



# The San Diego Chemist

American Chemical Society  
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San Diego Section  
October 2021

## ***Making STEM Fields Equitable, Inclusive, and Respectful***

***Paul Jagodzinski, Ph.D.***

Dean

College of Engineering, Forestry & Natural Sciences  
Northern Arizona University, Flagstaff



**DATE:** Wednesday, October 13, 2021

**TIME:** 7:00 PM

**PLACE:** Your Computer

**RSVP** <https://www.eventbrite.com/e/making-stem-fields-equitable-inclusive-and-respectful-tickets-172123464917>

### **ABOUT THE SPEAKER:**

Paul W. Jagodzinski is a Professor in the Department of Chemistry and Biochemistry at Northern Arizona University in Flagstaff, Arizona. He earned a B.S. degree at the Polytechnic Institute of Brooklyn and a Ph.D. at Texas A& M University, both in Chemistry. He has held academic leadership positions at universities across the U.S. Dr. Jagodzinski is active in the ACS, having served in leadership positions for local sections and the Physical Division and on national committees including Budget & Finance. He is currently the Chair of the ACS Board of Directors.

### **ABOUT THE PRESENTATION:**

The numbers of underrepresented individuals in Chemistry and other STEM fields have been well documented. We don't need another study to highlight the problem, but we do need continual monitoring to determine if greater representation is being achieved. Why has progress been so slow and what can we do to make a difference? We need more individuals to commit to making a difference and not continue to assume that institutional initiatives are the answer. A more equitable, inclusive, and respectful chemistry enterprise is dependent on each one of us. I will discuss how I believe each of us can have an impact and make a difference, and why we should work to understand the particular challenges of specific underrepresented groups. Working together we can effect change!

### CHAIR NOTES

Dear ACS Members,

Welcome to autumn, football and the World Series! We had our ninth Executive Committee Meeting of 2021 virtually on Zoom on Thursday, September 2<sup>nd</sup>, where we planned several future events and discussed the many activities that occurred in August.

In September, we had TWO outstanding virtual seminars. The first seminar, on Thursday, September 9<sup>th</sup> at 7PM by **Professor Mary Virginia Orna** of College of New Rochelle, presented "Ladies in Waiting and Still Waiting for The Nobel Prize". In her talk, **Professor Orna** detailed the gender imbalance in the roster of Nobel laureates, and highlighted an outstanding group of women, some of whom were nominated unsuccessfully for the prize many times, and some who were never nominated at all, but perhaps should have been. In the second talk on Wednesday, September 22<sup>nd</sup> at 7PM by **Professor Oscar Vazquez-Mena** of the Department of NanoEngineering at UCSD, presented "Improved Energy and Information Collection from Light with Nanomaterials". Professor Vasquez discussed a novel architecture based on two important nanomaterials to improve both energy extraction and information collection from light beyond the visible range.

We have an upcoming virtual seminar in October on Wednesday, October 13<sup>th</sup> at 7PM by **Professor Paul Jagodzinski**, Dean, College of Engineering, Forestry & Natural Sciences at Northern Arizona University, Flagstaff, to discuss "Making STEM Fields Equitable, Inclusive, and Respectful". You can register via Eventbrite: <https://www.eventbrite.com/e/making-stem-fields-equitable-inclusive-and-respectful-tickets-172123464917>

Our next Executive Committee meeting will take place on Thursday, October 7<sup>th</sup> at 6:30pm on Zoom. I invite all members who wish to become more involved in the Section to join us. Bring your ideas, your suggestions, and your unique talents to help make 2021 a wonderful year. Please contact me at [jshih@sandiegoacs.org](mailto:jshih@sandiegoacs.org) to receive Zoom log-in details.

James J. Shih, 2021 Chair  
San Diego Section of the American Chemical Society  
E-mail: [jshih@sandiegoacs.org](mailto:jshih@sandiegoacs.org)  
Web: [www.sandiegoacs.org](http://www.sandiegoacs.org)

### 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 2021 Chair, **Jim Shih**, at [jshih@sandiegoacs.org](mailto:jshih@sandiegoacs.org). Once approved, Jim will see that your announcement is published on our website ([www.sandiegoacs.org](http://www.sandiegoacs.org)) and, if received by the 20<sup>th</sup> 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](http://www.sandiegoacs.org) a separate notification is sent to the **2,500 members** of the ACS-San Diego Section, each potential customers for your products and services! **Quick turnaround:** Ad copy submitted by the 20<sup>th</sup> of each month will be published by the end of that month.

Payments can be made by check or credit cards to  
<https://checkout.square.site/merchant/MLAPMMDVQ8HQB/checkout/IIKH3SV5GGW6MVQ2NYGION4N>

For more information, please contact:

Renate Valois at [renate@sandiegoacs.org](mailto:renate@sandiegoacs.org)

**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 20<sup>th</sup> 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	3	6
2" x 3"	\$ 75	\$ 68	\$ 58
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](mailto: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:

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](mailto: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](mailto: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 2021

**6:30– 8:00 PM**

**Thursday      October      7**  
**Thursday      November      4**

**Zoom Meetings until further notice**



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 4<sup>th</sup> and 5<sup>th</sup> 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!

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

### **ANNUAL SAN DIEGO ACS LOCAL SECTION ELECTIONS 2022 ARE TWO MONTHS AWAY!**

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 • 3 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! In particular, Member-at-Large is an excellent way to get involved in Section leadership. 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: **Jim Shih** at [jshih@sandiegoacs.org](mailto:jshih@sandiegoacs.org)

Please send your bios to **Renate Valois** at [renate@sandiegoacs.org](mailto: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](mailto:trischma@csusm.edu) by **Tuesday, November 2**, 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](http://www.chemistry.org)

### **PRESENT YOUR RESEARCH DURING ACS SPRING 2022**



Submit your abstracts for oral and poster presentations for ACS Spring 2022. The theme, "Bonding Through Chemistry," will be at the core of programming. Sessions for the hybrid meeting (in-person and virtual) will be held in San Diego, CA, and virtually from March 20-24. Although ACS Spring 2022 is planned as a hybrid event, we continue to carefully monitor the situation relative to the COVID-19 pandemic and its potential impacts on the meeting. ACS will provide additional updates about the meeting as they become available.

Visit the meeting website to [find a list of the programming divisions and planned symposia open for submissions](#). **The deadline to submit abstracts is Monday, October 11.**

### **ACS Webinars™**

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 see: <https://www.acs.org/content/acs/en/acs-webinars.html>

### **OCTOBER IN CHEMISTRY**

<https://web.lemoyne.edu/~giunta/October.html>

# LADIES IN WAITING and STILL WAITING FOR THE NOBEL PRIZE

## Professor Mary Virginia Orna

### College of New Rochelle

#### September 9, 202

Reviewing the careers of several women scientists and their significant findings, **Dr. Mary Virginia Orna** raised questions in the minds of the fifty Zoom meeting attendees on why so few women had received the Nobel Prize in Chemistry in the twentieth century. **Orna** noted that **Lise Meitner**, who had collaborated with **Otto Hahn**, had first suggested doing research on the products of the neutron bombardment of U and proposed that fission had resulted in the generation of barium. Subsequently, **Hahn** received the Nobel Prize in Chemistry "for his discovery of the fission of heavy nuclei". **Meitner's** efforts were recognized many decades later and she was accredited with being the co-discoverer of atomic fission. **Orna** stated that **Meitner** had been nominated for the Nobel Prize in Chemistry nineteen times to no avail. Another instance where a female scientist was not given full credit for her contribution to a significant discovery was **Rosalind Franklin**. **Franklin** was the first person to obtain a high-quality X-ray diffraction pattern of the B crystalline form of DNA. Incredibly, without her permission, **Franklin's** experimental data were given by her colleague, **Maurice Wilkins**, to **Francis Crick** and **James Watson**, who later went out to publish the helical structure of DNA based on **Franklin's** data and were awarded the Nobel Prize. **Orna** showed how other women were passed over by the Nobel Prize committees. Those individuals were: **Marguerite Percey**, who had discovered the element Francium; **Kathleen Yardley Lonsdale**, who had the first experimental proof that the benzene ring was planar; **Ida Tacke Noddack**, who five years before **Meitner** and **Hahn** had proposed nuclear fission, and **Rachel Carson**, who brought to the public's attention the wide use of chemical pesticides and their negative impact on humans. Initially, she was demonized for her efforts, but her writings have stimulated and influenced biochemical environmental research. A copy of this provocative and thoughtful talk can be viewed by contacting [jshih@sandiegoacs.org](mailto:jshih@sandiegoacs.org).

But....but....but....

- She didn't **wrote** it...
- She **wrote** it, BUT...
- She **wrote** it, BUT she shouldn't have
- She **wrote** it, BUT she had help
- She **wrote** it, BUT she's an anomaly



Matilda Joselyn Gage (1826-98)

"Matilda Effect"—Implicit bias against acknowledging the achievements of women scientists, and crediting male colleagues


Rose J. How to Suppress Women's Writings, University of Texas Press Austin, 1963.

Lise Meitner was nominated...

For the Nobel Prize in Chemistry 19 times.

For the Nobel Prize in Physics 29 times.


Lise is still waiting.




### More Ladies in Waiting

- Rosalind Franklin: Her Pathway to DNA (1920-1958)
- Rachel Carson: The Right Person at the Right Time with the Right Message (1907-1964)
- Marguerite Perey: Discoverer of Francium (1909-1975)
- Kathleen Yardley Lonsdale: Scientist, Pacifist, Prison Reformer (1903-1971)
- Ida Tacke Noddack: Foreteller of Nuclear Fission (1896-1978)

### Impact of "Silent Spring"



*Silent Spring* was not only a dramatic indictment of the use of chemical pesticides, but questioned the entire system of politics, business, and academic funding. It immediately sold hundreds of thousands of copies and remained on the best-seller list for over two and a half years. The content altered the individual's perspective and organizations' stances on issues.

As an example, *C&EN* published an extremely critical article in the October 1, 1962 issue entitled, "Silence, Miss Carson."

However, only a year later, in August of 1963, while covering the Senatorial Hearings, *C&EN* published an article that was much different in tone and opinion about the use of pesticides.

Then, during the 50-year anniversary of the publishing of *Silent Spring*, on October 26, 2012, the American Chemical Society designated the book a 'National Historic Chemical Landmark.' It took a while to convert the ACS.

### Carson's Legacy and Influence



Rachel Carson opened lines of communication, encouraged policy change through the Senate, and promoted an educated and informed general population. Her indirect impact relates to the dire need to understand the interaction of chemicals at the interface of biology. This need influenced biochemical research, which was the general specialization of 24 Nobel Prizes in Chemistry and six Nobel Prizes in Physiology and Medicine since 1962. In addition, Carson directly influenced hundreds of environmental specializations from environmental biology and chemistry to environmental engineering and law. Although Carson's contributions were not traditional in nature, traditionally women were overlooked for the Nobel Prize. The time is long past to expand the categories of tradition.



Text: Valerie Kuck  
Photo credit: Jim Shih



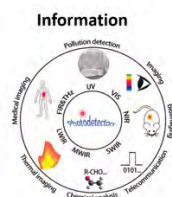
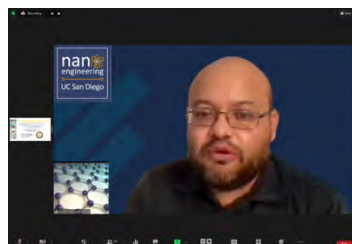
# IMPROVED ENERGY AND INFORMATION COLLECTION FROM LIGHT WITH NANOMATERIALS

Oscar Vazquez-Mena, PhD

Department of NanoEngineering, University of California San Diego

September 22, 2021

At a recent SD ACS Zoom meeting, **Professor Oscar Vazquez-Mena** gave a very interesting and informative talk on science behind converting light into electricity. He told the thirty talk attendees that since 1975 there has been tremendous growth in the types of materials used in making optoelectronic devices. He showed that there is a catch-22 in identifying the best materials for manufacturing efficient photovoltaic cells. Cells made using quantum dots, dyes and several organic compounds can be made inexpensively, however, those cells can only deliver very low current levels. Conversely, materials found to be better current conductors unfortunately were made from expensive or toxic starting materials or required the use of expensive manufacturing steps. This dilemma left solar cell manufacturers with silicon as the best option. He noted that speed that electrons move is dependent on the conductor composition with electrons moving significantly faster in thin sheets of graphene than in silicon. Another factor to be considered is the thickness of a solar cell with thick cells absorbing more light than thin cells but having poor charge collection and material costs would be higher. In developing higher performing cells, a lot of factors must be considered. **Mena** said that his laboratory has been exploring the use of cells with intercalated junctions rather than having only one single junction and significantly altering the cell structure by going to thick layers of quantum dots sandwiched between thin graphene layers. This modification led to improved charge collection along with the capability of doing spectral analysis. A tape of this very informative talk can be viewed by contacting [jshih@sandiegoacs.org](mailto:jshih@sandiegoacs.org).



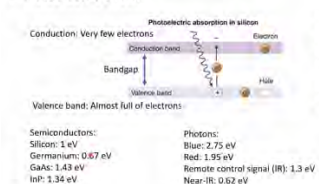
## Common/Important Optoelectronic devices

- Photovoltaic cell: Conversion of light into electrical energy for energy harvesting
- Photodetection: Detection of light and extraction of information coded in light (polarization, frequency, wavelength)



## How to we convert light into electricity?

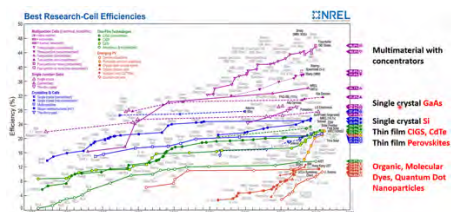
- Photoelectric effect



Photons can interact with electrons, providing energy to jump from a ground state (valence band) into an excited state (conduction band). Only photons with energy larger than the bandgap can excite electrons.

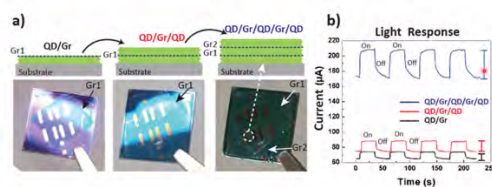
## Cost

- c-GaAs (Scarce and expensive to make crystalline)
- c-Silicon (Abundant as SiO<sub>2</sub>, but expensive to purify and crystallize)
- CIGS, CdTe (Not enough either)
- Perovskites (Lead halide) (Most promising, but Pb not very friendly)
- QDs, Dyes, Organic solar cells (Abundant, Low cost, but terrible conductors!!)

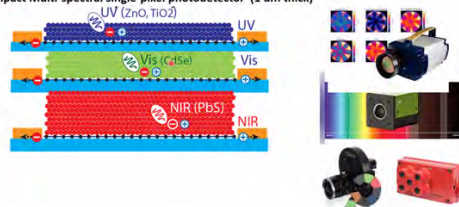


## Our proposed solution is on the architecture side

Instead of single junction, Intercalated junctions:



## Compact Multi-spectral single-pixel photodetector (1 μm thick)



Text: Valerie Kuck  
Photo credit: Jim Shih

**AN INTERVIEW WITH NIKHIL SESHADARI ON  
TEAM USA WINNING TWO GOLD AND TWO SILVER MEDALS AT THE  
53<sup>RD</sup> INTERNATIONAL CHEMISTRY OLYMPIAD**

The San Diego Section of the ACS would like to congratulate all of the competitors, finalists and members selected to represent the U.S. at the 53<sup>rd</sup> International Chemistry Olympiad, which concluded August 2<sup>nd</sup>. The U.S. Chemistry Olympiad competition has been sponsored by the American Chemical Society since 1984.

Team USA took home two gold and two silver medals in this year's competition. One of San Diego's own members, **Nikhil Seshadari**, was one of the four selected to Team USA. He placed ninth in the silver category.

I had a chance to talk with Nikhil about his experience qualifying for the team.

Nikhil graduated from University City High School, in San Diego, in 2021. He has been fascinated with Chemistry since elementary school, when he read a book on the elements by Theodore Gray. Nikhil described the book as being very colorful and explaining the properties of the different elements in detail. After learning as much as he could from this book he "happened to find another chemistry book at a local library sale for about \$1.00", he said. His aunt happened to take notice of his interest in Chemistry and encouraged him to join the 'You Be the Chemist' challenge. This was during his middle school years. He joined the local competition, ultimately advancing to the National Challenge. After this incredible success, he entered high school and the next step was the Chemistry Olympiad.

The chemistry Olympiad consists of a series of exams, narrowing down the competitors at each step. It begins with the Local Section competitions, where about 16000 students across the United States compete in their local schools. The top two students from each school advance to the national exam. The national exam consists of two parts, the multiple-choice exam and the free form answer exam. Based on the combined results of these two exams the top twenty students are selected to participate in the study camp, from which the final four competitors are selected.

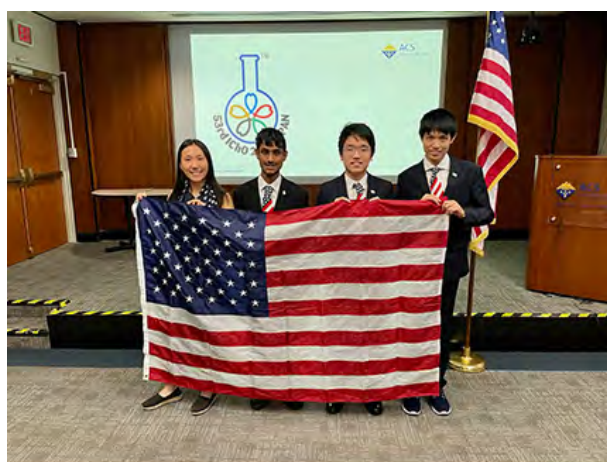
Nikhil was reluctant to say which influences were most important to his continued love of Chemistry or success in the completion, acknowledging his aunt, several professors and his father, a professor of aerospace and mechanical engineering at UCSD. He was able to join some UCSD Chemistry classes as he would follow his father at work. He said, "The professors were very supportive and helped him get a good feel for what interests him most and how to perceive it".

When asked what advice he might have for younger kids he said, "Find something that interests you, explore it deeper and then you'll find even more things that are interesting".

Nikhil will attend Harvard in the fall, to complete a program in Applied Mathematics. He said that he's interested in physical chemistry, mainly because it has a lot of math in it. "Now that I've studied the physical chemistry aspect in such depth I feel like I need a deeper understanding of math". From there he thinks a Ph.D but he's not really sure, acknowledging that he's excited to learn what college is like and doesn't really know enough yet to have a clear idea of much further than that.

He would like to thank Dr. **Joan Schellinger**, from the Local ACS Section, and the Chemistry Department at the University of San Diego. She leads the local team and he said was very approachable and helpful with competition-related stuff. He also wanted to thank Dr. Huang, who taught an online course focused on the National Exam.

Again, we all at the San Diego Section of the ACS would like to congratulate Nikhil and all of the competitors at this year's National Chemistry Olympiad.



L to R: Yitian Zhu, Nikhil Seshadari, Kien Phuong, Qiyang Zhou.

Text: Kevin McCowen

Photo credit: David Horwitz, National ACS Staff

**EXECUTIVE BOARD CANDIDATES FOR 2022**  
**ACS SAN DIEGO SECTION**  
**CANDIDATE BACKGROUNDS**

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**CHAIR-ELECT**  
**OPEN**

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**SECRETARY**  
**WILLIAM TOLLEY**



Bill earned a B.S. and M.S. in Metallurgical Engineering from the University of Utah and a Ph.D. in Inorganic Chemistry from the Brigham Young University. His research focused on the interactions of inorganic compounds with supercritical fluids. This work led to a patent describing novel processing to purify metals using vapor-phase chemistry. In 2008, Bill joined Seacoast Science, Inc., located in Carlsbad, CA, where he currently is Principal Scientist and Production Manager. He led development of the Mini-GC, launched in August 2009, and Go Direct Mini-GC launched in Spring 2020. Previously, he chaired the subgroup to write new alarm certification protocols under UL 2035 - Single Station Gas Detectors, served as Director of Quality Assurance at Quantum Group Inc. in San Diego.

Bill is a member of the American Chemical Society, and has served on the San Diego Executive Committee since 2000, most recently as Secretary. He is a lifetime member of Sigma Xi (The Scientific Research Society). He has authored or coauthored 26 U.S. patents and over 75 journal articles and presentations in chemical sensing, process control and materials production.

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**TREASURER**  
**DESIREE GRUBISHA**

Desiree has worked in Lab QA in Commercial Quality Control at AstraZeneca/Amylin Pharmaceuticals supporting diabetes medicines in the worldwide market. Prior to this, she worked at Amylin Pharmaceuticals in Analytical R&D supporting clinical trial programs for diabetes and severe lipodystrophy. Desiree has been an active volunteer with the San Diego ACS Section since 2004. She has been involved with ChemExpo, YCC and WCC activities, planning committee for the 41<sup>st</sup> Western Regional Meeting in 2007, and has served on the Public Relations committee. She is currently serving the San Diego Section in the Communications Committee and as a Councilor. Desiree earned a PhD in inorganic chemistry from the University of Wisconsin, Milwaukee, and did postdoctoral research toward novel detection platforms for molecular diagnostics in the Microanalytical Instrumentation Center at Iowa State University. Desiree is employed by Heron Therapeutics.

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**COUNCILOR**  
**TOM BEATTIE**



Tom has served continually as a Councilor in the San Diego ACS Section for the last 18 years and prior (2001-3) was an Alternate Councilor. In 1999, a year for which the section received the ACS National Outstanding Large Section Award, he was Section Chair. Currently he serves as a member of the ACS National Committee on Economic and Professional Affairs (CEPA).

Previously he was Chair of the ACS National Senior Chemists Committee (SCC, 2015-8), was Vice Chair (2014-5), and was a member since its formation in 2013. Earlier he was a member of the National Senior Chemists Task Force (2009-12) and chair of the ACS National Silver Circle (seniors) Working Group (2005-9), progenitors of SCC. From 2004 to 2012 he was a member of the National Local Section Activities Committee and served as chair of its Local Section Assistance and Development Subcommittee.

In the San Diego ACS Section he chairs the annual Distinguished Scientist Award Selection Committee (24 years) and was the creator in 1999 and organizer of the annual San Diego Medchem Symposium (17 years). In 2008 he initiated and continues to manage the section's quarterly seniors/retirees/consultants/ part-timers breakfasts.

Since 2001 he has managed the section's educational programs in the elementary schools. Since 2005 the programs have focused on science shows for 4<sup>th</sup>/5<sup>th</sup> graders in which >86,000 school children have viewed >475 Mad Science shows. In 2012 this program received a San Diego Science Alliance award.

Tom was the Program Chair of the San Diego ACS Section-sponsored 1995 ACS Western Regional Meeting (WRM), which holds the record as the largest ACS regional meeting ever. For the 2007 WRM he was Technical Program Advisor and a session chair.

He received the section's Outstanding Service Award in 1996, 2004 and 2013, the 2015 Outreach Volunteer of the Year, and the 2011 E. Ann Nalley ACS Western Region Service Award. In 2011 he was named an ACS Fellow.

Apart from ACS, Tom spent a 27-year career at the Merck Research Labs in Rahway, NJ as a medicinal chemist in early stage drug discovery. After retiring from Merck in 1993, he came to San Diego and worked at Amylin Pharmaceuticals and IRORI/ChemRx/Discovery Partners. Since 2001 he has been doing biopharmaceutical consulting for many organizations within and outside of San Diego, has taught at UCSD, Mesa College and U. Kansas, and served on several advisory boards. He has a B.S. (U. Pennsylvania), Ph.D. (U. Wisconsin) and was a postdoctoral fellow at M.I.T.

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**COUNCILOR****DESIREE GRUBISHA**

Desiree has worked in Lab QA in Commercial Quality Control at AstraZeneca/Amylin Pharmaceuticals supporting diabetes medicines in the worldwide market. Prior to this, she worked at Amylin Pharmaceuticals in Analytical R&D supporting clinical trial programs for diabetes and severe lipodystrophy. Desiree has been an active volunteer with the San Diego ACS Section since 2004. She has been involved with ChemExpo, YCC and WCC activities, planning committee for the 41<sup>st</sup> Western Regional Meeting in 2007, and has served on the Public Relations committee. She is currently serving the San Diego Section in the Communications Committee and as a Councilor. Desiree earned a PhD in inorganic chemistry from the University of Wisconsin, Milwaukee, and did postdoctoral research toward novel detection platforms for molecular diagnostics in the Microanalytical Instrumentation Center at Iowa State University. Desiree is employed by Heron Therapeutics.

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**COUNCILOR****DAVID WALLACE**

David is an experienced medicinal chemist and registered patent agent with over 28 years' experience in the pharmaceutical industry. He is currently director of intellectual property at Biosplice Therapeutics, Inc., a clinical stage drug discovery company focusing on oncology, regenerative medicine and degenerative diseases. He is also founder and president of Wallace Scientific Consulting. WSC provides services to early and clinical stage biotech companies, providing prior art/FTO searches and patent application drafting as well as synthetic and medicinal chemistry expertise in the area of small molecule drug discovery. David was also a Scientific Advisory board member and co-founder of Amalyte, Inc., a Bay area biotech company focusing on the treatment of immune and inflammatory diseases. Amalyte was acquired by Kemin Pharma in 2009. He was previously

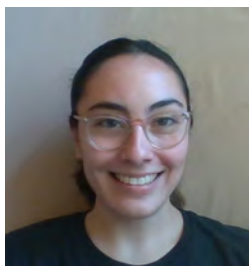
Principal Scientist at Senomyx, Inc., where he served as chemistry group leader of a team focused on the discovery of agonists to G-protein coupled taste receptors. Prior to Senomyx, David held senior scientific and leadership positions at Chugai Pharma, USA, where he contributed to several multidisciplinary research programs directed toward discovery of novel therapies for cancer, cardiovascular, inflammatory, and metabolic diseases. He is an inventor or co-inventor on numerous issued or pending patents. David holds a Ph.D. in Organic Chemistry from the University of California, Davis. He has been a member of the ACS for 35 years and is currently a councilor of the San Diego Section and is a past member of the ACS National Committee on Economic and Professional Affairs (CEPA). David is also chair of the chemistry committee for the Sino-American Biotechnology and Pharmaceutical Professional Association (SABPA) in San Diego.

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**ALTERNATE COUNCILOR****JIM SHI**

Jim is a protein chemist at Eli Lilly & Co's Lilly Biotechnology Center - San Diego. In the past 27 years he has worked in protein chemistry and analytical chemistry in companies including Ligand Pharmaceuticals, Amgen, and Quidel Corporation. A volunteer with the San Diego Section since 2007, he has chaired the picnic and nomination committees in the past years, and is currently the chair of the Section. Jim received both his B.A. and M.S in biology (parasite biochemistry) from University of California at Riverside.

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**MEMBER-AT-LARGE****LEEZA GUTIERREZ RAMIRE**

Leeza is a rising junior bioengineering student at Southwestern College. She has been a member of the ACS for the past year and served as a Vice President of the Southwestern College Student Affiliate Chapter. Leeza has also served on the Alpha Pi Epsilon's membership committee since 2020, where she coordinated the chapter's collaborations with nonprofits and volunteer opportunities.

This summer, Leeza interned in the Yankowitz Lab at the University of Washington investigating transport properties of 2D materials including tri-layered graphene. If elected, Leeza aspires to use her strategic and creative talents to help attract new, diverse members to the local section and reach out to younger generations. In her spare time, Leeza enjoys Mexican folk dancing, and spending time with family and friends.

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**MEMBER-AT-LARGE****OPEN****MEMBER-AT-LARGE****OPEN**

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# ***VOTE BY NOVEMBER 25***



**SUMMARY OF THE SAN DIEGO ACS SECTION  
EXECUTIVE COMMITTEE TELECONFERENCE  
September 2, 2021**

August ExComm Minutes – **Approved**

Monthly Seminars – Sept. 9 -- Mary Virginia Orna speaking on the topic of women who did work worthy of the Nobel Prize; September. 22 -- Oscar Vazquez-Mena, UCSD Department of NanoEngineering; also working on seminar with Paul Jagodzinski (Northern Arizona U) on encouraging members of underserved communities

Review of National Fall Meeting – Council searching for underlying reasons why the number of industrial members is declining; wanting to establish greater value for members; expectation that future meetings, including meeting next Spring in San Diego, will be hybrid; virtual Council Meeting provides convenience and cost savings for councilors; attending technical session on-line was satisfying except for time-zone differences; on-demand viewing of technical sessions available until December for those who registered for the meeting; three levels of membership based on a member's desired extent of participation to be available starting in 2022

Distinguished Scientist – No decision regarding either the honoree or in-person banquet

Mad Science – Planning for 10 presentations this Fall; schools remain hesitant to schedule events involving outside participants; Mad Science will use one presenter to limit possible spread of virus

IPG – Section was awarded grant to cover seminar on glassblowing and chemistry of glass, planning on two sessions with maximum ~16 attendees in each session, tentatively scheduled for October 22; 6 p.m., considering a social gathering following presentation at a microbrewery next door, request that all attendees be vaccinated

Outreach to Student Affiliates – Working to create a Discord server to facilitate communication between ExComm and student groups; might be a convenient medium for YCC

**Motions:** Juan to setup and manage Discord server dedicated to San Diego ACS -- **Approved**

YCC – Setting up a LinkedIn group, LinkedIn is designed to identify interested audience; planning for 3-minute thesis presentations – ~7 students signed up as presenters, scheduling for Nov.; YCC members willing to visit in-person to classes to encourage students to join ACS and participate in YCC; funds from MET Grant to purchase equipment intended to encourage wider participation in events is unspent at this point; report on how funds were spent is part of Section's annual report

Instagram – We have identified a volunteer to manage SDACS Instagram account

Year-end Wrap-up – Butcher Shop currently not scheduling events due to insufficient staffing; 94<sup>th</sup> Aero Squadron has sufficient staffing; discussing with their managers regarding costs, attendee limits; might consider Ballast Point or similar microbrewery to have better flexibility

Chem Expo – Theme: "Fast or Slow – Chemistry Makes it Go", still no in-person events allowed at Miramar College; video presentations haven't worked well in the past; suggestion to poll members regarding potential activities – assemble activity kits that we design and distribute; option to purchase activity booklets from National

Mysterious Donations to Section through Square – Section has been receiving ~\$3900 donations per week through the Square account (set up to accept credit cards through Website) for no apparent reason; account has been deactivated at this point until the reason for these donation is known, the Section has not taken possession of any of the funds

Treasurer's Report – Receipts: \$2K in sponsorships; expenses: voice mail \$475, Newsletter preparation \$350; Vanguard up this month; total financial assets: \$576,859

Nominations – Sent e-blast soliciting nominations and potential committee chairs from general membership; Jackie Trischman will run actual election process

Next meeting: October 7.

**Laboratory Automation and Accelerated Synthesis: Empowering Tomorrow's Chemist**

*The National  
Academies of* | SCIENCES  
ENGINEERING  
MEDICINE

Join the Chemical Sciences Roundtable on November 16-17, 2021, for a [workshop on laboratory automation and accelerated synthesis](#). The workshop will explore how laboratory automation could change the field of chemistry, and will be held virtually and in person at the National Academy of Sciences Building in Washington, DC. Abstracts are being accepted until August 16 for the poster session, which will include both in-person and virtual options. Please visit the [event webpage](#) to view the full agenda and register for this [free workshop](#).

**ACS-Hach Programs**

Please see <https://www.acs.org/content/acs/en/education/educators/acs-hach-programs.html> for application dates

About ACS-Hach Programs

The ACS-Hach Programs provide financial support for future and current high school chemistry teachers. [Learn more.](#)

Contact us: Email: [hach@acs.org](mailto:hach@acs.org) -- Phone: (800) 227-5558 ext. 8178

**MOLE Day, October 23<sup>rd</sup>**

Don't forget to celebrate Mole Day on October 23 from 6:02 a.m. to 6:02 p.m.

## Challenging the status quo in Strategic Patent Counseling.

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### 2021 ACS REGIONAL MEETINGS

Northeast Regional Meeting – NERM 21	October 8-11	Boston, MA
Midwest Regional Meeting (MWRM)	October 21-22	Springfield, MO
Rocky Mountain Regional Meeting (RMRM)	October 21-23	Tucson, AZ
Southwest Regional Meeting (SWRM)	October 31-Nov 3	Austin, TX
SERMACS 2021 <a href="http://sermacs2021.org/">sermacs2021.org/</a>	November 10-13	Birmingham, AL



### LOOKING FOR A CHEMIST?

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**THE SAN DIEGO CHEMIST**

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](mailto: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](mailto:trischma@csusm.edu)

760-750-4206

#### Point Loma Nazarene University

Sara Choung

[SaraChoung@PointLoma.edu](mailto:SaraChoung@PointLoma.edu)

619-849-2627

#### San Diego Mesa College

Dwayne Gergens

[dgergens@sdccd.edu](mailto:dgergens@sdccd.edu)

619-388-2609

#### San Diego Miramar College

Fred Garces

[fgarces@sdccd.edu](mailto:fgarces@sdccd.edu)

619-388-7493

Linda Woods

[lwoods@sdccd.edu](mailto:lwoods@sdccd.edu)

619-388-7750

#### Southwestern College, Chula Vista

Juan Gonzalez

[jgonzalez3@swccd.edu](mailto:jgonzalez3@swccd.edu)

619-421-6700x5947

#### University of California, San Diego

Stacey Brydges

[sbrydges@ucsd.edu](mailto:sbrydges@ucsd.edu)

858-246-0993

Thomas Bussey

[tbussey@ucsd.edu](mailto:tbussey@ucsd.edu)

858-822-6665

#### University of San Diego

Tammy Dwyer

[tdwyer@sandiego.edu](mailto: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](mailto:renate@sandiegoacs.org)

# Western Regional Meeting - 2022

American Chemical Society - Southern Nevada Section

*EMPOWER CHEMISTS FOR A BETTER TOMORROW*



## Western Regional Meeting (WRM) Information

### WRM 2022 - *Empower Chemists For A Better Tomorrow*

- October 19-22, 2022
- Convention Center @ Flamingo Hotel & Casino, Las Vegas, Nevada
- Contact: [Dr. Rampur Viswanath](#)

### Technical Sessions And Symposia

- Special Invited Speaker: Dr. H.N. Cheng, ACS President
- Keynote Speaker: Professor Stephen L. Buchwald, MIT
- Innovating Organometallics
- Radiochemical Separations for Nuclear Forensics and Nuclear Medicine
- Wearable Sensors/Chemistry
- Water and Waste Pollution Investigations and Treatment Management
- Recent Breakthroughs in Organic Chemistry
- Novel Applications in Mass Spectrometry
- Advances in Medicinal Chemistry

### Exposition Area

- Selected Vendors
- Interactive Poster Display and Contests
- Latest Analytical Instrumentation and Data Acquisition Tools
- *Details in the next update*

### Opportunities

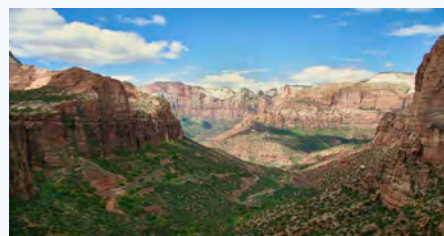
- Mentoring and Networking
- Sci-Social Mixers
- Gain Access to Contemporary Research
- Planned Local Tours of Scientific Interests
- World Class Entertainment & Fine Dining
- And Much, Much More!

## Places of Interest

### University of Nevada, Las Vegas



### Zion National Park



### Hoover Dam



### Red Rock Canyon



### Atomic Testing Museum





## **UPCOMING EVENTS**

### **MAKING STEM FIELDS EQUITABLE, INCLUSIVE, AND RESPECTFUL**

**Paul Jagodzinski, Ph.D., Dean  
College of Engineering, Forestry & Natural Sciences  
Northern Arizona University, Flagstaff  
Wednesday, October 13, 2021**

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### **THE 68th ANNUAL GREATER SAN DIEGO SCIENCE AND ENGINEERING FAIR**

**Balboa Park Activity Center (2145 Park Blvd.)  
For information please see <http://www.gsdsef.org/>  
March 14-20, 2022  
Wednesday, March 16, 2022, Judging Day**

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### **263rd ACS National Meeting & Exposition**

**March 20-24, 2022  
San Diego, California**

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### **EARTH DAY - EARTHFAIR 2022**

**Balboa Park, San Diego, CA  
<http://www.earthdayweb.org/>  
Sunday, Sunday, April 24, 2022**

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### **264th ACS National Meeting & Exposition**

**August 21-25, 2022  
Chicago, Illinois**

## **THE SAN DIEGO SECTION OF THE AMERICAN CHEMICAL SOCIETY**

### **WELCOMES ITS NEW MEMBERS**

Madeline Berry  
Sai Raghuveer Chava  
Yunhui Ge  
Susan Gorman  
Brianna Howard  
Kristin Hughes  
Lauren Hughes  
Yuri Lee  
Emma Melchor

Jared Miller  
Sean Noonan  
Kanda Ramasamy  
Michael Rheume  
Ryan Schioldager  
Scott Sieburth  
Rebecca Simpson  
Chante Summers  
Jerry Wu



**2021 EXECUTIVE COMMITTEE & COMMITTEE MEMBERS  
SAN DIEGO SECTION OF THE AMERICAN CHEMICAL SOCIETY**

**EXECUTIVE COMMITTEE**

<i>Chair</i>	Jim Shih, Eli Lilly & Co, <a href="mailto:jshih@sandiegoacs.org">jshih@sandiegoacs.org</a>	(2021)	626-826-3561
<i>Past Chair</i>	James Caldwell, Accelagen, Inc., <a href="mailto:jcaldwell@sandiegoacs.org">jcaldwell@sandiegoacs.org</a>	(2021)	815-262-9697
<i>Chair-Elect</i>	Juan P. Gonzalez-Gonzalez, Southwestern College, <a href="mailto:jpgg@sandiegoacs.org">jpgg@sandiegoacs.org</a>	(2021)	619-813-8520
<i>Secretary</i>	William Tolley, Seacoast Science, Inc., <a href="mailto:b_tolley@uno.com">b_tolley@uno.com</a>	(2021)	858-780-0978
<i>Treasurer</i>	Desiree Grubisha, Heron Therapeutics, <a href="mailto:desgrubisha@gmail.com">desgrubisha@gmail.com</a>	(2021)	858-254-5497
<i>Councilors</i>			
	Thomas R. Beattie	(2021)	858-293-3012
	Hui Cai, WuXi AppTec	(2022)	858-361-8838
	Desiree Grubisha, Heron Therapeutics	(2021)	858-254-5497
	Valerie Kuck	(2023)	973-744-5510
	Jackie Trischman, CSUSM	(2022)	858-414-3323
	David Wallace, Wallace Scientific Consulting	(2021)	858-638-1866
<i>Alternate Councilors</i>			
	Surya K. De, Supra Sciences, Inc.	(2022)	858-337-4961
	Julann Miller, Waters Corporation	(2023)	800-252-4752 x6802
	Ken Poggenburg	(2022)	760-635-2573
	Ben Pratt, Pratt Pharma Consulting LLC	(2022)	858-945-7893
	Shannon Woodruff, HP Inc.	(2023)	949-735-9021
<i>Members-at-Large</i>			
	James O'Brien, TE Connectivity	(2023)	858-336-0654
	Bill Szabo	(2022)	858-550-0306
	Joann Um, Southwestern College	(2022)	510-823-8637

**STANDING & SPECIAL COMMITTEES**

*Awards Nomination Committee*

Valerie Kuck	973-744-5510
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*ChemExpo*

Jackie Trischman, CSUSM	858-414-3323
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*Communications Committee*

Surya K. De, Supra Sciences, Inc.	858-337-4961
Desiree Grubisha, Heron Therapeutics	858-254-5497
Ken Poggenburg	760-635-2573
Renate Valois (Newsletter Editor)	619-692-0638
David Wallace, Wallace Scientific Consulting	858-638-1866

*Distinguished Scientist Awards Nomination Committee*

Thomas R. Beattie (Chair)	858-293-3012
Tammy Dwyer USD	619-260-4030
Barbara Sawrey	858-729-0689
David Wallace, Wallace Scientific Consulting	858-204-5412

*Education Committee*

Joann Um (Chair), Southwestern College	510-823-8637
Valerie Kuck	973-744-5510
Joan Schellinger, USD	619-260-7960

*EarthFair*

James Caldwell, Accelagen, Inc.	815-262-9697
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*Finance Committee*

Bill Szabo (Chair)	858-550-0306
Tom Beattie	858-293-3012
James Caldwell, Accelagen, Inc.	815-262-9697

*Fundraising Committee*

**OPEN**

*Government Affairs Committee*

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

*Law Committee*

Ryan C. Smith, Duane Morris LLP	619-744-2220
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*Mad Science Program*

Thomas R. Beattie	858-293-3012
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*MedChem Symposium*

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), Wallace Scientific Consulting	858-638-1866

*Membership Committee*

**OPEN**

*Nominations Committee*

**OPEN**

*Outreach Committee*

Kevin McCowen, Wyatt Technology	(801) 719-0511
Julann Miller, Waters Corporation	800-252-4752 x6802

*Picnic Committee*

James Caldwell (Chair), Accelagen, Inc.	815-262-9697
Jim Shih, Eli Lilly & Co.	626-826-3561

*Professional Development Committee*

Valerie Kuck	973-744-5510
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*Public Relations Committee*

**OPEN**

*Senior Chemists Committee*

Ken Poggenburg (Chair)	760-635-2573
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*Seniors Breakfasts*

Thomas R. Beattie	858-293-3012
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*Women Chemists Committee*

Valerie Kuck	973-744-5510
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*Younger Chemists Committee*

Kristen Counsell, Drawbridge	319-830-3097
Christopher Fisher, CG Life,	860-455-5297
Alexander Rovira, Janssen Research and Development	858-784-3013
Brittany P. Witherspoon, Janssen Research and Development	619-373-2436

*Voice Mail – San Diego Section*

619-687-5570