



# AWIS NEWSLETTER

ASSOCIATION FOR WOMEN IN SCIENCE  
*San Diego*

*Mission Statement: The Association for Women in Science, Inc. (AWIS) is a non-profit organization dedicated to the achievement of equity and full participation of women in all areas of science and technology.*

## Letter from the President



Dear AWIS-SD Members & Friends,

Happy Summer, everyone! I hope you were able to attend the Scholars Celebration in June, when AWIS-San Diego presented scholarships to seven worthy recipients attending academic institutions in San Diego County. Since 1996, our chapter has awarded more than 60 scholarships to women pursuing associates, bachelor's, master's and doctorate degrees in STEM fields. The Scholars Celebration was a wonderful afternoon at the La Jolla Woman's Club with opportunities to meet new people and catch up with old friends, enjoy delicious high tea refreshments, and hear an illuminating panel discussion on the topic, "Women's Health Today: Developments in Healthy Living." Kudos to 2014 Scholars Celebration Committee for organizing a truly special occasion.

Our chapter has some exciting activities planned for this summer. First is our annual family event at the [Butterfly Farms](#) on Saturday, July 12. Bring your family and something to share for the potluck lunch. Next up is the Strategy Sessions on Monday, August 4. The topic is "[Build Effective Mentoring Relationships](#)." In addition, AWIS-San Diego is very pleased to be a partner for the first annual San Diego Women Investing In Women Summit (WIIW), a two-day conference for women entrepreneurs and investors ([womeninvesting.in/summits/women-investing-in-women-summit-san-diego/](#)). WIIW will be held at University of San Diego on July 18-19. AWIS-San Diego members may receive \$40 off [registration](#) using the promo code "AWIS40Off" Please see our website ([awissd.org](#)) for more information for these and other upcoming events.

I am very proud of the diverse range of activities that AWIS-San

Diego is involved in throughout the year. As a completely volunteer-driven organization, our ability to participate in these programs depends on the many members who generously donate their time and enthusiasm. I want to acknowledge everyone who serves on a committee and/or helps out at an Outreach event for being an ambassador for AWIS-San Diego. Thank you!

Most sincerely,

*Grace*

[president@awissd.org](mailto:president@awissd.org)

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## AWIS-SD Strategy Session on Build Your Network with Confidence was a Great Success!

by Roberta Alexander

Ginny Hu and Hanne Hoffman did a great job organizing a strategy session on networking on June 2, 2014, at the Hera Hub in Sorrento Mesa. Many AWIS-SD members attended the session and mingled before and afterwards.

The panelists were all seasoned networkers: Jaymee Davis, a sales and marketing specialist at Miltenyi Biotec; Dody Sears, an associate professor of medicine at UCSD and active AWIS member; Linda Kurts, a career advisor; Claire Weston, the founder and CEO of Reveal Bioscience; and Beth Cesar, a patent agent.

Hanne “chick-started” the session and reminded everybody of AWIS-SD’s upcoming events, including the Scholarship Celebration, the Back to Work coffee club, the Mid Career coffee club, and the Family Event at the Butterfly Farm. Also, a few members shared their good news: a scholarship, a grant, and a new job!



Hanne Hoffman (right) and Ellen Dunn.

From there, Hu moderated the lively discussion. Why do we network? How to find a networking event? Do you need to prepare anything before the event, and do you go with an “agenda”? What is a good ice-breaker? How do you step away from a conversation to move on to talk to somebody else? How do you follow up?

All the panelists shared their thoughts and experiences. Don’t network just because you are looking for a job! Rather, think of networking as a social activity to share information, make new friends, or even set up collaborations. San Diego is a major biotech hub and networking events abound, from AWIS, to the San Diego Entrepreneurs Exchange (SDEE), Women in Bioscience, Athena San Diego, San Diego Regulatory Affairs Network (SDRAN), and the Biotalk held by

the San Diego Biotech Discussion Group (SDBDG).

Bring your business cards and have them readily accessible...pockets, anybody? Also have your brief elevator speech rehearsed and ready. Not all panelists agreed on whether it is better to go with the flow or to have a specific agenda in mind: do what works for you and enjoy the ride. Try to eat before the event; it is not a good idea to be caught balancing a plate and a cup or, worse off, with your hands all greasy! Once you are there and fired up, make connections with your fellow networkers: a non-verbal connection, a comment about the location or the speaker, a compliment about something they are wearing (oh yes, men also like compliments).

If you need to “get rid” of somebody – it goes without saying: do it tactfully! Best-case scenario, introduce the person to somebody else, so that he or she is not left all alone. Finally, make longer-lasting connections on LinkedIn (warning: personalize your message a bit and remind the person where you met, especially if the event was really busy) and, possibly, set up a follow-up meeting to discuss what you really want. Bottom line: find good networking events and have fun!



The Panelists. From left to right: Claire Weston, Jaymee Davis, Dody Sears, Linda Kurts, and Beth Cesar.

## Science Policy: What is It?

by Georgina To'a Salazar

There are two motivations for writing about science policy for me: one personal and one general. First, last year I transitioned from academic research to a career focused on science policy. Writing about science policy keeps me focused and accountable. Second, I acknowledge that many of my peers, trained in research through academic Ph.D. and postdoc positions, can benefit from learning about career options beyond the relative scarcity of permanent academic and other research jobs. I hope to facilitate discussions of and solutions for the problem of elusive research jobs by sharing with AWIS-SD information about non-academic work where

the skills of science and engineering Ph.Ds. can be helpful.

My informal networking presented a particularly remarkable chance to tap into the insights of rising professionals in science and technology policy. I have invited these professionals to respond to a set of emailed interview questions. I have published the exact responses of one here. My interviewee is Leonardo Alves, Ph.D., a Science and Technology Policy Fellow of The California Council on Science and Technology. In the next newsletter, I will write again about science policy and include a summary of the other responses I received, give examples of where and how science, engineering, and technology policy are practiced now, and address the issue of how policy might help people with science and engineering Ph.Ds. and no permanent academic job.

*[Note: the views expressed in this interview are the interviewee's and may not reflect the opinions of AWIS-SD or the article's author]*



[Leonardo Alves, Ph.D.](#) Photo credit: LinkedIn

**Q1. Could you tell us a little bit about your background and interests? How did you end up involved in science policy? How do you define science and policy and what's been the focus of your science policy activities? Where do you see your career going from here?**

During my doctoral training at UC Irvine, I received an award and went to Capitol Hill in D.C. to meet with elected officials and legislative aides. Our objective was to raise awareness of the benefits that funding basic research can bring to a society. Although it was an incredibly rewarding experience, I learned that science is often not the main concern in the political arena.

During the last year of my Ph.D. in Biomedical Sciences, I

received the Science and Technology Policy Fellowship. At the time, I was in Philadelphia at the Children's Hospital focusing on metabolism and bioenergetics. The Science Fellows program is offered by the California Council on Science and Technology and has the impetus of bringing scientists and engineers of high caliber to the world of science policy.

As a Science Fellow, I was placed in the Senate Committee on Natural Resources and Water. As one of the consultants, I tracked legislation, provided expert advice to decision-makers, and at times served as the nexus between science and the legislature. Since finishing the fellowship, I accepted a position as a legislative analyst for the Office of Governmental and Environmental Relations with the California Department of Conservation. My role in my current occupation is to monitor the legislature and provide support to the executive branch on issues under the jurisdiction of the department. I see my career continuing in the executive branch, which I personally believe, allows a person with technical skills and passion for a topic to be most effective at directing science-based policy decisions.

**Q2. Some government science policies, such as those regarding the use of human embryonic stem cells, have been pretty controversial and hotly contested. What do you think has been the top science policy decision in the United States in the past five years? In the state of California?**

In California, Human Embryonic Stem Cells with the inception of the California Institute for Regenerative Medicine (CIRM) and the Global Warming Solutions Act, have been two of the most controversial, hotly debated, and of enormous consequences to the state and the world. The approach California took regarding both of these issues has set California apart from all the other states. Unfortunately, at the federal level due to many factors, especially partisanship, hotly debated issues become stagnant and are not acted upon. This has been the case for many efforts to mitigate climate change and to increase the use of alternative sources of energy. There is great room for improvement in both the state and federal arenas; however, scientists must try to demonstrate that issues with a scientific component are not political, and should not be seen as partisan.

**Q3. President Obama and his administration made some strong appointments of scientists, people like Steven Chu, Jane Lubchenco and John Holdren. What do you think are the most significant challenges they have faced? What have been their most important accomplishments?**

From a scientist's perspective working at the Capitol, the greatest challenge is the disparate academic background scientists have compared to people who traditionally have been involved in policy. Lawmakers have a different set of skills, often possessing a deeper understanding for the





opinion is on record, it is difficult for the legislators not to side with them.

A scientist is in the unique position to help change the constant reactive mode of government officials. We have the technical expertise rarely seen in the legislature, and often are able to come up with ideas that will prevent problems from ever occurring. In these cases, it was surprising to me, how much a phone call or a letter to your elected official can do. It is important to note that industries and interest groups have people on staff constantly communicating their concerns to the legislators. If no one reaches out, it is difficult for legislators to know what other problems deserve their attention. I believe reaching out to the legislature is where a scientist would be most effective in driving policies.

### When Women Succeed, San Diego Succeeds

by Christina Niemeyer

U.S. Congressman Scott Peters hosted a forum on improving economic opportunity for women entitled, "When Women Succeed, San Diego Succeeds" on Tuesday, May 13 at the Theatre of the Joan B. Kroc School for Peace Studies at the University of San Diego.

Congressman Peters, Representative for California's 52nd District, started the program by welcoming the attendants as well as presenting the featured speakers. He introduced several topics for discussion including: equal pay for equal work, the impact of available and affordable childcare, and expanding educational opportunities for women.



Congressman Scott Peters and AWIS-SD Treasurer Christina Niemeyer. Photo Credit: Christina Niemeyer.

The featured special guest was Congresswoman Linda Sanchez, co-chair of the Labor and Working Families Caucus

in the House of Representatives, and Representative for California's 38th District – South Los Angeles. She discussed how although the U.S. has made improvements in relation to career and family, there is still a lot of work to do. The startling numbers she presented included:

- 1) One-third of females in the U.S. live in poverty
- 2) Two thirds of women make minimum wage
- 3) Single-parent households with two children, when headed by a women making minimum wage, live in poverty.

Congresswoman Sanchez stated the need for paid family and medical leave, a fair minimum wage, and equal pay.

Wendy Urushima-Conn, President and CEO of the Asian Business Association of San Diego, spoke of her individual experiences. She acknowledged she would have a hard time getting into the University of California San Diego (UCSD) now because of the expense and the high standards.

Felena Hanson, founder of Hera Hub, a coworking space for women and AWIS-SD's Partner in Mission Delivery, informed us of the need for entrepreneurial women to connect with a like-minded community to flourish. She reported on several of the successful members of Hera Hub and how the female-focused unique co-working place provided them with a means to advance. In addition, she stated that the first Hera Hub franchise location has opened in Washington D.C. After a brief question-and-answer period, the North San Diego Small Business Development Center presented the services they provide, which include free one-on-one consulting for small women-owned businesses and low or no-fee workshops on succeeding in business.

AWIS-SD was represented in the audience by our President Grace Nakayama, Co-Founder and Co-Chair of Back to Work Initiative Ellen Dunn, and Treasurer Christina Niemeyer.

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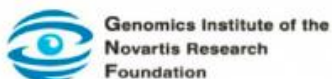
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## GNF: Accelerating the Pace of Drug Discovery

The **Genomics Institute of the Novartis Research Foundation** (GNF), located in San Diego, is one of the Novartis Institutes for BioMedical Research. GNF scientists and engineers are working together to understand the underlying causes of disease and to develop and manufacture unique technologies, such as high-throughput automation systems, that enable breakthrough biology and change the practice of medicine. **Learn more at [www.gnf.org](http://www.gnf.org)**





**AWIS-SD Member Profile:****Barbara Preston**

by DeeAnn Visk

Barbara Preston is the owner and founder of [Pharma Scouts](#), a recruiting business specializing in the placement of scientists in drug development and R&D (research and discovery) positions. To highlight alternatives to academia, AWIS-SD sat down to talk with her about her career path.

**AWIS-SD:** Tell me about yourself—just something about your background; where you did your undergraduate and graduate studies, what your work background is...

**Preston:** I got my B.S. and M.S. in marine microbiology from the University of Maryland. I then moved to Cornell to run a pharmacology lab. My boss was very supportive, pointing out that I was already doing the work of a grad student, so I went on to get my Ph.D. in pharmacology from Cornell.



Barbara Preston in downtown San Diego.

After that, I moved to UCSD (University of California San Diego) for four years to post-doc with Palmer Taylor, Dean of the UCSD School of Pharmacy. After 14 years of experience at the bench, I was ready for a change; I worked with friends in marketing. I missed science, but not bench work.

I heard of a job called recruiting. The first time I persistently applied for a position, I was firmly told “no thanks”. I then found a new recruiting company that was setting up a branch in San Diego. From them I learned recruiting. I discovered that a lot of work was done over the phone, which allowed for great time flexibility. Compensation for placing clients was also excellent.

My first year of recruiting had a steep learning curve. I knew the science; what I had to learn was people skills and how to

play match-maker between clients and candidates. Successfully placing people in a new job means helping both sides overcome their fears. Potential employees are afraid of leaving a job they have for the unknown. Companies are fearful of making a bad hiring decision.

**AWIS-SD:** How true. I have heard it said that hiring a new person is more of a question of how it will be having them for a roommate. Will they be annoying? Will our personalities work together?

**Preston:** Yes. We spend more waking hours with co-workers than with family.

**AWIS-SD:** What is your area of expertise?

**Preston:** I mostly recruit people for positions in drug discovery R&D. I found that you do not need an understanding of the field to recruit for accounting or regulatory space positions. When companies use me as a recruiter, they know that if they want a synthetic organic chemist, they will get an synthetic organic chemist: not a physical chemist, an analytical chemist, or a biochemist. When a client asked me to recruit IT (information technology) people, it was a nightmare. I was out of my depth trying to figure out who had the right expertise in a software language.

**AWIS-SD:** What recommendation do you have for someone considering starting her own business?

**Preston:** First, decide on a business: recruiting, drug development consulting, running a research histology lab, etc. Work in that business to see how it runs. Then start your own business.

I started Pharma Scouts in 2003, after working for four years for a recruiting company and setting up a science division. Then I was ready to strike out on my own.

**AWIS-SD:** What advice do you have for women in science who are beginning their careers?

**Preston:** Find out information about academia and industry. I highly recommend getting involved with a volunteer organization, like AWIS-SD. AWIS-SD has so many committees and activities that allow you to expand your skills in an area and get some experience. For example, if you want to improve your writing skills, you can join the newsletter committee. Working as a volunteer is pretty safe—you cannot be fired.

**AWIS-SD:** How did you first get involved with AWIS-SD?

**Preston:** I attended an early WIST (Women in Science and Technology) conference. I was impressed by the quality of the conference; it opened my eyes to other career possibilities and skills to develop, all while getting know other

women in science.

Based on my excellent impression of AWIS-SD through the [WIST conference](#), I ultimately joined the WIST committee. From there, I served for two years on the board, in what would now be the Member-at-Large position.

**AWIS-SD:** What has surprised you most about working with AWIS-SD?

**Preston:** How easy it is to develop confidence in yourself. I recall Sharon Wampler, a former AWIS-SD board member, at a Happy Hour. She stood up on a chair to make an announcement and added, "This is what being in AWIS will do: give you confidence to stand up on chair and yell to a crowd."

“AWIS-SD is good at getting you out of your comfort zone.”

On another occasion, I and another committee member were tasked with calling hotel managers to ask for complimentary rooms for out-of-town WIST speakers. My co-volunteer was struggling to make the calls. When I asked the committee chair if I should just go ahead and do it for her, she responded: "It is not about getting the room. It is about her overcoming her fear of calling. She needs to grow in her confidence and ability."

**AWIS-SD:** What do you do when you aren't working?

**Preston:** I am on the Board of Directors for a nonprofit, the [East County Transitional Living Center](#). I run a San Diego [cottage food](#) website and blog. If you make shelf-stable foods, you can get a permit to make it at home and sell it in California. This allows people to start a business from home without jeopardizing their job. Also, I am looking forward to horseback riding this summer.

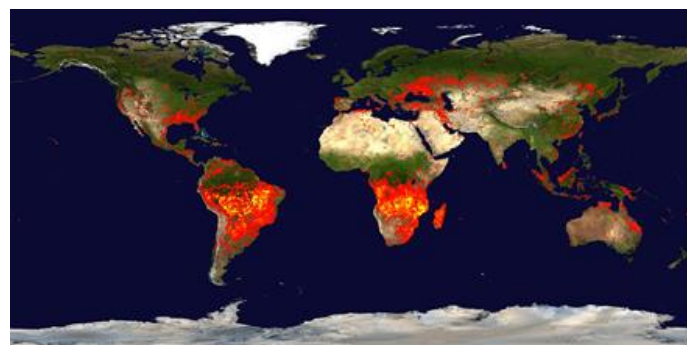
**AWIS-SD:** Thank you for your time, Barbara.

### Wild Fires in San Diego: Learning from the Past and Planning for the Future

by Robina Shaheen

In early May 2014, a small bush fire transformed into a spectacular firework spreading embers up into the air, torching canyon after canyon in just a few minutes. The lack

of rain in Southern California over the last few years had turned most sage and chaparral to bone dry woods, which served as the perfect catalyst to extend the calamity. The prevailing weather conditions, extremely low humidity, and hot winds blowing in from the desert, known locally as "Santa Ana winds," made these wildfires nearly uncontrollable. The pattern of fires resembled the unprecedented global wildfires observed in 1998-99 after the strongest El Niño event of the century (see NASA-MODIS image below), though of greater magnitude. Normally, fire season in Southern California begins in September or October, but this year's onset of fires in early May called our attention to a better understanding of past trends. According to the recent report published by the Intergovernmental Panel on Climate Change (IPCC 2014), the areas scorched by fires have tripled in the last two decades, and the trend will continue to rise. Wildfires are an important component of a natural ecosystem. Records of regional fires (centennial and millennial time scales) can be traced from the charcoal deposits in lake sediments, but these are prone to microbial degradation. Chemical tracers of fires preserved in Antarctic and Greenland ice cores can provide a better proxy for understanding regional and global wild fires.



The moderate resolution Imaging Spectrometer (MODIS) on board Terra satellite shows fires around the world (1998). Photo credit: NASA.

Oxygen and sulfur triple isotope data from sulfate aerosols extracted from a snow pit (1x1 m), along with other conventional tracers, have provided compelling evidence that higher resolution wildfires (on the scale of decades) can be traced back in the snow samples. Sulfate aerosols are released into the atmosphere by natural (oceans, volcanoes, wildfires) and manmade sources (fossil fuel burning, traffic, shipping and aviation industry). Isotope techniques are similar to DNA fingerprinting to investigate crime scenes, as each source carries its unique isotopic signatures, which can be used to identify sources and processes. Most of the aerosol is dry or wet deposited, but a small fraction reaches up into the stratosphere (15 km high) through equatorial latitudes called the Intertropical Convergence Zone (ITCZ, a flight corridor that links the lowest portion of Earth's atmosphere, the troposphere, to the stratosphere). This small quantity of sulfate (a few parts per billion) is deposited in the snow each year, thus enabling us to go back in time and investigate the long-term chemical changes of our



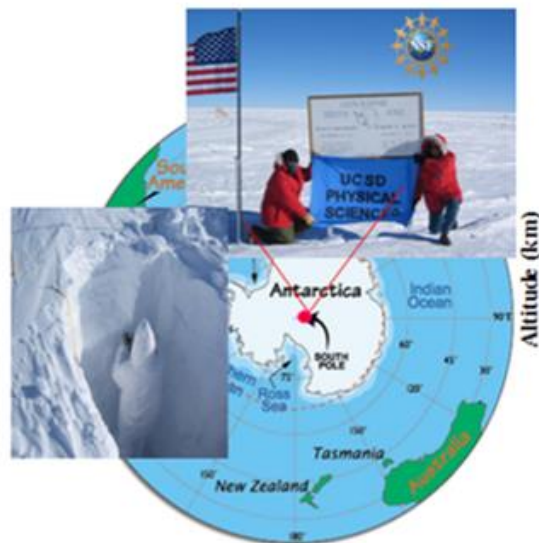
atmosphere.



Wild fire in San Marcos on May 14, 2014 clearly depicts the role of severe drought and hot Santa Ana winds in shaping unprecedented fire tornadoes. Photo credit: Google images. The cyclical El Niño events (~2.5 yrs) in the Pacific bring heavy rains to California, but we are now experiencing the worst water shortage in generations, and the majestic Sierras are nearly devoid of snow cover. In contrast to the wet season, extreme droughts, high temperatures coupled with powerful Santa Ana winds (low relative humidity) provided a perfect stage for the onset of wildfires – a tell-tale of changing weather patterns under the influence of the changing climate.

Despite the scientific evidence, the topic of climate change has been converted into a political debate. However, as an honest intellectual, a scientist, and community member, I am highly concerned about San Diegans' health. With the increasing likelihood of wildfires, with global warming and desertification, it is important that the community in general, and especially the scientific community, fully understand how these events change the chemical composition of the air we breathe. Air quality affects our respiratory system. Gases and particulate matter released during fires change the toxicity level of particles. There is a large gap in our understanding of physical and photochemical transformation on particle surfaces and induction of oxidative stress in individuals, thus calling for the attention of multidisciplinary teams of scientists in the physical and medical sciences.

To answer some of these basic questions, we have collected particles from various wild fire sites in the Greater San Diego area, Escondido, Camp Pendleton, San Marcos, and Carlsbad High School in collaboration with the San Diego County Air Pollution Control District, to measure the particles' chemical properties at source sites. Aerosol samples were also collected on the rooftop of the Chemistry building at the University of California San Diego (UCSD) to understand the physical and photochemical transformations on particle surfaces during transport. We will determine the toxicity potential of these particles and hence evaluate the potential harmful effects to the residents at these sites.



Acquisition of snow samples at the South Pole, Antarctica to extract sulfate aerosol.

The recent intense wildfires caused ~\$50 million in property losses alone to San Diegans. The medical expenses due to acute and chronic cardio-vascular illnesses will increase this amount. The role of climate change, associated wildfires, and their impact on communities is an example of a situation where the scientific community has an extensive role to play in determining the impact of these events. In AWIS, many of our members are engaged in such research, and their role in society will become increasingly greater as climate evolution unfolds.

### Scholars Celebration

by Anna Wakeland

On Saturday June 7th, approximately 50 members of AWIS San Diego met at the La Jolla Woman's Club for the 2014 AWIS San Diego Scholars Celebration.



Participants at the Scholars Celebration (l to r): Amy Duncan, Supriya Gaitonde, and Stephanie Camacho. Photo credit: AWIS-SD Facebook page.

As a busy graduate student and member of AWIS, I will bashfully admit that this was the first official AWIS event I've attended, and I was blown away by what an amazing event it was. The venue itself was very fitting, as it was founded by Ellen Browning Scripps almost 100 years ago; one of the inaugural speeches advocated the need to support women in science.

I met so many friendly women from a multitude of scientific careers, whom I spoke with while eating high tea-style sandwiches and finger foods, delicious desserts, and of course, drinking tea! The seven AWIS scholars who were being honored were an incredibly impressive group, representing STEM fields ranging from bioengineering to medical physics. Their accomplishments and future goals received well-deserved recognition and celebration.



High Tea offerings at the Scholars Celebration. Photo credit: AWIS-SD Facebook page.

The second half of the day included panel presentations from four wonderful speakers, each with a talk related to the theme of "Women's Health Today: Developments in Healthy Living." Linda Manza, Ph.D., spoke about the Food and Drug Administration (FDA) and its role in promoting women's health for over 100 years, with the passage of the Food and Drug Act of 1906. This pivotal piece of legislation provided the first regulation of product labeling, requiring cure-alls and tonics to report that they contained morphine, opium, and other harmful, addictive chemicals.

Christina Giachetti, Ph.D., discussed GenProbe's development of a cervical cancer screening test with high sensitivity and improved specificity, which is extremely important for early detection of pre-cancer without giving false positives.

Next, Ruth Patterson, Ph.D., spoke about her career path and research trajectory, including working on the Women's Health Initiative and the role of dietary modification in breast

and colorectal cancers. Of particular interest to me was her comparison of what she learned while working in industry versus academia. One concept that was new to me was the idea of "managing up"; one example she gave was to never bring your problems to your boss, but instead to bring your solutions. Another key concept Patterson shared was that leadership skills are the currency of promotion.

The final presentation was by Andrea Lacroix, Ph.D., who also worked with the Women's Health Initiative. She showed research documenting that more women than men live longer, so there is a demographic imperative to improve the health of women, from birth to old age. Lacroix also spoke about "career whitewater", which is the idea that your work environment will be ever-changing. The key is to learn to embrace and even enjoy the ride of where your career takes you – much like a kayaker does when they take on whitewater on a river. She also talked about how teamwork and community building is incredibly important, and that the future of scientific breakthroughs will be made by teams.



Scholarship recipients at the Scholars Celebration (l to r) Erna van Niekerk (Scholarship Committee Co-chair), Johanna Fleischmann, Dima Sultan, Jing Zhang, Cecily Keppel, Felicia Murray (UCSD Extension), and Grace Nakayama (AWIS-SD President). Scholars not pictured: Stephanie Price, Heather Cody and Marik Gabra. Photo credit: AWIS-SD Facebook page.

The day wrapped up with opportunity drawings of many fabulous prizes, ranging from professional headshots to Jujitsu classes to a \$500 voucher for UCSD Extension classes. Thus concluded the 2014 AWIS San Diego Scholars Celebration, the first of many incredible AWIS events I will be sure to attend!

**Hera Hub Partner Profile: Sylvia Norman**  
by DeeAnn Visk

[Hera Hub](#) is a shared work space for female professionals with three locations in the San Diego area. One member of Hera Hub who uses the locale to work on her own business is

[Sylvia Norman](#), Ph.D., founder and principal consultant of [Molecular Diagnostics Consulting](#). She guides start-up biotech companies through the process of planning, developing, and validating diagnostic products in compliance with federal regulations.

#### **How did you become interested in biology?**

I did my undergraduate work at the University of Colorado Denver—it was easier to attend there than Boulder, as I already was married and had a baby. I originally wanted to be a creative writer, but after taking an introductory biology course, I fell in love with genetics. I had an amazing mentor.

Upon graduation, I spent one year working at the University of Colorado Health Sciences Center and realized I wanted to go to grad school. I went to Arizona State University; my advisor there ran a developmental genetics lab, which, at the time, was just starting to use molecular biology in their studies.

After obtaining my Ph.D., I worked at the Barrow Neurological Institute (Phoenix, AZ) in the Neuro-Oncology unit as a post-doc. From there, I got a job running a lab as a Principal Investigator.

My husband and I got job offers in Iceland from deCODE Genetics in 1998. We were also offered jobs in San Diego 1998, which we decided to take. So my first position in industry was with Althea Technologies, where I worked on DNA isolation kits. From there, I was recruited by Stratagene, again to make DNA isolation kits. In 2001, a friend from grad school asked me to work at Gen-Probe. I have been in the diagnostic field ever since, developing diagnostic medical tests for infectious diseases and various cancers.

#### **Tell me about your work now.**

I started working as a consultant four years ago. Through my network of people, I can call on other colleagues to assist me with areas outside my expertise. I offer small start-ups an alternative to contracting with contract research organizations, saving them time and money. With my expertise, I can guide startups through the process of developing an assay for a diagnostic test. What often is confusing to companies is not the actual experimental work, but fulfilling the federal regulatory requirements. I can also assist start-ups with project management skills.

#### **How did you come to have your own business?**

I started consulting in the middle of the economic downturn in 2010. A lot of opportunities for entrepreneurship came out of the downturn. I love learning new things and new technologies.

#### **What advice do you have for women in science who are**

#### **beginning their careers?**

I get asked that question a lot. Follow your passion; if you don't love what you are doing, then you won't be happy. If you are looking for a field to explore, I suggest systems biology.

#### **Why did you first get involved with Hera Hub?**

I worked from home for a few years. I found a need to meet new clients in a more professional situation. Amy Rasdal, a local consultant, told me about Hera Hub for office space. I love working at Hera Hub for a number of reasons: the welcoming environment; opportunity for collaborations; advice on business development, marketing, and legal help.

I also started a LinkedIn consulting group called Biotech Consultants Alliance - San Diego with 66 members. We meet once a month at Hera Hub, having a different speaker every month on various topics: sales, marketing, and business development.

#### **What has surprised you most about working with Hera Hub?**

I am amazed by the collaborative spirit at Hera Hub, as compared to other co-working spaces. I really enjoy working in a women-majority environment. I find it easier to share ideas.

#### **What do you do when you aren't working?**

As the owner of my own business, I am pretty much always working. But I still squeeze in time for cooking, gardening, and hiking.

#### **Anything else you would like to add?**

My main message is that science is a team sport. Learn how to do science as part of a team. There really are no innovations done entirely by one person. Be collaborative in your work. Give credit where credit is due. Finally, realize who your mentors were, being sure to thank the people who helped you.

### **Biotechnology Industry Organization (BIO)**

#### **Held in San Diego during June 2014**

by Roberta Alexander and DeeAnn Visk

For the third time, BIO was in our hometown, having been here previously in 2001 and 2008 from June 23 through the 26. Over the years, BIO has gotten bigger and better. Roughly 15,000 professionals from 47 US states and 60 countries attended the event. The entire exhibit hall of the San Diego Convention Center was filled with 1,700 exhibitors. Major sponsors included: Abbvie, Amgen, Georgia Life Sciences, Johnson & Johnson, Lilly, MedImmune, the Pennsylvania



Department of Community and Economic Development, and Takeda.



Hillary Clinton gestures during her keynote address Photo credit: DeeAnn Visk

More than 800 speakers addressed attendees on a variety of business issues. Additionally, 28,000 one-on-one discussions were set up beforehand as partnering events to arrange potential partnerships and collaborations. [Sir Richard Branson](#) gave the keynote address on Tuesday, June 24; Hillary Clinton spoke on Wednesday, June 25. A [career fair](#) was offered on June 26 at the Marriott Marquis.

Registrants were entertained in the evening with an [opening reception](#) on June 23 on the USS Midway and a block party in the Gaslamp Quarter on June 25. Both of the authors volunteered to assist at the convention; we worked for two days and then were able to attend as participants for two days.



Fireworks from the deck of the USS Midway, Monday, June 23 Photo Credit: Roberta Alexander

The importance of BIO can also be assessed by the economic impact on San Diego – with an estimated \$56 million in revenue, it earns twice as much as Comic-Con!

## A Brief History of the AWIS-SD and UCSD Extension Partnership in Education

by Ellen Dunn, April Cresse and Maha Gebara-Lamb

The AWIS-SD Back to Work Initiative was founded to support women of science in their endeavor to return to the workplace after an absence. To this end, we reached out to [UCSD Extension](#), and in November of 2013, the Back to Work Initiative co-chairs (Ellen Dunn, Maha Gebara and April Cresse) met with Sarah Spicci, Director of the UCSD Extension Center for Life/Work Strategies, and Shannon McDonald, Business Development and Marketing Manager of UCSD Extension. We wanted to find out what services were available at UCSD Extension for AWIS-SD Back to Work Coffee Club members. We discussed the possibility of a resume workshop and interviewing workshop tailored for AWIS-SD Back to Work members. When we asked how much workshops would cost, Sarah and Shannon said that they wanted to set up an agreement whereby we could get the workshops for free in exchange for UCSD Extension having advertising opportunities with AWIS-SD. We left the meeting with the expectation that Sarah and Shannon would draft a proposal.

We received the proposal in January 2014. In February, Marcy Richardson, AWIS-SD Board Member at Large, joined the Back to Work Initiative for a meeting with Sarah and Shannon to clarify the agreement. At that meeting, UCSD Extension agreed to an additional \$1000 cash contribution to AWIS-SD to go to the AWIS-SD Scholarship Committee.

# UC San Diego

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## Extension



Logos for UCSD Extension and Association for Women in Science, San Diego Chapter.

The partnership became effective in March. In April, we held the resume and interview workshops as a Career Day, with UCSD Extension's career strategist, Camille Primm. It was well attended, and the reviews we received were excellent.

Some Career Day participants elected to have One-on-One follow-up appointments for resume review and mock interviews with Camille.

Benefits AWIS-SD is receiving from UCSD Extension include the \$1,000 UCSD Extension Scholarship, which was awarded at the Scholars Celebration on June 7, two Back to Work Continuing Education Scholarships for \$1,000 to be used toward tuition for UCSD Extension courses, and \$500 vouchers for UCSD Extension courses to be awarded at AWIS-SD major events. AWIS-SD is being advertised in quarterly emails that UCSD Extension sends to their subscribers. UCSD Extension provides meeting space for AWIS-SD. The Back to Work Coffee Club met at UCSD Extension for two of its recent monthly meetings.

As a result of this partnership agreement, UCSD Extension will have a presence at many of the upcoming AWIS-SD events and will be mentioned in the AWIS-SD Newsletter and website. Additionally, UCSD Extension students will be eligible to join the AWIS San Diego Chapter as student members.

This new partnership has been a mutually beneficial arrangement for both AWIS-SD and UCSD Extension. It has been a pleasure to work with Sarah Spicci and Shannon McDonald of UCSD Extension. They embrace the mission of AWIS-SD in the goal of supporting women in STEM careers. AWIS-SD looks forward to continuing this partnership agreement with UCSD Extension in the coming years.

### **AWIS Open House 2014** by Diana Morales-Hernandez

Once again, AWIS would love to invite you to one of the most important and exciting events of the year. Our famous Open House event is best known for introducing the scientific community to our organization and recruiting new members and volunteers to participate in events. New recruits join excited to participate in events that will give them opportunities to network and socialize with other members with similar scientific aspirations. This year, we wanted to get a head start on finding items for the silent auction. If any of you would like to donate an item, please email [AWISOpenHouse2014@gmail.com](mailto:AWISOpenHouse2014@gmail.com) with the item's general information, a picture, and the item's worth. We welcome volunteers who would like to participate as part of our organizing committee or at the registration table and with setting/cleaning up for the event. With your help, I am positive that we'll make this year's Open House one to remember!

#### **Science News Ticker**

The Scripps Research Institute (TSRI) in La Jolla and the University of Southern California (USC) have ended negotiations to explore the possibility of USC acquiring or

merging with TSRI. The proposed merger was strongly opposed by many of TSRI's faculty. TSRI may now have to consider alternative approaches to secure its finances, which are threatened by shrinking federal funding. ••• UC San Diego scientists have identified ocean bacteria that make flame-retardant chemicals almost identical to the toxic man-made chemicals. It was previously assume that the presence of these chemicals in nature was caused by man-made contamination, but now this must be re-examined. The U.S. Environmental Protection Agency plans to phase out use of the man-made chemicals based on these assumptions. The study was published in the journal Nature Chemical Biology. ••• A new technique named [CRISPR](#) (clustered regularly interspersed short palindromic repeats) allows the introduction of DNA into any genome with unprecedented ease. CRISPR recognizes [palindromic DNA sequences](#)—meaning in this case that the reverse complement of a DNA sequence is same as the original sequence—which will allow editing, regulating and targeting of the genome. Previous approaches were much more expensive, time consuming and generally involve random insertions into a genome. ••• Point Loma Nazarene University broke ground in May on a 32,900-square foot science center in the center of its campus. The new facility will include 13 laboratories for biology, chemistry and anatomy, as well as four classrooms. The building, which is slated to cost \$28 million and is expected to be complete by summer 2015, will offer additional space and modern technology to accommodate the increasing number of science students at the university. ••• Isis Pharmaceuticals received indirect support from two independent studies writing about their experimental cardiovascular drug. Isis' investigational drug, called ISIS APOCIII Rx, inhibits the APOCIII gene; studies found that reducing function of this gene reduced risk of heart disease by 40%. The independent studies support expanded use that could add \$2 billion in sales. Isis plans to develop a follow-up drug for those purposes. ••• An interesting session at BIO 2014 was "[The Bioethics of Drug Development](#) – You Make the Call!" A panel discussed the issues surrounding clinical trials for a new drug to treat a high mortality disease with no effective treatment. In these cases, the panel suggested that a placebo control was not necessary, as historical data could be used to for comparison. ••• The San Diego Zoo has received \$6 million from the Price Family Charitable Fund that will be used to provide educational programs for low-income students in San Diego County. It is the largest education gift ever given to the zoo and will be used fund a program on water conservation and native wildlife in 65 local elementary schools per year. The funding also will be used to transport as many as 7,800 fourth graders to the zoo for hands-on instruction on conservation and protecting endangered species. ••• Low-income women in San Diego and Tijuana will soon be able to receive cervical cancer diagnostic services via smartphone. Mobile OCT, Scripps Health, and Fronteras United Pro Salud, will work together to use a smartphone screening tool in the upcoming study. The tool uses a lens as well as a set of algorithms to perform the screening. Cervical

cancer is the leading cause of cancer death among women with limited resources. ●●● The drought years in San Diego do not always lead to bad wildfires. The lack of rain leads to a lack of short grasses growing in the winter. Still only 16% of San Diegan polled by the Union Tribune believed that the worst of the fire season is behind us.

### Member News

**Navneeta Pathak**, recently graduated from the Yang Laboratory with a Ph.D. in Biomedical Sciences from UC San Diego. Her next move is to the Los Angeles area, where she will pursue science communications.

**Tracy A. Nunez** successfully completed the 4-day workshop at Miramar College to refresh her laboratory skills in PCR, ELISA, and mammalian cell culture. She also received a verified certificate with distinction from the Mount Sinai Department of Pharmacology.

**Kristina Schimmelpfeng Henthorn** is now a Senior Scientist in Assay Development at GenMark DX.

### Upcoming Events

#### AUGUST STRATEGY SESSION: Build Effective Mentoring Relationships

Monday, August 4, 2014  
Networking 6:00 pm, Workshop 6:30 - 8:00 pm  
Hera Hub, Sorrento Mesa 9710 Scranton Rd. #160, SD 92121

A great mentor can be hard to find, but most people wish to have one. This Strategy Session will address the differences between mentors, bosses, and sponsors, and how each type of relationship can promote success for both parties. Our presenters will provide valuable guidance on how to identify great mentors as well as how to be great mentors and mentees. We will focus on developing skills to build and maintain effective mentoring relationships, which will foster both career and personal development. Come prepared with a list of qualities you look for in a mentor so you can join in on the discussion!

Light refreshments will be served.  
Remember to bring your business cards  
[Registration](#) is essential

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](http://www.awis.org)). Remember to select San Diego as your chapter. We would love to have you join us!

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

#### SEPTEMBER STRATEGY SESSION: Build Your Own Business

Monday, September 8, 2014,  
Networking 6:00 pm, Workshop 6:30 - 8:00 pm  
Hera Hub, Sorrento Mesa 9710 Scranton Rd. #160, SD 92121

What is it like to start your own business? What should I do to get ready for this? Come explore this and other questions at the September Strategy Session.

Light refreshments will be served.  
Remember to bring your business cards  
[Registration](#) is essential

This is an AWIS San Diego MEMBERS ONLY event.

#### SPECIAL TOWN HALL MEETING

Monday, September 15, 2014, 6:15pm –8:00pm  
Hera Hub, 9710 Scranton Road, #160, San Diego, 92121

All AWIS-SD members are encouraged to attend this open town hall meeting at Hera Hub.

The goal of this meeting is to increase engagement of our members and getting their input about our chapter and activities. This will provide members with a “behind the scenes” look at AWIS San Diego. Please help to spread the word.

Please [register](#).

### Local Events of Interest

#### WOMEN INVESTING IN WOMEN SUMMIT

When: Friday, July 18th 1:30 - 6:30pm  
Saturday, July 19th 9am - 1:30pm

Where: University of San Diego  
Who: Entrepreneurs & those who want to learn about investing in women owned companies  
Where: University of San Diego

We are excited to be supporting the first annual Women Investing in Women Summit!

AWIS-SD is a partner for this amazing event.

What: The two-day event will include keynote presentations by industry leaders, panel discussions, example pitch session, and hands-on breakout sessions focused on teaching women



the basics of angel investing and entrepreneurs the tools to access capital.

Please register [here](#).

### 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, Afshawn Chakamian, Pat Rarus, 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](mailto: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, 2014

### About the Authors



**Roberta Alexander, PhD**, is a pharmacologist and has worked mainly in research applied to drug discovery. She is passionate about science and working toward improving patients' lives. Roberta and her husband live in San Diego County, California.

**Diana Morales-Hernandez** is an enthusiastic scientist who enjoys working with biotechnology and tissue engineering principles for the discovery of products for unmet medical needs. She loves interacting with people and hopes to someday become a liaison between Research, Process Development, and Manufacturing departments to improve product transition into market. Furthermore, this Puerto Rican is going back to her classical singing roots and hopefully be selected as part of the San Diego Master Chorale in August.



**Christina Niemeyer, Ph.D.**, is an Associate at i2 Grants Associates. She identifies, writes and secures grants for emerging companies in the life sciences. Christina lives in Poway with her husband Bob and cat Rusti. She became an empty nester this last month after moving Conner to Texas. She enjoys long walks, cooking, reading and traveling.

**Dr. 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, progeny, and two spoiled hens.

Born and raised in Albuquerque, NM, **Anna Wakeland** received her BS in Biochemistry from the University of New Mexico in 2010. In the fall, she moved to San Diego to begin her Ph.D. in the Biomedical Sciences Graduate Program at UC San Diego. Her thesis research involves using human pluripotent stem cells to model placental cell development, particularly looking at the role of oxygen tension on placental cell development and differentiation.



**AWIS-San Diego Sponsors**

AWIS-SD thanks our corporate sponsors for their generous support. Donations from corporate sponsors help us fund scholarship awards, monthly events and Strategy Sessions, community outreach efforts, the Newsletter and the website.

For more information about how your company can support AWIS-SD, send e-mail to [fundAWISsd@gmail.com](mailto:fundAWISsd@gmail.com)

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### Important Contacts

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To contact the Board, visit the following website: <http://sdawis.org/about-awis-san-diego/board-members-awis>

### Committee Contacts

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