



The San Diego Chemist

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DEVELOPMENT OF AN INTEIN-BASED CONJUGATION PLATFORM FOR THE SYNTHESIS OF FC-FUSION PROTEINS

Dr. Matthew Bio

*Small Molecule Process and Product Development and Therapeutic Discovery
Amgen Inc., One Amgen Center Drive, Thousand Oaks, CA 91320*

DATE: Tuesday, January 13, 2015

TIME: 6:00 PM Social Hour, Light Meal
7:00 PM Lecture

PLACE: The Scripps Research Institute
Keck Auditorium, Beckmann Building
10550 N. Torrey Pines Road, La Jolla

RSVP: By Friday, January 9, 2015
<http://matthewbio.eventbrite.com>



ABOUT THE SPEAKER:

Matthew M. Bio was born and raised in Allentown, Pennsylvania, where he attended Muhlenberg College. Matthew received his bachelor's degree in natural sciences in 1996. Concurrent with his undergraduate studies, Matthew worked as an associate in the labs of Rohm & Haas in Springfield, PA. During his three years at Rohm & Haas he spent time both on the production and purification of acrylate monomers and in the development of new insecticides. In 1996 Matthew enrolled as a graduate student in the Chemistry department at Columbia University. Matthew joined the newly formed lab of then assistant professor Jim Leighton at Columbia studying synthetic routes to the newly isolated phomoidride CP-263,114 via a silyloxy-Cope rearrangement. Matthew received his PhD in Chemistry from Columbia 2001 and joined the Merck Research Laboratories in Rahway, NJ, in the department of Process Research. In 2004 Matthew took a secondment to the Merck Sharp and Dohme labs, Hoddesdon, England, to lead a small process team. In 2006, Matthew moved back to the US to join the process research group at Amgen, Inc., in Cambridge, MA. In 2010 he moved to Amgen's labs in Thousand Oaks, CA, where he is currently Director of Process Development.

ABOUT THE PRESENTATION:

The attachment of therapeutic peptides to the Fc portion of an IgG antibody is a useful method to extend *in vivo* serum half-life of otherwise rapidly cleared small peptides. While these Fc-fusion proteins are typically expressed from cells engineered using recombinant DNA technology, in some cases expression methods fail to deliver high quality protein with acceptable titer and yield. In the case of peptides bearing non-canonical amino acids, expression technologies either don't exist or are impractical for application in a manufacturing setting. Expressed protein ligation technologies based on inteins offers a method for the regio- and chemoselective conjugation of a synthetic peptide to an expressed Fc fragment. The results of our efforts to utilize expressed protein ligation to deliver half-life extended therapeutically relevant peptides will be discussed.

CHAIR NOTES

Dear ACS Members,

It is with great anticipation that I look toward the 2015 calendar. As chair of the San Diego Section of the American Chemical Society, I hope to continue the strong participation we have been seeing from our members and volunteers. I would like to extend a hearty thank you to 2014 Chair, **Mark Tichenor**, for all his hard work and organization that produced door busting attendance at our annual and newly added events.

The 2015 executive team includes **Graeme Freestone** (chair-elect), **Bill Tolley** (secretary), and **Bill Szabo** (treasurer). In addition, the executive committee consists of a dedicated team of committee chairs, councilors, alternate councilors, and members-at-large who all contribute to planning the many events throughout the year that our members enjoy. Our next executive committee meeting will take place on January 8th. I invite any and all members to come to volunteer, meet other chemists in the Section, or tell us what you would like to see in 2015.

The theme for 2015 is *Chemistry: Outside the Box*. The Section will continue to host events focused on small molecule medicinal chemistry, the core demographic of the San Diego Section, but I hope to engage the larger audience of our >2,400 members with events that focus on other areas including macromolecules, conjugation chemistry, process chemistry, biofuels, and analytical chemistry. The past few years have seen our monthly meetings well attended and I hope to see similar turnout with new faces as we cast a wider net of speakers and topics.

To lead off the year, **Dr. Matthew Bio**, Director of Small Molecule Process and Development and Therapeutic Discovery at Amgen Inc., Thousand Oaks, will present on the development of an intein-based conjugation platform for the synthesis of FC-fusion proteins at The Scripps Research Institute on January 13th. This talk promises to cover several topics of interest to synthetic, bioorganic, and process chemists alike.

On February 10th, **Michael Burkart**, Professor and Associate Director of the California Center for Algae Biotechnology from UCSD, will share his research on the use of Algae for Renewable Chemical Production. Research in this area has produced several successful biotechnology companies in San Diego and I hope we will see a strong contingent of chemists from that sector.

In addition to these events I am looking forward to our yearly favorites. These include the medicinal chemistry seminars "Academics to Industry", Earth Fair, Mad Science, Seniors Breakfasts, Education Awards Banquet, Family Picnic, 50-/60-Year Member Luncheon, MedChem Symposium, ChemExpo, Distinguished Scientist Award Banquet, CATE Lectures, Holiday Party and the many events from the Government Affairs, Professional Development, the Women Chemists Committee and the Younger Chemists Committees.

Finally, on behalf of the Executive Board of the San Diego Section of the ACS, best wishes to you and yours for a Joyful Holiday Season and for a Happy New Year!

Ben Pratt
2015 Chair

American Chemical Society – San Diego Section

E-mail: bpratt@sandiegoacs.org

Web: www.sandiegoacs.org

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 **2,400 members** of the ACS-San Diego Section, each potential customers for your products and services! **Quick turnaround:** Ad copy submitted by the 23rd of each month will be published by the 30th of that month. For more information, please contact:

Renate Valois, renate@sandiegoacs.org.

FREE EVENT ANNOUNCEMENTS FOR 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 2015 Chair Ben Pratt at bpratt@sandiegoacs.org. Once approved, Ben will see that your announcement is published on our website (www.sandiegoacs.org) and, if received by the 23rd 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!

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: are:

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|--------------|--------------------------------|-------|-------|
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| 4.5" x 1.5" | \$ 80 | \$ 74 | \$ 67 |
| 4.5" x 4.75" | \$200 | \$184 | \$163 |
| 8.5" x 5.5" | \$400 | \$360 | \$310 |
| full page | \$655 | \$590 | \$510 |

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

Renate Valois at renate@sandiegoacs.org.

Make checks payable to:

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Bill Szabo, Treasurer,
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San Diego, CA 92122

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:

1. 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.
2. 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.
4. To post topics for discussion, or informational items to the listserver members, send the message to sandiego-chemist-l@ucsd.edu.
5. If the moderator approves the post, it will be sent to the members.

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

Executive Committee Meeting Dates 2015

6:00 – 8:00 pm

| | | |
|-----------------|------------------|----------|
| Thursday | January | 8 |
| Thursday | February | 5 |
| Thursday | March | 5 |
| Thursday | April | 2 |
| Thursday | May | 7 |
| Thursday | June | 4 |
| Tuesday | July | 7 |
| Thursday | August | 6 |
| Thursday | September | 3 |
| Thursday | October | 1 |
| Thursday | November | 5 |

Meetings will be held at:
9381 Judicial Drive, Suite 160
San Diego, CA 92121



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PROFESSIONAL CORPORATION

The San Diego Section of the American Chemical Society would like to thank our Corporate Sponsors. Here are a few examples of our annual outreach programs that are made possible by their generous donations:

Mad Science - Stage demonstrations for 4th and 5th graders which make science fun for kids! Last year the program was viewed by over 8000 students in low-income areas and from military families.

ChemExpo - A science event for middle and high school students held in Balboa Park annually for the past 27 years. It features live stage demonstrations and interactive booths that teach kids about applied science. Last year over 1000 local students participated!

Monarch Elementary School Program - This unique school accommodates children who are impacted by homelessness, and who would otherwise have little or no exposure to hands-on science.

EarthFair - We participate in the world's largest free annual environmental fair, held in Balboa Park.

CONSIDER SPONSORSHIP OF THE ACS SAN DIEGO SECTION

The San Diego Section of the ACS is looking for organizations that are committed to advancing science and education in the greater San Diego area by providing financial support. There are several ways to get involved and each one comes with its own benefits and privileges.

For further information please contact: Gulin Erdogan, Chair, Fundraising Committee, gerdogan@sandiegoacs.org

2015 ACS PROJECT SEED

Requests for Funding Now Being Accepted!

The Executive Committee of the San Diego Section of the American Chemical Society has again approved limited funding for the ACS Project SEED program in 2015.

This 46-year-old summer research internship provides economically disadvantaged high school juniors and seniors with an opportunity to work side-by-side with scientist-mentors on research projects in local academic, government, and industrial laboratories. Click [here](#) for more information about ACS Project SEED.

If you are an institutional coordinator or high school teacher and have an interest in applying for support from the ACS-San Diego Section in 2015, please send details (including the level of funding requested) to:

Gulin Erdogan at gerdogan@sandiegoacs.org

The deadline for receipt of your request for funding is **January 15, 2015**. Student selection is the responsibility of the participating institution(s).

Give a young student the unique chance to experience real-world scientific research!

JOIN US FOR A SOCIABLE AND LEISURELY BREAKFAST

For several years the San Diego ACS Section has had a quarterly breakfast. Our attendees have been mostly consultants, retirees, semi-retirees and/or seniors. We have a core group of regular attendees and some others who attend whenever they fancy.

It's an informal affair. People order from the regular breakfast menu whatever they wish and pay with individual checks. Some are heavy eaters and others are not. The restaurant, Marie Callender's, is conveniently located at Carmel Mountain Road, just east of exit 21 of I-15 in the shopping center. For our next breakfast on **Thursday, January 15, 2015, 9:30 – 11:00 am**, we would like to invite any of our Section members (with or without your spouse or significant other) to join us. We really don't want to exclude any of our members, so please come and join us if you are interested and have the time available.

For additional details, check with Tom Beattie (Beattietr@aol.com).

ACS-Hach Scholarships

ACS-Hach Second Career Teacher Scholarship

Provides financial support for chemistry professionals to obtain a masters degree in education or teacher certification in chemistry. Award Amount: Up to \$6,000 for full-time study and up to \$3,000 for part-time study

Application Period: February 1st – April 16th

CHEMISTRY JUDGES NEEDED

Judging by professional societies at the 60th Annual Greater San Diego Science & Engineering Fair will take place on **Wednesday, March 25th, at 12:15 pm** in Balboa Park. If anyone is able to help choose exhibits for our Section's chemistry awards or wants more information, please contact Jim Shih at jimshih@earthlink.net

SPRING 2015 ACS NATIONAL MEETING

Please see updated information on the [249th ACS National Meeting & Exposition](#), which will be held March 22-26, 2015, in Denver, CO. [Call for Papers for the Fall 2015 National Meeting \(Boston, August 16-20, 2015\)](#) opens mid-January 2015.



National Chemistry Week

The San Diego Section of the American Chemical Society (ACS) celebrated National Chemistry Week (NCW) by hosting ChemExpo on Saturday, October 25th, in collaboration with the Miramar College Chemistry Faculty. The location change to Miramar College was considered a success, the first time in the 27 years that ChemExpo was held outside of Balboa Park. We had more room for booths and the stage shows. About a thousand middle and high school students including parents and teachers participated. The Girl Scouts of America NCW event, organized by **Jackie Trischman**, adjacent to the main ChemExpo, added a few hundred more participants. Numbers were comparable to those of recent years.

The ChemExpo was started in 1987 by **Suzanne Blackburn** of the San Diego Air Pollution Control District. **Tony Bottone** and **Gay Olivier-Lilley** ran the event for several years. For the last four years, **Julann Miller** and **Paul Bruinsma** have taken responsibility for the ChemExpo organization. This year **Linda Woods** from Miramar College paved the way for our use of the campus.

Several years ago, ChemExpo had outgrown its traditional Balboa Park location. The large crowds in the small space made it difficult for the students to see demonstrations and talk with chemist volunteers. Reaching ChemExpo by car at peak times was difficult at Balboa Park especially with competing events.

The new venue, part of the college's community outreach efforts, had easy car access and parking. We had ample space around the Compass Point in the center of the campus. The campus itself is impressive. Many of the buildings are new, which highlights the critical role community colleges play in the state college system. Landscaping is modern, demonstrating beautiful arrangements of low water usage plants: Palo Verde trees, bunch grasses and succulents. The new venue helped introduce the college campus experience.

The overall goal of National Chemistry Week is to promote the value of chemistry in everyday life. This year's theme was "The Sweet Side of Chemistry – Candy". Nearly a tradition, the theme will be mostly ignored for the high school oriented part of event. We are just happy having what company and organization participation we can get.

Hands-on Demos and Company/Organization tables were on the South Compass Walk. A stage and audience chairs were set on the central Compass Point. High school students obtained extra credit by filling in worksheets with stamps and answering a short list of questions based on the tables and the stage presentations. Extra credit aside, students appreciated the event with the opportunity to interact with chemists and scientists. Several hundred girl scouts held their event on the North Compass Walk.

The many volunteers from the ACS Local Section, businesses and colleges made ChemExpo possible. UCSD, USD, CSUSM and SDSU students ran the stage demonstrations and hands-on tables. A large number of **Jerry Albert's** Mesa College and Miramar College students helped with set up and company/organization tables. These volunteers were extremely helpful when table leaders had trouble recruiting within their own organizations. The students have to quickly learn how to represent what a company does or run a table demonstration. Perhaps unnerving at first, the student volunteers appreciated the experience and contact with working chemists.

ChemExpo featured company and organization exhibit tables, demonstrations by local college chemistry clubs. The AWIS Outreach Committee showcased a fun shaving cream art activity. Students were introduced to the concepts of hydrophilic and hydrophobic properties, polar and non-polar interactions, and phases of matter. The activity, with a few drops of colored dye and a bit of creativity, allowed discover the interplay of art and science.

Alissa Faith Sasayama led the Smells Exhibit in place of **David Wallace**. Plastic jars with holes in the lids were loaded with cinnamon sticks, lemons, and coffee beans, etc., to help students learn to associate certain classes of odors to chemical structures. **Bill Tolley** of Seacoast Science demonstrated a MEMS-based GC chemical detector. The company develops chemical detection devices for leak detection, military, homeland security and air quality monitoring. **Haim Weizman's** CAICE (Center for Aerosol Impacts on Climate and the Environment) outreach program had a number of volunteers from the center demonstrating the importance of aerosols. **Jitka Parez**, San Diego Air Pollution Control District, had an Audit Van driven up onto the Miramar campus to demonstrate site air pollution monitoring equipment.

Erika Matz and her group of volunteers from UC Irvine's CaSTL (Chemistry at the Space-Time Limit) Center got awards for distance traveled and the coolest name. The center's mission is to develop tools to unravel elemental steps in chemistry. Because of overseas travel, **John Newsam** again missed ChemExpo. **Khanh Nguyen** managed the tables for Tioga Research. The company helps pharmaceutical companies formulate drugs that are applied to the skin. As part of their extra credit activities, students needed to ask working chemists, scientists and engineers how they enjoy using chemistry in their daily work. To help identify themselves to students, Roaming Chemists were provided with yellow Chemistry Ambassador sashes.

The Girl Scouts did a better job following the theme. They had a chocolate fountain and a smoothie machine. The San Diego ACS Section sponsors the Girl Scouts at ChemExpo. The goal of the program is for girls to have fun exploring the world of science with college students and female scientists from around San Diego County. The girls were encouraged to learning about the chemistry of sweet treats, especially chocolate, and their metabolism in our bodies. They each earned a special National Chemistry Week patch.

Next year we can make an attempt to follow the theme, "Chemistry Colors Our World". Perhaps this is nod to this year's Nobel Prize in Chemistry involving "fluorescence microscopy". We can involve local biotech companies that utilize fluorescence. The ACS can also encourage participation from local inkjet companies: Hewlett-Packard, Memjet and Kodak.



Girl Scout event ramping up at the beginning of the day



College chemistry club-run stage shows entertain while highlighting aspects of chemistry



Smells table taught students to associate different odors with chemical structures



San Diego Air Pollution District had an extensive booth including an Audit Van. Additional volunteers helped manage the booth



Hands-on demos including the potato battery allowed one-on-one interaction with students



Bill Tolley with Seacoast Science showed off their MEMS-based GC detector



Ken Poggenburg (with the chemistry ambassador sash) discusses his experiences in chemistry with a high school student



The ChemExpo is also about chemistry peers working together and friendships

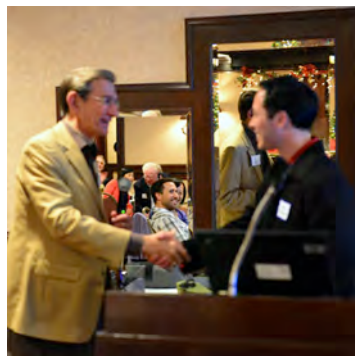
ANNUAL MEETING AND HOLIDAY PARTY

Our last Annual Meeting and Holiday Party took place on December 4th and was held again at The Butcher Shop Steakhouse. Attendance was very good and we were happy to see quite a few students, maybe future board members?

Outgoing Chair, **Mark Tichenor**, summarized our very interesting 2014 events and **Ben Pratt**, incoming Chair, talked about his plans for 2015. Again, we are looking forward to an exciting year!



Chair Mark Tichenor's last presentation



Bill Szabo handing over the ACS pin



Enjoying meeting new people



Mark Tichenor's parents with Ryan Clark



Fun for all ages



Ben Pratt gathering ideas for 2015



A packed house



Dinnertime conversations



Social hour introductions



Mark Tichenor handing over the reign to incoming Chair, Ben Pratt



2015 Chair, Ben Pratt



Yummy desserts!

Renate Valois
Photo credit: Jim Shih

CHEMPLOYMENT ABSTRACT – January 2015

CHEMPLOYMENT 772

POSITION TITLE:

Scientist (Medicinal Chemistry)

JOB DESCRIPTION:

We are looking for a highly motivated, hands on medicinal chemist to become a key member of the Crinetics team. This individual will be an integral part of our medicinal chemistry effort to discover small-molecule therapeutics. This is a growth and learning opportunity in a small company environment.

Responsibilities: Design, synthesis and purification of small-molecule drug candidates and other molecules as part of drug discovery programs.

QUALIFICATIONS DESIRED:

PhD in Organic Chemistry with strong synthetic chemistry training and 0-3 years in small-molecule drug discovery experience.

DESCRIPTION OF COMPANY:

Crinetics Pharmaceuticals Inc. (www.crinetics.com) is a startup company located in the heart of the San Diego biotechnology community that discovers and develops novel therapeutics targeting peptide hormone receptors for the treatment of endocrine-related diseases and cancers. Crinetics is an employee-owned company founded and operated by a team of scientists with a proven track record of drug discovery and development for endocrine diseases and women's health. Benefits include health insurance and stock options. Crinetics is a pet-friendly workplace.

APPLICATION INSTRUCTIONS:

To apply, please email CV to hr@crinetics.com. San Diego area residents only, please.

ACS Short Courses in La Jolla, CA

The ACS will be holding 6 Short Courses in La Jolla, CA, **February 2 - 5, 2015**, to help you gain invaluable training in just a few days. Short Courses from the ACS give you the tools to stay on top of new technology, growing trends in the science industry, and basic skills you need to advance in your career all while interacting in a face-to-face environment with other professionals.

Courses to be held include:

February 2 – 3, 2015

Dispersions in Liquids: Suspensions, Emulsions, and Foams

Drug-like Properties: Optimizing Pharmacokinetics and Safety in Drug Discovery, Laboratory Safety

February 4 – 5, 2015

Pharmacokinetics and Safety Pharmacology for Chemists in Drug Development, Statistical Analysis of Laboratory Data, Structure Based Drug Design

Location: Sheraton La Jolla Hotel, 3299 Holiday Court, La Jolla, CA 92037.

[See our 2015 locations and register today!](#)

CHEMISTRY FOR YOU AND YOUR KIDS

GET A LIFT WITH A WONDERSCIENCE WINDLASS

A windlass is a special kind of wheel and axle that is used to lift heavy objects. Old-fashioned wells often used a windlass to raise a large wooden bucket of water. In this activity, you will make your own windlass, and discover how using this special wheel system can make it a lot easier to lift heavy things.

You will need

Safety glasses - 2 unopened soda cans - 2 flexible straws - 4 paper clips - Small paper cup (3 oz) - String or thread - Adhesive tape - 20 pennies

1. Open the paper clips into an "S" shape. Use two of the paper clips to make a handle for the small cup, and tie the string to this handle.
2. Place 20 pennies in the cup. Lift the cup by the string. Feel how much force you use to lift the cup this way.
3. Tape the two soda cans together, one on top of the other. Tape two paper clips on opposite sides of the upper can. The large end of each paper clip should stick up above the edge of the can.
4. Place the long end of a flexible straw through the paper clip loops so that the straw rests on top of the can. This straw is the **axle** of your windlass. Bend the short end of the flexible straw upward.
5. Bend the second straw at the flexible joint. Attach the long end of the second straw to the short end of the first. The second straw is the handle or **wheel** of your windlass.
6. Now you can hang your cup of pennies from the windlass. Tape the end of the string to the straw about 2-3 cm from the end opposite the handle.
7. Turn the handle of your windlass and watch the cup of pennies rise! How does the force needed to lift the pennies this way compare to lifting the cup of pennies before?
8. Try lifting the cup by using your fingers to turn the straw axle at the end near the string. Is it easier or harder than using the handle?
9. Experiment with your windlass to see how many pennies you can lift.

Excerpt: "The Best of WonderScience," pg. 448, Delmar Publishers, 1997

ACS Webinars™

Featured Events – January 2015

ACS Webinars® is a free, weekly online event serving to connect ACS members and scientific professionals with subject matter experts and global thought leaders in the chemical sciences. Each session is about 60 minutes, comprised of a short presentation followed by Q&A with the speaker. Live presentations are held on **Thursdays from 2-3pm ET**. Recordings of the webinars are available online to ACS members at <http://acswebinars.org/>.

Rookie Lab Mistakes and Other Facts Not Found in Textbooks

January 15, 2015

<http://www.acs.org/content/acs/en/events/upcoming-ac-webinars/lab-mistakes.html>

3D Printing: The Future of Manufacturing

January 22, 2015

<http://www.acs.org/content/acs/en/events/upcoming-ac-webinars/3d-printing.html>

2015 Drug Design and Delivery Symposium

Begins January 29, 2015

Visit the site to register for the monthly series

<http://www.acs.org/content/acs/en/events/upcoming-ac-webinars/drug-design-2015.html>

2015 ACS REGIONAL MEETINGS

| | | |
|---------------------------------------|---------------|------------------|
| Central (CERM)/ GLRM) | May 27-30 | Grand Rapids, MI |
| Northeast (NERM) | June 10-13 | Ithaca, NY |
| Northwest (NORM) | June 21-25 | Pocatello, ID |
| Midwest (MWRM) | October 21-24 | St. Joseph, MO |
| Southeast (SERMACS) | November 3-7 | Memphis, TN |
| Western (WRM) | November 6-8 | San Marcos, CA |

Hot Off the Press – First FREE Articles Online Now!

The first FREE articles for ACS's newest journal [ACS Biomaterials Science & Engineering](#) are hot off the press and available FREE online. Be the first to read the ASAPs for the journal that publishes high-impact content at the intersection of chemistry, biology, material science, and engineering. Get a sneak peek of what's to come in the first issue that will be available online in January 2015.

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

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

Research Resources for ACS Members

There's a tremendous amount of value that comes along with your ACS membership - in addition to special discounts on world-class information resources and technical meetings, ACS Members have access to a suite of valuable professional and personal benefits, developed by colleagues in the chemical sciences and designed to meet their specialized needs.

Jump-start your research by taking advantage of [exclusive member rates and access on these top-shelf scientific resources from ACS:](#)

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ACS Members, get the most out of your

membership by taking advantage of all the resources available through your Society. You can find complete details about member benefits from ACS Publications and the Chemical Abstracts Service, as well as many other resources, at www.acs.org/memberhandbook.

Not an ACS Member? Join today at

www.acs.org/joinactoday.

Online Leadership Training

Are you interested in developing as an ACS member? Or maybe you'd like to sharpen your project management skills. You can learn both at your convenience with [ACS Leadership Development System® self-paced online courses](#). They may be taken as part of a full track or stand-alone activities. For ACS members, the course rate is \$25 - try one today!

SHARE SCIENCE AS A CHEMISTRY AMBASSADOR

Be a Chemistry Ambassador by sharing science with kids. Volunteer with youth groups, summer camps, and scouts in your community. In addition to the many sample experiments offered by the Chemistry Ambassadors program, we have a limited number of free Kids & Chemistry kits you can request if you wish to conduct hands-on activities with groups of up to 32 kids. Find out more information about the kits and [order one today](#). Once you experience the rewards of helping kids learn about chemistry, consider doing it again. The Chemistry Ambassadors program makes it easy to stay involved, whether you have a lot of time, or just a little.

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UCSD welcomes hundreds of cutting-edge companies recruiting undergraduate and graduate students, postdocs, MBAs, and experienced UCSD alumni to fill thousands of internship and full-time positions worldwide. Whether a startup, non-profit, or multi-national, you will connect with top talent that will help you make an impact.

Upcoming

[2015 Triton Winter Job & Internship Fair](#)

Wednesday, January 14, 2015, 10am-2.30pm
Price Center, UC San Diego

- [Register today](#) to save your spot in the **new**, exclusive "**Biotech/pharma neighborhood!**"
- Fees: \$300 for startups and non-profits; \$800 general (prior to 12/15/14)
- Post a job or internship for free [here](#)

Companies that regularly visit UCSD include Pfizer, J&J, Illumina, Genentech, Baxter, Organovo, Pharmatek Labs, NuVasive, Thermo Fisher Scientific, Becton Dickinson (BD), Janssen Labs, Kaiser Permanente, The Scripps Research Institute, Synthetic Genomics, among many others.

Contact

If you are a recruiter or UC San Diego graduate and your company is not currently recruiting at the university, please register above and/or [contact Joe Cribari, associate director of industry and alumni relations](#) to connect your company or firm with top Triton talent.

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

Palomar College

Greg Elliott gelliott@palomar.edu
858-531-1149

Point Loma Nazarene University

Sara Choung SaraChoung@PointLoma.edu
619-849-2627

San Diego Mesa College

Dwayne Gergens dgergens@sdccd.edu
619-388-2609

San Diego Miramar College

Linda Woods lwoods@sdccd.edu
619-388-7434

San Diego State University (SDSU)

Mikael Bergdahl bergdahl@sciences.sdsu.edu
619-594-5865

Southwestern College, Chula Vista

David Hecht dhecht@swccd.edu
619-421-6700x5461

University of California, San Diego

Judy Kim judyk@ucsd.edu
858-534-8080
Gourisankar Ghosh gghosh@ucsd.edu
858-822-0469

University of San Diego

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



YOUR AD HERE!

Place your ad in the next issue of

The San Diego Chemist.

**Please contact Renate Valois at
renate@sandiegoacs.org**

UPCOMING EVENTS

**DEVELOPMENT OF AN INTEIN-BASED CONJUGATION PLATFORM
FOR THE SYNTHESIS OF FC-FUSION PROTEINS**

DR. MATTHEW BIO

Director of Process Research, Amgen, Thousand Oaks, CA

Tuesday, January 13, 2015

SENIORS/RETIRES/CONSULTANTS/ ETC. BREAKFAST

Marie Callender's Restaurant & Bakery, 11122 Rancho Carmel Dr., San Diego, CA 92128

Thursday, January 15, 2015

9:30 AM

ChEMBL WORKSHOP

MolSoft Offices, San Diego, CA.

January 28th 2015 1-4pm

For more information please see: <http://www.molsoft.com/training.html>

DR. MICHAEL BURKART

Professor of Chemistry and Biochemistry

Associate Director, California Center for Algae Biotechnology

University of California at San Diego, La Jolla, CA

Tuesday, February 10, 2015

2015 SAN DIEGO FESTIVAL OF SCIENCE AND ENGINEERING

FESTIVAL WEEK: March 14-21, 2015

EXPO DAY at PETCO Park: Saturday, March 22, 2015

<https://www.lovestemsd.org/>

249TH ACS NATIONAL MEETING & EXPOSITION

Denver, Colorado

March 22-26, 2015

THE 60th ANNUAL GREATER SAN DIEGO SCIENCE AND ENGINEERING FAIR

Balboa Park Activity Center (2145 Park Blvd.)

For information please see <http://www.gsdsef.org/>

March 24 - 29, 2015

EARTH DAY - EARTHFAIR 2015

Balboa Park, San Diego, CA

<http://www.earthdayweb.org/>

Sunday, April 19, 2015

SUMMER PICNIC

San Dieguito County Park, Solana Beach

Sunday, June 28, 2015

250TH ACS NATIONAL MEETING & EXPOSITION

Boston, Massachusetts

August 16-20, 2015

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

Anser Abbas
Sergio Aguila
Abraham Bitton
Matthew Carr
Ashley Chong
Kelly Conlin
Jordan Eaton
Robert Charles Gervacio IV
Carlos Gonzalez

Che-Hsiung Hsu
Sharanya Iyer
Isaac Izaquirre
Luke Kisaichi
Nicole Kohnen
Cynthia Liu
John Lukesh III
John Luz
Jiao Ma

Isaac Marquez
Patrick Mowery
Andrew Nelson
Alan Saghatelian
Brandon Schrank
Nathan Tyler
Amelia Woo
Sharon Xu

**2015 EXECUTIVE COMMITTEE & COMMITTEE MEMBERS
SAN DIEGO SECTION OF THE AMERICAN CHEMICAL SOCIETY**

EXECUTIVE COMMITTEE

| | | | |
|--------------------|--|--------|--------------|
| <i>Chair</i> | Ben Pratt, Akarna Therapeutics, bpratt@sandiegoacs.org | (2015) | 858-945-7893 |
| <i>Chair-Elect</i> | Graeme Freestone, Dart NeuroScience LLC, gfrestone@sandiegoacs.org | (2015) | 858-246-8137 |
| <i>Past-Chair</i> | Mark Tichenor, Janssen Pharmaceuticals, Inc., mtichenor@sandiegoacs.org | (2015) | 858-334-8914 |
| <i>Secretary</i> | William Tolley, Seacoast Science, Inc., b_tolley@juno.com | (2015) | 858-780-0978 |
| <i>Treasurer</i> | Bill Szabo, bszabo1@san.rr.com | (2015) | 858-550-0306 |

Councilors

| | | |
|--|--------|--------------|
| Thomas R. Beattie | (2015) | 858-587-1210 |
| Hui Cai, WuXi AppTec | (2016) | 858-361-8838 |
| Desiree Grubisha, CSUSM | (2015) | 858-254-5497 |
| John Palmer, UCSD | (2017) | 858-534-5906 |
| Ken Poggenburg | (2016) | 760-635-2573 |
| David Wallace, Wallace Scientific Consulting | (2015) | 858-638-1866 |

Alternate Councilors

| | | |
|---|--------|--------------------|
| Paul Bruinsma, Hewlett-Packard Company | (2017) | 858-655-8322 |
| Surya K. De, Sanford-Burnham Medical Research Institute | (2016) | 858-337-4961 |
| Julann Miller, Waters Corporation | (2017) | 800-252-4752 x6802 |
| John Schindler | (2016) | 858-353-3943 |
| Jim Shih, Eli Lilly & Co | (2017) | 619-269-0117 |
| Ruo Steensma, Steensma Consulting, Inc. | (2016) | 858-205-9371 |

Members-at-Large

| | | |
|---------------------------------------|--------|--------------|
| Ryan Clark, Inception Sciences, Inc. | (2017) | 858-774-2095 |
| Gulin Erdogan, Vertex Pharmaceuticals | (2015) | 619-540-8321 |
| Mark Rosen, Aetheria Therapeutics | (2017) | 858-692-0639 |
| Patrick Andrew Staley | (2015) | 858-483-4297 |
| Jean Wang, IriSys Inc. | (2015) | 858-623-1520 |

STANDING & SPECIAL COMMITTEES

Awards Nomination Committee

| | |
|---------------------------|--------------|
| Thomas R. Beattie (Chair) | 858-587-1210 |
|---------------------------|--------------|

ChemExpo

| | |
|--|--------------------|
| Paul Bruinsma (Chair), Hewlett-Packard Company | 858-655-8322 |
| Julann Miller, Waters Corporation | 800-252-4752 x6802 |

Communications Committee

| | |
|---|--------------|
| Paul Bruinsma, (Chair), Hewlett-Packard Company | 858-655-8322 |
| Surya K. De, Sanford-Burnham Medical Research Institute | 858-337-4961 |
| Desiree Grubisha, CSUSM | 858-254-5497 |
| Ken Poggenburg | 760-635-2573 |
| David Wallace, Wallace Scientific Consulting | 858-638-1866 |
| Renate Valois (Newsletter Editor) | 619-692-0638 |

Education Committee

| | |
|---|--------------|
| Haim Weizman (Chair), UCSD | 858-534-2963 |
| Joann Um (Co-Chair), Southwestern College | 510-823-8637 |

EarthFair

| | |
|-----------------------------------|--------------------|
| Julann Miller, Waters Corporation | 800-252-4752 x6802 |
|-----------------------------------|--------------------|

Finance Committee

| | |
|---|--------------|
| Bill Szabo (Chair) | 858-550-0306 |
| Tom Beattie | 858-587-1210 |
| Graeme Freestone, Dart NeuroScience LLC | 858-246-8137 |

Fundraising Committee

| | |
|---|--------------|
| Gulin Erdogan (Chair), Vertex Pharmaceuticals | 619-540-8321 |
|---|--------------|

Government Affairs Committee

| | |
|------------------------------|--------------|
| Hui Cai, WuXi AppTec (Chair) | 858-361-8838 |
| Ken Poggenburg | 760-635-2573 |

Law Committee

OPEN

Mad Science Program

| | |
|-------------------|--------------|
| Thomas R. Beattie | 858-587-1210 |
|-------------------|--------------|

MedChem Symposium

| | |
|---|--------------|
| Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc. | 858-334-8914 |
| David Wallace (Co-Chair), Wallace Scientific Consulting | 858-638-1866 |

Membership Committee

| | |
|-----------------------------------|--------------|
| Mark Rosen, Aetheria Therapeutics | 858-692-0639 |
|-----------------------------------|--------------|

Nominations Committee

| | |
|---------------------------|--------------|
| Jim Shih, Eli Lilly & Co. | 619-269-0117 |
|---------------------------|--------------|

Picnic Committee

| | |
|---------------------------|--------------|
| Jim Shih, Eli Lilly & Co. | 619-269-0117 |
|---------------------------|--------------|

Professional Development Committee

| | |
|---|--------------|
| Ruo Steensma, Steensma Consulting, Inc. | 858-205-9371 |
|---|--------------|

Public Relations Committee

| | |
|----------------|--------------|
| John Schindler | 858-353-3943 |
|----------------|--------------|

Retired Chemists Committee

| | |
|------------------------|--------------|
| Ken Poggenburg (Chair) | 760-635-2573 |
|------------------------|--------------|

Seniors Breakfasts

| | |
|-------------------|--------------|
| Thomas R. Beattie | 858-587-1210 |
|-------------------|--------------|

Women Chemists Committee

| | |
|---|--------------|
| Gulin Erdogan (Chair), Vertex Pharmaceuticals | 619-540-8321 |
| Abhi Sharma, Drug Delivery Experts | 619-807-9044 |
| Jayashree Srinivasan, Accelerate-Research | 619-826-8004 |

Younger Chemists Committee

| | |
|--|--------------|
| Jean-François Brazeau (Co-Chair), Celgene | 858-882-5263 |
| Corey Anderson, (Co-Chair), Vertex Pharmaceuticals | 858-405-4734 |

Voice Mail – San Diego Section

619-687-5570