



NEWSLETTER

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 Fellow AWIS-SD Members,

As I prepare this letter, my first as AWIS-SD President, I am reflecting on one of the highlights of our April Strategy Session, “The only constant is CHANGE”. It’s so true! Huong Huynh is initiating a new career with the Food and Drug Administration and I am enthusiastically looking forward to leading our chapter. Neither she nor I could have predicted these changes one year ago.

Recent AWIS-SD events have been booming, some of which will be described in our newsletter(s). The August 31st Happy Hour at Karl Strauss was a huge success with 52 members and non-members attending. The Events Committee coordinated a terrific lunchtime tour at Illumina. In addition, Strategy Sessions’ “Managing Your Professional Networks” was very informative and included guest speaker Mary Canady (SDBN, Comprehendia).

Our Coffee Club repertoire has expanded! We now have Coffee Clubs for Early Career, Mid-Career, Working Moms, and Contractor members. These informal gatherings of career-/interest-matched members are wonderful opportunities to develop new relationships and benefit from peer mentoring. Attend one that is a fit for you and/or initiate a new one, as the contractor folks just did. Sincere thanks to all the volunteers who were instrumental in coordinating these great activities. Speaking of our great volunteers, did you send me your nominations for the Volunteer Awards??

Exciting activities are on tap for the next few months. You won’t want to miss our annual Open House on November 4th. Open House is a wonderful time to learn more about our chapter activities and the many committee and outreach volunteering opportunities available. We will be honoring our 2010 Volunteer Awardees and Career Development Award winner, and revealing a new look for AWIS-SD. We will also have a raffle drawing for our AWIS National Endowment fundraiser (tickets are available for purchase online <http://corporateawomen.blogspot.com/> or at the Open House). The raffle prize is a \$150 Amazon.com gift card, and tickets are \$10 each or six for \$50. Please join us for a fun evening of networking, refreshments and camaraderie. Non-members are welcome, so bring a friend! See our website for details and to register: <http://awis.npaci.edu/index.php>.

In October, the Outreach Committee will be participating in ChemExpo and hosting their 2nd annual Undergraduate Career Night. It’s a great way for them to connect with the future women in science and technology. Outreach has also set up a new Facebook page...check it out! The Events Committee will soon be hosting an Alternative Career Panel event (November 18th) and our annual Holiday Social (December, date TBD). Also in December, the Strategy Session “Managing Your Image” will be held on the 6th. Planning is well underway for our next biennial Women in Science and Technology (WIST) Conference, which will be held on May 14th, 2011. There are still opportunities to get involved and develop your organizational, leadership, and communication skills. Email WIST@awissd.org for more information.

Please feel free to email me at president@awissd.org if you have any questions, comments or suggestions about/for our chapter. Have a wonderful fall!

Most sincerely,
Dody
 Dorothy (Dody) Sears

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AWIS-SD Annual Open House and Endowment Raffle

Date: Thursday, November 4, 2010
Venue: Campus Pointe
 10300 Campus Point Drive
 San Diego, CA 92121
Time: 5:30pm

The AWIS-SD Open House is a great opportunity for networking, recognizing our outstanding volunteers, and learning more about the benefits of being a member of the AWIS family and what AWIS can do for you! This free event is open to both AWIS members and non-members, so bring a friend. Light refreshments will be served.

Registration is required. Please register at www.awissd.org.

Enter our raffle to win a \$150 Amazon.com gift card to raise funds for the AWIS National Endowment Campaign, whose purpose is to benefit future generations of women in STEM. Raffle tickets are now available online or by entering <http://corporatetwomen.blogspot.com> into your browser. Tickets can be purchased by credit card prior to the event or by cash or check at the event. Prices: \$10 per ticket, or \$50 for 6 tickets (no limit). The drawing will take place at the Open House (need not be present to win).

Gen-Probe Fosters Education

By Mindy Davis

Gen-Probe has landed on the Forbes 200 Best Small Companies list and has also been awarded the Grand Prize in the 2008 San Diego Workplace Excellence Awards. While there are many factors that contribute to winning a best workplace environment award, one of those is likely Gen-Probe's focus on education and giving back to the community.

Gen-Probe is headquartered in San Diego and has been a leader in molecular diagnostics since its founding in 1983. They develop, manufacture, and market rapid, accurate and cost-effective nucleic acid tests, which are primarily used to diagnose human diseases and test donated human blood.

Gen-Probe supports local non-profit groups, including those that strive to improve the quality of education, especially in the fields of math, science and engineering. Michael Watts, the chair of Gen-Probe's community relations committee, pointed out that, "Gen-Probe supports science, math and engineering education for people of all ages." This is evident from the range of groups that Gen-Probe has supported and continues to support (for a list see http://www.gen-probe.com/about/community_relations.aspx).

Gen-Probe's largest community partnership is with the Preuss School UCSD (<http://preuss.ucsd.edu/>). This middle and high school has the goal of providing an intensive college preparatory education for motivated low-income students who will become the first in their families to graduate from college. Gen-Probe provides both financial support and encourages its employees to volunteer as tutors and mentors for the students.

Watts said, "Once a year we bring Preuss kids and their parents to tour Gen-Probe for a Career Day and forty employees will give up their Saturday morning to participate in this event. This event gives students and parents an idea of what it is like to work at a company like Gen-Probe." He added, "We also point out that working at a company like Gen-Probe does not necessarily require a degree in science since there are many different job roles; my undergraduate degree was in journalism."

Gen-Probe also sponsors the Ocean Discovery Institute (<http://www.oceandiscoveryinstitute.org/>), which is primarily dedicated to educating young children. The Ocean Discovery Institute uses science exploration to engage inner city and low-income children in three ways: education, scientific research, and environmental stewardship. San Diego's coastline provides a nice opportunity to introduce children to science.

Gen-Probe has also provided an unrestricted grant for the development of educational materials (<http://www.lab-education.org/>). Currently there are two on-line continuing education classes available through this website. Watts pointed out that Gen-Probe reimburses employees for continuing education courses relevant to their field. Gen-Probe employees are also involved in teaching continuing education courses. For example, Damon Getman, Principal Scientist at Gen-Probe, is the instructor for the Introduction to Pharmacology class at UCSD Extension. He has taught at UCSD Extension for about 10 years. When asked why he teaches at Extension, Getman said, "It's a lot of fun, it makes me organize my understanding of my field, and I usually learn a great deal from the students." He added, "It is good to be challenged, or you lose that edge necessary to be successful." Gen-Probe's support of education is a win-win.

AWIS-SD is honored to have Gen-Probe as a Principal Sponsor of its organization. AWIS's goal to achieve equality and full participation for women in science, technology, engineering and mathematics aligns well with Gen-Probe's education mission. Gen-Probe's support of AWIS-SD impacts both children and adults. AWIS-SD provides scholarships for college students and those looking to develop their career. Volunteers from the AWIS-SD Outreach Committee judge local science fairs, present hands on science booths at science fairs, and mentor students.

For more information about Gen-Probe please see <http://www.gen-probe.com>.

Illumina Tour

By Ray Seraydarian

At noon on Wednesday, September 8th, 2010, 15 local AWIS members went on a tour of the laboratory and production facilities of Illumina, Inc. Their San Diego-based world headquarters is located in a cluster of buildings about a mile north of the UTC shopping mall. Our tour began with a slide presentation by Technical Marketing Representative, Enrique Acevedo, followed by a tour of the facilities that was picked up halfway through by Array Lab Director, Mateo McCarthy. The tour ended with a buffet lunch in the company's atrium cafeteria.

Founded in 1998, Illumina began producing microarrays, at the time, a new technology developed at Tufts University for genetic analysis. While still producing microarrays, the company also produces PCR and gene sequencing machines, such as their flagship HiSeq2000. This machine can now do in a week what it took hundreds of scientists and years of "wet chemistry" in the Human Genome Project to do less than a decade ago. Plus, if you want to monitor the HiSeq2000's progress during a run at 25 billion bases (Gbases) per day, you can do it from your iPhone (there's an app for that!). The current cost is \$19,500 for a personal genome, and their goal is \$1000/genome. Another company goal is the so-called "1000 Genomes Project," which is to obtain the genomes of 1000 individuals to get a clearer statistical view of human genetic variability. Illumina's markets include not just human medicine, but also veterinary and agricultural applications.

The tour was quite a success. More can be learned on the company's web site at <http://www.illumina.com/>.

Public Response to Synthetic Genomics

By Alka Malhotra

The J. Craig Venter Institute (JCVI) came into the spotlight in May 2010 with the publication of a manuscript in the journal *Science*. This paper was titled "Creation of a bacterial cell controlled by a chemically synthesized genome". The media scrutiny was intense, as were public opinions. To address the concerns of the public, the San Diego based Center for Ethics in Science and Technology organized a public forum to discuss the ethical issues surrounding this research.

The forum, aptly titled "Synthetic Genomics: Who is watching?", took place at the Reuben H. Fleet Science Center on September 1, 2010. Approximately 100 participants were present as the Director of the California branch of JCVI, Robert M. Friedman, Ph.D., represented the Institute and briefly described the work that took over fifteen years to come to fruition. Friedman explained, "We synthesized a chromosome, then had the chromosome enter an existing bacterium and basically transform the cell from the original species to a new species that is controlled by this DNA."

Getting to the main theme of the forum, Friedman addressed five societal concerns related to the benefits and risks of this new technology that are being addressed at JCVI: bioterrorism and biosecurity, worker safety, human health, potential harm to the environment, and ethical and religious aspects. Each of these concerns was discussed to some degree as the floor was opened up to audience questions and comments.

Questions about bioterrorism and biosecurity were among the top of the list. Friedman assured, "Various regulatory agencies in Washington have set guidelines to maximize security, and there are measures in place to keep this technology in the hands of legitimate users. All commercial orders are screened at both ends, those taking them and also users placing the orders." In addition, he added that there are regular meetings and working groups who address biosecurity issues, and the industries using this technology have set some self-regulating standards.

Audience member questions quickly turned to international research. "Is research like this being done elsewhere and/or are there any existing collaborations?" "What regulations are in place in other countries?" "What about rogue states? What if they decide to misuse this technology?" These were the most difficult questions to answer. While Friedman knew that synthetic biology research is taking place in countries other than the US, he did not have specific information about the regulations in place in these countries. However, he indicated that there are regular international biological weapons conventions and United Nations meetings that address such issues.

While a majority of the questions were related to risks associated with synthetic genomics, one audience member commented, "In addition to the risks of using this technology, we need to look at the risks of not using this technology." Friedman had briefly mentioned some of the benefits at the beginning of his presentation and took another opportunity to reiterate them. Synthetic genomics technology will help in the production of vaccines and pharmaceuticals that can benefit individuals. At JCVI, Friedman explained, "we hope to create a 'lab rat' of bacteria, trying to do effective basic biology research using bacteria" by being able to turn

genes on or off. In addition, there are efforts in San Diego to develop substitutes for petroleum, a much-needed solution for the energy crisis America is facing.

In the end, what the audience took from this forum was that synthetic genomics is still in the very early stages. There are potential risks and benefits of the future use of this technology, which will be important to weigh.

While societal concerns cannot be resolved in one forum, getting the public involved in such discussions better informs them of both the risks and benefits of scientific research. Open discussions like this need to continue, given the myriad of research projects that may affect society as a whole. The need for scientists to explain their work in such forums is essential, especially in today's society where the public wants to be informed.

Local Science and Technology Groups

By Molly Moloney

With layoffs affecting nearly 20% of local biotech and science professionals in the last two years, many new groups, all with open membership, have been created to meet the need for networking, education, and leadership training, as well as addressing ongoing changes in our industry.

In the last two years, additional groups have been formed, including Mary Canady's San Diego Biotech Network (SDBN), PGC200, Leadership Builder, San Diego Entrepreneurs Exchange (SDEE), and CleanTALK San Diego. Even more recently, David Palella initiated the X-tech and the Asia Business & Finance Roundup. Add these to the veteran organizations, such as the San Diego Biotechnology Discussion Group (SDBDG) and Women of Bioscience (WOB), both founded in the late twentieth century, and the University Town Center Biotech Networking Group (UTC-BNG) founded eight years ago, there now is an array of networking opportunities. Old or new, all are non-profit organizations with free membership and are run entirely by volunteer staff. Regardless of your circumstances, there should be a group for you.

Starting with the oldest group first, SDBDG was founded 21 years ago and has been run by Tom Studebaker for the better part of two decades. Its goal is to foster a greater understanding of the local biomedical industry and to provide an avenue for quality networking. The SDBDG forums, known as "BioTalk," are held bimonthly (light dinner included) to provide an opportunity to do a little networking while learning about a local company. To get on the mailing list go to: www.sd-biotech.org. Check out the links page for many local science related organizations and events, including AWIS.

The Women of Bioscience organization was formed in 1997 as an offshoot of the SDBDG, and has also been run by Tom Studebaker, with considerable support from his wife, Kelli. The goal of WOB is to promote a friendly environment for women employed in the local bioscience community to network. The happy hour gatherings are entirely dedicated to networking and have been held at the El Torito in La Jolla for as long as anyone can remember. Free Margaritas, puupuus, door prizes, and the good company of women are all guaranteed! Check for WOB events through www.sd-biotech.org/WOB or get on their mailing list. Your AWIS website

also announces these events and there are cross-organization links at both websites.

UTC-BNG is a support network for those seeking employment, and was founded in the year 2002 by Barbara Hosein as a branch out from Lee Hecht Harrison (LHH). Since 2003, UTC-BNG has been run by a local pharmacologist, Jim Wiesner, with occasional help from others. The meeting format is similar to the weekly work search group meetings you may have attended if you have ever had outplacement benefits with LHH or DBM. This is a good place to practice your elevator speech, discuss networking events or work search progress, and find “inside contacts”. Contact Jim Wiesner directly to get on his mailing list at jbwiesner@aol.com or just show up. The group meets every first and third Friday of each month at the UTC mall outside the food court. Thank you to both Tom Studebaker and Jim Wiesner for seeing a need for these organizations through the many ups and downs of the local biomedical industry. Neither Studebaker nor Wiesner are paid for their services, and their events are free for attendees.

Also worthy of mention, although it is not industry specific, is The Boardroom La Jolla, a job search resource, support and networking community. This volunteer organization provides free workshops or speakers every Tuesday from 8-10 AM at the La Jolla Presbyterian Church located at 7715 Draper Avenue in La Jolla. Check their website for the schedule of presentations. RVSP is requested for attendance. There is a library equipped with wireless network available for members to use Tuesdays, Wednesdays, and Thursdays from 10 AM to 2 PM (<http://www.theboardroomlajolla.org/boardroom/>).

In the next issue we will tackle some of the new kids on the block. Meanwhile check out their websites or follow them on LinkedIn. Membership is free, but some meeting events are not.

SDBN <http://sdbn.org/>
 SDEE <http://www.sdentrepreneurs.org/>
 CleanTALK <http://www.cleantalksd.org/>
 PGC200 <http://www.pgc200.org/>
 Leadership Builder <http://www.leadershipbuilder.org/>
 X-tech Roundup! <http://www.linkedin.com/e/vgh/2836926>
 Asia Business & Finance Roundup
<http://www.linkedin.com/e/vgh/3132759/>

The Elementary Institute of Science: Hands-on Learning in a Unique Setting

By Betty Schmucker

The Elementary Institute of Science (EIS), located at 608 51st Street in southeastern San Diego, is a premiere science enrichment institute. EIS nurtures the intellectual curiosity of San Diego's young people by providing "hands-on" experiences to stimulate an

on-going appreciation and understanding of science and technology. The vision of EIS is to create a widely respected model for science and technology enrichment where community resources partner to provide students of all ages the opportunities, facilities, role models, and academic tools to build a bright future.

Fall and spring after-school programs, Saturday programs, and summer programs provide opportunities for fun and learning for students, ages 7 to 13. This year's Summer Science Program was phenomenal. Serving 398 students, the walls of EIS were bursting

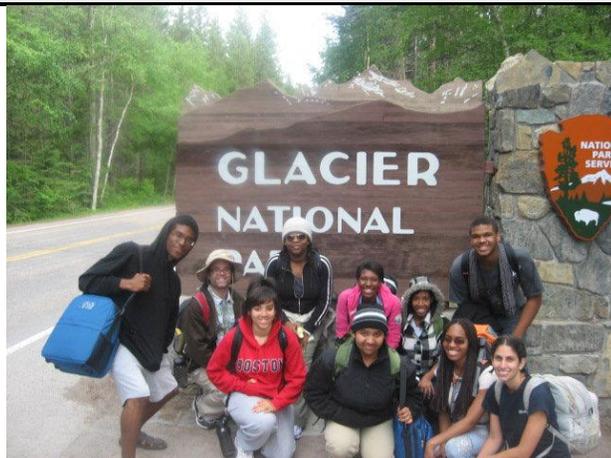
at the seams with students eager to experience science in a fun and hands-on way. Classes included engineering, computer science, earth science, biology, natural science, meteorology, health, and a dash of chemistry. Lauren (age 10), a previous student, said this about EIS, “EIS is exciting and very organized. I like it because you find out things that you’ve never experienced before!”



Photos courtesy of EIS

The *Commission on Science That Matters* is an exciting new EIS program for older youth, ages 14-17, oriented around three separate initiatives to explore and recommend solutions around the topics of health (with a “green perspective”), energy, and water. Program participants address pressing, real-life issues as they team up with leaders in the fields of science, business, and education.

Twenty-two EIS students were the first group of high school students to participate in a week-long, [Citizen Science](#) research expedition this July at one of the country's most spectacular national parks, Glacier National Park in Montana. Students from the [EIS Commission on Science that Matters](#) were the first high school researchers in the Crown of the Continent Research Learning Center Citizen Science Program to study the effects of climate change on glaciers and the park's inhabitants. Students used repeat photography to examine the visual changes of the landscape over the last 100 years, studied the pika, a temperature-sensitive alpine species, and conducted mountain goat surveys to determine baseline populations for this climate change indicator species. The students came from ten different San Diego high schools.



Photos courtesy of EIS

“With this commission, on this trip, we were called ‘climate change ambassadors’ and I liked that. That’s exactly what we were doing. We were showing what we wanted to do about climate change as kids, and it does affect everything at the park. Everything around there is connected,” said Jordanne (age 15), who lives in San Carlos and will begin 10th grade at San Diego Academy this year.

For more information, please visit www.eisca.org.

News Update on AWIS Members

Mindy Davis will be working at the NIH in the DC area. She has enjoyed her time in San Diego and her involvement with AWIS.

Shweta Sharma got married to her fiancé, Dev on October 9th at the 'Greater Baltimore Temple', MD. Best wishes to the newly married couple.

To include your career and/or personal updates in the AWIS-SD newsletter, please email newsletter@awissd.org

Upcoming Events

Working Mom Coffee Club

November 3, 2010, 7:45 am, Nobel Park-8810 Judicial Drive, San Diego, CA 92121

Please join us for a morning walk to a nearby cafe. We will discuss juggling a career and being a mom. Please RSVP by 11/1. Upon registration, we will forward details for our meeting location.

Early Career Coffee Club

November 4, 2010, 7:45 am, Wired Cafe Le Bistro

December 2, 2010, same as above

Join this new group of supportive AWIS San Diego members who are about to, or who have just recently, entered the workforce. Come and exchange resources, job search tips, and constructive criticism on resumes and cover letters, etc.

AWIS-SD Open House

November 4, 2010, 5:30pm, Campus Pointe, 10300 Campus Point Drive, San Diego, CA 92121

Come network with your fellow AWIS members and learn about what AWIS can do for you! This free event is open to both AWIS members and non-members, so bring a friend! Registration required.

Contractor/Freelancer Coffee Club

November 17, 2010, 10:00 am, Carmel Valley Coffee Bean & Tea Leaf

All employees who work on short-term contracts or projects are welcome. We discuss all issues relevant to contract employees: wages/parity, workplace relations, setting up contracts, marketing efforts. Please join us!

Alternative Careers Panel

November 18, 2010, 5:45 pm, Location: TBD

Join AWIS as we explore life beyond the lab during an alternative careers panel discussion. Event includes a networking session with light refreshments. Members: free! Non-members: \$5.

Mid-Career Coffee Club

November 18, 2010, 7:45 am, Food court at Mira Mesa Blvd. & Scranton Rd.

The Mid-Career Coffee Club is AWIS-SD members who are currently in mid- to senior-management positions and would like a casual forum to share their experiences and challenges.

Strategy Session – Managing Your Image

December 6, 2010, 6:00 pm, Biogen Idec

Putting your best self forward.

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 November/December issue:

Bhawanjit Brar, Mindy Davis, Kerri Hebard-Massey, Alka Malhotra, Janice Payne, Nancy Rhoads, Shweta Sharma, Rachel Schwartz, and Geetha Srinivasan

Paula Soto recently stepped down from the newsletter committee. We would like to thank her for her invaluable contributions to the newsletter.

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 **December 10, 2010**.

AWIS-San Diego Sponsors

AWIS-San Diego 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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IMPORTANT CONTACTS**AWIS Board**

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	Anita Iyer	aiyer@awissd.org

To contact the Board, visit the following website:
<http://awis.npaci.edu/officers/biographies.htm>

Committee

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