THE VORTEX

AMERICAN CHEMICAL SOCIETY **CALIFORNIA SECTION**
VOLUME LXXXI NUMBER 8 **OCTOBER 2019**

Jim Hawley, LBNL, Eileen Nottoli, CalACS, Lee Latimer, CalACS, Bill Quirk, Hayward Assemblymember, Bryan Balazs, CalACS, Sarah Brady, CalACS and, Scott Brady, LLNL.

California, State Assembly commemorating
IYPT and CalACS and all Chemists. See article on page 3

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California Section American Chemical Society

with support of

Women CHEMISTS Committee

All are welcome

Saturday, October 19, 2019

Laney College
Odell Johnson Performing Arts Theater
900 Fallon Street
Oakland, CA 94607

Time

2:30PM

Reservation and Payment Required

By one of the following options:

1. Brown paper tickets: go to www.calacs.org and click Manya
2. Email office@calacs.org
3. Phone 510-351-9922

For either option #2 or #3, send a check for the desired number of tickets (indicating student or regular) made payable to: CA Section, ACS, 2950 Merced St., #225, San Leandro, CA 94577, postmarked no later than October 4, 2019. Individuals needing special assistance (ADA), allergies, etc. should notify CA Section ACS.

Cost

$15 ($8 for students and the unemployed)

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LANEY COLLEGE

Susan Marie Frontczak

Manya

This is a living history presentation of one of our most famous chemists, Marie Curie, and allows us to celebrate the International Year of the Periodic Table (IYPT) in grand style. The story starts with childhood memories that include Marie's dawning interest in science and her determination to conquer obstacles to obtaining an education in politically oppressed Poland - where women were not allowed to obtain schooling after gymnasium (high school). It then traces her migration to the Sorbonne, her unconventional romance with Pierre Curie, the birth of their first daughter, and the basis of Marie's scientific investigations that led to the discovery of two new elements (polonium and radium), an understanding of radioactivity, and the use of radium therapy against cancer.

About Susan Marie Frontczak

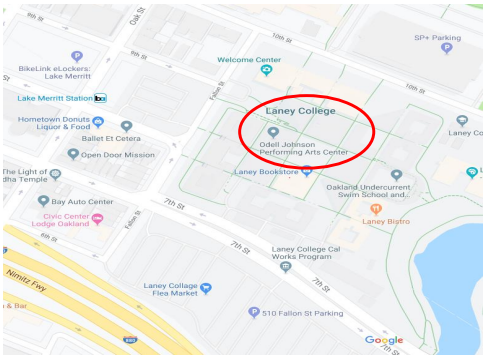
In dramatizing the life of Marie Curie, Susan Marie pays homage to their shared Polish heritage. Marie Curie's perseverance in purifying a tenth of a gram of radium from a ton of pitchblende, in part, inspired Susan Marie to earn an Engineering degree from Swarthmore College and a Masters in Software Engineering from the Wang Institute of Graduate Studies. She worked for fourteen years at Hewlett-Packard Company before pursuing full time writing and performing. It is her aim to reveal the human behind the scientist, while placing Marie Curie's life and accomplishments in a memorable historical context.

About your Role

As attendees, you will be invited to participate in a networking event immediately following the performance. Students have a chance to win a prizes, so don't miss out!

Directions

Go to Laney College's website to chart the most suitable route
Parking: Free on Saturday on the Laney College campus
Public Transportation: Lake Merritt BART station is within walking distance to Laney College.



Gifts & Donations

The Section has many outreach programs with Section Committees such as WCC that help support science and chemistry in our community. You can help support the programs including the work with the High School Chemistry Teachers programs through your donations. Call or email and direct your valued contribution to a program of your choice.

Lou Rigali, LR101898@aol.com

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Assembly Resolution Celebrating IYPT and CalACS and all Chemists

On September 3 in the California State Assembly session at the state capitol in Sacramento, Representative Dr. Bill Quirk of Hayward led passage of a Member Resolution celebrating the 150th anniversary of the proposal of the Periodic Table, the celebration of the International Year of the Periodic Table of the chemical Elements, chemists contributions to the table and especially the contributions of CalACS chemists to the synthesis of over 20 elements beyond Uranium. This work particularly took place at Berkeley Lab (now Lawrence Berkeley National Lab, LBNL) and the Lawrence Livermore National Lab (LLNL). Dr. Quirk and Dr. Balazs are both formerly of LLNL.

In attendance at the presentation representing CalACS were Lee Latimer, Bryan Balazs and Eileen Nottoli. Representing LBNL was Jim Hawley. Representing LLNL was Scott Wilson, and representing the California Council on Science and Technology (CCST) was Sarah Brady, also an ACS and CalACS member.

This is the 6th similar resolution so far this year around the country, with more in progress, which serve especially to not only recognize chemists but also highlight chemistry to the public, as the effort to recognize IYPT did at Lawrence Hall of Science (LHS) on August 11. The resolution by Representative Quirk was a direct outgrowth of the LHS events where the contacts were made leading to this event.

Also attending the presentation were Representative Buffy Wicks, Berkeley and North Oakland, and Rebecca Bauer-Kahan, Livermore to Lafayette/Orinda, whose districts encompass not only the labs above but also many of our chemist members.

We look forward to building on the contacts made in this effort. We are particularly grateful to Jim Hawley and Scott Wilson for their work to achieve the resolution through their contacts, and to Tomasa Duenas of Representative Quirk's office who masterminded the entire process.

Lee Latimer

Cal ACS has shown up for the Bay Area Science Festival since their very first season in 2011, and this year we will return to North Bay Science Discovery Day in Santa Rosa on Saturday, October 26th, 10 AM to 4 PM.

REPORT FROM THE ACS NATIONAL MEETING

San Diego is one of the ACS' four primary rotating locations for National meetings (along with San Francisco, Boston, and Philadelphia) and attendance is usually high when it is the site of the spring meeting and members back east are looking forward to some sunshine and escape from the cold and there is a significant amount of programming for students and high student turn-out. For a fall ACS meeting in San Diego, not so much, as indicated by the relatively low total attendance (12,400 vs 16,200 when ACS was last in San Diego in spring 2015) attributed to fewer students due to the meeting coinciding with the start of the fall term on many campuses. Still, it was sunny and warm in San Diego and those members who did attend appeared to be having a pretty good time.

The convention center has hotels on either side and across the street and a few blocks away, so there is rarely a need for a shuttle bus. The ACS again used the Hilton Bay Front Hotel as the primary governance hotel. On Saturday, prior to the start of the ACS meeting, a Presidential Public Outreach event: ACS Kids Zone, was held at the Fleet Science Center, with around 310 members of the public attending. CALACS Councilor Sheila Kanodia and Alternate Councilor Alex Madonik were among the ACS volunteers for this event. CCA is the organizing committee for these events, along with the ACS Office of Science Outreach. These events feature hands-on science activities, and they have evolved to focus on the National Meeting theme, in this case, "Chemistry of Water."

Once again Alex Madonik did an excellent job of designing the CALACS poster for the Chemluminary Poster session and Awards on Tuesday evening. CALACS was a finalist for the following awards: Outstanding Project SEED Program; Most Creative NCW Celebration Using the Yearly Theme; and Outstanding Performance by a Very Large Local Section.

The overall theme of the San Diego meeting was "Chemistry of Water" As usual, a plenary session on Sunday afternoon highlighted and introduced the overall theme, while Division programing related to the theme continued throughout the week. Over 9000 papers and posters were presented. Presidential Symposia and Events included "From Oceans to Clouds: The Environmental Chemistry of Water," "Keeping Water Safe," Collaborating for the Greater Good: What Works and What Doesn't," "An ACS Chemistry Teachers Reception", and the second of a two-part series that began in Orlando, "The Chemistry of Disasters." Of course, since 2019 has been declared by the UN as the International Year of the Periodic Table, there was a two-day symposium on "150 Years of the Periodic Table."

The popular Kavli Foundation Lecture series continued on Monday afternoon, with the Emerging Leader Lecture presented by Prof. Thomas Markland of Stanford University on "Harnessing the Quantum Mechanics of the Hydrogen Bond: From Atmospheric Science to Enzyme Catalysis" and the main Innovations in Chemistry lecture presented by Prof. Frances Arnold of Cal Tech, entitled "Innovation by Evolution: Bringing New Chemistry to Life."

The "Talented 12" were unveiled in San Diego on Monday. Now in its fifth year the symposium, sponsored by Thermo Fisher Scientific, recognized young stars in the chemical sciences that are working to solve some of the world's most challenging problems. The group includes two from CA: Markita Landry, Ph.D., University of California, Berkeley [Nanomaterials whiz developing tools to deliver DNA to plants and detect brain chemicals] and William Tarpeh, Ph.D., Stanford University [Waste wizard is turning what we normally flush away into a resource]. The key note speaker, Professor Paula Hammond of MIT, was inspiring and provided helpful advice to the pool of 12 and those in the audience. Nobel prize winner Arnold Francis was in the audience along with many others.

Report from the Council Meeting and

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It's Elementary (Part 2)

Bill Motzer

In Part 1 (September 2019 Vortex), I noted that 2019 is the International Year of the Periodic Table because it's the 150th anniversary of the Russian chemist Dmitri Mendeleev's publishing, in 1869, of the modern periodic table. His table contained the then known 56 elements of which 10 were known to ancient civilizations. Discovery and use of these 10 elements by the ancients were not accidental because the Earth (particularly its crust, but also its mantle and core) is a metal-rich planet. (More concerning why and how this came about in a future article.)

The 10 elements known to antiquity, from the oldest (earliest) archeological discoveries and uses to the youngest (latest) are: copper (Cu), lead (Pb), gold (Au), silver, (Ag), iron (Fe), carbon (C), tin (Sn), sulfur (S), mercury (Hg), and zinc (Zn).

Archeologists and anthropologists have determined that the tool making, erect, and curious primate (Homo sapiens) evolved and emerged in the African savanna approximately (~) 350,000 years ago (350 ka). Prior to this, other primate species (e.g., Australopithecus afarensis) in Kenya, shaped and used stone tools from perhaps 3.3 million years ago (Ma), during the Paleolithic or Old Stone Age, a period governed by stone tool development, covering approximately 99% of human technological prehistory. When H. sapiens emerged, tools and weapons were made from materials largely composed of cryptocrystalline silicate minerals (e.g., chert, chalcedony, and flint), volcanic glass (obsidian), and rock (quartzite).

However, by ~11 to 10 ka, humans began using metals: first as ornaments and then as tools and weapons. This came about with development of agriculture, animal domestication, and settlements in villages and cities. Ancient metal usage has been determined by archeochemistry and archaeometallurgy – taltimorem ~10 ka to the recent past. Archaeometallurgy uses both nondestructive and destructive methods in analyzing metallic artifacts, including X-ray spectroscopy, physical analytical methods to determine mass and density, standard chemical qualitative and quantitative analyses to determine chemical composition, and mass spectrometry to determine isotope ratios.

Age of Metals: began ~12 ka at the end of the Neolithic (aka the "New Stone Age"), the final division of the Stone Age (Paleolithic, Mesolithic and Neolithic), first with Near East farming, and later with farming in other parts of the world. The Neolithic lasted until the Chalcolithic transitional period (~6.5 ka), marked by initial metallurgy development, eventually leading to the Bronze and Iron Ages. In Northern Europe, the Neolithic lasted until ~3.7 ka, while in China it lasted to 3.2 ka. Other parts of the world (including the Americas) remained mostly in the Neolithic (except for the Aztec and Inca empires) until European contact at ~0.5 ka.

Au and Ag were much valued by the ancients and they used it for jewelry, ornaments, and coinage; however, both metals are too soft for tools and weapons. Sn is a semimetal and in pure form is hard and brittle. [Interesting note: the ancient Egyptians used the mineral stibnite (Sb_2S_3) – as a mascara (known as khol). Its most famous user was the biblical temptress Jezebel.] Hg is liquid at room temperature; Zn is brittle and rapidly oxidizes in air; Pb is too soft but was used by the ancient Romans as a solder and in lead acetate [sugar of lead; $Pb(C_2H_3O_{2)2}$] – a wine sweetener. This left Cu, Sn, and Fe for tools and weapons.

The Copper Age (Chalcolithic):~6.5 to 5.5 ka, marked Cu metallurgy's beginnings, which came about when the ancients achieved Cu smelting. Cu occurs in native form but also as Cu sulfides [e.g., the minerals chalcopyrite ($CuFeS_2$) and bornite (Cu_5FeS_4)]. These ores were first roasted in pits driving off the sulfur. To obtain the Cu melting point of 1084 ^oC

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charcoal and bellows were used.

Archeologists also believe that Cu smelting techniques may have been accidently discovered when clay pots ceramics were first produced. Neolithic pottery kilns, dating to 8 ka, produced temperatures >900 °C. By 6 ka pottery and glaze making was well developed but glaze "chemistry" was a closely guarded secret. Glazes containing Cu compounds produced brilliant blue and aqua and green finishes forming hard glass-like coatings. Occasionally, pure Cu beads would form on the finished glazes.

The Bronze Age: a historical period, beginning ~7 ka and characterized by development, production, and use of bronze (alloying of Cu with Sn along with arsenic and other metals. Because Sn has a low melting point (231.9 °C) it can readily be alloyed with Cu. An ancient civilization is defined to have been in the Bronze Age either by bronze producing on its own or by trading for bronze produced elsewhere. Bronze was harder and more durable than other metals available at the time, allowing Bronze Age civilizations to gain technological advantages. Copper-tin ores are somewhat rare; therefore, no tin bronzes occur in Western Asia before trading in bronze began ~5 ka. Worldwide, the Bronze Age generally followed the Neolithic, with the Chalcolithic serving as a transition period.

The Iron Age: occurred between 3.2 and 2.6 ka when people across Europe, Asia, and parts of Africa began making tools and weapons from iron and steel. For some societies (e.g., Ancient Greece), the Iron Age start was accompanied by periods of cultural decline. The ancient Hittites (aka Kingdom of Hattusa) of Asia Minor or Anatolia (today's Turkey) are believed to have been one of the first ancient civilizations to smelt Fe from its ores (~3.5 ka). Although terrestrial Fe is naturally abundant, a high melting point of 1538 °C placed it out of common use reach until ~3 ka. It gave the Hittites an economic and political advantage, allowing battle with others (e.g., the Egyptian and Middle Assyrian Empires). Development and success of their Fe smelting technology was largely based on their advantage of a monopoly and possible ironworking secrecy at that time. (This is nicely depicted in the 1954 movie: The Egyptian – staring Edmund Purdom, Jean Simmons, and Victor Mature.) However, the concept of a "Hittite monopoly" has been lately scrutinized and no longer has scholarly consensus. With Bronze Age collapse there occurred a slow, but continuous spread of iron-working technology across the region. Although some iron objects occur in Bronze Age

Anatolia, their number is comparable to iron objects found in Egypt and other places during this period; and only a small number of these objects are weapons. Therefore, Hittites may not have smelted Fe from its ores, but rather used meteorites (a Fe-Ni alloy). And it's those meteorites that tell another story.

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other Society governance activities

CALACS was represented at Council by our full contingent of eight Councilors, our two Past ACS Presidents and current Director-At-Large to the ACS Board. Information on some of the activities of the committees to which they are affiliated can be found below.

On Sunday, prior to the Wednesday Council meeting, a Town Hall was held for meeting the nominees for Director-At-Large in the upcoming fall election. CALACS Councilor, Bryan Balazs, is one of the candidates, along with Harmon Abrahamson (Red River Valley Section), Richard Cobb (Rochester Section), and Dorothy Phillips (Northeast Section).

The San Diego Council meeting was a quiet and efficient one. It may have set a record for the shortest ACS Council meeting. Elections were held to replace members on the Council Policy Committee (CPC), Committee on Committees (CONC), and the Committee on Nominations and Elections (N&E). Long time service for Council members were recognized, which included CALACS Councilors Elaine Yamaguchi (30 years) and Mark Frishberg (15 years).

Other action items approved the newly revised edition of the Professional Chemists Code of Conduct, and the establishment of a new International Chapter in the country of Georgia. A resolution recognized the 100th year birthday of Dr. Gerry Myers, an 80 yr. ACS member, who was in attendance at Council.

The Council Policy Committee sponsored a Strategy Café on Tuesday afternoon. CALACS Councilor and CPC member, Mark Frishberg and our Director-At-Large, Lee Latimer, helped facilitate and CALACS members Alex Madonik, Bryan Balazs, and Sheila Kanodia also attended, with 49 others. The discussion topics were three of the key "change drivers" in the chemistry enterprise:

Conferences and Events Re-imagined
Chemistry's Changing Workforce
Globalization of Chemistry

Alex Madonik captured some of the observations made during the discussions:

Conferences should provide more streaming options, for local and regional as well as national meetings.
More co-sponsorship of technical programming to reduce competing sessions
More technical programming at regional meetings to reduce the stigma that they are "just for undergraduates."
More networking opportunities for younger chemists through mobile apps
Improve the mobile app to make it easier to find programming related to topics of interest
Schedule poster sessions mid-day (rather than evening) with no conflicting oral sessions.
Chemistry Workforce is highly multidisciplinary, less likely to be ACS members
(Need) Boutique technical divisions that they can identify with - example - Wood Science symposium recruited five new members
Partner with other societies
U.S. immigration policy may restrict diversity and Society membership
Public perception of science may limit interest in STEM careers

Comments from our Councilors, Past ACS Presidents, and current Director-At-Large

Bryan Balazs – Budget and Finance (B&F), Undergraduate Program Advisory Board (UPAD), B&F reviewed reports from ACS Staff on the overall financial performance of the ACS as of July 31, 2019, relative to the projected status in the 2019 budget. Overall, the Society is in excellent financial health, and B&F saw no causes for concern. B&F reviewed 6 funding proposals (2 reauthorizations and 4 new funding proposals) and made recommendations to the ACS Board of Directors; all of B&F's recommendations were adopted by the Board. UPAB made final plans and assignments for the undergraduate student program in San Diego, where approximately 400+ undergrads were expected to attend. UPAB also reviewed the planned program for the Spring 2020 National Meeting in Philadelphia where approximately 3000 undergrads are expected to attend. Given the wide discrepancy between undergraduate attendance at the Spring and Fall national meetings (due simply to the academic year calendar), UPAB also spent much time discussing how we might better deploy our resources and programming between these two meetings.

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Michael Cheng – Project SEED The new webinar "Making a Difference Through ACS Project SEED", featuring Racquel Jemison and Mary Bet Dobson, will be launched 9/10/2019. The goal is to draw attention to volunteers and donors. Two "Global Pilot Programs", Malaysia and Nigeria were completed; and probably will be repeated. A Strategic Planning Retreat was held, and generated vision and mission statements and three goals: Foster sustainability of project SEED. Identify and establish working relationship with stakeholders to promote growth. Identify, implement, and promote essential elements of a high quality SEED program.Each goal contains several strategies (actionable items); and all of them are under way.

Mark Frishberg – Council Policy Committee (CPC), ACS Career Consultant – Career Fair Served on two CPC sub-committees – Long Range Planning and Petitions and By-Laws.Helped facilitate a Strategy Café for Councilors and other interested members on three of the "Change Drivers" identified in the ACS Strategic Plan.In ACS Career Fair related activities, Careers in Industrial Chemistry: Identifying Your Role in the Industrial Chemistry Value Chain" and "Resume Development: Marketing Your Brand for an Industrial Chemistry Position," were taught on Sunday afternoon, and the three hour Sunday morning strategy workshop for the Career Navigator programs .

Sheila Kanodia – Committee on Ethics (ETHX)The Committee survey succeeded in collecting information from a broad swathe of the ACS membership about ethics issues of interest. 2500 responses from the first round of surveys were received. A revitalized ETHX Web site will be launched. The committee has adopted a strategic plan. The new ETHX chemluminary award was given to Silicon valley section for 2018 programming.

Lee Latimer – Director-At-Large, The most important item to report was the progress made in working with SACNAS, beginning with a joint meeting with several of their board members. The discussions ranged across the structures that exist and how we might coordinate, and on what issues. As with all our external cooperation agreements with other societies national and international, there is a focus on addressing some of the UN Sustainable Development Goals (SDGs) in whatever we do. Of particular interest to us in the California Section is connecting with and developing programming with the SACNAS student chapters within our boundaries. SACNAS has 113 student chapters nationally, 8 of which are in the California Section. Such a concentration provides a great opportunity to assist our diversity and education goals by bringing them together with other members in the future. At the end of the meeting we were able to get a member resolution in the California Assembly honoring the International Year of the Periodic Table (IYPT).

Eileen Nottoli – No current committee assignment Chemistry Olympiad, some progress is being made in having National host a reception for Olympiad Coordinators to meet and exchange how different sections organize and promote the Olympiad. LSAC is working to assist all Sections to attract and retain members thorough helping share effective ideas and programs of other Sections..

Attila Pavlath – International Activities Committee (IAC) IAC had a special one day specific strategic planning session to determine the goals of IAC to improve interaction with foreign chemical Societies. One of the important goals is to improve the operation of the International Chemical Science Chapters. There are now 23, this year Pakistan and Georgia being added. They need help. The suggestion was again raised to have each of the Chapters "adopted" by a local section to help them. A special Task Force was created to investigate how improve interaction.

Paul Vartanian – Committee on Constitution and By-Laws (C&B) Will

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report later on C&B when official minutes are approved.

Marinda Wu – Committee of Budget and Finance (B&F), ACS Career Consultant – Career Fair, Participated in a Career Panel for SOCED to share tips on Dos and Don'ts for Interviewing. International Activities - Introduced the President of the Israeli Chemical Society to the ChemLuminary Awards Program for his first time. Hosted another very successful Chinese AMERICAN Chemical Society (CACS) Banquet.

Elaine Yamaguchi – Local Section Activities Committee (LSAC), Project SEEDLSAC - for the Grants and Awards subcommittee - a comment will be written for C&EN about opportunities for all ACS members through LSAC. Basically, the average ACS member does not know of the many funding opportunities that are available for local sections. Any ACS member may apply for funds for worthy projects. Funding was approved for the Fall 2019 IPG decisions. Significantly, CALACS Councilor, Dr. Michael Cheng's IPG application to celebrate the International Year of the Periodic Table in CALACS was approved for $3500 This subcommittee is also responsible for science café and METT grants. The Leadership Institute Presentation will be updated. Webinars for LS grants and awards are planned. G&A subcommittee also decided winners of several ChemLuminary Awards. The software platform, "Good Done Great", that ACS uses for members to submit applications for evaluation has not been working as expected and alternatives are being considered to replace it after the contract expires at the end of this year. Project SEED – Attended the Project SEED retreat in mid-June.The SEED Strategic Retreat brought about 15 coordinators, mentors, and other stakeholders (ACS staff, AACT representatives) together, resulting in several topic-based implementation teams that will propel SEED to the next level. The ACS Insurance Trust has provided $15K to SEED that must be spent by end 2019, so proposals will be solicited from coordinators; Twenty-three, one-year SEED college scholarships were awarded.A $500,000 Scholarship endowment has been created by a deceased ACS member The $10M goal of the 50 Forward Campaign has been reached.At the SEED Strategic Retreat, Peggy Biser and Elaine Yamaguchi volunteered to be Champions for the task of building a community of mentors and coordinators. At the San Diego meeting: nearby coordinators, mentors, and stakeholders were specifically invited to the Open SEED meeting to discuss what works well in their SEED programs, and what needs improvement. An on-line survey was distributed prior to the meeting date, so staff could collate comments and share with attendees before the ensuing discussion. It was emphasized that attendees did not have to register for the ACS meeting to come to this event. About 30 folks were in attendance. Today, less than half of all ACS LS have a SEED program. To improve SEED, a number of suggestions were made.

Looking ahead to Philadelphia – March 21-25, 2020

The overall meeting theme will be "Macromolecular Chemistry: The Second Generation." Due to the dates, bringing your winter coat and staying at a hotel near the convention center is recommended. Advanced registration for 2020 National meetings will be $505.

News you might use

Abstracts of the papers and posters presented at the meeting are archived at www.acs.org, and those plenary and symposium presentations that were recorded, with sequenced slides, can be found at www.acs.org/meetingcontent.

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Looking further ahead, the 2020 Fall ACS National Meeting will be in San Francisco, August 16-20. Those of us in the Bay area recognize that the two 2020 ACS meetings are perfectly located, except the timing should have been reversed. August is likely to be foggy and chilly in the Bay area, and your primary author of this report is originally from Philadelphia and knows that the likelihood of snow that week in March is high. Since locations for ACS National meetings are usually set about 10 years in advance, the current members of the Committee on Meetings and Expositions did not have a say in siting these meetings, but are likely to take some grief from members who are not aware of that scheduling should the weather not cooperate.

National Chemistry Week (NCW) for 2019 celebrates the International Year of the Periodic Table with theme "Marvelous Metals."

Any members interested in the latest ACS financial performance can look at www.acs.org, click on the "About ACS" tab and then "ACS Financial Information." The Committee on Budget and Finance (B&F) reported a financially successful year thus far, with net earnings of $30.1M, on revenues of $338.2M and expenses of $308.1M.

The on-line career assessment tool aimed at graduate students and post docs, ChemIDP, was continued by the Board, with funding allocated for 2020-2022, and can be accessed at ChemIDP.org.

The Committee on Public Relations and Communications has developed a new program using its experts to help local sections and divisions improve their "branding" and public relations approach to the general public. Interested parties can access more information at CPRCMakeover@gmail.com.

Information regarding grants offered by all ACS committees can be found at www.acs.org/getinvolved.

Interesting Statistics

Attendance at the San Diego meeting as of Tuesday evening was 12,409, with 7988 regular attendees, 3095 students, and 998 exhibitors in 405 booths.

Only 7.26% of surveyed members replied to the annual salary survey by the Committee on Economics and Professional Affairs (CEPA), making the data statistically irrelevant. Members need to be better informed about the value of this survey so that there is greater participation. Unemployment for experienced chemists remains in the 2-2.6% range, although salaries, when adjusted for inflation, are relatively flat or in decline. Academic membership currently exceeds industrial membership by 43% to 39%, a trend that has been observed over the past 15-20 years.

The ACS Career Fair, now rebranded as the Career Navigator, showed positive growth with 239 job seekers, 31 employers offering 81 positions. CALACS members, Mark Frishberg and Marinda Wu, who are ACS Career Consultants and Workshop Presenters, actively participated in these offerings.

The Membership Affairs Committee (MAC) has been experimenting with several discount dues categories in order to try to improve member retention, as younger members in particular complain about the "value gap" between the cost of membership and the perceived value of its benefit.

This summer there were 454 Project SEED students country wide at 143 lab locations. The Project SEED endowment now stands at $8.78M after a successful fund raising year, led by Nobel Laureate, Sir Frasier Stoddard. There are 394 ACS Scholars.

Submitted by Mark Frishberg, CALACS Councilor, with input from our other Councilors, Past ACS Presidents, and current Director-At-Large

BUSINESS DIRECTORY

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There are many companies and organizations searching for chemical and biochemical personnel to fill important jobs in their organizations.

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- http://www.calacs.org/page.asp?id=22

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