



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 AWIS members

This year has flown so fast and summer is here already. By the time you receive this newsletter, June gloom will have gone, school will be finished and the beaches will be crowded again. Summer began with a happy hour at Cozymel's, which was enjoyed by all. As usual, the atmosphere was vibrant and I was pleased to see so many new faces.

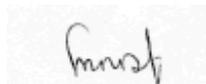
You may have noticed new e-mail announcements arriving in your mailboxes; this format has been in planning for a long time and was spearheaded by board member Siobhan Malany. Thanks to her hard work, and that of Lisa Whalen, our incredible announcements coordinator, our event e-mails will be more organized and professional. They will be sent every two weeks and will contain information about upcoming AWIS events and other local events that may be of interest to you. We hope that it will reduce the number of e-mails being sent from the chapter.

The board has been evaluating some new ideas for chapter events. Huong Huynh has organized a Dress for Success evening hosted by Macy's on July 23rd. If you have any doubts about your career wardrobe or need to know how to ace that next interview, this will prove to be an exciting event. We have also discussed the possibility of lunch meetings, but need your feedback. The idea arose as a way to provide events of interest to those who are unable to make evening events. We need to know how many of you would be interested in a quarterly lunch event. We would also like to have some volunteers to organize these if there is sufficient interest. Please let me know at president@awissd.org.

Thanks to the efforts of our two new Book and Movie Club co-chairs, Toni Cordero and Ray Seraydarian, the club has been relaunched after about a year's hiatus. As always, the club will alternate between movies and books on a monthly basis, so if you're looking for a good movie or book and some stimulating discussion, keep your eye on the Book and Movie Club.

Happy summer and as usual, if anyone has any ideas, feedback or anything else to discuss, please don't hesitate to contact me at president@awissd.org.

Best regards



Inside this Issue	Page
Letter from the president	1
Upcoming Events	1
SPECIAL REPORT	
AWIS Scholarship Gala	1-2
EVENTS	
Immigration Challenges	2-3
San Diego Science Fair	3
Qualcomm's Women in Technology Forum	3-4
FEATURES/OPINIONS	
Evolution and Faith	4-5
CHAPTER INFORMATION	
AWIS SD Sponsors	6
Contacts	7

Upcoming Events

July 23: Dressing for Success. Burnham Institute. 6pm. Special presentation from Macy's By Appointment with fashion tips about dressing for interviews and for every day business success. Networking starts at 6:00pm. Program is from 6:30 - 7:30pm. Join us for an evening with wine and cheese in the Fishman Auditorium
August 4: Strategy Session. Location TBD. Time 6pm.
 Presentation Skills: Improve the form, content and style of your presentations.

SPECIAL REPORT

AWIS Scholarship Gala
 By Janet White
 2008 Gala Committee Chair

About 80 AWIS members and supporters gathered at the Coronado Boathouse, overlooking Glorietta Bay on Saturday April 19, to celebrate women in science and honor the 2008 AWIS San Diego scholarship winners. The Coronado Boathouse was built in 1887 as



an architectural model for the neighboring Hotel Del Coronado and became the first home of the Scripps Institute of Oceanography, founded in 1903. The scientific connection formed the basis for a fun trivia quiz that had gala guests exploring every nook and

cranny of the building, now a restaurant, for clues during the networking session before the start of the formal program.

AWIS-SD President Jenny Chaplin gave a welcoming address, after which keynote speaker Dr. Naomi Oreskes, Professor of History and Science Studies at UCSD, enthralled the audience with a presentation of her personal

professional journey and the decisions that had motivated her in choosing her career path. Using the Darwinian principle of adaptive differentiation, Oreskes carved out a new niche that has allowed her to combine and excel in her twin passions for earth sciences and the philosophy of science. In a lively Q&A session following her talk, Oreskes spoke about her choices in balancing work and family (she has teenage daughters) and also about the challenges in getting science on to the political agenda. Oreskes' 2004 essay "The Scientific Consensus on Climate Change" led to various Op-Ed pieces and citations in media outlets; this study of the scientific consensus on global warming led to congressional testimony and inclusion in Al Gore's film, "An Inconvenient Truth."



Jenny Chaplin then presented the scholarship winners with their awards, which include a financial component and a one year AWIS membership. These young women already have impressive accomplishments and we look forward to following their careers as they continue to excel in their chosen fields.



In the community college category the winners were:

- Esther Dinio, studying applied mathematics at Southwestern College
- Lauren Patella, studying microbiology and immunology at San Diego City College. Just a few years ago, at twenty-five, Lauren was a hairstylist with a G.E.D. and a newborn son. Realizing that her lack of education would be a huge barrier to the life she wanted for herself and her son, she returned to school.

In the undergraduate category the winners were:

- Irene Hale, majoring in biochemistry at San Diego State University. Irene has a strong interest in understanding the effects of human behavior on the environment, and is conducting a research project on the effects of invasive grasses in the Coastal Sage Scrub ecosystems of Mission Trails Regional Park.

- Lynn Nguyen, majoring in Computer Science at UCSD. Lynn has worked at Google as a software engineering intern with the Gmail team.
- Sharon Matsuoka is majoring in Mathematics at California State University, San Marcos and plans to become a high school math teacher.
- Anna Siebers is majoring in biochemistry and chemistry at UCSD, and wants to pursue a career in pediatric research and medicine. Anna has developed a popular UCSD TV cooking show called Banana 911, teaching her fellow students how to cook simple and nutritious meals.

In the graduate student category the winners were:

- Ryan M. Fawcett, studying for a Masters degree in evolutionary biology at San Diego State University. Ryan is conducting research on spiders of the *Rualena* genus from the California Channel Islands.
- Breeann Kirby, studying for a Masters in molecular biology on novel factors involved in Hepatitis C virus infectivity at San Diego State University
- Julianne McCall, pursuing a PhD in the Biomedical Sciences Program at UCSD.
- Anna Pridmore, studying for a PhD in structural engineering at UCSD

To round out the afternoon, gala guests then enjoyed a sit-down luncheon, with further networking over dessert. A truly memorable celebration of our scholarship winners and women in science! *Gala photos courtesy of Miguel Garcia-Guzman.*

EVENTS

Immigration Challenges Quotas, Delays and Formulas for Visa Success By Norma A. Velazquez-Ulloa

The United States has a vibrant scientific community, including a variety of opportunities for scientists from all over the world in academia as well as industry. The AWIS San Diego chapter community is an example of this diversity, which includes many foreign nationals among its members. Navigating the U.S. immigration system can be a challenge. Any help available in dealing with issues in this area is welcomed, which probably explains the large audience at this AWIS-organized event that took place on May 1 at the Burnham Institute.

Immigration attorneys Jennifer L. Keating and Jacob Sapochnick gave a clear overview of current immigration law. Mrs. Keating, an attorney with National Immigration Law Corporation, specializes in H1B visas or green cards through labor certification. Mr. Sapochnick, from The Law Offices of Jacob Sapochnick, focuses on other types of visas, obtaining waivers, and other work visas that apply to scientists, such as O1 visas for individuals of exceptional ability. He also has experience with special categories to obtain a green card that bypass the labor certification requirement.

The dynamic set for the event was to first have presentations from the attorneys followed by a Q&A session. However, the audience was very participative, and there were questions throughout. A lot of information was covered, and by the end, there was time to ask specific, case-by-case, questions.

Several ideas and strategies related to obtaining visas, work permits, waivers, and permanent resident status were discussed. The most salient were:

- get as much information as you can about what you will need to do
- try to get advice from a professional whenever possible, as immigration rules change
- prepare ahead of time and start collecting documents to support your application as early as possible.

For this last point they emphasized the role of networking and gave several tips:

- get letters of recommendation from people in your field; letters from those who do not personally know you outweigh those of co-workers.
- make yourself known in your field, i.e. volunteer to serve as a judge at conferences, or to review papers in journals, and save any press releases about your work.

For more information about obtaining H1B visas or green cards through employment, you may contact Jennifer Keating at Jennifer@nationalimmigration.com. For information about J1 visas and waivers, national interest waivers, extraordinary ability petitions and outstanding professor's and researcher's petitions, you may contact Jacob Sapochnick at Jacob@usvisaguide.com.

- ❖ Effects of Aerosol Sprays on *Drosophila melanogaster* Reproduction and Mortality
Jaclyn Hirbawi, The Rhoades School Grade 7
- ❖ The Effects of Different Release Angles on Soccer Throw-Ins
Rachel Fetterman, De Portola Middle; Grade 8
- ❖ Investigation of Collision Forces and the Benefits of a Crumple Zone
Hannah Saddler, Marshall Middle; Grade 8
- ❖ Nickel and the Absorption of Nitrogen in *Capsicum annuum*
Andrea Garcia, Rincon Middle School; Grade 8



2008 San Diego Science Fair

By Diane Retallack
Outreach Committee

AWIS volunteers took a break from their normal work day afternoon on April 2 and spent time talking with girls in 6th through 12th grade at the Greater San Diego Science and Engineering Fair. The project topics ranged from math and computer science, to physics and engineering, social sciences, and a variety of topics in biology, chemistry and medicine. Overall, approximately 400 projects were presented by young women enthusiastic about science and about learning how science influences their everyday lives. Two Senior Division and 6 Junior Division projects were selected for recognition. A dinner was held on May 18 at the Scripps Institute of Oceanography Martin Johnson house to honor the AWIS award recipients. AWIS members in attendance were able to talk with the winners, their families and teachers, and see their winning projects. In addition to their award certificate, the winners each received \$100 and an AWIS membership.

2008 Science Fair Winners Senior Division

- ❖ The Study of Tamm-Horsfall Protein in Interstitial Cystitis
Shilpa Argade, Scripps Ranch High; Grade 11
- ❖ A Comparison of Potential Lead Phytoremediating Plants (Year 2)
Lydia Zdeb, Rancho Buena Vista High; Grade 9

2008 Science Fair Winners Junior Division

- ❖ BURN BABY BURN
Johana Martinez, Roosevelt Middle School; Grade 8
- ❖ Subliminal Messaging: Did You See That?
Sarah Rose Aiello, The Rhoades School; Grade 8

Qualcomm's Women in Technology Forum 2008 Featuring Peggy Johnson and Sally Ride

By Siobhan Malany

Peggy Johnson, executive vice president of the Americas and India for Qualcomm Inc. recalled her first flight on the company jet. "I was wearing a Victoria's secret Wonderbra," she exclaimed. And referring to the infamous gel enhancing technology, she said, "those things explode at 40,000 feet!"

Johnson charmed the audience at the Women in Technology Forum hosted by Qualcomm and held in the innovatively designed building Q with its silver railings and open-air balconies. Johnson along with Sally Ride, the first American woman to fly in space and president of Sally Ride Science were featured speakers. The two are female pioneers (not just in public speaking but) in the fields of engineering and physics, satellite communications and space.

"Sally and I share many similarities," said Johnson. Among those commonalities, both were born and raised in Los Angeles, both studied in the STEM (Science, technology, engineering and math) fields and both worked on satellite communications. "I worked on communications from earth," jokes Johnson, "and Sally, from space. That is where our similarities end."

Part I: Sally Ride

Sally Ride was a newly minted Ph.D. in astrophysics from Stanford University when she became one of the 36 new recruits to join the NASA team in 1977. It was the first year the center accepted women into the space program. There were eight women on the team. "We more than doubled the number of female scientists at NASA," said Ride.

This was a new era for NASA and space flight. To NASA's credit, the center attempted to prepare for this 'female launch' by appointing the most senior female scientist at the time as a

consultant. She was responsible for many tasks, among them was designing a women's locker room equipped with hair dryers.

Ride recalled the rigorous training and the thrill of her first launch, blasting from zero to 17,000 miles per hour in eight minutes (no Wonderbra). She described an awesome view from her shuttle window, that of the California and British Columbia coastline.

Today, NASA's scientific staff is 25% women. This is a competitive number, says Ride, that challenges even Qualcomm in the percentage of the company's female engineers. These days, Ride devotes her time as adjunct physics professor at UCSD and president of Sally Ride Science. Her company focuses on encouraging and supporting girls' and boys' interests in science and math through events, teacher education and publications. Boys and girls show an equal and unbiased interest in science and math. "Starting in about 5th grade," says Ride, "the number of kids interested in science starts to decline for both boys and girls, and for girls that interest declines at a much more rapid pace." These declining pursuits significantly impact the number of college graduates in the STEM fields, especially among women. This is a growing concern for America as the U.S. strives to hold its global competitive edge in the science and technology marketplace.

Ride says that with work there is great hope for the future. Because in 1970, a gathering of 100 engineers meant that, most likely, there was not a female among them; the statistics were 0.7%. Today, 12% of women have advanced degrees in physics and engineering. "You do the math," says Ride.

Part II: Peggy Johnson

One of those bright, future engineers that emerged from the 70's was Peggy Johnson.

Besides sharing a few wardrobe mishaps, Johnson inspired the audience with her top five life lessons learned.

- 1) **Do what makes you passionate.** "You will give more of yourself," says Johnson. She recalled her entrance into engineering as 'mistaken identity'. A business student at San Diego State University, Johnson had a campus job delivering packages. She showed up at the engineering building and two female engineering students mistook her as a new recruit. It worked. The engineering department received their package and a new major. After 17 years at Qualcomm, Johnson is a member of the executive team having combined her success as a lead engineer with her savvy business skills.
- 2) **Roll with the punches.** Both Johnson and Ride shared their 'coffee stories'. Johnson, a Qualcomm executive at a negotiation meeting and Ride a full professor at a university president's meeting were both targeted as assistants and ordered to serve coffee. A shocked Johnson could only respond, "I don't know where the coffee is". Both agreed, "Just, let it roll off your shoulders".
- 3) **Think Globally.** "I was on the phone at 5:30 this morning," says Johnson, "speaking to clients in India about what our Israeli team is doing that will impact our customers in Brazil." Johnson stressed the importance of seeking out comprehensive news sources to broaden awareness and knowledge to compete in a global marketplace.
- 4) **Seek out opportunities.** Seek out places where you can make an impact. Be visible. After many years as a rising engineer within MediFLO Technologies, Johnson realized

she really liked being in front of the customer. She was instrumental in promoting and sealing a deal initiating her move to the executive side of Qualcomm.

- 5) **Keep a hold of the ball.** Your home life influences your work life. Both need to be in sync. Sometimes, work demands the most of you and you need to put forth the effort. "But other days," says Johnson, "you may need to leave at 2:00 p.m. because your eight-year old will be on the soccer field all afternoon. It's ok to set the ball down. Just, don't drop the ball."

On the way out of an enjoyable after-work event, to which I had brought my husband while our two-year-old played at a neighbor's, I grabbed a gift bag. Inside was a glass ball that read, "INNOVATE." I grasped it

OPINION

Evolution and Faith: A Call to Engage the Public

By Kathryn Applegate

As scientists, we are often called upon by our friends and family to explain scientific or medical concepts that may be far outside our field of expertise. Most recently, I have been getting a lot of questions about evolution and intelligent design (ID). Though I am a cell biologist, I spend a good deal of time reading about evolution because the topic is so culturally (and scientifically) relevant. Because I am a Bible-believing Christian, my friends in the faith are often shocked to learn I accept evolution and reject ID. Even though it sometimes feels uncomfortable, I talk about the harmony of evolution and the Christian faith whenever I can.

The scientific community has unanimously declared ID to be pseudoscience. Case closed, right? Scientists don't have to worry about it anymore. Wrong! Spend twenty minutes online, reading moviegoers' enthusiastic comments about Ben Stein's recent documentary, "Expelled: No Intelligence Allowed." The film argues that "big science" advocates are actively conspiring to keep God out of laboratories and classrooms by persecuting researchers who see evidence of design in nature. Support for this claim comes in the form of interviews with scientists who have been denied funding or tenure, or even fired, because they accept ID. The film goes further, suggesting that the atheistic agenda of evolutionists directly caused the Holocaust.

To the extent the public accepts Stein's conspiracy theory that science is untrustworthy and dangerous, it rejects an enterprise that has blessed the world with antibiotics, vaccines, heart transplants, the internet, hip replacements, aspirin, clean water, and so on. The majority of people who are engaged in science have respectable intentions. We as scientists know this, but laypeople apparently do not.

The public's misunderstanding of evolution does not only annoy a few evolutionary biologists—it threatens the funding of critical biomedical research. Congress sets the NIH budget, in part based on how much value the public places on the contributions of scientific research. When the public begins to clamor *against* science because of mistrust and misunderstanding, it shows Congress that science isn't very valuable.

Why does the proclamation, "ID is wrong!" cause consternation among so many laypeople? Because, whether they are Christians or not, they interpret scientists to mean it is wrong to believe there

might be an intelligent Creator (i.e. God). But it is only the rare scientist (like Richard Dawkins, who is featured disproportionately in "Expelled") who will say that evolution indicates there is no God. Science is limited to the study of natural phenomena—it cannot answer spiritual or philosophical questions about God or the meaning of life.

While science cannot accept divine intervention as a mechanistic explanation, it certainly does not rule out the existence of the divine. In this sense, science cannot give a complete picture of reality, because understanding the *structure* of matter does not eliminate its *significance*. This is an important point to emphasize when talking to non-scientists. Concrete examples are helpful here. For instance, assenting that G-protein coupled receptors in the tongue signal a sweet taste to the brain in no way diminishes the real pleasure I experience when biting into a luxurious bar of dark chocolate. In the same way, finding out that humans share a common ancestor with chimpanzees does not mean we do not bear the image of God (see Genesis 1:26-27). Since God himself is a spirit, the *Imago Dei* apparently has much more to do with our capacity to commune with God and mirror his attributes than our physical composition.

There are several major reasons why the average evangelical does not accept evolution, and I cannot do them justice in a column this brief. For me it has taken careful study over a long period of time, and many conversations with intelligent and thoughtful people, before I could conclude that science and faith are in fact complementary instead of contradictory. The next time someone asks you what you think about evolution or intelligent design, ask her first what *she* thinks—and then listen.

IMPORTANT INFORMATION ABOUT



San Diego Chapter

Website: <http://www.AWISsd.org>
 E-mail: awissd@awissd.org
 Mail: AWIS, San Diego Chapter
 PO Box 178096
 San Diego, CA 92177-8096

National Chapter

Telephone: (202) 326-8940
 Website: <http://awis.org>
 E-mail: awis@awis.org
 Mail:
 AWIS National
 1200 New York Avenue, NW, Suite 650
 Washington, DC 20005

About the AWIS Newsletter

The AWIS 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.

July/August Newsletter staff:

Sama Tamrakar	Paula Campos Soto	Siobhan Malany
Janice Payne	Wendy Hancock	Kerri Massey
Rachel Schwartz	Norma Velazquez-Ulloa	

If you are an AWIS-SD member, we encourage you to contribute articles to the Newsletter. Please send articles as MS Word attachments to newsletter@awissd.org. News articles should not exceed 250 words, and event summaries should not exceed 500 words. Feature articles (special-interest stories and profiles) should not exceed 1000 words. The submission deadline for the next issue is August 1, 2008.

Not getting AWIS-SD member e-mails?

Update your contact information! Go to the member services page using the following link:

<https://www.sgmeet.com/awis/memberlogin.asp>

You will need your member ID and password. If you need assistance, please contact AWIS Member Services by phone (866-657-AWIS) or by e-mail (membership@awis.org).

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.

PREMIER

Beckman Coulter Foundation
 Genentech
 Morrison & Foerster, LLP
 Pfizer

CONTRIBUTING

Townsend and Townsend and Crew
 Gen-Probe Inc.

FRIEND

BIOCOM
 The Dow Chemical Company
 Friedmann Communications
 Lab Support—a division of On Assignment
 Ricerca Biosciences LLC

PARTNER

UC San Diego Rady School of Management
 UC San Diego Extension

IMPORTANT CONTACTS**AWIS Board**

	<u>Name</u>	<u>E-mail</u>
President	Jenny Chaplin	President@awissd.org
Treasurer	Karen Zeh	Treasurer@awissd.org
Secretary	Cindy Atwell	Secretary@awissd.org
Members at Large	Huong Huynh	hhuynh@awissd.org
	Siobhan Malany	smalany@awissd.org
	Rachel Soloff	rsoloff@awissd.org

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

Committee

	<u>Chair(s)</u>	<u>E-mail</u>
Book & Movie Club	Toni Cordero Ray Seraydarian	Bookclub@awissd.org
Corporate Sponsorship	Peggy Wallace Patricia Ryan	CorporateSponsorship@awissd.org
Events	Aperna Mital Cynthia Shuman	Events@awissd.org
Job Board Manager	Lili Chen	Jobs@awissd.org
Newsletter	Sama Tamrakar Paula Campos Soto	Newsletter@awissd.org
Outreach	Diane Retallack Jeannine Stutzka	Outreach@awissd.org
Public Relations	Erica Stone Valerie Delmar	PublicRelations@awissd.org
Scholarship	Varykina Thackray Shauna McGillivray	Scholarship@awissd.org
Strategy Sessions & Focus Sessions	Grace Nakayama Valerie Uzzell	StrategySessions@awissd.org
Website	Barbara Armstrong	Website@awissd.org