We are almost at the half-year mark and are looking forward to many more events in the remaining part of the year. You will, however, first read about events in this issue that took place in April and May.

On April 28th, we participated in the Earth Day celebration. A thank you to **James Caldwell** and volunteers who were part of this event in Balboa Park.

On May 9^{th} , the Southern California Pharmaceutical Discussion Group (SCPDG) of AAPS had a joint meeting with the San Diego Section of the ACS. **Dr. Vince Wacher** of Synthetic Biologics, Inc., gave a presentation about: "Why Bother? Downstream Development and Market Considerations that Impact Drug Discovery". Thank you to **Julann Miller** for helping to organize this event.

On May 20th, **Professor David M. Walba** from the Department of Chemistry, University of Colorado at Boulder, talked about: "Spontaneous Achiral Symmetry Breaking in Organic Fluids" at San Diego State University.

Please mark your calendar for upcoming events.

Our much anticipated Family Picnic will be on June 30th at San Dieguito County Park, Solana Beach. You don't want to miss the event, so please RSVP at http://sdacs2019picnic.eventbrite.com/.

On July 11th, we will have our Fifty-, Sixty- and Seventy-Year Member Recognition Luncheon at Tom Ham's Lighthouse Restaurant, 2150 Harbor Island Drive, San Diego. Please RSVP at https://2019sdacsluncheon.eventbrite.com

July 19th will mark the 22nd Annual San Diego Medchem Symposium. It will be held again at the Hojel Auditorium and Arango Foyer, UCSD, The Institute of the Americas, 10111 North Torrey Pines Road, La Jolla. Register online by Friday, July 12th, and food will be provided. Click on http://chemistry.ucsd.edu/go/medchem and follow the link to the

I hope you are all looking forward to attending the 258th ACS National Meeting & Exposition *here in San Diego*, August 25-29.

Just a reminder! We have elections coming up in November. There are several openings as you will see in this issue. Why not think about running for one of the positions?

Renate Valois for Jennifer Barber-Singh, Co-Chair San Diego Section of the American Chemical Society

E-mail: <u>ibsingh@sandiegoacs.org</u>
Web: <u>www.sandiegoacs.org</u>

registration page.

NON-PROFIT ORGANIZATIONS!

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 2019 **Co-Chair, Jennifer Barber-Singh**, at jbsingh@sandiegoacs.org. Once approved, Jennifer 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!

ATTENTION ADVERTISERS

Did you know that *The San Diego Chemist* is the only monthly e-newsletter that targets chemists and chemical engineers in San Diego and Imperial Counties? As soon as our newsletter is uploaded on www.sandiegoacs.org a separate notification is sent to the **2,500 members** of the ACS-San Diego Section, each a potential customer for your products and services! **Quick turnaround:** Ad copy submitted by the 20th of each month will be published by the end of that month.

For more information, please contact:

Renate Valois at renate@sandiegoacs.org

TREASURER NEEDED

The Executive Committee of the San Diego Section of the American Chemical Society is looking for someone to assume the Treasurer's position starting January 2020.

If you are interested, please contact David Wallace at davidmw@san.rr.com.

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 23rd of the month for publication by the end of that month.

Advertisers: Ad prices as of January 1, 2015: Size (w x h) Number of Issues & Price/Issue

	1	<i>3</i>	6
2" x 3"	<i>\$ 75</i>	<i>\$ 68</i>	<i>\$ 58</i>
4.5" x 1.5"	\$ 80	<i>\$ 74</i>	<i>\$ 67</i>
4.5" x 4.75"	\$200	\$184	\$163
8.5" x 5.5"	\$400	\$360	\$310
full page	<i>\$655</i>	<i>\$590</i>	\$510

Discounts will be available for issues not shown

Please send your jpg to:

Renate Valois at renate@sandiegoacs.org.

SECTION E-MAIL LISTSERVER!

Get up-to-the-minute reminders of local events and develop dialogs with your fellow members!

To subscribe to our moderated listserver:

- Send an e-mail with SUBSCRIBE TO LISTSERVER in the subject line, and your name and e-mail in the body of the message to **Ken Poggenburg** at jkp135@att.net.
- If you receive a message from the postman, reply to confirm that you wish to be added to the list, otherwise it will not take effect.
- 3. You will receive reminders approx. 5-7 days prior to upcoming events and messages of general interest to members.
- To post topics for discussion, or informational items to the listserver members, send the message to <u>sandiego-chemist-l@ucsd.edu</u>.
- 5. If the moderator approves the post, it will be sent to the members.

NOTE: That is the letter "I", not the number "one" following the word "chemist".

Executive Committee Meeting Dates 2019 6:00 - 8:00 pm

Thursday	June	6
Thursday	July	11
Thursday	August	1
Thursday	September	<i>5</i>
Thursday	October -	3
Thursday	November	7

Meetings will be held at:

9381 Judicial Drive, Suite 160, San Diego

EARTH DAY - EARTHFAIR 2019

The **National ACS Chemists Celebrate Earth Week (CCEW)** celebrated its 16th anniversary in 2019 with the theme, "**Take Note: The Chemistry of Paper**". San Diego Local Section CCEW coordinator, **James Caldwell**, organized an event at the 30th EarthFair in Balboa Park on April 28, 2019. San Diego Local Section volunteers, **Paul Bruinsma, Gulin Erdogan**, and **Nathaniel Cohan** supported the event, spending the day performing demonstrations. **Elena Bliemel**, a Hewlett-Packard media division and paper expert, brought several paper sustainability and paper recycling items for display. **Juan Gonzales**, the ACS Student Affiliate advisor at Southwestern College, coordinated volunteers **Christian Castillo**, **Caitlian Valdez**, and **Marco Wende**. Thank you all who helped make the event run smoothly!

The 2019 Balboa Park EarthFair theme was "We're all in this together" and the societies' common goal "to communicate the positive role chemistry has in the world" complemented this nicely. At the EarthFair there were around 60,000 visitors. We demonstrated acid acidification by dissolving some of our nice display of seashells (containing calcium bicarbonate) in acidic solutions and with a negative control using neutral bottled water. This simple experiment drew in a constant stream of curious visitors wanting to learn more. We explained to them the process of ocean acidification and what they could do to help. Also, the display provided by HP was very informative and aligned with this year's theme, "Take Note: The Chemistry of Paper". The EarthFair event for the American Chemical Society's Chemists Celebrate Earth Week, San Diego Section, was a great success





Nathanial Cohan





Text: James Caldwell Photo Credit: James Caldwell

A Prudent Reminder to Integrate Downstream Development and Market Considerations into Drug Discovery

A Joint Meeting with the ACS – San Diego Section

Article Written By: Bhavishya Mittal

Why bother? This was a thought-provoking and profound question that was posed by Dr. Vince Wacher to the audience of AAPS' Southern Pharmaceutical California Discussion (SCPDG) that met on May 9 in San Diego. In his spirited talk (titled: Downstream Development and Market **Considerations** that **Impact** Drug **Discovery**), not only this question was a premise and story-telling device, but also a critical reminder of why it is important for pharmaceutical scientists to keep an eye towards integrating (global) market considerations into drug discovery, product design, and process development.



(l): SCPDG's Adam Grobin; (r): Vince Wacher

Drug discovery is the exciting initiation of a development program that we hope will ultimately deliver a new medicine of real therapeutic value to the patient in need. In the 21st century, the science of drug development is an established field which requires a dedicated understanding of several disciples and entails a symbiotic partnership between numerous subject matter experts. Given the experience that we now have in R&D, the steps taken towards establishing a drug's safety and efficacy, product development, and its commercialization have long been standardized. However, the development of pharmaceutical products is not immune to the irrefutable laws of economics.

In his presentation, Dr. Wacher reviewed some of the downstream financial, competitive and prescribing pressures that ultimately determine whether a new drug will ever reach the market. The goal of the talk was to raise awareness around strategic decision-making during drug discovery and development that allows for a pharmaceutical asset to provide economic benefits to innovative companies without compromising quality and therapeutic benefit to patients. As everyone knows, the development of a robust drug product requires juggling many competing priorities such as overcoming scientific challenges, following regulatory requirements, and managing business-related concerns. However, it is equally important to be aware of the impact of development time and cost of goods on patent protection, exclusivity, marketability, and competitiveness.

Dr. Wacher is an accomplished pharmaceutical industry professional with over 23 years' experience successfully leading corporate strategy, partnering, research, product development, and intellectual property programs for start-ups, small companies and new business units within large companies. His enthusiasm to share his knowledge and real-world experience was deeply appreciated and very well received by the audience that comprised of seasoned industry professionals, academicians, and students. After all, we all are passionate about bringing new therapies to the market place and provide better health outcomes to our patients. Aren't we?

ABOUT THE AUTHOR

Bhavishya Mittal, Associate Director, Oral and Implant Product Development Small Molecule Product Development Group Allergan, plc

The opinions expressed in this article are not necessarily those of the American Chemical Society.

SAN DIEGO ACS SECTION/SDSU CHEM/BIOCHEM DEPARTMENT 7TH ANNUAL JOINT MEETING, MONDAY, MAY 20TH AT SDSU

Each of our series meetings has had a speaker with an SDSU connection. This one may have been the most unusual. **David Walba** (University of Colorado, Boulder, Department of Chemistry) was the speaker. His father, **Harold Walba**, now Emeritus, was a key professor in the SDSU Chemistry Department for many years, and, coincidentally, is being honored by our Local Section for 70 years of ACS service. **Harold** is credited with setting up the department's Ph.D. program, which was the first Ph.D. program in the entire CSU system.

Son **David** spent time in the SDSU chemistry department while growing up and as a summer researcher for three consecutive years while an undergraduate at Berkeley. His talk titled "Spontaneous Achiral Symmetry Breaking in Organic Fluids" may seem esoteric, but it involved the history and recent advances in the field of liquid crystals. (Yes, the materials which give the great pictures in your large-screen LCD TV!) **David** highlighted with stunning images the bent-core materials first discovered in 2013 which possess fluid order in three dimensions leading to spontaneously forming optically active materials. Louis Pasteur discovered symmetry breaking in organic crystals 171 years ago; now we have examples of similar symmetry breaking based on specific chemical structure in organic liquids.







Tom Beattie



Tom Beattie with Professor Byron Purse



David Walba







Some chemistry Professors Emeriti



Tom Beattie, David Walba, Bill Tong

Text: Tom Beattie Photo credit: Jim Shih



22nd ANNUAL SAN DIEGO **MEDCHEM SYMPOSIUM** Friday, July 19, 2019 **Hojel Hall Institute of the Americas UC San Diego**



Organized by

Dr. Ben Pratt, Dr. Mark Tichenor, Dr. David Wallace - San Diego Section of the American Chemical Society Dr. Emmanuel Theodorakis - UCSD Department of Chemistry and Biochemistry

8:30 AM	Registration and Continental Breakfast
9:00	Opening Remarks: Emmanuel Theodorakis
9:05	Dr. Carlo Ballatore, University of California San Diego "Microtubule Stabilizing Small Molecules as Candidate Treatments for Alzheimer's Disease and Related Tauopathies"
9:50	Dr. Punit Seth, Ionis Pharmaceuticals "Targeted Delivery of Nucleic Acid Therapeutics"
10:35	Coffee Break
10:50	Dr. Scott Rychnovsy , University of California Irvine "Synthetic Approaches to Alkaloids and Terpenes"
11:35	Dr. Matt Marx, Mirati Therapeutics "The Discovery of MRTX1257, a Selective, Irreversible Inhibitor of KRAS G12C with Oral Antitumor Activity"
12:20 PM	Lunch
1:20	Dr. Jeff Gustafson, San Diego State University "New Selectivity Filters to Obtain Selective Inhibitors of RET and Osimertinib Resistant EGFR Mutants"
2:05	Dr. Valentina Molteni , The Genomics Institute of the Novartis Research Foundation "Non-steroidal FXR Agonists – Tropifexor and Nidufexor for Chronic Liver Disease"
2:50	Symposium Conclusion























To register please visit:

http://chemistry.ucsd.edu/go/medchem

follow the link to the registration page. Register online by Friday, July 12, and food will be provided.



The 18th Annual San Diego BioPharma Conference

San Diego BioPharma Conference is the flagship event of SABPA. This year's keynote speakers include professor Leiping Chen, one of the pioneers in cancer immunotherapy and Dr. Barry Sharpless, a Nobel Laureate and one of the giants in organic Chemistry. Multiple heavyweight success stories on recent drug approvals and their real world impacts will also be showcased. The panel discussion will keep you abreast of the latest trends for cross-border collaboration and investment. Come and meet some of the visionary leaders and network with your peers. This is one of the biggest San Diego biotech events that you don't want to miss. Please visit http://www.sabpa.org for more details.



Lieping Chen
Professor
Yale University



Founder
ChinaBio® Group



K. Barry Sharpless
Professor
TSRI



Karen Wong Senior of Counsel WSGR



Paul Negulescu SVP Vertex



William Belanger
Partner
Procopio



Neil Gibson
CSO
COI Pharmaceuticals



Hongbo Lu
Partner
Lilly Asia Ventures



Karl Handelsman Investment Director Roche Ventures



Jaskaran Singh Sr Director J&J



Shuhui Chen CSO WuXi AppTec



Marie Zhu CEO MabPlex USA

Program Highlights

- Pioneer in Cancer Immunotherapy tells you: the end of the beginning of Cancer Immunotherapy
- Keynote speech by Nobel Laureate Dr. Barry Sharpless
- The Community, Opportunity and Innovation
 (COI) Incubator: An academic Bridge to Biotech.
- The science of possibility: How Vertex transforms the treatment of cystic fibrosis
- The development of Esketamine: a novel drug for treatment-resistant depression in decades
 - Nuts and bolts in cross-border collaborations in biopharmaceutical industry

Do not miss the early bird registration by June 1, 2019!
Register at http://www.sabpa.org/registration-2/ or scan QR code





The 18th Annual San Diego BioPharma Conference

8:00 am Registration & Breakfast

8:45 am Welcome and Opening Remarks

Peter Huang, PhD, President, SABPA

Yi Liu, PhD, Chair, BioPharma Committee, SABPA; CSO, WellIspring Biosciences

Morning Session: Current Trends in Biopharmaceutical Sciences

Session Chair: Yi Liu, PhD, Chair, BioPharma Committee, SABPA; CSO, WellIspring Biosciences

9:00 am 2018 San Diego Bio-Pharma Achievement Award

Lieping Chen, MD, PhD Professor, Yale University

Presentation: Cancer immunotherapy: the end of the beginning

10:00 am Paul Negulescu, PhD Senior Vice President and Site Head, San Diego Research Vertex Pharmaceutical

Presentation: TBD

10:30 am Coffee Break & Networking

11:00 am Jaskaran Singh, MD Senior Director, J&J

Presentation: Clinical Development of Intranasal Esketamine for Treatment Resistant Depression

11:30 am Shuhui Chen, PhD Chief Scientific Officer, WuXi AppTec

Presentation: TBD

12:00 pm Lunch & Networking

Afternoon Session: Drug Discovery and Cross-border Opportunities

Session Co-Chairs: Wendy Wang, Co-Chair, BioPharma Committee, SABPA;

Sr. Manager, Quality Assurance, Genoptix Med. Lab

Shuangwei Li, PhD, DABT Co-Chair, BioPharma Committee, SABPA;

Sr Toxicologist, La Jolla Pharmaceutical Company

1:30 pm K. Barry Sharpless, PhD W. M. Keck Professor of Chemistry, TSRI

Presentation: TBD

2:00 pm Neil Gibson, PhD CSO COI Pharmaceuticals

Presentation: The Community, Opportunity and Innovation (COI) Incubator: An academic Bridge to Biotech.

2:30 pm Marie Zhu, PhD CEO MabPlex USA

Presentation: Antibody-Drug Conjugates: Opportunities as An Important Therapeutic Modality for Cancers with

Improved Conjugation Technologies

2:50 pm Exhibition and Networking

3:20 pm Karl Handelsman, MBA Investment Director, Roche Venture Fund

Presentation: TBD

3:50 pm Panel discussion: Nuts and bolts in cross-border collaborations in biopharmaceutical industry

Moderator:

Karen Wong, PhD, JD Senior of Counsel, Wilson Sonsini Goodrich & Rosati

Panelists:

Greg Scott Founder, ChinaBio® Group Hongbo Lu, PhD, MBA Partner, Lily Asia Ventures

Karl Handelsman, MBA Investment Director, Roche Venture Fund

William Belanger JD, MBA Partner, Procopio

5:00 pm Cocktail Hour sponsored by MabPlex USA

CONGRATULATIONS!

Andrew Feng of Canyon Crest Academy and **David Wu** of Westview High School, both of the San Diego Local Section, will attend the Chemistry Olympiad Study Camp, June 2-13, 2019, at the University of Maryland at College Park, MD. They will compete for a spot on the team representing the United States at the 51st International Chemistry Olympiad in Paris, France, July 21-30, 2019.

David Wu participated also in the 2017 and 2018 USNCO Study Camp.

There were more than 90 students, from 15 local high schools, who participated in this year's local screening test held at the University of San Diego. Fourteen qualifying students were invited back to take the national exam.

A thank you to **Professor Joan Schellinger**, Department of Chemistry and Biochemistry, University of San Diego, for coordinating the Chemistry Olympiad for the ACS – San Diego Section.



VOLUNTEERS NEEDED

CHEM EXPO, part of National Chemistry Week celebration, is a great opportunity to instill greater public awareness in the importance of chemistry in our everyday lives and the roles that chemists play in our community. Our event will take place on

Saturday, October 26, 2019 11 AM to 3 PM

Theme - Marvelous Metals San Diego Miramar College 10440 Black Mountain Rd, San Diego

We need local organizations. Please sign up for an exhibit at our event.

• Exhibits by Local Companies & Organizations • Chemistry Demonstrations • Hands-on Activities and Much More

To volunteer and for free space to show education exhibits please contact:

Julann Miller at imiller@sandiegoacs.org

Sponsored by the San Diego Section of the American Chemical Society - http://www.sandiegoacs.org.

IT IS NOT TOO EARLY----

---- TO THINK ABOUT THE ANNUAL SAN DIEGO ACS LOCAL SECTION ELECTIONS 2020

Nominations for Section offices are now in order. Per our Bylaws, the current Chair-Elect will assume the Chair, but other positions are open for election, including

Chair-Elect • Secretary • Treasurer • 2 Councilors • 3 Alternate Councilors • 2 Members-at-Large

Councilors, Alternate Councilors, and Members-at-Large serve for three years, and all incumbents may succeed themselves. We encourage the active participation of our members! If you have an interest in becoming involved in the ACS-San Diego Section and want to make a self-nomination as a candidate for an elected position, please contact Jennifer Barber-Singh at jbsingh@sandiegoacs.org or David Wallace at davidmw@san.rr.com. Please send your bios to **Renate Valois** at renate@sandiegoacs.org

NOTE: VOTING WILL AGAIN BE DONE ELECTRONICALLY

Voting will be done electronically using your email address on record for the ACS. If you wish to receive a paper ballot instead, please call or e-mail Jackie Trischman, Election Coordinator, at **858-414-3323 or** trischma@csusm.edu by Monday, November 4th and leave your name and mailing address. You will be mailed a paper ballot.

If you do not request a paper ballot, you will receive instructions on how to vote via email. Please be sure your email address on file with the ACS is current! To update your email address with the ACS, use www.chemistry.org

When the elements are arranged in vertical columns according to increasing atomic weight, so that the horizontal lines contain analogous elements again according to increasing atomic weight, an arrangement results from which several general conclusions may be drawn.

Dmitry Ivanovich Mendeleev

SUMMARY OF THE SAN DIEGO SECTION EXECUTIVE COMMITTEE MEETING MINUTES May 2, 2019

<u>Treasurer's Report</u> – Finances are healthy, received this month: 1st installment of Section dues for \$6.5K, five MedChem sponsorships for \$5K, \$1K reimbursed from Bernardo winery for cancelation of event, reimbursements for 3 councilors' travel; expenses: permit for ChemExpo, one Mad Science show; pending expenses: reimbursements for supplies for Expo Day at Petco Park, Website maintenance

Senior Chemists Breakfast - Held April 16 at Bristol Farms Café, 10 attended, two of them new; next breakfast Tues. July 9

<u>Nominations</u> – Openings for which we have no current candidates: Chair-elect, 1 Councilor (should emphasize to candidates that Councilors are expected to attend ExComm Meetings); Treasurer

AAPS / ACS Symposium - May 9

<u>May Monthly Seminar at SDSU</u> – Monday, May 20, 6-8 p.m.; speaker: Prof. David Walba, whose father was founder of the SDACS Section

50-60 Yr Member Luncheon – July 11 at Tom Ham's Lighthouse, invitation letters for honorees are ready for Chair's signature

MedChem Symposium - July 19

National Meeting - Volunteers for Section booth are needed

SABPA / ACS Symposium - Possible for September, but no organizing committee at this point

<u>Distinguished Scientist Award</u> – Candidate has been chosen but not yet notified, venue for banquet pending, possibly USD Shiley Center and using USD Catering

ChemExpo - Deposit paid

Year-End Wrap-up - No location decided at this point but Sufi Mediterranean Cuisine remains a good option

<u>National Organic Symposium</u> – Proposed by UCSD for 2021 instead of MedChem Symposium; however, MedChem committee believes enough differentiation to warrant both events; UCSD budgeting \$10 K and requesting \$5K from SDACS

<u>Project SEED</u> – Sent letters of recommendation for 7 students to mentors; due to mix-up in applications, the application to National for another highly qualified student missed the deadline

Motion: SDACS to fully support 8th student; counter motion to table vote pending info from National as to whether they will accept a late application in view of the exceptional qualifications of the candidate, at which time the vote will proceed via e-mail – Counter Motion: Approved

<u>Green Chemistry</u> - John Warner, founder of Green Chemistry, to speak at CSUSM November 23 hosted by Prof. Robert Iafe and sponsored with a Dreyfus Grant; seeking venue for a second, more general Green Chemistry talk

<u>National ACS Membership Affairs</u> – Proposed changes to National by-laws to be discussed at next National Meeting aiming to get greater flexibility in membership dues schedule

Next meeting: June 6, 2019

VOLUNTEER WITH KIDS & CHEMISTRY

For more, please see: http://www.acs.org/content/acs/en/education/outreach/kidschemistry.html

<u>ACS Webinars™</u>

Welcome to ACS Webinars, your source for online live and on-demand content, created by the American Chemical Society. **Please join us weekly, Thursdays at 2pm ET**.

For more information and upcoming Webinars please see: https://www.acs.o/content/acs/en/acs-webinars.html

TELL US ABOUT YOUR FAVORITE ELEMENT

What was the first element or element family that really inspired you? As part of the International Year of the Periodic Table (IYPT2019), we're asking ACS members to tell us about their favorite element, or element family.

Here are some ideas to get you started: Is there an element that has been an ongoing source of fascination and inspiration? Was your undergraduate or graduate research focused on a particular element? Has there been an element that has been a constant through your education or working life? We look forward to hearing from you—thanks for sharing your story!

Image credit: C&EN

150 YEARS OF THE PERIODIC TABLE, ONE SPECIAL BLANKET

Dmitri Mendeleev's Periodic System changed the world of chemistry 150 years ago, and ACS is commemorating that with a special 2019 Member-Get-a-Member Campaign gift. ACS Members who successfully participate in the campaign will receive a limited-edition ACS blanket. There's no limit to how many people you can refer – but there is a limit to this unique blanket, because it's only available during this special anniversary year! Quantities are limited – start nominating today to ensure you receive your limited-edition blanket! To learn more about the International Year of the Periodic Table, visit www.acs.org/IYPT.





To Empower Your Research 2,000+ water-soluble, high purity PEG Linkers. In Stock. For PEGylation, bioconjugation, ADC & chemical biology. PEG Linkers Click Chemistry Tools Click Chemistry Tools Dye Labeling Fig. Chemistry Tools Biotin Labeling Dye Labeling Fig. Chemistry Tools Biotin Labeling Dye Labeling Fig. Chemistry Tools Riotin Labeling Dye Labeling Fig. Chemistry Tools

Company Profile

BroadPharm - A Worldwide Leading PEG Supplier

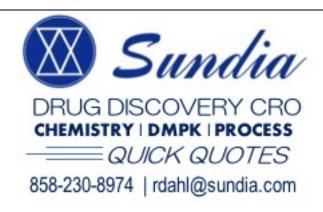
BroadPharm is a leading customer-focused biotech company in San Diego, California. We are dedicated to manufacturing and supplying high purity PEG linkers, Click Chemistry Reagents and advanced Bio-labeling reagents such as Dye Labeling and Biotin Labeling compounds to our clients worldwide. In addition, we also offer IP-protected custom synthesis for our clients in the pharmaceutical and biotech industries. We provide timely technical support to address our client's need and offer technical advice for the best use of our new products.

Founded in 2009, BroadPharm takes our customer needs as our highest priority. We have over 2,000 discrete, high purity PEG reagents in stock which can be shipped to our clients immediately.

PEG is an abbreviation for Polyethylene Glycol which consists of repeating ethylene oxide units. Unlike traditional PEGs, all of BroadPharm's PEG products represent a specific, single chemical structure with high purity. Each product is synthesized and purified using BroadPharm's proprietary advanced technology and characterized by modern NMR and LC/MS.

BroadPharm's PEG products offer many advantages over traditional linkers such as increased water solubility, reduced aggregation and low immunogenicity. These PEG reagents have been widely used in bioconjugation, antibody-drug conjugates (ADCs) therapeutic, drug delivery and diagnostics field.

With our strong expertise in modern chemistry, innovative & novel PEG technology and state-of-the-art equipment, BroadPharm can help our customers to accelerate their research through cost-effective and efficient solutions.



Challenging the status quo in Strategic Patent Counseling.

Dentons combines legal, political, governmental, scientific and business experience to help you achieve your business objectives. We assist in patent prosecution and strategy for emerging and early stage companies. Our Intellectual Property and Technology team has considerable and broad experience in chemistry, pharmaceuticals, enzymology, biotechnology, immunology and other industry sectors.

Stephanie L. Seidman, Ph.D.

Admitted in the District of Columbia only

Partner, San Diego D +1 619 595 8010 stephanie.seidman@dentons.com

Dentons. Now the world's largest global elite law firm.*

大成 DENTONS



dentons.com

© 2016 Dentons. Dentons is a global legal practice providing client services worldwide through

*Acritas Global Elite Law Firm Brand Index 2013-2019

NuMega Resonance Labs

FAST TURNAROUND, ACCURATE RESULTS

*NMR 500MHz*Mass*Elemental Analysis

TEL: (858) 793-6057

www.numegalabs.com

2019 ACS REGIONAL MEETINGS

Middle Atlantic (MARM) ends June 1 UMBC, Baltimore Central (CERM) June 4 - 7 Midland, MI Northwest (NORM) June 16 - 19 Portland, OR Northeast (NERM) June 22 - 27 Saratoga Springs, NY Midwest (MWRM) October 16 - 18 Wichita, KS Southeastern (SERMACS) October 20 - 23 Savannah, GA Southwest (SWRM)/RMRM El Paso, TX November 13 - 16



LOOKING FOR A CHEMIST?

CHEMPLOYMENT IS THE ANSWER!
THE SAN DIEGO CHEMIST

is read by nearly 3000 chemists and biochemists in San Diego and Imperial Counties.

A two-month ad costs only \$80.00

For information contact: Renate Valois - renate@sandiegoacs.org

Attention Companies! 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

San Diego Miramar College

Linda Woods lwoods@sdccd.edu (619) 388-7750

Point Loma Nazarene University

Sara Choung <u>SaraChoung@Poin</u>tLoma.edu

610 940 2627

619-849-2627

San Diego Mesa College

Dwayne Gergens <u>dgergens@sdccd.edu</u> 619-388-2609

San Diego Miramar College

Fred Garces

fgarces@sdccd.edu

619-388-7493

Southwestern College, Chula Vista

David Hecht

dhecht@swccd.edu

619-421-6700x5461

University of California, San Diego

Stacey Brydges sbrydges@ucsd.edu 858-246-0993

Thomas Bussey tbussey@ucsd.edu 858-822-6665

University of San Diego

Tammy Dwyer tdwyer@sandiego.edu 619-260-4030



YOUR AD HERE!

Your ad in the next issue of

THE SAN DIEGO CHEMIST

For information contact:

Renate Valois - renate@sandiegoacs.org

It is the function of science to discover the existence of a general reign of order in nature and to find the causes governing this order. And this refers in equal measure to the relations of man - social and political - and to the entire universe as a whole.

Dmitri Mendeleev

UPCOMING EVENTS

SUMMER PICNIC San Dieguito County Park, Solana Beach Sunday, June 30, 2019

SENIORS/RETIREES/CONSULTANTS/ETC. BREAKFAST Bristol Farms Café - Costa Verde Shopping Center -Genesee Avenue and Nobel Drive, University City Tuesday, July 9, 2019, at 9:30 AM

FIFTY-/SIXTY-YEAR MEMBER LUNCHEON Tom Ham's Lighthouse, 2150 Harbor Island Drive, San Diego Thursday, July 11, 2019

22nd ANNUAL SAN DIEGO MEDCHEM SYMPOSIUM Hojel Auditorium and Arango Foyer, UCSD The Institute of the Americas 10111 North Torrey Pines Road, La Jolla, CA 92093 Friday, July 19, 2019

258th ACS NATIONAL MEETING & EXPOSITION

San Diego, California August 25-29, 2019

CHEM EXPO
"Marvelous Metals"
San Diego Miramar College, 10440 Black Mountain Road, San Diego
10440 Black Mountain Rd, San Diego
Saturday, October 26, 2019

HOLIDAY PARTY Sufi Mediterranean Cuisine 5915 Balboa Avenue, San Diego, CA 92111 Tuesday, December 3, 2019

THE SAN DIEGO SECTION OF THE AMERICAN CHEMICAL SOCIETY WELCOMES ITS NEW MEMBERS

John Beals Wen Chen Susan Cooper Kevin Curran Shan Deneen Ralph Dougherty Nesreen Elathram Tamara El-Hayek Julian Esselborn Thomas Esser Franco Faucher Michael Greig Ramsey Hazin Azyriah Hill John Ketcham Sepideh Khorasanizadeh

Regis Komperda

William Krantz Jonas Lee Tinghui Li Jeff Mindrebo Sophia Mittman Herbert Moss Russ Naven Keegan Nelson Huong Nguyen Trystan Rackham Daniel Richter Robert Shoemaker Laurie Smith Andy Stokely Daniel Wright Mackenzie Wyllie

Devil Wallace, Samumed, LLC, (anodmore) (2019) 888-638-1866 Anni-Febral Park-Febral Park-Febra Park-Febra Park-Febra Park-Febra Park-Febra Park		SAN DIEGO SECTIO	S	(2215)	050 065 ==
According Acco	Co-Chair			(2019)	858-869-7084
ast-Chair Jennifer Barbe-Singh, BioFibulicia, Jasinghi Sandleapaca.org (2019) 888-869-7892 receivary william Tolley, Seazost Science, Inc., Patheylbrino.com (2019) 888-869-7892 receivary of Graeme Freestone, Jones Pharmaceuticols, Inc., afreedometisandiagnaci.org (2019) 888-789-780-780 pt. 1981-780-780 pt. 1981-780 pt. 1					
Company					
Came Presente Came Presente Came					
Jamobiles Thomas R. Bestelle Thi Cay, Work Applie (2021) S88-581-120 S88-581-1					
Thomas R. Beattie		Graeme Freestone, Ionis Pharmaceuticais, I	nc., greestonewsandiegoacs.org	(2019)	838-339-6363
Hui Cai, Wook AppTec Desiree Grubbh, Holozyme Therapeutics (2021) 383-361-8839 Visiente Kuck (2021) 383-361-8839 Visiente Kuck (2021) 383-361-8839 Visiente Kuck (2021) 383-361-8839 Visiente Kuck (2021) 383-361-361-361-361-361-361-361-361-361-36		D. Beattie	(2021)		858-587-1210
Desiries (Cubish), Halozyme Therapeutics					
Valerie Kuck					
Mem Paggenburg (2019) 760-635-2573 780-635-					
David Willece, Samumed, LLC (2011) 858-638-1866			` ,		
Itemate Councilors Surya K. De, Piex Pharmaceuticals, Inc. (2019) \$88-337-4961 Julian Miller, Waters Corporation (2000) \$80-252-4752.46800 \$80-252-4752.46800 \$80-353-3943 Julian Miller, Waters Corporation (2000) \$83-33-3943 Julian Miller, Waters Corporation (2019) \$83-33-3943 Julian Mills, Ell Ully & Co. (2020) \$42-875-9621 Julian Mills, Ell Ully & Co. (2020) \$42-875-9621 Julian Mills, Ell Ully & Co. (2020) \$42-875-9621 Julian Mills, Ell Ully & Co. (2020) \$83-83-3943 Julian Mills, Ell Ully & Co. (2020) \$83-85-86-356 Julian Mills, Ell Ully & Co. (2020) \$83-85-60-356 Julian Mills, Ell Ully & Co. (2020)					
Surya K. De, Plex Pharmaceuticals, Inc. (2019) 883-337-4961 20200 800-252-4722, 48002 Ben Pratt, Pratt Pharma Consulting LLC (2019) 800-252-4722, 48002 Ben Pratt, Pratt Pharma Consulting LLC (2019) 800-252-4722, 48002 863-465-8736 1800 870-252-4722, 48002 863-465-8736 1800 870-252-4722, 48002 863-465-8736 1800 870-252-472, 48002 863-465-8736 1800 870-252-472, 48002 870-25			(2021)		030-030-1000
Julain Miller, Waters Corporation (2020) 800-252-4752 (8020) 88-845-7892 (8021) 88-845-7892 (8021) 88-845-7892 (8021) 88-845-7892 (8021) 88-845-7892 (8021) 88-845-7892 (8021) 88-845-8921 (8021) 88-845-89			(2019)		858-337-4061
Ben Pratt, Pratt Pharma Consulting LLC (2019) \$83-945-7892 \$83-33-3404 \$73-35-3041 \$10					
John Schindler (2019) \$858-333-3943 \$858-333-3943 \$858-333-3943 \$858-333-3943 \$858-333-3943 \$858-333-3943 \$858-333-3943 \$858-333-3943 \$858-333-3943 \$858-333-305 \$858-333-305 \$858-335-305 \$858-				,	
Jm Shi, El Lilly & Co (2020) 62-8826-3561					
Shannon Woodruff, HP Inc. (2020) 949-735-9021 199-87-35-9021 199-8					
### Services Committee Com			` ,		
Faul Bruinsins, HP Inc. (2020) 858-655-8322			(2020)		5157555021
James Offsien (2020) 8583-35-0-0306 Bill Stabo (2019) 858-550-0306 Jackier Trischman, CSUSM (2021) 858-414-3323 Jann Um, Southwestern College (2019) 858-414-3323 ANDING & SPECIAL COMPITTEES BESS-353-3943 BASI-354-4547 BASI-354-3547 BA			(2020)		858-655-8322
Bill Szabo (2019) 888-550-0306 302 302 302 302 302 302 302 302 302 302			` ,		
Jackier Trischman, CSUSM (2021) 858-414-3323 (2019) 10-823-8637 (2019)					
Joann Im, Southwestern College					
AMDING & SPECIAL COMMITTEES Valeric Kuck (Co-Chair)			` ,		
Wards Nomination Committee 973-744-5510 Valerie Kuck (Co-Chair) 858-333-3943 Julann Miller (Co-Chair) 858-333-3943 Braul Bruinsma, HP Inc. 858-655-8322 Agual Bruinsma, HP Inc. 858-655-8322 Surya K. De, Piec Pharmaceuticals, Inc. 858-655-8322 Surya K. De, Piec Pharmaceuticals, Inc. 858-534-849 Ken Poggaphurg 619-602-0638 Ken Poggaphurg 619-602-0638 Board Wallace, Samumed, LLC 858-658-8166 Stage Stag			(2015)		310 023-003/
Valerie Kuck (Co-Chair)					
Self-size Self					973_744_5510
Dilann Miller (Chair), Waters Corporation 800-252-4752 x 8602 Paul Bruinsma, HP Inc. 858-655-8322 Paul Bruinsma (Chair), HP Inc. 858-657-8323 Paul Bruinsma (Chair), HP Inc. 858-657-827 Renate Valois (Newsletter Editor) 619-632-635 Paul Bruinsma (LUC 858-658-8186 Stinguished Scientist Awards Nomination Committee 858-587-1210 Paul Bruinsma (LUC 858-657-1210 Paul Bruinsma (LUC 858-557-1210 Paul Bruinsma (LUC 858-658-1210 Paul Bruinsma (LUC 8					
Julann Miller (Chair), Waters Corporation 800-252-4752 x x 8602 858-655-8322 mmunications Committee 858-655-8322 mmunications Committee 858-655-8322 mmunications Committee 858-655-8322 mmunications Committee 858-337-4961 8		maicr (CO-Chair)			0,0-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Paul Bruinsmä, HP Inc. 858-655-8322 mmunications Committee 858-655-8322 mmunications Committee 858-655-8322 mmunications Committee 858-337-4961 mmunications Committee 858-337-4961 mmunications Committee 858-337-4961 mmunications Committee 858-337-4961 mmunications Committee 858-658-832 mmunications Committee 858-638-866 mmunications Committee 858-638-866 mmunications Committee 858-638-866 mmunications Committee 858-638-866 mmunications Committee 858-87-1210 mmunicati		iller (Chair) Waters Cornoration			RNN-252-4752 V6802
				•	
Paul Bruinsma (Chair), HP Inc.					030-033-0322
Surya K. De, Plex Pharmaceuticals, Inc. 885-337-4961 Desired Grubish, Allozyme Therapeutics 885-254-5497 Ken Poggenburg 760-635-2573 Renate Valois (Newsletter Editor) 619-692-0638 David Wallace, Samumed, LLC 858-638-1866 Stinguished Scientist Awards Nomination Committee 558-67-1210 Thomas R. Beattie (Chair) 619-260-4030 Barbara Sawrey 858-729-0688 David Wallace, Samumed, LLC 558-729-0688 Ucation Committee 500-804-5412 Ucation Committee 500-804-5412 Ucation Committee 510-823-8637 Userie Kuck 597-244-5510 Loan Schellinger, USD 619-260-7960 Valerie Kuck 510-823-8637 Joan Schiellinger, USD 619-260-7960 Starter School (Chair) 858-550-0306 Starter School (Chair) 858-550-0306 Starter School (Chair) 858-553-3349 John Schindler 858-533-3943 John Schindler 858-353-3943 John Schindler 858-361-8838 John Schindler 858-361-8838					858-655-8377
Desiree Grubisha, Halozyme Therapeutics \$58-254-5497 Ken Pogspehburg 760-635-2573 Renate Valois (Newsletter Editor) 619-620-0638 David Wallace, Samumed, LLC 858-638-1866 Stinguished Scientist Awards Nomination Committee 1619-600-4030 Thomas R. Beattie (Chair) 858-587-1210 Tammy Dwyer, USD 619-600-4030 Barbara Sawrey 858-729-0689 David Wallace, Samumed, LLC 858-729-0689 Lucation Committee 510-823-8637 Joan Dum (Chair) Southwestern College 510-823-8637 Valerie Kuck 973-744-5510 Joan Schellinger, USD 619-260-7960 Allerie Kuck 973-744-5510 James Caldwell, Accelagen, Inc. 815-262-9697 James Caldwell, Accelagen, Inc. 858-537-1210 John Schindler 858-587-1210 James Caldwell, Accelagen, Inc. 815-262-9697 James Caldwell, Accelagen, Inc. 815-262-9697 James Caldwell, Accelagen, Inc. 858-353-3943 Hui Cal, Wuxi AppTec (Chair) 858-368-87-1210 Scenaria Scommittee 858-368-3689 <					
Ken Poggenburg 760-635-2573 250-2573					
Renate Valois (Newsletter Editor)					
David Wallace, Samumed, LLC S58-81866 S58-18166 S58-18186					
stinguished Scientist Awards Nomination Committee 558-587-1210 Tammy Dwyer, USD 619-260-4030 Barbara Sawrey 858-729-0689 David Wallace, Samumed, LLC 858-204-5412 Lucation Committee 10-23-8637 Joans Chellinger, USD 619-260-7960 With Fair 315-262-9697 James Caldwell, Acclagen, Inc. 815-262-9697 anance Committee 858-550-0306 Bill Szabo (Chair) 858-587-1210 John Schindler 858-533-3943 Mardarising Committee 815-262-9697 James Caldwell, Accelagen, Inc. 858-533-3943 James Caldwell, Accelagen, Inc. 858-587-1210 James Caldwell, Accelagen, Inc. 858-533-3943 Much Call Will, Accelagen, Inc. 858-561-8838 James Caldwell, Accelagen, Inc. 858-361-8838 Ken Poggenburg 760-635-2573 We Committee 858-361-8838 Ryan C. Smith, Duane Morris LLP 858-87-1210 Ben Patt (Co-Chair), Pratt Pharma Consulting, LLC 858-838-886 Ben Patt (Co-Chair), Janssen Pharmaceuticals, Inc. 858-838-8914 David Wallace (Co-Chair), Janssen Pharmaceuticals, Inc. 858-638-1866 Brownittee 973-744-5510 Jünschlich (Co-Chair), Janssen Pharmaceuticals, Inc. 858-638-1866					
Thomas R. Beattie (Chair) Tammy Dwyre, USD					00-030-1866
Tammy Dwyer, USD 619-260-4038 388-729-0689 David Wallace, Samumed, LLC 458-29-0689 David Wallace, Samumed, LLC 458-204-5412 (ucation Committee 458-204-5412 (ucation Committee 458-204-5412 (ucation Committee 459-204-689) September 2012 (Chair) Southwestern College 510-823-8637 Valerie Kuck 973-744-5510 (192-206-207-960) September 2012 (Chair) 619-260-7960 (192-206-207-960) September 2012 (Chair) 619-260-7960 (192-206-207-960) September 2012 (Chair) 815-262-9697 (192-207-960) September 2012 (Chair) 858-857-1210 (192-207-960) September 2012 (Chair) 858-858-87-1210 (19					858-597-1210
Barbara Sawrey 858-729-0688 David Walkace, Samumed, LLC 858-204-5412 fucation Committee 510-823-8637 Joann Lim (Chair) Southwestern College 510-823-8637 Valerie Kuck 973-744-5510 Joan Schellinger, USD 619-260-7960 hthFair 815-262-9697 James Caldwell, Accelagen, Inc. 858-550-0306 Bill Szabo (Chair) 858-587-1210 John Schindler 858-353-3943 drainsing Committee 858-353-3943 James Caldwell, Accelagen, Inc 858-353-3943 we Committee 858-353-3943 Ken Poggaphurg 858-361-883 Ken Poggaphurg 858-361-883 Ken Poggaphurg 619-744-2220 ad Science Program 760-635-2573 Thomas R. Beattie 858-887-1210 adChem Symposium 858-887-1210 Ben Pratt (Co-Chair), Pratt Pharma Consulting, LLC 858-834-8914 Ben Pratt (Co-Chair), Janssen Pharmaceuticals, Inc. 858-334-8914 David Wallace (Co-Chair), Samumed, LLC 858-638-1866 will be propositive 90FN Open 973-744-5510 <					
David Wallace, Samumed, LLC					
Macation Committee					
10an Um (Chair) Southwestern College					020-204-5412
Valerie Kuck 973-744-5510 Joan Schellinger, USD 619-260-7960 britFair 815-262-9697 James Caldwell, Accelagen, Inc. 858-550-3080 Bill Szabo (Chair) 858-557-1210 John Schindler 858-353-3943 Indraising Committee 815-262-9697 James Caldwell, Accelagen, Inc 815-262-9697 Vernment Affairs Committee 858-361-8838 Hui Cai, WuXi AppTec (Chair) 858-361-8838 Ken Poggenburg 760-635-2573 W Committee 858-767-1210 Ryan C. Smith, Duane Morris LLP 619-744-2220 4d Science Program 858-587-1210 Thomas R. Beattie 858-945-7893 4d Science Program 858-945-7893 Thomas R. Beattie 858-945-7893 Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc. 858-945-7893 Mark Tichenor (Co-Chair), Samumed, LLC 858-933-8866 Embership Committee 90EN OPEN 973-744-5510 James Caldwell (Chair), Accelagen, Inc. 815-262-967 James Caldwell (Chair), Accelagen, Inc. 858-353-3943					510 022 0627
19-260-7960 19-260-7960					
### ### ### ### ### ### ### ### ### ##					
James Caldwell, Accelagen, Inc. ### Since Committee Bill Szabo (Chair) Tom Beattie Bill Szabo (Chair) Sse-550-0306 Sse-587-1210 Sohn Schindler James Caldwell, Accelagen, Inc ### Since Committee James Caldwell, Accelagen, Inc ### Wince Chair) ### Wince Chair		eilinger, 05D			019-200-7900
Annee Committee Bill Szabo (Chair) Tom Beattle John Schindler John John John Morris LE John Schindler John Schi		aldwall Accolagon Inc			915-262-0607
Bill Szabo (Chair) 858-550-0306 Tom Beattie 858-587-1210 John Schindler 858-353-3943 James Caldwell, Accelagen, Inc 815-262-9697 overment Affairs Committee 858-361-8838 Ken Poggenburg 760-635-2573 w Committee 858-361-8838 Ken Poggenburg 619-744-2220 w Committee 858-361-8838 Ryan C. Smith, Duane Morris LLP 619-744-2220 ad Science Program 858-587-1210 Thomas R. Beattie 858-587-1210 adchem Symposium 858-945-7893 Ben Pratt (Co-Chair), Pratt Pharma Consulting, LLC 858-348-8914 Ben Pratt (Co-Chair), Samumed, LLC 858-334-8914 ambership Committee 858-334-8914 Derby Committee 858-638-1866 oPEN 90EN colic Committee 815-262-9697 James Caldwell (Chair), Accelagen, Inc. 815-262-9697 John Schinder 973-744-5510					013-202-3037
Tom Beattie 858-587-1210 John Schindler 858-353-3943 Indraising Committee 815-262-9697 John Schindler 815-262-9697 Indraising Committee 760-635-2573 Hui Cai, WuXi AppTec (Chair) 858-361-8838 Ken Poggenburg 760-635-2573 W Committee 879-744-2220 Ryan C. Smith, Duane Morris LLP 619-744-2220 ad Science Program 858-587-1210 Thomas R. Beattie 858-945-7893 adChem Symposium 858-945-7893 Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc. 858-33-3943 Mark Tichenor (Co-Chair), Samumed, LLC 858-638-1866 embership Committee 90EN ominations Committee 90EN open N 500 alames Caldwell (Chair), Accelagen, Inc. 815-262-9697 Jim Shih, Eli Lilly & Co. 626-826-3561 ofessional Development Committee 973-744-5510 Valerie Kuck 973-744-5510 bilic Relations Committee 858-353-3943 solor Chemists Committee 970-635-2573 <t< td=""><td></td><td></td><td></td><td></td><td>050 550 0306</td></t<>					050 550 0306
Sea					
Indraising Committee James Caldwell, Accelagen, Inc vernment Affairs Committee Hui Cai, WuXi AppTec (Chair) Ken Poggenburg Wornmittee Ryan C. Smith, Duane Morris LLP Ad Science Program Thomas R. Beattie Acther Symposium Ben Pratt (Co-Chair), Pratt Pharma Consulting, LLC Ben Pratt (Co-Chair), Janssen Pharmaceuticals, Inc. Ben Pratt (Co-Chair), Samumed, LLC embership Committee OPEN James Caldwell (Chair), Accelagen, Inc. James Caldwell (Chair), Accelagen, Inc. James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. ofcessional Development Committee Valerie Kuck John Schindler John Schindler Ken Poggenburg (Chair) John Schindler Ken Poggenburg (Chair) Strong Reakfasts Thomas R. Beattie OPEN Strong Reakfasts Thomas R. Beattie OPEN Valerie Kuck Valerie Kuck Valerie Kuck Valerie Kuck Valerie Kuck Valerie Kuck Valeries Scommittee Valeries Kuck Valeries Scommittee Valeries Kuck Valer					
James Caldwell, Accelagen, Inc vernment Affairs Committee Hui Cai, WuXi AppTec (Chair) Hui Cai, WuXi AppTec (Chair) Ken Poggenburg Ryan C. Smith, Duane Morris LLP ad Science Program Thomas R. Beattie edChem Symposium Ben Pratt (Co-Chair), Pratt Pharma Consulting, LLC Bysan C. Chair), Janssen Pharmaceuticals, Inc. Ben Pratt (Co-Chair), Janssen Pharmaceuticals, Inc. Ben Pratt (Co-Chair), Samumed, LLC Bysan Committee OPEN Demonitee OPEN Demonitee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. Descince Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. Descince Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. Descince Committee Valerie Kuck John Schindler Ken Poggenburg (Chair) Endows Committee John Schindler Ken Poggenburg (Chair) Endows Committee Valerie Kuck John Schindler Senore Steakfasts Thomas R. Beattie Open (Chemists Committee Valerie Kuck					838-333-3943
December Affairs Committee Hui Cai, WuXi AppTec (Chair) 858-361-8838 Ken Poggenburg 760-635-2573 W. Committee Ryan C. Smith, Duane Morris LLP 619-744-2220 619-744-220 619-7					Q15_262 0607
Hui Cai, WuXi AppTec (Chair)					012-202-969/
Ken Poggenburg 760-635-2573 w Committee Ryan C. Smith, Duane Morris LLP 619-744-2220 ad Science Program Thomas R. Beattie 858-587-1210 ad Science Program Thomas R. Beattie 858-587-1210 Ben Pratt (Co-Chair), Pratt Pharma Consulting, LLC 858-945-7893 Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc. 858-334-8914 David Wallace (Co-Chair), Samumed, LLC 858-638-1866 ambership Committee OPEN Thomas R. Beattie 815-262-9697 Jim Shih, Eli Lilly & Co. 626-826-3561 ofessional Development Committee James Caldwell (Chair), Accelagen, Inc. 815-262-9697 Jim Shih, Eli Lilly & Co. 626-826-3561 ofessional Development Committee John Schindler 858-353-3943 which Relations Committee John Schindler 858-353-3943 which Schindler 760-635-2573 which is Breakfasts Thomas R. Beattie 858-587-1210 omen Chemists Committee Valerie Kuck 973-744-5510 unger Chemists Committee Valerie Kuck 973-744-5510 programment Chemists Committee Valerie Kuck 973-744-5510					000 201 0020
## Committee Ryan C. Smith, Duane Morris LLP ## Science Program Thomas R. Beattie ## Start (Co-Chair), Pratt Pharma Consulting, LLC ## Ben Pratt (Co-Chair), Janssen Pharmaceuticals, Inc. ## Ben Pratt (Co-Chair), Janssen Pharmaceuticals, Inc. ## David Wallace (Co-Chair), Samumed, LLC ## Start (Co-Chair), Samumed					
Ryan C. Smith, Duane Morris LLP ad Science Program Thomas R. Beattie adChem Symposium Ben Pratt (Co-Chair), Pratt Pharma Consulting, LLC Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc. Ben Pratt (Co-Chair), Samumed, LLC Benbership Committee OPEN minations Committee OPEN James Caldwell (Chair), Accelagen, Inc. James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. ofessional Development Committee Valerie Kuck bilic Relations Committee John Schindler Ken Poggenburg (Chair) Ken Poggenburg (Chair) Thomas R. Beattie Thomas R. Beattie Johns Chemists Committee Valerie Kuck Johns R. Beattie Johns R.					/60-635-25/3
### Science Program Thomas R. Beattie ###################################					610 744 3333
Thomas R. Beattie edChem Symposium Ben Pratt (Co-Chair), Pratt Pharma Consulting, LLC Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc. David Wallace (Co-Chair), Samumed, LLC embership Committee OPEN ominations Committee OPEN ominations Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. ofessional Development Committee Valerie Kuck valerie Kuck valerie Kuck spilic Relations Committee Ken Poggenburg (Chair) Thomas R. Beattie owner Chemists Committee Valerie Kuck valerie Kuck valerie Kuck spilic Relations Committee Ken Poggenburg (Chair) Thomas R. Beattie owner Chemists Committee Valerie Kuck					019-744-2220
Ben Pratt (Co-Chair), Pratt Pharma Consulting, LLC Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc. David Wallace (Co-Chair), Samumed, LLC embership Committee OPEN ominations Committee OPEN cnic Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. ofessional Development Committee Valerie Kuck viblic Relations Committee John Schindler school Chair) School Schindler school Chair) School Schindler sch					050 507 4010
Ben Pratt (Co-Chair), Pratt Pharma Consulting, LLC Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc. David Wallace (Co-Chair), Samumed, LLC Embership Committee OPEN Ominations Committee OPEN James Caldwell (Chair), Accelagen, Inc. James Caldwell (Chair), Accelagen, Inc. James Caldwell (Chair), Accelagen, Inc. S15-262-9697 Jim Shih, Eli Lilly & Co. Ofessional Development Committee Valerie Kuck Iblic Relations Committee John Schindler Ken Poggenburg (Chair) Finans R. Beattie Omen Chemists Committee Valerie Kuck Valerie Kuck Valerie Kuck Valerie Ken Poggenburg (Chair) Valerie Ken Poggenburg (Chair) Valerie Ken Poggenburg (Chair) Valerie Kuck Va					ა58-58/-1210
Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc. David Wallace (Co-Chair), Samumed, LLC embership Committee OPEN ominations Committee OPEN ominations Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. ofessional Development Committee Valerie Kuck ublic Relations Committee John Schindler Emior Chemists Committee Ken Poggenburg (Chair) Thomas R. Beattle omen Chemists Committee Valerie Kuck under Season Sea					050 045 7000
David Wallace (Co-Chair), Samumed, LLC embership Committee OPEN minations Committee OPEN cnic Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. ofessional Development Committee Valerie Kuck ### Standard Committee John Schindler John Schindler Ken Poggenburg (Chair) ### Standard Chair) ### Standard Chair Chair) ### Standard Chair Ch					
embership Committee OPEN minations Committee OPEN cnic Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. ofessional Development Committee Valerie Kuck blic Relations Committee John Schindler Senior Chemists Committee Wan Poggenburg (Chair) Thomas R. Beattie Domen Chemists Committee Valerie Kuck OPEN		, , ,	IC.		
OPEN Ominations Committee OPEN Cric Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. Ofessional Development Committee Valerie Kuck Valerie Kuck Valerie Kuck Volic Relations Committee John Schindler Ken Poggenburg (Chair) Valerie Steakfasts Thomas R. Beattie Omen Chemists Committee Valerie Kuck OPEN					858-638-1866
minations Committee OPEN Chic Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. Ofessional Development Committee Valerie Kuck Valerie Kuck John Schindler John Schindler Schindler John Schindler Ken Poggenburg (Chair) Thomas R. Beattie Omen Chemists Committee Valerie Kuck Thomas R. Beattie Omen Chemists Committee Valerie Kuck Val		Committee			
OPEN cnic Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. ofessional Development Committee Valerie Kuck valerie Sommittee Ken Poggenburg (Chair) valerie Somenitee valerie Kuck valerie K		Committee			
cnic Committee James Caldwell (Chair), Accelagen, Inc. Jim Shih, Eli Lilly & Co. ofessional Development Committee Valerie Kuck Valerie Kuck Valorie Kuck Sohn Schindler John Schindler Ken Poggenburg (Chair) Food-635-2573 Food		Committee			
James Caldwell (Chair), Accelagen, Inc. 815-262-9697 Jim Shih, Eli Lilly & Co. 626-826-3561 ofessional Development Committee 973-744-5510 Valerie Kuck 973-744-5510 iblic Relations Committee 858-353-3943 John Schindler 858-353-3943 vior Chemists Committee 760-635-2573 miors Breakfasts 858-587-1210 Inlows R. Beattie 858-587-1210 omen Chemists Committee 973-744-5510 Valerie Kuck 973-744-5510 unger Chemists Committee 973-744-5510		ittaa			
Jim Shih, Eli Lilly & Co. 626-826-3561 ofessional Development Committee Valerie Kuck 973-744-5510 blic Relations Committee John Schindler 858-353-3943 mior Chemists Committee Ken Poggenburg (Chair) 760-635-2573 miors Breakfasts Thomas R. Beattie 858-587-1210 omen Chemists Committee Valerie Kuck 973-744-5510 unger Chemists Committee					015 262 0607
ofessional Development Committee Valerie Kuck Valerie Valer					
Valerie Kuck pflic Relations Committee John Schindler Stendard Schmittee Ken Poggenburg (Chair) Aniors Breakfasts Thomas R. Beattie Domen Chemists Committee Valerie Kuck Valerie Kuck OPEN Pf3-744-5510 973-744-5510					020-026-3561
blic Relations Committee John Schindler Start Chemists Committee Ken Poggenburg (Chair) Tions Breakfasts Thomas R. Beattie Thomas R. Beattie Thomas Chemists Committee Valerie Kuck Valerie Kuck OPEN Start Chemists Committee OPEN Start Chemists Committee					072 744 5542
John Schindler strior Chemists Committee Ken Poggenburg (Chair) riors Breakfasts Thomas R. Beattie somen Chemists Committee Valerie Kuck valerie Kuck OPEN 858-353-3943 760-635-2573 760-63					9/3-/44-5510
enior Chemists Committee Ken Poggenburg (Chair) 760-635-2573 eniors Breakfasts Thomas R. Beattie 858-587-1210 omen Chemists Committee Valerie Kuck 973-744-5510 nunger Chemists Committee					050 050 00:-
Ken Poggenburg (Chair) Priors Breakfasts Thomas R. Beattie Pomen Chemists Committee Valerie Kuck Popen Valerie Kuck Valerie Kuck Valerie Kuck Valerie Kuck Valerie Market V					858-353-3943
eniors Breakfasts Thomas R. Beattie 858-587-1210 omen Chemists Committee Valerie Kuck 973-744-5510 punger Chemists Committee					700 00
Thomas R. Beattie 858-587-1210 omen Chemists Committee 973-744-5510 ounger Chemists Committee 979-744-5510 OPEN					/60-635-2573
omen Chemists Committee Valerie Kuck sunger Chemists Committee OPEN					_
Valerie Kuck 973-744-5510 ounger Chemists Committee OPEN					858-587-1210
ounger Chemists Committee OPEN					_
<u>ÖPEN</u>					973-744-5510
		mists Committee			
	OPEN				