



AWIS NEWSLETTER

ASSOCIATION FOR WOMEN IN SCIENCE
San Diego

Mission Statement: The Association for Women in Science, Inc. (AWIS) champions the interests of women in science, technology, engineering, and mathematics across all disciplines and employment sectors. Working for positive system transformation, AWIS strives to ensure that all women in these fields can achieve their full potential.

Letter from the President



Dear AWIS-SD Members & Friends,

Wow! WIST 2015 was an amazing event. I hope you were able to attend AWIS-SD’s flagship event at the UCSD Faculty Club on May 9. The keynote speakers, the three workshop tracks, the networking, the venue, even the weather – all were excellent. I always look forward to attending the biennial WIST conferences because I can meet new members and reconnect with former colleagues. I was delighted to see the large audience attending WIST 2015 from San Diego County and throughout Southern California. The buzz was uniformly positive throughout the day. In organizing this successful conference, the WIST conference committee, led by Linda Manza and Robina Shaheen, epitomized the theme for WIST 2015, “Passion and Purpose: The Pathway to Success.”

One of the highlights of each WIST conference is the presentation of the annual AWIS-SD Scholarships. Established in 1996, our chapter has awarded more than 75 scholarships to female students pursuing degrees at academic institutions in San Diego County. Thanks to the generosity of our corporate sponsors, our chapter has been able to continue the scholarship program in 2015. This year, approximately 100 applications were submitted to the Scholarship Committee, led by outgoing co-chairs Erna van Niekerk and Laura Cerviño. The seven AWIS-SD Scholarship recipients, listed below, have already achieved much in their academic endeavors, and they will all go far in their careers.

- Christine Rahal, A.S., Mathematics, Palomar College
- Riley Evans, B.S., Mathematics, University of San Diego
- Erika Johannessen, B.S., Physics and Biophysics, University of California San Diego (UCSD)

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- Kimberly Bowes, B.S./M.S., Structural Engineering, UCSD
- Julia Hammett, M.A., Psychology, San Diego State University
- Christine Wittich, Ph.D., Structural Engineering, UCSD
- Daniella Bardalez (Qualcomm Scholar), Ph.D., Astrophysics, UCSD

For more about the event, you can also read an article about WIST 2015 by our Newsletter Committee co-chairs that will appear in the next edition of the national AWIS Magazine.

Our chapter's spring activities culminated in WIST 2015, and we have a full slate of activities planned for the summer and beyond. These include our monthly Back-to-Work and Mid-Career Coffee Clubs, as well as our next bimonthly Strategy Session on August 3 titled "Advance to the Job Offer: Nail the Interview." Our annual [Family Event](#) is scheduled on July 25 at Agua Hedionda Lagoon Foundation Discovery Center in Carlsbad. To learn about these and other activities, please visit our website, www.awissd.org.

Thanks to the dedication and hard work from our member volunteers, AWIS-SD is able to offer such a wide variety of programs throughout the year. We have no paid staff. Our chapter's leaders, including the Executive Board and Committee Co-chairs, all generously offer their time to AWIS-SD. Everyone who supports AWIS-SD in this manner embodies the mission and spirit of AWIS-SD. We volunteers feel that by giving to this organization, we get back so much more in return through networking, mentoring, professional growth, leadership skills, and friendship.

Most sincerely,

Grace

president@awissd.org

AWIS San Diego is Now on Instagram!

Follow us on Instagram @AWISSanDiego to learn more about what we do as an association for both our members and for the community, and tag us in AWIS and community science events. We'll be posting pictures from Strategy Sessions and other events that we host and community science events that we attend. We'd also like to highlight the work of our wonderful members, so if you have a great science picture (of either yourselves, or your work, or both!) that you'd like to feature on our Instagram page, send it to publicrelations@awissd.org with a short description. It would be great to feature some pictures with the hashtag #girlswithtoys after all the media attention this story has been receiving (for example, see [this article on Slate](#)), because, as the author of this article says, "Those who truly innovate are those who take responsibility for the culture they create. Rather than reinforcing stereotypes, it's time to

try to eliminate them."

Those of you who do not yet have Instagram can sign up with your smartphone at <http://instagram.com>.

Emergence of San Diego as a Hub for Research and Innovation

by Madhuvanti Ramaiah

The 2015 Women in Science and Technology conference (WIST 2015) began with an inspiring talk by Dr. Mary Walshok about San Diego's evolution from a city that had "a zoo and a military base" into a hub for information technology and biomedical sciences. Walshok serves as the Associate Vice Chancellor for Public Programs at the University of California San Diego (UCSD) and Dean of UCSD Extension. A famous author with several articles and books to her credit, she studies how globalization and technological advances trigger changes in regional economies across the U.S. Walshok spoke mainly about the various events that led to the establishment of a strong research base comprised of both academia and industry, transforming San Diego into a city that attracted top talents from across the world. A brief synopsis of this transformation is provided below.



Walshok speaking at the WIST conference.

At the end of World War II, most of the U.S. economy centered on institutions that supported military purposes. Research driving military innovations was restricted to huge corporations, and there was little research in the public domain. Vannevar Bush, Director of the Office of Scientific Research and Development, was among the first to emphasize that science was going to be the next frontier. He

made a case before Congress to support basic science



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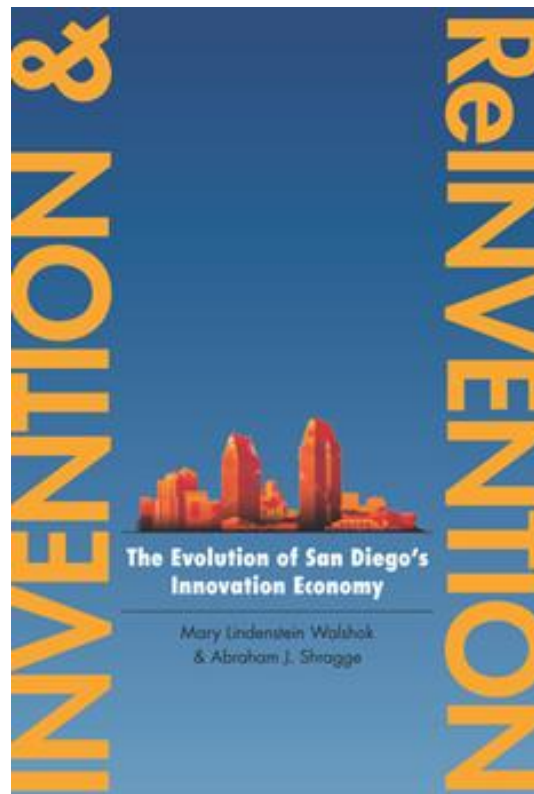
research. At the same time, the launch of Sputnik 1, the first artificial Earth satellite, by the Soviet Union raised fears of the U.S. being left behind in a technological race between the two superpowers. Together, these two influences unleashed funding for the National Science Foundation (NSF). In addition to these “big picture” factors, there were a number of local changes taking place on the ground here in San Diego. The personnel working on projects for the Department of Defense and Department of Energy at Scripps Institute of Oceanography pushed for a movement towards scientific research, an effort that continued into the 1950s. The Mayor of San Diego at the time, Charles Dail, was a polio survivor, and together with the City Council worked towards allocating land for the Salk Institute for Biological Studies by providing 27 acres on a mesa in La Jolla. Thus, land use was leveraged as an effective method to promote expansion of the scientific community in San Diego. This would not have been possible if not for the support of the citizens of San Diego. Companies like Hybritech and Qualcomm received free space to establish even before they had any reportable income, thus making San Diego a haven for new ventures. Furthermore, the fact that San Diego did not develop a hierarchical system, dominated by a few wealthy families, helped its growth as an economic hub.

The push for excellence, combined with a supportive environment for scientific research, attracted many professors to San Diego, leading to a strong academic research base. It started with the Scripps Institute of Oceanography in 1903, followed by the addition of the Salk Institute and UCSD in 1960. Today there are over 75 research institutes in San Diego. The competitive academic research environment created entrepreneurial scientists who could now join forces with entrepreneurs, helping San Diego explode with opportunities. Initially, military needs drove scientific research; later on, economic competition propelled a number of legislative initiatives that encouraged interactions between universities and industry. Richard Atkinson, who worked at Stanford University and the NSF and served as the President of the University of California, crafted the Industry-University Cooperative Research Program, which freed universities to transfer technology to local industry. He advised scientists to find practical applications for their research. This interaction between academia and industry has been a major strength that fuels San Diego’s growth to this day.

As San Diego saw this remarkable shift towards scientific research, a similar trend followed in San Francisco, pushing California to the forefront as one of the leaders in nurturing innovation. What was the result of all of this? A simple answer can be found by looking at the statistics. San Diego has 3000+ information technology and wireless technology companies, 800+ life sciences and biomedical sciences companies, 700+ energy and environmental companies, 600+ sports innovator companies, to mention just a few. It has a \$3 billion research enterprise, and a high tech company is

launched every 18 hours here. While eight out of 10 companies launched elsewhere in the U.S. fail, in San Diego it is five out of 10, testifying to the city’s positive environment for industry.

Walshok wrapped up her talk with a peek into the future. To continue its run as a hub for research and innovation, she argued, San Diego needs to encourage fields of research with a convergence of two or more knowledge areas, retain talent, and adapt to the needs of globalization.



Cover of one of Walshok’s books about the history of San Diego’s innovation economy

“Advocating For Yourself” Panel at WIST 2015

by Nurith Amitai

The “Advocating For Yourself” session at WIST brought together an impressive panel of speakers: Diane West, Velia Fowler, and Susan Howington. Diane West is the President and Co-Founder of 2Connect, which provides presentation training and coaching to businesses, and she previously served as Vice President of the leadership training firm Tamayo Consulting. Velia Fowler, Ph.D., has been a Professor of Cell and Molecular Biology at The Scripps Research Institute (TSRI) for over 25 years, and was recently named Associate Dean of the graduate program and Acting Chair of her department. Susan Howington is the CEO of Power Connections, a boutique outplacement firm that offers companies career transition services for their outgoing employees, especially senior executives. Clearly, all of these women knew a thing or two about successfully advocating for themselves!

The session proceeded in a loose Q&A format. The speakers urged attendees to make themselves visible on the job and demonstrate their talents. Addressing the conundrum of how to self-promote without coming across as arrogant or bragging, they recommended keeping the spotlight not on us, but on our accomplishments, and using the right “currency” to frame our achievements – how did we help the team/advance the project/benefit the company? The panelists exhorted us to be very strategic even about seemingly minor details, such as where to sit in a meeting (close to the key persons, not hidden in a corner). For that eternal source of trepidation, the request for a raise or promotion, the speakers recommended doing our research first (what positions are available? what is a reasonable compensation range?) and being armed with specific examples for why we deserve the advancement.

While some of the advice was applicable to any gender, much of the session focused on the special challenges women still face in their careers. Most men have been socialized to “play the game” since childhood, while women have not. The panelists therefore encouraged women in the audience to overcome their societal programming to be self-effacing and quiet. The advice was nuanced enough, though, to acknowledge that such boldness can still come with risks; the same behaviors that get praised as “ambitious” and “proactive” in men are still often considered “pushy” and “bossy” in women. Addressing another double standard, the panelists warned their female audience against showing too much emotion in the workplace, as doing so can play into stereotypes of women as “overemotional” and “irrational” – even though men frequently express strong emotion in the workplace (especially anger), but do not face the same censure for it.

The difficulties encountered by women in the workplace can also differ significantly depending on the field, company, or even division within the same institution. Fowler illustrated this by recounting how her experiences on the science vs. the administrative side at TSRI sometimes differed significantly. She found that certain situations – such as hearing a male colleague praised for the same contribution to a meeting that had just been ignored moments earlier when coming from her – were virtually absent in one environment but not uncommon in the other.

Audience participation was active and lively, with attendees asking incisive questions and contributing their own insights to complement those of the panelists. Participants did not shy away from challenging the speakers on their statements at times, or presenting alternative experiences. Such contributions, however, were always offered in the spirit of cordial, good-faith debate and a desire to broaden the picture. As a result, the atmosphere throughout the session was positive, energetic, and involved. Both panelists and audience members offered thoughtful reflections on forward-looking questions such as “How will increasing numbers of

women in leadership positions change the environment for other women?” and “Should women learn to emulate men and ‘play the boy’s game,’ or should they change the game itself?”

The panel offered a stimulating and inspiring hour for conference-goers, and left attendees with both food for thought and concrete, actionable advice for their careers.

San Diego Festival of Science & Engineering Science EXPO Day – March 21, 2015

by Erika Olson and Robyn Wygal

“Oooh!”, “Whoa!”, and “Wow, that’s so cool!” were frequent among the many exclamations heard from the AWIS booth at EXPO Day 2015, the exciting denouement of the week-long San Diego Festival of Science and Engineering. On Saturday, March 21, 20,000 children and adults from throughout San Diego County converged on Petco Park to explore a multitude of hands-on and interactive science, technology, engineering, and math (STEM) activities provided by over 130 local businesses, corporations, and organizations. Since 2012, the incredible feat of organizing this tremendous event has been masterfully carried out by Heather Zimken and her fantastic team.



Attendees’ answers to AWIS-SD’s easel question, “What do you love about science?”

Volunteers at this year’s AWIS Outreach booth at EXPO Day demonstrated the concept of fluorescence using ultraviolet (UV) light. The activities introduced “how” and “why” UV light can make certain everyday household items glow. Many of the audience members were not wholly familiar with the electromagnetic spectrum; therefore, the concept was introduced through the visible spectrum. Many were

surprised to learn that scorpions fluoresce in distinct patterns under a UV light, that bees can see in the UV light spectrum, and that some flowers and plants have “secret” patterns that are only visible in UV wavelengths. The booth also showcased the protective effects of sunscreen by demonstrating its blocking effect under UV light and thus its value in preventing DNA damage.



AWIS-SD volunteer Elena Dimitrijevic teaches booth visitors about the fluorescent properties of ordinary household items. Photo credit: Robyn Wygal

In the first of two activities, volunteers encouraged visitors to hypothesize which ordinary household objects and liquids would fluoresce under UV light, and then helped them observe whether their hypotheses were correct. Science enthusiasts were invited to peer through viewing holes cut into boxes (to reduce ambient light) and observe objects illuminated by AWIS volunteers using flashlights emitting UV light at 365 nm. The second activity involved “secret messages” created by guests of all ages using highlighters that fluoresced vividly under UV light. Visitors were then invited to join the STEM fan’s board and leave their mark to the question on AWIS easel: What do YOU love about STEM? The popularity of the activities was evident; there were groups of 2-20 at the booth for the entire day!

We owe a GREAT deal of thanks for the success of this activity to our engaging and enthusiastic volunteers: Antonia Darragh, Samantha Jones, Jenn Betancourt, Aditi Chawla, Elena Dimitrijevic, Mike Zorniak, Orly Eidelman, Karrie Kwok, Stephania Zambetti, and Sigrid Katz. We look forward to working with Heather Zimken and the EXPO Day team again in 2016!



A crowd gathers as an AWIS-SD member discusses fluorescence, the electromagnetic spectrum, and how sunscreen protects us. Photo credit: Robyn Wygal



AWIS-SD member Erika Olson helps a young volunteer observe her secret message written in ink that fluoresces under UV light. Photo credit: Robyn Wygal

The Greater San Diego Science and Engineering Festival: 2015 Highlights

by Kristin Bompiani-Myers and Robina Shaheen

Excitement and wonder were just a few emotions that the volunteer judges expressed after judging science fair projects at the 2015 Greater San Diego Science and Engineering Festival (GSDSEF). More than 650 students from grades 7 through 12 participated in the 61st GDSEF and showcased their science projects with great enthusiasm and clarity. This year’s topics ranged from basic physics, chemistry, health science, electrical and mechanical engineering, and computer sciences to climate change. The hydrologic cycle of California is strongly impacted by climate change, and many students presented novel ideas to conserve and recycle water. It was amazing to observe that the younger generation is not only aware of current global issues, but is also committed to creative solutions. On March 25, the AWIS-SD Outreach Committee broke records and had a whopping 31 passionate



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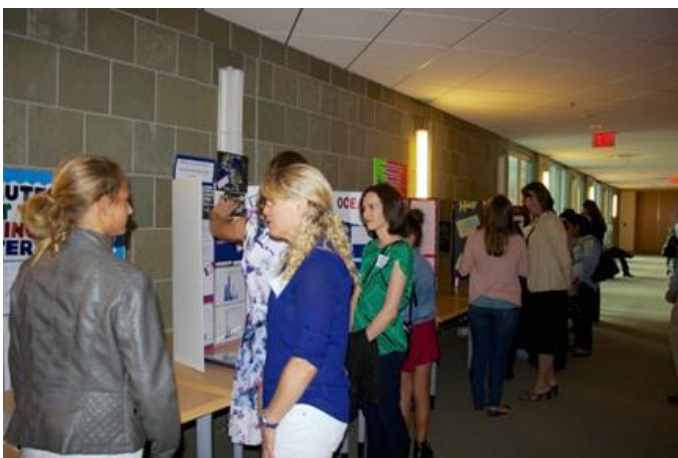
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scientists from the University of California San Diego (UCSD), University of San Diego, and The Scripps Research Institute review and evaluate almost 400 projects at the bustling Balboa Park Activity Center. The goal was to identify young women who demonstrated creativity, passion, and independence in designing and completing their projects. After spending a few hours viewing projects and chatting with the budding scientists, 12 winning projects were identified.



GSDSEF Volunteer Judges. Photo credit: Robina Shaheen

For 2015, four winning projects were identified from the senior (high school) category, and eight projects were selected from the junior (middle school) category. The winners, along with their families and advisors, were invited to an awards dinner on April 19 at the UCSD Moores Cancer Center in La Jolla. The perfect setting for such an event, the Cancer Center offered the girls and their families a glimpse of the face of clinical and translational research. Outreach Committee members again coordinated the event, which a staggering 60 volunteers and family members attended. The girls showcased their award-winning projects and intermingled with the AWIS volunteers. During an ensuing informal ceremony, new AWIS-SD Outreach Co-Chairs Nellie Shaul and Robyn Wygal presented the individual winners with their certificates of achievement and \$100 awards. In a packed conference room, it was evident that the moms and dads were bursting with pride.



Outreach Committee co-chair Robyn Wygal and AWIS-SD volunteer judge Leslie Crews discuss posters with students. Photo credit: Sigrid Katz

Following the awards, the attendees and AWIS volunteers enjoyed dinner and dessert al fresco in the adjacent outdoor eating area. It being a beautiful San Diego evening, the sunlight streamed over tables decorated with tablecloths, glitter, and smiling faces. Dinner was a wonderful, relaxed opportunity for the girls to ask questions about careers in science and make connections with experts. So many parents thanked us for hosting the amazing event. One local teacher and advisor told us how important this event was, as it gave her students from a low socioeconomic school district the chance to see what being a professional scientist means.

With a year of so many new records, AWIS-SD Outreach is thankful for an increase in the awards budget from eight to 12 projects and continuing support from local volunteer judges. Together, they allowed us to support and encourage more young women to pursue their interest in science, technology, engineering, and math (STEM). We look forward to continuing this annual tradition and supporting future scientists to come. While the design and execution of projects surely reinforced the students' science, engineering, math, and writing skills, winning an award provided them with the confidence and desire to excel in STEM fields and use their passion to make a difference in the future.

The 2015 AWIS-SD GSDSEF winners are as follows. Keep shining, bright stars, and congratulations!



The GSDSEF award winners with Robyn Wygal and Leslie Crews. Photo credit: Sigrid Katz

Kate Ferrer and **Kiara Martinez** (Morse High, Grade 12): "How Fast Is Your Brain" (Joint Project)

Mikayla Moore-Bastide (Eastlake High, Grade 11): "The Battle of the Frizzy Hair"

Chloe Kuo (La Jolla High, Grade 11): "An Improved Wheelchair for Playing Wheelchair Tennis"

Ariana Andere (Bonita Vista High, Grade 12): "Bioremediation of Plastics Through Using Fungal and Bacterial Homogenates"

Jessica Pate (Rhoades, Grade 7): "Monitoring the Flight Patterns of Local White-Faced Ibis"

Sara Toumi (Islamic School of SD, Grade 8): "An Intellectual Switch"

Cookie Dutch (Sacred Heart, Grade 7): "Do Solutes Affect the Heating Process of Water?"

Sarah Kadous (Islamic Scholl of SD, Grade 7): "Skip that Pill, and You'll be Ill!"

Ryane Quintanar (St. Mary Star of Sea, Grade 8): "Acidifying Oceans"

Sarah Schmidtler (Classical Conversations, Grade 8): "Measuring the Earth's Acceleration Constant and Mass"

Laura Kuruvilla (School of Madeleine, Grade 8): "Something Smells Fishy"

Roda Nour (Wangenheim Middle, Grade 8): "How the Number of Glass Panes Affects the Interior Temperature"

SWE-San Diego and AWIS-San Diego Technical Tour at CareFusion

by Georgina To'a Salazar

On Thursday, April 23, 2015, AWIS-SD joined the Society of Women Engineers (SWE) San Diego for a tour at CareFusion, a world leader in the health care industry. The company hosted a tour of the Center for Safety and Clinical Excellence at its corporate headquarters. Founded in 2009, CareFusion specializes in devices for infusion, dispensing, infection prevention, procedural effectiveness, anesthesia, and respiratory care.



Our guides explain the many ways in which automation supply technologies help improve hospital supply management. Photo credit: Georgina To'a Salazar

The event, coordinated by SWE San Diego Director of Member Services Harmonie Edelson, began with a tour of the Center. Care Fusion uses the Center for Safety and Clinical Excellence as a resource to share information about best practices for healthcare professionals for monitoring patient conditions and providing safe and effective care. More information can be found at <http://www.carefusion.com/safety-clinical-excellence/about-the-center.aspx>

Following the tour, participants enjoyed food, networking, and a presentation by Jessica Grant, Director of Business Integration at CareFusion. Her career transition from the automotive industry to the life science industry and her account of business process improvement was a highlight in an already excellent event.



Jan Dziejwior, Chair of Care Fusion's Women's Initiative Network, guides a portion of the tour of the Advanced Care Facility. Photo credit: Georgina To'a Salazar

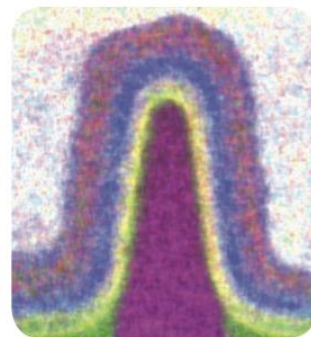
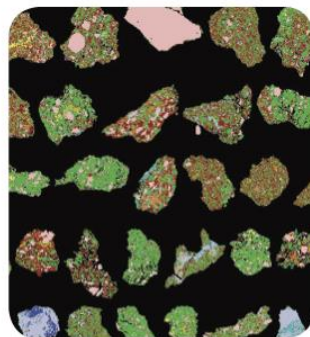
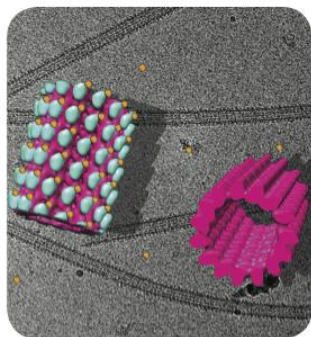
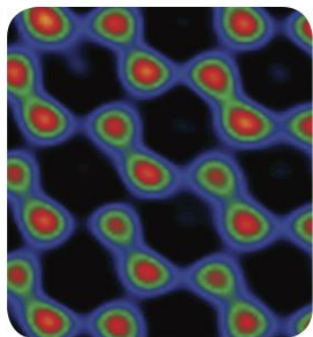
Exploring Careers in Science and Engineering: a Day for Undergraduate Students and High School Juniors and Seniors

by Lauren Mack

What happens when you put 30 high school and undergraduate women together with 12 professional women? Lots of questions and lots of laughter.

On April 25 of this year, high school and undergraduate women had a chance to pose all of their questions about careers in science to a diverse panel of 12 professionals. The event took place in the newly built and beautiful Del Lago Academy in Escondido.

After everyone had arrived, the panelists introduced themselves and spoke of their unique experiences in science. Each story was distinct, ranging from an organ transplant coordinator at a hospital to a Qualcomm engineer. Next, students were able to ask questions over lunch and informal



(From left to right) Atomic resolution phase image of graphene. Sample courtesy of N. Alem and A. Zettl, University of California, Berkeley. Images Joerg Jinschek and Emrah Yucelen, FEI, Hector Calderon, IPN, Mexico, and C. Kisielowski, NCEM, USA. Exit wave reconstruction by Joerg Jinschek. Helical reconstruction of microtubules decorated by an Eg5-metallothionein-gold complex. Image: Cedric Bouchet-Marquis. Drill cuttings from a CO₂ injection well. Image: CO2CRC, Australia. 22 nm PMOS transistor structure. Image: FEI NanoPort.

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roundtable discussions. The professionals were asked about college applications, college majors, internship opportunities, personal experiences in the lab, and many more questions on every imaginable topic. At the end of the event, both the panelists and the students felt that they had benefitted from the chance to meet such a diverse group of women.



Interested in volunteering for next year's event? Please email the Outreach Committee at outreach@awissd.org.

Convergence Summit 2015:

What will Healthcare Look Like in the Future?

by DeeAnn Visk

A vision of the answer to the above question could be found this May at the Wireless Life Science Alliance's 10th annual Convergence Summit held in downtown San Diego. Many interesting innovations were presented at the conference; for more details, see [this blog](#). Dr. Eric Topol, Director of the Scripps Translational Science Institute and voted the Most Influential Physician Executive in 2012, gave the keynote address. Additionally, a copy of his book, *The Patient Will See You Now*, was presented as a gift to all attendees. In both his presentation and the book, Topol explored highly relevant issues regarding healthcare and patient empowerment.

A revolutionary, visionary, and futurist, Topol questions the current obtuse medical practice in his latest book. Few publications have made me think as long and hard about the accepted ways of doing things. Eric Topol is a cardiologist-turned-visionary. He brilliantly explains his ideas and meticulously documents them.



A slide from The Convergence Summit: which company will be the one to take on current medical practice? Photo credit: DeeAnn Visk

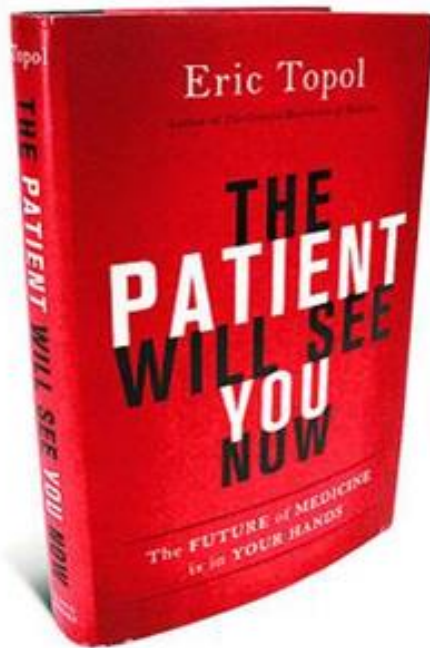
He first makes the case that medical doctors are trained to think of their patients as too childish to be trusted with information on themselves. Hippocrates himself felt that "physicians should conceal most things from the patient" including "the patient's future or present condition." This concept is characterized by Topol as medical paternalism, which still persists in some ways today.

Topol goes on to detail how the information age sets the stage for a medical revolution. Patients are able to readily access vast amounts of information to find out more about their personal conditions. Furthermore, Topol suggests that we can all construct a personal GIS (Global Information System) analogous to Google Maps with information about traffic, street views, satellite views, and the like all superimposed on a regular map. The combination of various omics (genomics, metabolomics, microbiomics, etc.) will give a much clearer picture of our personal health, with predictive value for our aging and susceptibility to potential diseases.

The smartphone is just a pipe, a conduit of flowing data. On either end of it are intelligent human beings who are ready to assume quite different roles from what the history of medicine has established. Patients will always crave and need the human touch from a doctor, but that can be had on a more selective basis with the tools at hand. Instead of doctors being squeezed, resorting to computer automation can actually markedly expand their roles. As Kevin Kelly wrote, "the task of any information-intensive job can be automated. It doesn't matter if you are a doctor, lawyer, architect, reporter, or even a programmer." The Economist weighed in on this too: "The machines are not just clever, but they also have access to far more data. The combination of big data and smart machines will take over some occupations wholesale." But smart doctors need not feel threatened, for their occupation is secure. Letting go and competing on embracing digital medicine may turn out to be the best way to prevent disintermediation and disillusionment in the long run.

(excerpt from Topol, Eric. *The Patient Will See You Now: The Future of Medicine is in Your Hands*. Basic Books, 2015.)

Adoption of these new ideas will vary across generations. My parents still recall the days when doctors did not even inform patients of their cancers. My daughter will feel perfectly comfortable in using her smartphone as an important component of her medical care.



I personally look forward to the day when all this information can be integrated into my medical care. As Topol points out, there is no other arena of business where you cannot reach your vendor via email or text. Even these modest adoptions of seemingly rudimentary technology would be a welcome relief from the status quo, where almost all transactions with your doctor take place in person, or via a game of “telephone” where the message is often garbled.

Many other ideas and applications for our new information age tools are explored in Topol’s book. Summarizing all the ideas is beyond the scope of this article. If you are interested in reading more, please email me, deeann.v@cox.net and I will lend you my copy.

AWIS-SD June Strategy Session: Advance Your Career Path Through Effective Self Promotion

by Jennifer Kuo

I vividly remember a conversation I once had with one of my male colleagues. In particular, I recall his bold and direct approach in updating me about recent events in his life: he laid out all the presentations he had just given in the past week, the grant he had just submitted and how much time it took, and his plan for the upcoming months of research, all before we had even gotten our menus for dinner. I was taken aback by how aggressively he promoted his own achievements and raised awareness of his aims, and realized that I felt icky trying to do the same. AWIS-SD’s most recent Strategy Session focused on the topic of self-promotion. Women gathered to discuss why it is difficult to self-promote in the workplace and brainstormed strategies to become more effective at gaining credit that is due.

[Melanie Nelson](#), Ph.D., an independent contractor in scientific informatics and project management, started off the discussion by commenting upon how women are commonly more self-effacing than self-promoting, since that is what they have been conditioned to do. She then described the “tightrope” that women must navigate in order not to be perceived as too aggressive or arrogant in the workplace or, conversely, being seen as too passive, and thus judged less competent than men and passed over during internal reviews for job promotions. Referencing books like *Talking from 9 to 5* by Deborah Tannen and *The Labyrinth of Leadership* by Alice Eagly and Linda Carly, Nelson pointed out that women need to find ways to self-promote effectively without triggering negative biases to obtain the desired impact.

The most important takeaway for me was learning different methods of self-promotion, varying from more passive to more active approaches. Simply displaying your achievements on the wall of your office or on your LinkedIn page is a great way to gain more visibility. Forming a buddy system in which colleagues can speak up on your behalf during meetings or at networking events is also a great way to acknowledge each other’s achievements and even ownership of ideas. Building a solid reputation can influence job promotions or job offers; thus it is essential to communicate your skills, so that those around you know about your talents and can vouch for you. In the end, the biggest deterrent from self-promotion for women may be not recognizing one’s own accomplishments or contributions to a larger team.

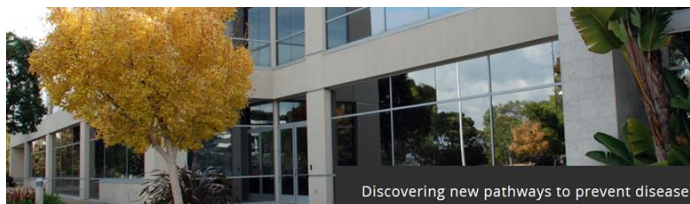
After a fun night of discussion and practicing our elevator pitches, I left the Strategy Session with new ideas to implement. Words of advice: get past the icky feeling and practice at networking events, where talking about yourself is expected, and get comfortable with self-promotion – it’ll prove essential for the advancement of your career!

A Novel Solution for Using All the Grants You Win

by DeeAnn Visk

[Joanna Davies](#), Ph.D., was awarded a grant by the American Diabetes Association (ADA) in 2013. At that time, she was working at The Torrey Pines Institute for Molecular Studies (TPIMS). Davies wanted to take advantage of the funding offered by ADA, which offers only 15% overhead with its grants. Because most research institutions have an indirect rate that exceeds 15%, she was faced with a dilemma: how can a study be supported by a low indirect rate?

First, let us define overhead. In general, it is the cost of maintaining the physical building, administrative costs, electricity, and all those other things that we generally don’t think about, except when paying our own bills. Funding agencies, including ADA, are [very precise](#) about what is and what is not overhead, or as they refer to it, indirect cost. Indirect costs vary widely from organization to organization and routinely range from 40% to 90%.



From the SDBRI homepage, used with permission

As with funding from many foundations, the ADA funding awarded to Davies was for a study that was too premature in development to be considered for funding from the National Institutes of Health (NIH). The focus on funding pilot or “high risk, high impact” research makes foundation funding an important resource for many investigators. If successful, these studies can mature and contribute new ideas to a field. In 2013, Davies began the long process of developing her own non-profit organization to conduct the research funded by ADA. She founded the Ballard Research Institute (BRI), which is designed to support studies funded by foundations such as the ADA.

At the same time Davies founded a second research institute, the [San Diego Biomedical Research Institute](#) (SDBRI) that primarily supports studies funded by the National Institutes of Health (NIH), but also functions as an incubator for studies funded through BRI. Through this second institute, principal investigators (PIs) may apply for and use funding from a variety of foundations. Through various approaches, such as the use of shared equipment between investigators, SDBRI manages to keep its overhead rate low, enabling the use of low-overhead foundation grants.

As a result of about two years of Herculean effort, the SDBRI presently has a total of 13 full-time employees including technicians, post-docs, two full-time administrators, and four full-time principal investigators, all supported by several NIH grants. Additional responsibilities such as information technology, human resources, payroll, and finances are outsourced to local contractors. Investigators at SDBRI are encouraged to apply for foundation grants through BRI.

Although the past two years have been very rewarding, Davies does not recommend following this path unless you have about two years to devote to two full-time jobs: running a research program and starting your own non-profit research institute.

Now that Davies runs her own institute, she is defining the tenor of her institution where every employee can reach his or her full potential. Her approach is to actively encourage discussion and design collaborative research projects in understudied areas. For example, wasting disease or cachexia is found in many maladies including stage 4 cancer, HIV infection, chronic tuberculosis, type 1 diabetes, and aging. To study cachexia, Davies and other investigators at SDBRI propose to work as a team to look at the cellular, molecular,

and biochemical pathways that define these disease states and find out where they merge. By looking for commonalities in these diseases, Davies hopes to discover novel therapeutic targets to prevent, treat and reverse this dreadful condition.

In her own words: “Biomedical research is exciting on a daily basis as experiments are designed, executed, and new information comes to light. But the real progress, the type that makes a long-lasting impact in science and medicine, takes years to develop.”



“The potential contribution is greatly enhanced if scientists, with expertise in different fields, work together to answer questions relating to a single disease.”

Joanna Davies, founder and CEO of the San Diego Biomedical Research Institute; used with permission

“To find answers to important clinical questions, investigators at SDBRI are working together to accelerate scientific discovery for therapeutic benefit.”

SDBRI is recruiting like-minded PIs. If you or someone you know is interested, please contact: HR@SDBRI.ORG.

Science News Ticker

- In the fall of 2015, the Carlsbad School District will add a science, technology, engineering, and mathematics (STEM) curriculum at two of its schools, Calavera Hills Elementary School and Calavera Hills Middle School. Both schools feed into the newly opened Sage Creek High School, which already has a STEM program. This makes Carlsbad one of the small but growing numbers of school districts nationwide that offer STEM curricula from K-12.
- Two of the five new members elected to the National Academy of Sciences from the San Diego area are women: Victoria Lundblad from the Salk Institute for Biological Studies studies telomeres in the context of aging, and Lisa Tauxe at the Scripps Institution of Oceanography studies the Earth's geomagnetic field.

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- Research led by scientists at The Scripps Research Institute (TSRI), International AIDS Vaccine Initiative (IAVI), and The Rockefeller University demonstrates that an experimental vaccine candidate designed at TSRI can stimulate the immune system activity necessary to stop HIV infection. [Three concurrent studies](#) published June 18 demonstrate that the immune system can be accelerated so it is primed and ready to block HIV infection. These findings could provide key information for the development of an effective AIDS vaccine, and human trials could take place in about two years.
- The California State University system has approved an \$80 million financing plan for a new engineering and interdisciplinary science complex at San Diego State University (SDSU). Several outdated science and engineering buildings are to be demolished and replaced by a new complex occupying almost twice the square footage. The new complex will feature teaching, research, and collaboration space, including design studios and fabrication centers to enhance the College of Engineering's project-based curriculum, a clean room, and high-performance mechanical systems that will pressurize labs to make the rooms safer.
- Bright red tuna crabs are washing ashore on San Diego beaches. The crustaceans are normally found in Baja California, but are traveling further north due to the warmer than normal water off the coast.
- Carlsbad company Isis Pharmaceuticals reported that infants with Type 1 spinal muscular atrophy, a fatal neurological disease, participating in a Phase 2 trial of experimental drug, ISIS-SMNRx, have shown [what appears to be unprecedented improvement](#). Two Phase 3 trials on the drug are also in progress, and Isis is focused on completing these studies so that, if proven safe and effective, the drug would be available to all infants with this disease.
- The University of California San Diego (UCSD) is seeking local partners to develop a center to study neurological diseases. Potential partners include: TSRI, the Salk Institute, and the Sanford-Burnham Institute. The purpose of developing of a new center with these local powerhouses is to increase the amount of research dollars to be awarded.
- Sandeepa Dey and Lisa Stowers from TSRI were the first author and senior author, respectively, on a *Cell* paper showing that neurons in the nose were regulating perception of pheromones. Regulation of awareness at the olfactory level is completely novel, as this usually occurs in the brain. Neurons in the nose, not the brain, of female mice respond to male mouse pheromones only when the female is in estrus.

Specifically, the decrease in progesterone during estrus allows nasal neurons to sense male pheromones; conversely, an increase in progesterone leads to an insensitivity of these neurons when the female is not in estrus.

Member News

Dorothy (Dody) Sears, Ph.D., Associate Professor of Medicine at University of California San Diego (UCSD) and Past President of AWIS-SD, is currently featured prominently on the [home page of the academic publishing giant Elsevier](#), as well as in a linked [video](#) celebrating individuals in science, engineering, and medicine, and the way information sharing helps their mission. Also featured in the video is **Lorena Martin, Ph.D.**, Postdoctoral Research Fellow in the Department of Family Medicine and Public Health at UCSD, Visiting Scientist at the Salk Institute, and member of the WIST 2015 Speakers Committee.

Upcoming Events

AWIS-SD 2015 FAMILY EVENT:

Agua Hedionda Lagoon Foundation Discovery Center

Saturday, July 25, 2015

10:00 am -01:00 pm

Agua Hedionda Lagoon Foundation Discovery Center
1580 Cannon Road, Carlsbad, CA 92008

Join us for our annual family (kids-friendly) event being held at the Agua Hedionda Lagoon Discovery Center this year. The discovery center will educate attendees about solar energy and the estuary food web at the lagoon. Attendees will learn about different types of light energy, how we use this light, and different ways electricity is made. In addition, participants will see how plants and animals interact, and how small changes in the habitat can have large consequences. This program is great for attendees of all ages!

Following the event, we will have a potluck picnic to enjoy the gorgeous scenery. Bring a main dish or side and come network with other AWIS members and their families at this wonderful event. Beverages will be provided.

Please bring business cards for door prizes.

Cost:

- AWIS member and family: Free
- Non-AWIS member and family: \$15 at the door.
Non-members are welcome to attend this event.

Note: Please remember to bring sunscreen and hats for protection from the sun.

Please RSVP [here](#).

For additional questions, please e-mail: events@awissd.org

STRATEGY SESSION: Advance to the Job Offer: Nail the Interview

Monday, August 3, 2015

6:00 - 8:00 pm

Hera Hub

4010 Sorrento Valley Blvd, Suite 400, San Diego, CA 92121

Are you unsure of how to make a great impression in your next job interview? Join AWIS-SD for our next Strategy Session to learn valuable interviewing skills and practice new interviewing techniques in this interactive session. Expert panelists from academia and industry will provide our members with their insights on how to excel in your job interview. We will cover key topics from 1) introductions and first impressions, 2) answering the tough questions, and 3) leaving a great impression to stand out from the crowd.

Participants will also have the opportunity to try out valuable interviewing skills, such as developing a personal narrative or elevator speech and applying the STAR (Situation, Task, Approach, Result) method. Whether you're currently on the job market or not, there's no time like the present to start honing your interview skills so you can nail that interview and advance to the job offer!

Networking: 6:00 pm, Workshop: 6:30 - 8:00 pm

Light refreshments will be served.

Remember to bring your business cards!

Pre-registration is essential! Please register [here](#).

This is an AWIS San Diego MEMBERS ONLY event.

If you are not currently an AWIS San Diego member and would like to attend this event, please join or renew your membership online (www.awis.org).

If you register and later discover that you are unable to attend, please notify us by sending an email to StrategySessions@awissd.org.

WATER CHALLENGES IN SAN DIEGO

Saturday, August 29, 2015

11:30 am - 1:30 pm

North City Water Reclamation Plant

4949 Eastgate Mall, San Diego, CA 92121

We are in a severe drought in California, but sometimes it is hard to understand what, besides conservation, we can each do individually about this huge problem. AWIS San Diego, in

conjunction with the Society of Women Engineers (SWE) San Diego, invites you to attend an event on "Water Challenges in San Diego!"

On Saturday, August 29, 2015, at 11:30 am we will meet with water policy makers from the City of San Diego and the Metropolitan Water District to discuss some of the challenges we face. We will also get to tour San Diego's Advanced Water Purification Facility! Information will be distributed on how to continue your learning on water by sharing information about the Metropolitan Water District's educational tours of the Colorado River Aqueduct and the Sacramento-San Joaquin Delta.

Refreshments and some small bites will be served.

11:30 am - 12 pm - Framing our Water Challenges

12 - 1 pm - Touring the AWPF

1 pm - 1:30 pm - Discussion and Q&A

Please register [here](#).

AWIS-SD TOWN HALL

Tuesday, September 21, 2015

6:15 - 8:00 pm

Hera Hub

4010 Sorrento Valley Blvd, Suite 400, San Diego, CA 92121

Details [TBD](#).

About the AWIS Newsletter

The AWIS-SD Newsletter is published six times per year and provides AWIS members and supporters with information on Chapter activities, career development, and issues related to women in science.

Newsletter staff for July/August Issue:

Nurith Amitai, Linda Manza, Madhuvanathi Ramaiah, Pat Rarus, Robina Shaheen, Jean Spence, and DeeAnn Visk

Contribute to the Newsletter

If you are an AWIS-SD member, we encourage you to contribute to the newsletter. Please send articles, photographs, and member news as MS Word attachments to newsletter@awissd.org. News articles should not exceed 250 words, event summaries should not exceed 500 words, and feature articles (special-interest stories and profiles) should not exceed 1000 words. The submission deadline for the next issue is August 10, 2015

About the Authors



Nurith Amitaj, Ph.D., has a background in behavioral neuroscience and a strong interest in scientific writing. She currently works as a project manager for the contract research organization Absorption Systems. Nurith has been serving as a co-chair for AWIS-SD's Newsletter

Committee since 2011. In her spare time, she enjoys swing dancing, card and board games, movies, and archery.



Kristin Bompiani-Myers, Ph.D., is a postdoctoral research associate with a keen interest in translational research. She enjoys participating in research science projects that seek to develop new drugs to treat human disease.

Kristin lives in San Diego with her husband and cat (who is named after a prominent Biotech company) and is often baking decadent things when not in the lab.



Jennifer Kuo is pursuing a Ph.D. in Biomedical Sciences at UCSD as a Genetics Trainee. She is an active member of the AWIS-SD Strategy Session Committee and served on the WIST 2015 Publications Committee. As an avid STEM advocate, she co-organizes the Genetics, Bioinformatics and Systems Biology Colloquium (GBSBC) series, and

tutors math/science at Casa de Amistad. She hopes to build health technologies that will improve quality of life, especially for less developed countries.

Lauren Mack is a current biology Ph.D. student at the Salk Institute studying T-cell biology. She has been on the Outreach Committee of AWIS-SD for almost four years and enjoys teaching the next generation of scientists.

Erika Olson currently pursues a graduate degree in chemical biology at The Scripps Research Institute. Her research involves the design and optimization of a peptide inhibitor of Eph4 toward a therapeutic candidate for amyotrophic lateral sclerosis (ALS, Lou Gehrig's disease). She enjoys sharing her enthusiasm for science with people of all ages and anyone who will listen.

Madhuvanathi Ramaiah has a Ph.D. in molecular biology and works as a post doctoral researcher at UCSD. She intends to pursue a research career and her areas of expertise include molecular biology, RNA biology, and reproductive biology. She lives in La Jolla with her husband and enjoys meeting people.



Georgina To'a Salazar, Ph.D., currently serves as an intern advisor for the Permanent Mission of the Republic of Palau to the United Nations. She did a postdoc at the Singapore Eye Research Institute. An Assistant Professor at the University of Tsukuba in Japan

at the time of the Fukushima nuclear incident, she initiated a project to study the effects of low-dose radiation on human stem cells. Her dream work is science policy and science diplomacy.



Dr. **Robina Shaheen** is a project scientist at the Univ. of California San Diego. She enjoys exploring the evolution of planetary atmospheres and conditions that are conducive to the origin of life. It is like being a member of CSI team where one uses

isotopic fingerprinting techniques to establish the origin of tiny space rocks and to find out the condition under which they were formed and traces of any extinct or extant life.



DeeAnn Visk, Ph.D., is a freelance science writer, editor, and blogger. She loves working at the bench in molecular biology, genetics, and microscopy. DeeAnn lives in the San Diego, California area with her husband, two kids, and two spoiled hens.



Robyn Wygal, an analyst for Skylight Healthcare Systems, and the AWIS Outreach Co-Chair, enjoys sharing her passion for science and encouraging students to explore STEM fields. Her research focus is centered on utilizing bioinformatics to understand how RNA mediated regulation impacts chronic disorders of fibrosis. Robyn is also an avid

runner and enjoys the outdoors.

I Saw It on LinkedIn

DeeAnn Visk shared:

Women excel in work environments with less hierarchy.

[Read more...](#)

Join this discussion and many other conversations, or start your own topic by joining the [AWIS-SD LinkedIn Group](#)

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