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.





Register today!
This exciting conference is for individuals at
ALL career levels in STEM fields!
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Letter from the President



Dear Fellow AWIS-SD Members & Friends,

This month we are presenting our biennial Women in Science and Technology (WIST) Conference at the UCSD Faculty Club on May 18th. WIST 2013, a day-long conference focused on career and personal development, is themed "Aspire, Attain, Ascend" to reflect a breadth of topics across all career levels. The WIST Committee has organized a terrific program that includes inspirational plenary speakers Dr. Jeanne Ferrante of the UCSD Jacobs School of Engineering and Barbara Bry of Blackbird Ventures, workshops and panel discussions, presentation of our seven 2013 Scholarship Awardees, and a special presentation by the AWIS National President-Elect, Dr. Ann Lee-Karlon. You can read more about the WIST program and speakers at www.wist2013.org and register by May 14th. If you are not yet an AWIS-SD member, you can join while registering and get the reduced, member rate for WIST. Also coming soon is the June 3rd Strategy Session titled "Enhance Your Negotiation Skills: Acquire the Desired Result." Stay tuned for the announcement of our family-friendly summer event being planned by the Events Committee for July.

As usual for this time of year, AWIS-SD volunteering activities and events have been numerous. I hope you'll read the articles about them in this Newsletter edition, but here are some Our Outreach volunteers have been busy participating in the Greater San Diego Science and Engineering Festival Science Fair and Expo and the Exploring Your Horizons Conference. We AWIS-SD judges at the Science Fair selected nine young ladies with outstanding projects. A few weeks later, the Outreach Committee hosted a lovely dinner for these honorees, their families, and project mentors. members enjoyed an interesting and tasty Science of Chocolate event at Eclipse Chocolat and a very informative Strategy Session about interviewing. The Corporate Sponsorship Committee has been doing an excellent job of maintaining and recruiting new and generous sponsor support. My sincere appreciation goes to our 2013 sponsors who are listed in this Newsletter and to the Corporate Sponsorship Committee! Remember that we have lots of volunteering, networking, and leadership opportunities with our AWIS-SD Committees. If you are interested, you can read more about the activities and opportunities organized by our eight Committees, Coffee Clubs, and the Leadership Network on the AWIS San Diego website (www.awissd.org) under "Get Involved."

There are other wonderful articles in this edition! You can read about BIOCOM's Life Science Immersion Program (supported by the BRIDGE grants), how women leaders are portrayed in the media and an article about the Art of Science Incubator and how you can get involved in this unique opportunity. This edition's member profile highlights Claire Weston, CEO of Reveal Biosciences.

I look forward to seeing you at the WIST Conference. Please email me at president@awissd.org if you have any questions,

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comments or suggestions about/for our chapter.

Most sincerely,

Dody

Dorothy (Dody) Sears

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What's Kool About EYH 2013

By Shelly Wanamaker and Alex Bortnick

Expand Your Horizons (EYH) is an annual conference designed to interest girls aged 11-16 in science, technology, engineering, and mathematics (STEM) fields. Featuring interactive workshops, the event provides girls with the opportunity to ask questions about succeeding in STEM careers and gain hands-on experience with experimental science. Meanwhile, parents, teachers, and mentors are invited to attend seminars on ways to encourage STEM at home and in the classroom, with special attention to local programs for burgeoning scientists.

At EYH 2013, new members of the AWIS-SD Outreach Committee Shelly Wanamaker, Justine Swann, Lauren Mack, and Alex Bortnick facilitated the "Kool-Aid Chromatography" workshop (an activity developed by AWIS-SD Outreach Committee member Nellie Shaul). Using a colorful array of Kool-Aid flavors, the committee members demonstrated how components of a mixture (in this case, water, dyes, and sugars) could be separated based on their relative polarity.



This year's host of EYH, University of San Diego, offered a pristine laboratory equipped with extra materials and ample bench space. In the morning, volunteers were kindly greeted with complimentary breakfast on the balcony of the Shiley Science Building with a breath-taking vista of Old Town. After weeks of preparation, the presenters watched excitedly as streams of over 500 middle-school and high-school aged girls poured out of school buses and carpools.

Just moments after setting up and a brief rehearsal, the classroom door opened and in rushed 20 girls. Accompanied by undergraduate peer leaders, the group zoomed to the front of the classroom, eager to find out what was so cool about Kool-Aid after all. During the introduction, we asked the girls to think of things commonly separated out of mixtures. "Chlorine!" "Sugar!" and "Minerals!" they answered. These young ladies were impressively sharp and eager to participate.



After discussing more realworld examples separation chromatography (decaffeination. water purification, etc.), demonstrated the basics of the experiment, and then distributed goggles and gloves. The girls formed groups of two or three and conducted the experiment with their own hands, under our guidance. After collecting and recording data, the groups shared their observations.

Over the day, across all three hour-long sessions,

the young scientists asked insightful questions like: "What if we used a non-polar solvent like oil to elute the dye?" and "Am I going to have to know about polarity if I want to go to

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Veterinary School?" Some of the best feedback included, "In science class, everything we do is a computer simulation. I really liked this because we could actually do something in real life." EYH was a very rewarding experience and AWIS-SD plans to participate next year. Even a relatively simple activity can inspire young girls to learn basic scientific principles and methods. The Outreach committee invites you to participate next year.



Crime Scene Sleuths: Expanding Your Horizons Conference

By Vicki Hurless

What do analyzing shoe prints, running DNA on a gel, and identifying unknowns have in common? They are opportunities for eager 6th-10th grade girls to solve a fictitious crime at this year's AWIS-SD "Crime Scene Sleuth" workshop at the annual San Diego county-wide Expanding Your Horizons (EYH) conference on March 2nd, 2013.

Since 2002, EYH has hosted an event at the University of San Diego for curious young women to explore numerous handson workshops in science, technology, engineering, and math (STEM) fields. Organizations such as the University of California San Diego, Scripps Institute of Oceanography, Sea World, Ocean Discovery Institute, The Scripps Research Institute, and many more host EYH workshops to encourage and empower young women in order to explore careers in the STEM fields.

AWIS-SD hosted the popular "Crime Scene Sleuth" workshop organized by Diane Retallack. The primary objective of the AWIS-SD workshop was to educate the young women in the scientific method in order to solve the fictitious crime of who panda-napped Xiao Liwu (a baby panda) from the San Diego Zoo. AWIS-SD Outreach Volunteers April Cresse, Cassie Henry, Vicki Hurless and Lei Lei Sengchanthalangsy navigated about 45 "crime-solvers" through the scientific method by overseeing the young women as they conducted chromatography, chemical analysis of powders and liquids, DNA analysis, and shoe print analysis.



At the shoe print analysis station, led by Sengchanthalangsy, the girls analyzed three shoe prints found in the mud at the panda exhibit. Soles of the suspects' shoes were rolled ink then pressed on paper to see if any of the shoe sole prints match up with the prints found at the scene. Crime solvers at the DNA station, led by Henry, pipetted DNA samples into a gel and analyze the separated DNA bands. After the girls analyzed their results, they then shared their thoughts and data to identify the culprit.

Throughout the workshop, the young women enthusiastically conducted experiments, eagerly sharing their ideas and passions. The AWIS-SD "Crime Scene Sleuth" workshop engaged girls at EYH with hands-on scientific experiments. Exposure to interdisciplinary fields, application of knowledge to a "real" world problem, and discussion of various



science topics provided these girls opportunities to see concrete examples of science in action.



Chocolate: Food for the Gods

By Andria Del Tredici

On Thursday, March 14th, AWIS members spent a delightful evening learning about and eating chocolate at Eclipse Chocolat. Dr. Francisco Villarreal, a Professor at the

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University of California San Diego, School of Medicine, presented a seminar entitled "Cacao, Food for the Gods: the Scientific Evidence." While we sipped on vanilla-bean infused water and herbal tea, we learned about the history of chocolate and the evidence for its health benefits.

Chocolate is made from the seeds of the cacao plant, whose Latin name (*Theobroma cacao*) means 'food for the gods'. Cacao is found abundantly in Mesoamerica and is often ingested as a beverage in these regions. The plant has a revered status, and the seeds were used as commodity in pre-Columbian Mesoamerica. The Mayans believed that eating cacao made you strong and invincible.



Chocolate Tasting—photo by Tineke Lauwaet

Now there is scientific evidence that eating chocolate may confer many health benefits. In the 1990s, the Kuna Indians, an isolated population who live on the San Blas Islands near Panama, were found to have an unusually low incidence of high blood pressure. Death rates from cardiovascular disease are much lower in the Kuna Indian population compared to mainland Panamanians. When genetic causes were ruled out, their chocolate-rich diets were suggested to be protective for cardiovascular disease.

Chocolate has also been shown to help with weight loss and to enhance exercise performance. Its health benefits are likely due to a high concentration of flavonoids such as epicatechin. Villarreal's own studies show that mice fed epicatechin could run longer than mice that were not fed epicatechin. Epicatechin may stimulate mitochondrial biogenesis, since epicatechin-fed mice also display an increased number and density of mitochondria in their muscle cells. Indeed, a pilot study in humans showed that patients suffering from severe heart failure displayed increased mitochondrial biogenesis following three months of

daily doses of chocolate and epicatechin.

So how much chocolate should we eat for optimal health benefit? Villarreal recommends a daily serving of two postage-stamp-sized pieces of dark chocolate (5 grams). Unfortunately, eating more than 5 grams per day is not recommended. We had to wait until the next day to limit our daily chocolate intake, because the chocolate tasting was next



Samples of chocolate—photo by Tineke Lauwaet

We feasted on eight different chocolate samples. Cocoa nibs, which are bits of raw chocolate, received mixed reviews. However, everyone seemed to enjoy the chocolate bars (see photo) and artisan truffles, which included exotic ingredients such as sweet basil mint, lavender sea salt, and macadamia ginger.

While we enjoyed the tasting, Wil Gustwiler, the owner of Eclipse Chocolat, told us about his business. Eclipse Chocolat features 'ethically-sourced' chocolate from Guittard Chocolate (of San Francisco), who has taken action to ensure the sustainability of cacao growing regions, as well as the quality of life of the cacao farmer. The chocolate is also the highest grade available, called couverture chocolate. Gustwiler combines couverture chocolate with other hand-produced ingredients to create artisan confections.

The company relocated to South Park in February. Its products are available onsite, online, and in many local retailers. Many thanks to Eclipse Chocolat for donating the space for this event, which was organized by Events Committee members Tineke Lauwaet and Qing Sun.

"Oobleck." "Excuse me?" "OOBLECK!"

By Nellie Shaul and Shelly Wanamaker

Quotes from the day are italicized.

"Knock, knock, knock (really hard knocks!), then stop! Do you think this is solid or liquid?" On Saturday, March 23rd, the 2013 Expo Day was a great conclusion to this year's San Diego

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Science Festival Week. AWIS-SD Outreach, among over 100 other participating organizations, presented interesting exhibits and various hands-on activities to engage young minds and the community including classmates, families, and friends in the fields of math, science, technology, and engineering. With 27,000 attendees, many were highly intrigued by what AWIS-SD Outreach and their army of volunteers were demonstrating. "I'm sorry I'm still here, I'm just obsessed with this." Overheard, regarding Oobleck (the name is co-opted from Dr. Seuss' classic, Bartholomew and the Oobleck).



Photo by Valerie Kosheleff

Oobleck is a great way to quickly demonstrate physical phase change, even though it deviates from the norm by being a non-Newtonian fluid. "Can you spell Newton for me?" Unlike how Sir Isaac Newton proposed fluids should behave, this type of fluid behaves like a liquid when little or no force is applied, and acts like a solid when a force like pressure or knocking is applied. "Man, even Newton got things wrong." Looks of incredulity flashed across participants' faces as they first saw Oobleck in action, while others prided themselves in having studied such fluids at school before.



Photo by Valerie Kosheleff

Regardless of their prior knowledge of Oobleck, none could resist the temptation of digging their hands in the slime. Many attempted to secure the Oobleck in its solid form and some hoped to take a bit home, but the moment pressure was removed Oobleck reverted to its slimy state and slipped through their fingers. It was great to see so many people interested in learning about why phase change can happen. Even cooler was the other examples people came up with of similar fluids like quicksand and caramel, and ideas like, "Next year, you guys should have a field of this stuff." "Do you think I could walk across this?" "Only if you walked really, really fast."

Photo by Valerie Kosheleff



Our most popular question of the day was, "What's it made out of?" Oobleck is made simply by adding 2 parts water to 1 part corn starch. "Is that it?" Add food coloring for more fun. Everyone who came by the AWIS booth enjoyed touching, holding, playing with, or just hearing about the strange goop. From toddlers to adults, it was clear that everyone was excited about their new knowledge of Oobleck. A grown man said to future wife, "Seriously, anytime you want me to be

quiet just make this for me at home." Expo Day proved to be both fun and educational for all.

April Strategy Session: Enhance Your Interview Success Active Preparation and Follow Through

By Margo Streets

Interviewing: everyone has to do it in order to successfully obtain a new position, but many people struggle with the process. Ryan Wheeler, Manager of Career and Postdoctoral Services at The Scripps Research Institute, provided wonderful insight on how to excel at the process during the April 1 event as organized by Kaumudi Joshi and Beth Cisar.

Wheeler's most valuable advice: prepare, prepare, prepare! With the quantity of information available online about companies, hiring managers find it inexcusable for an interviewee to not know specific information about the company. The key: leverage social media, Google and one's personal network to find information prior to a phone interview so one can demonstrate one's genuine interest.

Wheeler provided practical solutions for both traditional and behavioral type questions, which many companies favor today. The assumption is that past behavior is the best

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predictor of future success. To handle these questions, Wheeler suggested compiling a story bank of particular experiences using the STAR method (describing the Situation, Task done, Action to handle and Result). Attendees also shared their personal experiences, both positive and negative, and what they had learned for the benefit of the group.

The session ended with multiple mini interviews, allowing the attendees to critique three brave women on their responses to interview questions. They all did an excellent job of highlighting their strengths in relation to the question and position while letting their personality shine. The informative session certainly boosted the confidence of the attendees for any of their upcoming interviews.

This event was sponsored by the UCSD Rady School of Management and hosted by Jones Day.

Member Profile: Claire Weston, CEO of Reveal Biosciences

By DeeAnn Visk

As you approach the end of your graduate studies or post-doc, you may be wondering about your career alternatives. Is there life outside of academia? Perhaps you will follow a path similar to that of Claire Weston, who started Reveal Biosciences in 2012. Reveal is a Contract Research Organization (CRO) specializing in histology, advanced tissue staining, and imaging.

Which brings me to my next point—what is a CRO anyway? Looking at Reveal as an example, companies may not want to invest in the equipment (in this case a tissue processor, paraffin embedder, microtome, automated immunostainer, digital slide scanner, microscopes, etc.) or the staff to perform a specific experiment. If a customer needs histology slides made from tissue, Reveal is readily available with the necessary equipment and expertise. Outsourcing work saves the group conducting the study time and money. Companies that provide vivarium support exemplify another type of CRO. Thus, CROs are companies that provide research services, often in specialized areas, on a per sample or contract basis. San Diego is becoming a leading hub for contract research organizations with more than 100 companies offering a wide range of research services.



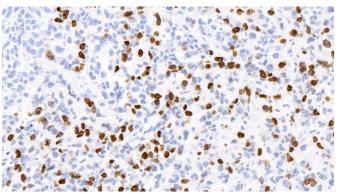
Claire Weston in front of her company, Reveal Biosciences
Photo by DeeAnn Visk

Here are some excerpts from a recent conversation with Weston.

AWIS: Why did you decide to start Reveal Biosciences?

Weston: I have always wanted to start my own business. I had experience working in a variety of different companies but it wasn't until I worked at Vala Sciences and saw how a small biotech could function that I was able to learn how to turn my ideas into reality. My background is in cancer biology and molecular pathology so I wanted to focus on what I was good at. I did a lot of market research at the beginning and found that there was a real need in San Diego for a local CRO focusing on histology, advanced tissue staining-immunohistochemistry (IHC) and in situ hybridization (ISH)-and imaging/image analysis.

The response in San Diego has been amazing - people like to work with local CROs, visit the lab, and speak with the scientists face to face rather than ship samples across the country which can be expensive and isn't as interactive. "Near-sourcing," outsourcing to local CROs, is a good option for many companies. In addition to offering services, my scientific interests were in using these same techniques to develop innovative tissue-based molecular diagnostics. Our business model is now that we function as a CRO and use part of the revenue from providing services to fund the diagnostics research we're excited about.



Ki67 positive (brown) cells in a tumor Photo from Reveal Biosciences

AWIS: What is the best thing about having your own company?

Weston: The best thing is meeting so many interesting people, feeling like you are building something, and being in an environment where everyone is excited about the science. Every day is different and we are lucky to have some really innovative collaborations going on.

AWIS: What type of person works best in a startup company?

Weston: I would say someone who can wear many hats, has enthusiasm, and can think outside the box. Every day is different, and there are always challenges. Some people find that really fun; others prefer a more stable environment. It's not for everyone!

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AWIS: How do you decide who to work with when starting your company?

Weston: I have been really lucky to find very talented people who can fill the needs we have. We offer three main areas of services: (1) histology, (2) advanced tissue staining (IHC and ISH), and (3) whole slide imaging and analysis/quantification. As our business expands, we will need people focused in each of those areas. So far I have been fortunate to know people who are extremely good at what they do and who were enthusiastic about joining the team. In a small company every person is critical for the company's success so it is really important to have a good fit.



Claire Weston with the automated slide scanner
Photo by DeeAnn Visk

AWIS: What do you do when you aren't working?

Weston: I have two boys, ages 6 and 8, who keep me very busy!

AWIS: Anything else you would like to add?

Weston: San Diego is a great environment to start a business as there are so many programs available where you can get help and advice. Talking to other entrepreneurs and seeing how people make their businesses work can be very useful. Groups like CONNECT, the San Diego Entrepreneurs Exchange, MIT Enterprise Forum, and the Small Business Association can be great resources.

AWIS: Why did you first get involved with AWIS-SD?

Weston: I first got involved in AWIS when I was working with Barbara Preston, a scientific recruiter at PharmaScouts, Inc. and AWIS member. Barbara recommended that I attend the WIST conference, so I did, and really enjoyed it. I joined AWIS after that.

AWIS: What was your first impression of AWIS-SD?

Weston: Honestly, as a young scientist I was skeptical of women's organizations in general. After I had my children, I wanted to "off ramp" for a few years to spend time with them and found very few opportunities to work part time or balance work with a young family. During that time I was very lucky to meet Barbara and work with her part-time as a scientific recruiter. It was an excellent opportunity for me to be exposed to a wide range of people in biotech/pharma. It

also really inspired me to get into the business side of science. Now I see that organizations like AWIS can be really supportive environments to meet like-minded professionals, especially at pivotal points in your career.

[Disclaimer: The author of this article, DeeAnn Visk, enjoyed working at Reveal Biosciences. While this article was composed as objectively as possible, it may still contain some bias.]

Building BRIDGEs into the Life Sciences Industry: The Life Science Immersion Program

By Nurith Amitai and DeeAnn Visk

Are you attempting to break into the biotech industry? Wondering about life outside of academia in the private sector? Consider enrolling in the Life Science Immersion Program (LSIP), which teaches business information about the biotech, pharmaceutical, medical devices, and biofuels industry. Completed entirely online, this certificate program is offered by BIOCOM, a Southern California trade association for the life science industry, targeting individuals looking to transition into or advance inside this field. The course is self-timed; it should be completed within a 3 month time period, but can be finished significantly faster if you have plenty of time to dedicate to it.

The LSIP curriculum was developed by industry professionals, and is divided into four main tracks:

- Business Environment: includes an overview of the industry, primers on organizational structure and fundamental business concepts like business plans, and lessons on crucial non-scientific business skills. These include: how to work with people with different personal styles, how to lead effective meetings, and how to communicate efficiently in company emails.
- 2. Finance: demystifies company budgets, accounting, raising capital, and intellectual property.
- Project, Process and Product: outlines the product development process for drugs and devices, discusses regulatory concerns, manufacturing, and the importance of quality control. It also explains project management.
- 4. Marketing, Sales and Business Development: exactly what it says on the can!

The lessons are offered as video clips or slide presentations that end in quizzes, with downloadable supplemental reading material. LSIP students also have access to the BioCollaborative online community, which offers a range of resources for those interested in life science employment.

Having taken the LSIP ourselves, we found it quite useful and worthwhile. While the quality of the offerings can vary – some courses seemed heavy on business buzzwords and lighter on concrete information, while others were very clear, informative, and engaging – the program overall is well-

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designed and provides a highly valuable resource. For a jobseeker faced with a bewildering array of specialized courses on various industry niches and a limited budget, the LSIP provides an attractive all-in-one-place program covering the full spectrum of the industry. In addition to the knowledge acquired through the courses, the LSIP certificate also demonstrates a genuine interest in industry. While the program is aimed at anyone with an interest in succeeding in the life science industry, it strikes us as particularly useful for those who hope to transition from academia into industry — as many AWIS-SD members are.

Even better, grant funding is available to defray the cost of The San Diego State University (SDSU) Foundation has initiated the Biotechnology Readiness, Immersion, Certificates and Degrees for Gainful Employment (BRIDGE) program, which aims to "provide education, training, and placement services to more than 1,000 veterans, and incumbent, dislocated, or unemployed workers in the greater San Diego region." Thanks to funding from the federal Department of Labor and the State of California through the American Recovery and Reinvestment Act, BRIDGE grants allow eligible individuals to take the LSIP program for free. The BRIDGE program is administered by the SDSU College of Extended Studies. Grant recipients also gain access to a number of complementary benefits, including workshops and webinars, one-on-one career coaching, and a job board. But hurry – the BRIDGE grants and all associated benefits are only available through May 2013.

Find out more:

LSIP:

http://biocominstitute.org/training/BRIDGE-EDGE Grants/Life Science Immersion Program/

BRIDGE project:

http://www.neverstoplearning.net/BRIDGEproject

Women Leaders Viewed Through the Media Lens

By Lynne Friedmann

Ponder, if you will, these recent news headlines:

- Obama Names the First Woman to Head the Secret Service
- New Union City Police Captain is First Woman in that Rank
- Peruvian Capital Lima's First Woman Mayor Narrowly Survives Recall Vote
- First Woman to Run IBM Paid Less than Predecessor
- Michelle Johnson Chosen to Lead Air Force Academy, First Woman in Line for the Position

Would these stories still be news if the reference to "first woman" were removed? Let's see:

- Obama Names New Head of Secret Service
- New Union City Police Captain Named
- Peruvian Capital Lima's Mayor Narrowly Survives Recall Vote

- Current IBM CEO Paid Less than Predecessor
- Michelle Johnson Chosen to Lead Air Force Academy

Clearly, the answer is yes. That being the case, why does "first woman" continue to be a news peg and does it matter?

Two science journalists recently weighed in on the issue. Christie Aschwanden, a health columnist for the *Washington Post* and blogger about science at "Last Word On Nothing", contends "campaigns to recognize outstanding female scientists have led to a recognizable genre of media coverage. Let's call it 'A lady who...' genre. You've seen these profiles; of course you have, because they're everywhere."

Aschwanden has a lot more to say in 'What matters in stories about women scientists?' In particular she lauds Ann Finkbeiner, a freelance science writer and author, who given an assignment to profile a woman astronomer declared in "What I'm Not Going To Do":

I'm going to write the profile of an impressive astronomer and not once mention that she's a woman. I'm not going to mention her husband's job or her child care arrangements or how she nurtures her students or how she was taken aback by the competitiveness of her field. I'm not going to interview her women students and elicit raves about her as a role model. I'm going to be blindly, aggressively, egregiously ignorant of her gender. I'm going to pretend she's just an astronomer.

Until all reporters adopt this attitude, be on the look-out and call a time-out when fielding interview questions that wander into these areas.

Otherwise, the risk is more women-as-anomaly stories and a mindset that women in leadership positions will continue to be an anomaly.

If this article interests you, see the "<u>The Athena Oracles</u>" blog on the Athena-San Diego website. The blog's goal is to serve as a resource for thought-provoking articles, research findings, original writings, and insights from dynamic women leaders. The Athena Oracles are written by Gwen Rosenberg, Vice President, Investor Relations & Corporate Communications for Senomyx and me, Lynne Friedmann.

[Editor's note: This commentary was previously published on the Athena website.]

Incubator for STEM Innovations Seeks Participants

By Nan Reener

The Art of Science Learning Incubator for Innovation is looking for 100 community members — diverse in life experience, expertise, and age to participate in an intensive course in innovation. Participants will learn and apply

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innovation skills to one of our region's most vexing challenges: water and the mismatch between supply and demand. The topic of this challenge has been selected by public vote. Held in Balboa Park, the course is scheduled for October 2013 through September 2014.

A national initiative funded by the National Science Foundation, the Art of Science Learning uses the arts to spark creativity and innovation in science, technology, engineering, and mathematics (STEM) learning and practice. This initiative promotes critical and creative thinking skills, workforce readiness, and sustaining our national culture of innovation.

Incubator participants will:

- Learn and apply new art/science-based innovation techniques in a series of workships;
- Practice skills of creativity, communication, and collaboration;
- Work in multi-generational cross-disciplinary teams to innovate solutions to the water challenge;
- Create new arts-infused STEM learning programs;
- Receive support in the innovation process, with expert guidance, peer learning, and technology;
- Join an international network of innovators and entrepreneurs;
- Receive recognition and certification as an "Art of Science Learning Fellow."

Estimated time commitment: 150 hours over course of the yea October 2013–September 2014.

The San Diego Incubator for Innovation seeks:

- STEM professionals working in industry and academia;
- Visual and performing artists, teaching artists, and curators;
- K-12 classroom teachers and educators;
- Museum professionals and informal educators;
- High school and college students;
- Architects, designers, land planners;
- Public officials, military, and policy makers;
- People with expertise in water issues.

To apply, please provide a resume and a one-page statement to address these two questions:

- 1. What interests and skills will you bring to the incubator's innovation community?
- 2. How will you use your innovation skills in our local, regional, and/or international communities?

Please email your response to Nan Renner, San Diego Incubator for Innovation, by May 30, 2013 at sdincubator@bpcp.org, including "Incubator Application" in the subject line. Harvey Seifter, Art of Science Learning founder/director, is the project's principal investigator.

You can also find out more about the Art of Science Learning at the upcoming information meeting (see Local Events of Interest).

Science Online Watch Party

By Jessica Moore

Gathering to watch a live stream of a conference may seem like an odd way to spend a Saturday, but Science Online (SciO) isn't a typical conference. SciO, an annual gathering of science communicators held annually in Raleigh, NC since 2007, strives to build community and encourage discussion of key issues at the intersection of science and the web.

SciO sessions are held in a "un-conference style"—only topics and moderators are predetermined, and then the floor is open to questions and comments from participants. The sessions streamed at San Diego's watch party, held February 2nd, included Chemophobia (public bias against words that appear to indicate synthetic origins), Identity and the Internet (how communicating identities affects how messages are received), Life in the Venn (balancing communication with other roles), Helping Scientists "Do" Outreach, and Formal vs. Informal Science Education.

The San Diego watch party was one of 24 satellite events held around the world to enable those who couldn't attend in person to participate in the discussion in person and meet others in their area interested in issues of science communication. The mini-SciO's format encouraged participation with a screen tracking tweets mentioning relevant hashtags, numerous breaks, and a period devoted to introductions. Several participants introduced their projects and organizations, including:

- Marc Milstein's <u>Science That Pops</u>, a website building on his lecture series at UCLA that relates science to pop culture
- <u>Scholarpedia</u>, promoted by associate editor Leo Trottier, a peer-reviewed open access encyclopedia that may pave the way to the future of academic review publishing
- Oxbridge Biotech Roundtable's San Diego chapter, promoted by Leah Cannon, which connects grad students and postdocs with consulting projects for biotech companies and offers career skills workshops

The SciO Watch Party was organized by the SciO San Diego group, most notably Heather Buschman, scientific communications manager for Sanford-Burnham, and Jill Roughan, a researcher at the International AIDS Vaccine Initiative (lunches were provided by the Scripps Research Institute's Society of Fellows). SciO San Diego, a collective of professional science communicators and scientists interested in outreach, continues to define its mission and welcomes new attendees at its events and tweetups, an in person meeting organized on Twitter.

Science News Ticker

Astronomers at San Diego State University helped discover

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two planets with the most Earth-like size and temperature seen to date. The planets were found circling a star in the Lyra constellation, a region where the presence of liquid water on the surface is possible ••• The California Institute for Regenerative Medicine is establishing a stem cell bank of induced pluripotent stem cells derived from people with various diseases as a resource for academic and industry researchers studying these diseases. Among the contributors are three University of California San Diego (UCSD) researchers: Dr. Joseph Gleeson (childhood neurodevelopmental disorders), Dr. Kang Zhang (blindness) and Dr. Douglas Galasko (Alzheimer's disease) ••• Average salaries for UCSD professors compared to other scienceheavy, doctoral-focused schools are less than those at Stanford, Massachusetts Institute of Technology, and Michigan, according to the 2011-12 survey conducted by the American Association of University Professors. The survey also showed that salaries of university professors are not increasing at the same rate as tuition increases. Additionally, the percentage of total instructional staff that is part time continues trending upwards compared to other categories of instructors ••• The founder of the Science Applications International Corporation has donated \$2.5 million towards the completion of the new J. Craig Venter Institute on the UCSD campus. The 45,000 square foot building is the first large carbon-neutral laboratory facility in the world and will house 145 scientists and staff studying genomics ••• Life Technologies, San Diego County's most highly valued biotechnology company, has been purchased by the global scientific instrumentation giant Thermo Fisher Scientific for \$13.6 billion. Thermo Fisher was especially attracted by Life Technologies' gene sequencing capabilities and promises to substantially in Life Technologies' Carlsbad headquarters ••• Dr. Kevin Hovel, a San Diego State University marine biology professor, is this year's winner of the Roger Revelle Perpetual Award. This award is given to a San Diegan who has improved man's ability to co-exist with the marine environment. Hovel is working to enrich seagrass beds and kelp forests in Southern California ••• Philanthropist John Moores has donated \$2 million to The Scripps Research Institute researchers Dr. Kim Janda and Dr. Daniel Globisch to fund development of a field test for river blindness based using the molecular biomarker they discovered. Since the biomarker can be found in urine, the test could be non-invasive and portable, permitting screening of high-risk populations in rural tropical regions far away from medical centers ••• Dr. Douglas Richman, a UCSD researcher, helped confirm a possible cure for HIV infection in babies. Richman, along with other researchers, ran assays on a Mississippi toddler's blood and confirmed there was no detectable replication of the virus. Additional research will be done to ensure the results can be repeated in others.

Upcoming Events

Mid Career Coffee Club

May 16, 07:45 am - 09:00 am, food court at northwest corner of Scranton Rd. and Mira Mesa Blvd.

Informal forum for AWIS-SD members in leadership and/or management positions to openly discuss issues faced on a daily basis. For more information contact coffeeclub@awissd.org

Women in Science and Technology (WIST)

May 16, 8:00 pm - 5:00pm, UCSD Faculty Club

This year's WIST Conference theme is <u>Aspire Attain Ascend</u>. We are celebrating the 30th anniversary of AWIS San Diego Chapter.

In addition to two inspiring keynote speakers, participants will have the opportunity to attend and participate in workshops with topics such as job search strategies, work/life satisfaction, and women in entrepreneurship. The WIST Conference is a great opportunity to network, develop new skills, and explore career opportunities.

More information and registration can be found on the <u>WIST</u> <u>Conference website</u>.

Strategy Session: Enhance Your Negotiation Skills: Acquire the Desired Result

June 3, 6:00pm – 8:00pm, Jones Day, 12265 El Camino Real, San Diego, CA 92130; 3rd Floor

Networking — 6:00 pm, Workshop — 6:30 - 8:00 pm Light refreshments will be served. Remember to bring your business cards!

Preregistration is essential! This is an AWIS San Diego MEMBERS ONLY event.

Mid Career Coffee Club

June 20, 07:45 am - 09:00 am, food court at northwest corner of Scranton Rd. and Mira Mesa Blvd.

Informal forum for AWIS-SD members in leadership and/or management positions to openly discuss issues faced on a daily basis. For more information contact coffeeclub@awissd.org

Local Events of Interest

Behaviorally Modern Humans: The Origin of Us

May 10, 2013, 01:00pm - 5:30pm

Liebow Auditorium, Biomedical Sciences Building, School of Medicine, UC San Diego, 9500 Gilman Drive @ Myers Drive, La Jolla, CA, 92093

A public symposium hosted by the UCSD/Salk Center for Academic Research & Training in Anthropogeny (CARTA). Evidence from climate proxies, geology, fossils, archaeology,

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linguistics, immunology, genetics and genomics, as well as evolutionary neuroscience/cognitive archaeology will be discussed to examine when, where and how "Behaviorally Modern Humans" emerged and why and how we eventually replaced all the other human-like species.

Admission is free and open to the public; however, registration is required. To register, go to: http://carta.anthropogeny.org/events/behaviorally-modern-humans-the-origin-us

A live webcast will also be offered for those who would live to view the proceedings remotely. Look for details on the event page.

Art of Science Learning Incubator for Innovation

Information Meeting

Thursday, May 30, 3:30 - 4:30 pm

Natural Sciences Building Auditorium, UC San Diego, Scholars Drive @ N Torrey Pines Road, La Jolla, CA, 92093

Please register at: www.bpcp.org/AoSL-RSVP

To learn more about the Art of Science Incubator for Innovation, please refer the article in this newsletter.

Women in Science: 50 years after Silent Spring

June 5, 2013, 5:30–7:00 pm Reuben H. Fleet Science Center in Balboa Park 1875 El Prado, San Diego, CA 92101

AWIS-SD members Dorothy (Dody) Sears and Lynne Friedmann are featured speakers at an upcoming public forum on "Women in Science: 50 years after Silent Spring.

The discussion in sponsored by The Center for Ethics in Science and Technology (www.ethicscenter.net/) in celebration of the 50th anniversary of the publication of Rachel Carson's landmark book, Silent Spring. Rachel Carson's legacy is now widely known, but the challenges she faced are not as widely recognized. One of the challenges she faced was an establishment that was not yet welcoming to women in science. Much has changed in the past 50 years, but questions should be asked now about how far we have come and how far we have to go.

Please join us for this important conversation about how we conduct science.

The event is free; registration is required www.ethicscenter.net/Silent-Spring-June2013

The <u>Del Lago Academy Campus of Applied Science</u>, a public high school in the Escondido Union High School District, will open this fall. A unique curriculum combines a challenging academic program, demanding biotechnology/medical science pathway, work-based learning, and targeted student

support services.

AWIS-SD members, Rachel Soloff (soloffr@yahoo.com), Jenny Chaplin (jenny chaplin@hotmail.com), and Karin Lucas (karin.lucas@gmail.com) serve on the Industry Advisory Board. To volunteer as a guest speaker, participate in informational interviews, or arrange tours of local companies or academic labs please contact any one of them.

Member News

Four AWIS-SD members were honored at the "Women Making History" awards ceremony at San Diego's annual Business Women's Mega Mixer.

- Dorothy (Dody) Sears (AWIS-SD President, WIST Committee Co-chair) received the Eleanor Roosevelt Hero Award, which is given to an individual who shows dedication, commitment, and a track record of results in improving the lives of women.
- Tamera Weisser (AWIS-SD Executive Board, WIST Speakers Committee Co-chair) received the Debra Reed Business Leader Award, which is given to an individual who has demonstrated leadership qualities that rise above the norm. This woman inspires others via outstanding performance and by leading through example in her chosen field of expertise.
- Janet White (AWIS Board, AWIS-SD Past-President)
 was a finalist for the Ursula Burns Diversity Award,
 which recognizes an individual or company who
 inspires and shows commitment to success through
 diversity.
- Amy Duncan (AWIS-SD WIST Publications Committee Co-chair) was nominated for the Anita Roddick Entrepreneur Award, which recognizes a female entrepreneur who has a history of outstanding business practices in her community.

Sears was also interviewed for the "Women Making History" blog radio show and spoke primarily about AWIS-SD and WIST 2013. The "Women Making History" Awards honor women who have excelled in their fields and made significant contributions to industry in executive, managerial and professional roles.

Dianne Pater, a 2nd year Ph.D. student in Julian Schroeder's lab at the University of California San Diego, received a Graduate Research Fellowship from the National Science Foundation (NSF). The NSF Graduate Research Fellowship Program provides a three year fellowship with an annual \$30,000 stipend and \$10,500 cost of education allowance for tuition and fees. Pater will use the funds to support her graduate research involving drought resistance responses in crop plants.

Nurith Amitai, AWIS-SD member since 2011 and Co-Chair of the Newsletter Committee, started work at Explora BioLabs, a preclinical Contract Research Organization that offers in vivo services and vivarium space to biotech companies.

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After her years in academia, this is Nurith's first life sciences industry job. Nurith also writes the Lung Cancer Dispatch, a newsfeed for patients and caregivers, at the open science initiative Cancer Commons.

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 May/June issue:

Nurith Amitai, Atreyee Bhattacharya, Afshawn Chakamian, Nancy Chan, Priya Choudry, Caitlin Ides, Alka Malhotra, Molly Moloney, Pat Rarus, Shweta Sharma, 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 June 10, 2013.

About the Authors



Nurith **Amitai** is neuroscientist whose research has focused on of the neural hases psychiatric disorders. currently works as a Scientist at Explora BioLabs, preclinical Contract Research Organization. Nurith has a deep interest in science writing; she currently serves as Co-Chair of the AWIS-SD Newsletter Committee and freelances as an online science writer.

Vicki Hurless is the Co-Chair for the AWIS-SD Outreach Committee. Her passion for learning and science has led her to conduct graduate studies at the Cell and Molecular Biology Joint Doctoral Program between San Diego State University and the University of California, San Diego. Vicki loves combing the beach for marine invertebrates, skiing, and the University of Washington Huskies!

Andria L Del Tredici, PhD, has been a member of AWIS-San the late Diego since 1990s. She is a consultant with more than 10 years of the experience in drug molecular discovery and diagnostics industries. She volunteers in her daughter's kindergarten class and helps to manage her son's soccer team.





Lynne Friedmann, AWIS Fellow, is a freelance science writer and editor. An AWIS member for nearly 30 years, she has served on the SD chapter board as well as been elected to the AWIS National board. She was chair of the first WIST conference (then known as Women in Bioscience conference), in 1993.

Jessica Moore, MS, is a scientific writer and editor. is currently manager of UC San Diego's Center of Excellence in Nanomedicine, which develops responsive nanomaterials for drug delivery, diagnostic imaging, and regenerative medicine. She is also a correspondent for the



Oxbridge Biotech Roundtable Review and was previously the program coordinator for Vanderbilt's Center for Science Communication, where she taught and advised on academic writing.



Nan Renner directs the San Diego Incubator Innovation, part of the Art of Science Learning funded by the National Science Foundation. Nan's professional experience involves art and science through her work with the San Diego Museum of Art, the San Diego Natural History Museum, and other organizations devoted learning. Her PhD thesis in

Cognitive Science at UCSD (near completion) focuses on embodied, social, object-based learning among children in a museum.

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DeeAnn Visk, PhD, is developing her career as a freelance science writer. She loves working at the bench in molecular biology, genetics, microscopy, and immunohistochemistry. She lives in Poway, with her husband, two kids, and two spoiled hens.



Nellie Shaul is finishing her Ph.D. in marine chemistry at the Scripps Institution of Oceanography (UCSD). In addition to her research on marine pollution and teaching undergraduate courses in earth science at UC San Diego, Nellie is also passionate about science outreach and informal education in the San Diego area.

Biosketches for the remaining authors were not available at press time.

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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.

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