



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



CONGRATULATIONS! Congratulations to each of the winners of the Science Fair and the AWIS San Diego Scholarship Program. The Outreach Committee did a great job in evaluating science projects from young girls in this year’s Greater San Diego Science and Engineering Fair. We had an outstanding group of eight winners who, along with their families, joined us for a dinner award reception at the Martin Johnson House (UCSD). The Gala Committee did a fantastic job in planning a wonderful evening event to honor this year’s AWIS San Diego Scholarship winners. The awards reception was hosted at the Reuben H. Fleet Science Center, highlighted by a delightful presentation by Dr. Sherry Seethaler (UCSD) about her career in science education and as a science writer who addresses the general public’s most probing questions about science – like, why do lizards do push-ups?

Between the Strategy Sessions and Events Committees, we’ve been learning about how to manage our lives, professionally and personally, from managing our careers to managing our finances. Continue to look for excellent programs planned with you in mind. With the coming of summer, be sure to look for the next family event to the San Diego Botanic Gardens (formerly Quail Botanic Gardens) with a special guest speaker and tour of the gardens, and a tour of Illumina, Inc., a local technology company that specializes in developing tools for studying genetic variations and functions.

Coffee Clubs are active and strong. These Clubs are informal mentoring groups that meet monthly to discuss topics from Working Moms, Early Careers, and Mid Careers. If you are looking for guidance or have specific questions, join us at the next Coffee Club. Do you want to be a book or movie critic? The Book and Movie Club has been meeting each month to discuss a book or movie that is related to science or is of general interest to the members. Join us and share your views about a book or movie. The next meetings are posted on the AWIS SD Calendar (www.awissd.org). Contact us at awissd@awissd.org for information about the Coffee Clubs or Book and Movie Club.

THANK YOU! It is also my privilege to announce that AWIS San Diego Bylaws, as revised by the Board in January 2010, have

been ratified by the chapter membership – 98% yes, 2% no. Thank you for your support. The newly adopted Bylaws take effect immediately and will help guide the strategic planning and operations of our chapter.

With regards,

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Tour of the San Diego Zoo's Institute for Conservation Research By Monica Brown

On March 23rd, AWIS members, their families, and friends were treated to a fascinating and informative tour of the Beckman Center at San Diego Zoo Institute for Conservation Research. The Institute has 150 researchers in the Beckman Center and at various field locations worldwide, making it the largest zoo-based research facility in the world. Beginning around 5:30pm, AWIS members, guests, and some of the Institute staff socialized and enjoyed a variety of Mediterranean dips and spreads, grilled vegetables, chocolate covered strawberries, mini fruit tarts, and beverages in the Institute’s beautiful courtyard.



Photo by Barbara Preston

As we were appreciating the food, conversation, and pleasant evening air, an animal handler brought out Peanut, an adorable Southern three-banded armadillo, and taught us about his biology and lifestyle. Of the 20 kinds of armadillo, only the three-banded armadillos are able to completely roll up into a ball. When harassed by a predator, they roll up most of the way, leaving a small gap in their armor for the predator to investigate. If the predator sticks a paw into the gap, they snap the rest of the way closed, teaching the predator not to bother them again! They are normally solitary creatures, but since they cannot regulate their body temperature, they can sometimes be found huddled in small groups, sleeping together to conserve heat.

We then began our tour of the Institute. Maggie, our guide and the head of Conservation Education, brought us to the Reproductive Physiology Lab, where we learned that female pandas are only receptive to male attention for three days out of the year, and may be extremely aggressive towards them at other times. In order to breed pandas safely, the researchers must carefully evaluate the female's hormone levels to determine when her three-day window will be, and only permit a male to be around her during that time. In the Genetics Lab, researchers look for non-invasive ways to establish the paternity of offspring, identify the sexes of individuals from species that have no external distinguishing sexual features, and determine the most genetically distant individuals from endangered species to pair for breeding.



Photo by Sarah Nalbandian

We also saw the Frozen Zoo, where cryogenically frozen samples from thousands of animals, representing hundreds of species, are stored and used for research or shared with other conservation facilities. In the Wildlife Disease Lab, scientists are working to combat the rapid loss of amphibians in the wild by studying the Chytrid fungus, a highly contagious fungus that kills amphibians by causing their skin to harden and become impervious to air exchange. They also examine animals that have died on the property to check for potentially contagious diseases. Another area of focus is the study of chemicals in the environment that may be mimicking hormones and preventing animals from reproducing successfully.



Photo by Sarah Nalbandian

Our last stop was the Conservation Education Lab, where we learned about the Institute's programs that teach children about the importance of conservation research through fun activities like furry forensics, where children used hair samples and other clues to identify the animal "culprit" stealing food from a bin. Children also simulated fieldwork by using receivers to search for hidden stuffed condors wearing radio transmitters. It was a great privilege to learn about the Institute's scientific and educational efforts to save endangered species! For more information on the Zoo's Conservation work, please visit their website: <http://www.sandiegozoo.org/conservation/>

AWIS-SD Introduces "TeamMates": Volunteer to Mentor and Make a Difference in Youth

By Shweta Sharma

Youth are the future of any nation. Unfortunately, many young school age children are clueless about career goals and the importance of education as a vital input for a secure future. There are many reasons for school drop-outs. Dr. Jay Smink, Executive Director of the National Dropout Prevention Center at Clemson University, in association with Franklin P. Schargel, suggested a few core strategies to circumvent or lower the drop-out rate. These include mentoring/tutoring, service learning, alternative schooling, and after school opportunities. AWIS-SD has decided to contribute by supporting an organization called TeamMates, which provides mentoring to schoolchildren.

TeamMates is a school-based mentoring program, which began in 1991 as the vision of University of Nebraska Head Football Coach, Tom Osborne, and his wife Nancy. Today, TeamMates includes over 85 chapters in 115 communities serving over 4,000 students in grades 3-12. TeamMates successfully partners with local school districts ranging from the largest urban schools to some of the smallest and most isolated rural schools. Activities during the mentoring hour range from completing homework assignments to sharing common interests to simply engaging in conversation.

TeamMates Mentoring Program solicits volunteers from the community. We are looking for AWIS/non-AWIS members to volunteer to be mentors. A mentor is assigned to a student selected by the teachers or parents for improvement in academic performance or for general or specific guidance and direction. Students may also volunteer to participate in the program, should they seek help or

mentorship. Based on the volunteer/mentor's expertise and the student's needs and interests, both are matched commensurate with the ultimate goal to help each student reach his/her full potential. The commitment is for one hour per week for at least one full school year.

The program has been successfully providing mentoring in the Midwest since 1991 and this would be the first venture in San Diego. To begin with, the TeamMates organization is working with a relatively small district, the Del Mar Union School district, and will be targeting three schools including Del Mar Hills, Del Mar Heights, and Sycamore Ridge, beginning in Fall 2010. As we get more mentors, the program will be expanded to other school districts.

As Chanakya, a prominent political strategist in ancient India, said, *"There is no root which does not have some medicinal property. There is no human being who does not possess some capability/talent. But the rarest of rare things is a mentor who is able to exploit these qualities."*

Likewise, all children have talent and potential but they need motivation, encouragement, and a positive environment to let their talents evolve, especially in the formative stages of their schooling.

Join this program, be a mentor to make the future of our youth better. We are seeking volunteers, AWIS or non-AWIS members, to be mentors, to lend an ear to listen and to provide direction to help youth calibrate their career path commensurate with their skills and hobbies.

To learn more about the program TeamMates visit: <http://www.teammates.org/about/history.htm>

To learn more about how you can be a mentor, please contact: Jenny Chaplin, Past President, AWIS at pastpresident@awissd.org

A (Lactation) Room of One's Own

By Carole Weaver

Lactation is not something most women scientists think about much until they have to do it. Once the need arises, it suddenly becomes a major issue. Breastfeeding is now well-established to be the best option for infant nutrition, boosting immune function and healthy development. To build and maintain a robust milk supply, it is essential that mothers express breast milk several times a day while away from their infants at work. One large hurdle faced by scientists returning to work postpartum is finding a convenient, clean, and private place to express milk, and scheduling this activity around experiments and meetings.

Increasingly, universities, companies, and other organizations are converting to more family-friendly policies that support breastfeeding by providing dedicated rooms for lactation. In California, in fact, state law dictates that employers provide a private space (not a toilet stall) and unpaid break time to accommodate lactation. This makes sense from both a moral and financial perspective: breastfeeding is good for employers' balance sheets as well as for the health of new babies and mothers. Breastfed babies get sick less often, reducing employee absenteeism and health care costs. In addition, easy access to lactation rooms improves employee productivity by reducing time lost in walking to remote buildings or waiting for overcrowded rooms. However, despite improved recognition of the need for readily available

facilities, the problem persists; every scientist mother surveyed in an informal poll said the lack of a nearby, uncrowded space had driven her to express milk in a toilet stall on busy days to avoid wasting time waiting for a room.

What can individuals do to promote a pro-lactation culture at their place of work? Plenty, according to Karen Arden, a professor in the Ludwig Institute for Cancer Research and the Department of Medicine on the UCSD campus. In trying to encourage university administration or company management to dedicate funds and space for lactation rooms, for example, she advises, "Be persistent. Sometimes you have to call ten people before you find the one who will help you." But, she emphasizes, by exercising both tenacity and good humor, single individuals can cause large positive shifts in the culture of their workplace. Arden knows--she was instrumental in the establishment of the three heavily-used lactation rooms currently available on the main UCSD campus, and she continues to act as a strong advocate for lactation rights at UCSD. Thanks to collaborative efforts by Arden and Jeff Kaplan, the Director of Space Management in the Health Sciences, with Health Sciences leadership, faculty and staff, UCSD has recently taken several major positive steps to extend its support of lactating women. First, funds have been officially allocated for construction of a new multi-user lactation room in an existing building in the Health Sciences area of campus. Perhaps even more encouraging, two new buildings under construction in the UCSD School of Medicine have been specifically designed to contain lactation rooms. In the future, Arden's goal is that every new building constructed on campus will be designed to contain a wellness room for women to express milk.

There are many resources available for people who want to become advocates for lactation-friendly policies at their workplace and beyond. For example, the Los Angeles County Department of Public Health publishes a guide to establish a breastfeeding-friendly workplace that describes cost benefits for employers, simple guidelines for establishing lactation rooms, and links to further resources (<http://www.lapublichealth.org/mch/Breastfeeding/bfsp.htm>). The San Diego County Breastfeeding Coalition website (<http://www.breastfeeding.org>) also offers relevant content and links, including the article "Breastfeeding is a Wise Economic Investment" by Jennifer Coburn, which elaborates ways in which breastfeeding benefits employers. On a national level, the nonprofit United States Breastfeeding Committee website (<http://www.usbreastfeeding.org>) provides a link to contact the United States Congress in support of the Breastfeeding Promotion Act of 2009 (H.R. 2819), which, if passed, would require many employers to provide private lactation areas and provide tax incentives for doing so.

For women in science to achieve workplace equality, it is critical that both men and women promote awareness of lactation issues at their institutions and companies. By showing concrete support for scientists as they enter motherhood, which often occurs during the postdoctoral years or other early career stages, institutions and companies can maximize the retention and productivity of highly trained individuals and encourage women to remain committed to careers in research during a time of (joyful) upheaval in their lives.

AWIS Gala 2010: "Curious Folks Ask"

By Mindy Davis

The Reuben H. Fleet Science Center was an excellent venue for the 2010 AWIS-SD Scholarship Gala, celebrating women in science and our 2010 AWIS-SD scholarship winners. The nearly 80 guests enjoyed cocktails and appetizers while browsing and interacting with the many exhibits. "Look! Touch! Listen!" and "Gallery of Illusions and Perceptions" were two of the favorite exhibits. The mission of both the Fleet Science Center and this year's Gala Committee, chaired by Anita Iyer, is to "inspire lifelong learning by furthering the public understanding and enjoyment of science and technology." I know that I enjoyed playing with the hands-on exhibits. They made me feel like a kid again. After the appetizers, we all gathered at the many tables set up for dinner surrounded by the "Block Busters!" exhibit. On our place settings, in addition to the Gala program, designed by Gala Committee members Kristina Henthorn and Chandra Theesfeld, we each had a "goodie folder" with a 2-for-1 coupon to an IMAX show and stationary supplies donated by the Fleet Science Center. It was neatly wrapped up with a yellow ribbon and a handmade origami rocket.



Photo by Marilyn Bagshaw

Gala Committee (Irene Ch'en and Danielle Krebs-Gretener are not pictured)



Photo by Marilyn Bagshaw
Scholarship Committee

"Lies, Damned Lies, and Science: How to sort through the noise around global warming, the latest health claims and other scientific controversies" is the catchy title of the Keynote Speaker, Sherry Seethaler's, Ph.D., 2009 book. Seethaler is a science writer and educator at UCSD and answers science questions in a weekly column for the San Diego Union-Tribune. Her columns have been compiled into her 2010 book, "Curious Folks Ask: 162 real answers on amazing inventions, fascinating products and medical mysteries."

"We were delighted to have Dr. Seethaler as a keynote speaker, since her passions about communicating science to the public and instilling scientific curiosity in young people was a perfect match for our choosing the Fleet Science Center for our Scholarship Gala," Iyer states.

Seethaler kept the audience enthralled during her lively presentation by using a combination of humor and catchy questions. "Why do lizards do push-ups?" and "Why is it bad to catch snakes?" Her love of nature began as a child when she would play outside for hours and learned that "snake poo smells really bad." Her passion for science and science education was very apparent during her talk. She gave some good advice for parents as well as young scientists. Memorization is the last thing you want to do and the key to understanding science is learning how to critically evaluate and question what you read. It is important to show young students how and why scientists disagree. These days, with the Internet, information is readily available, and an important skill is learning how to distill that information. You should consider the source and decide who the stakeholders are as well as understand the difference between cause and effect and coincidence. Seethaler is working towards improving science education in California. She said that a lot of good things are happening at the local level throughout California but the challenge is how to expand that to all schools in California as well as across the country. She pointed out that changes in the education system can feel like they take place on the geologic timescale.

Seethaler provided some career advice and said, "A fork in the road is not a failure." She explained the path by which she ended up in her current occupation and the joy she felt when she held her first "rectangular baby." This baby came into being after she turned down a high paying job in order to follow her passion and desire to write and she has never looked back. If you are unhappy in your current position you should take a baby step towards a new goal, and do not be afraid of factoring in personal considerations such as location and schedule when selecting a career. She also pointed out that we do not do a good job of informing young people of all the possible career paths that a scientist can follow.



Photo by Marilyn Bagshaw

After Seethaler's keynote address the scholarships were awarded to eight deserving women:

Megan Amely, Mathematics, California State University, San Marcos
Jennifer Gomez, Psychology, San Diego State University
Miriam Graf, Physics/Biophysics, University of California, San Diego

Elaine Klein, Evolutionary Biology, San Diego State University
 Yujia Liu, Structural Engineering, University of California, San Diego
 Sareh Manouchehri, Bioengineering, San Diego Mesa College
 Emily Plummer, Cell Biology/Virology, The Scripps Research Institute
 Katherine Tsai, Clinical Psychology/Public Health, University of California, San Diego/San Diego State University

These women were selected from one of the largest applicant pools of nearly 200 applications, and were in various stages of their careers with Amely, Gomez, Liu, and Manouchehri working towards bachelor's degrees, Klein pursuing a master's degree and Graf, Plummer and Tsai undertaking doctoral degrees.

After the awards ceremony, guests enjoyed the buffet catered by Wild Thyme. The salad, rolls, lasagna, potatoes, and lime chicken were all delicious. Dinner was followed by a raffle of various prizes including tickets to the IMAX Theater in the Fleet Science Center. A platter of mini chocolate bundt cakes enticed attendees to get up and go to the dessert table and continue to mingle and explore the exhibits.



Photo by Marilyn Bagshaw

The book signing by Seethaler on the Mezzanine towards the end of the evening was a special treat at this year's Gala. Seethaler recommended her book "Lies, Damned Lies, and Science" as a gift to anyone who has ever used the argument, "I read it, so it MUST be true", even when it defies logic, such as a magic foot pad that will remove all toxins from your body while you are asleep. This book also provides tools for sifting through the health and science-related issues that we encounter in our daily lives and empowers the reader.

Thank you to the members of the Gala Committee [Anita Iyer, chair; Irene Ch'en (Public Relations and Corporate Sponsorship rep); Jessie Chu (Facilities and Registration); Danielle Krebs-Greener (Registration), Kristina Henthorn (Website and Program), Chandra Theesfeld (Speaker, Program, Scholarship rep)] for all of your hard work, which culminated in this very inspiring evening. This was my first time attending the Gala and I am looking forward to attending the next one in 2012. Thank you also to the Scholarship Committee (Anita Iyer and Cheryl Okumura, co-chairs; Sarah Carroll, Renee Garza, Uromi Goodale, Erica Stone, Varykina Thackray, Chandra Theesfeld) and board members Rachel Soloff (Scholarship and Gala liaison) and Dorothy Sears, for all your hard work in publicizing the

scholarships and selecting the winners. Congratulations to each of the eight very worthy scholarship winners!

February Strategy Session: Managing Your Career Development

By Caroline Craig

William Jennings Bryan said this about destiny: "It is not a thing to be waited for; it is a thing to be achieved." This inspiration was offered at the February 1 Strategy Session, Managing Your Career Development. The Session was organized by Grace Nakayama and Debra O'Leary and held at Biogen Idec. The evening began with networking and light refreshments.

We all know how easy it is to get caught up in the daily grind and simply let your career ambitions linger in the back of your mind. However, this is unlikely to result in the actual achievement of your objectives. Instead, the following steps were suggested for successful career development:

- **Create a Career Plan.** This means actually writing your goals down and making a concrete plan for achieving those goals. You may need to research requirements for your goals and remain open-minded about ways to achieve them.
- **Enact Your Career Plan.** Tackle your goals one at a time, starting with the most difficult. Be persistent, and share your plans with friends or colleagues to hold you accountable.

Goal setting is important because it provides direction for your career. Having a plan will help you focus your activities and keep you motivated through setbacks.

Attendees participated in the extremely useful group exercise of completing a personal career goals worksheet. This involved naming three career goals, developing a three-step action plan for each goal, and assigning a timeframe to achieve these goals. Finally, email addresses were exchanged to add accountability to the plan.

Once you have enacted your plan, it is important to actively **manage your career change**. This means having an elevator speech ready, building and maintaining a strong network, finding or being a good mentor, and staying open to new experiences. In addition, it is important to **manage your current career**. Be visible, easy to work with, useful, and ready for whatever challenges come your way.

Several committee members shared their own career paths. Examples included academia to industry, bench scientist to project management, and post-doc to assistant professor. While each path was different, some commonalities emerged: the necessity of goal setting and enactment; the importance of volunteering and community service; the value of continuing education; and the significance of networking.

Strategy Session participants learned valuable skills for managing career development, and most importantly, to act on what we learned. Remember, as stated in *The Girl's Guide to Kicking Your Career Into Gear* by Caitlin Friedman and Kimberly Yorio: "If you're not looking out for your career, nobody is."

We are grateful to February's Strategy Session sponsor, Ardea Biosciences.

New Book on Science Communications

By Lynne Friedmann

Explaining Research: How to Reach Key Audiences to Advance Your Work, by Dennis Meredith ([Oxford University Press](#), 2010), is the first comprehensive communications guidebook written for scientists, engineers, and physicians describing how to use websites, blogs, videos, webinars, lectures, news releases, and lay-level articles to reach patients, donors, regulatory agencies, policy makers, or the public at large.

In writing the book, author Dennis Meredith drew on his 40-year career in research communications at MIT, Caltech, Cornell, Duke, and the University of Wisconsin together with interviews with 45 of the country's leading science communications experts, including academics, authors, journalists, and public information officers.

Among experts featured in this book is AWIS Fellow Lynne Friedmann, whose science-communications career has spanned 30 years.

More information can be found at <http://bit.ly/cgLiOs>.

News Update on AWIS Members

Debbie O'Leary will be moving back to her homeland of Australia at the end of May to be closer to family and will be working as a Senior Research Scientist at Biota. She has enjoyed the past 5 years as a member of AWIS-SD and has served on the Strategy Sessions committee for 4 years. Debbie would like to thank all her AWIS friends for their support and hopes to stay in touch with many of you via LinkedIn.

Tamera Weisser of Jones Day was named by *The Daily Transcript* as one of the top "Young Attorneys" in San Diego in 2009 (<http://www.sddt.com/microsite/youngattorneys09/finalist.cfm?f=R7N42K0>).

AWIS-SD member **Kathryn Applegate** successfully defended her Ph.D. at the Scripps Research Institute in early March. Applegate is excited about transitioning to a full-time role with the BioLogos Foundation (<http://biologos.org>), a non-profit organization. Applegate will be serving as Program Director for web content development. She welcomes feedback about the web site and would love to hear your thoughts or inquiries.

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

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:

Bhawanjit Brar, Mindy Davis, Kerri Hebard-Massey, Siobhan Malany, Alka Malhotra, Janice Payne, Shweta Sharma, Rachel Schwartz, Paula Soto, Geetha Srinivasan, Sama Tamrakar, and Norma Velázquez-Ulloa

We would like to thank Kerri Hebard-Massey for all of her hard work as newsletter co-chair!

Please 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, 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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<http://awis.npaci.edu/officers/biographies.htm>

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