



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.

NEWS

Letter from the AWIS-SD President Janet White

January has been a very busy month. Whether in AWIS, at work or at home, the focus has been on establishing plans and goals for the year ahead. My work has taken me to Nagoya in Japan, where Pfizer has a Research Center, and to Miami, Florida, for Pfizer's annual Year Beginning Meeting. The new AWIS Board has established a calendar of monthly meetings and we also spent a whole day at a Retreat with the Committee Chairs at the end of January to develop a strategic plan for AWIS.

In preparation for the Retreat, we gathered a large amount of feedback and data about our recent activities. Thanks to all 126 of you who responded to the Member Survey. This is a fantastic response rate from about a third of our total membership. At the retreat, we reviewed where we are presently, developed a shared vision for where we want to be by the end of 2005, and developed an action plan for achieving our vision.

We committed to take action in four key areas:

- Increase seniority and diversity of AWIS-SD membership
- Broaden accessibility to events by implementing satellites in different locations and special interest groups
- Improve infrastructure to support AWIS activities
- Improve Public Relations

One lesson I have learned from all these meetings and travels is that however different our backgrounds may be, it's remarkable how similar are our challenges and our dreams. The AWIS member survey showed that whether we work in industry or in academia, we all want the same things from AWIS – social and networking activities, career development advice and a broadening of our scientific knowledge. At the beginning of the Retreat, we shared our wildest dreams for AWIS-SD, and found that we all want the same thing – for AWIS to become a household name in San Diego and the organization every woman scientist wants to join and become an active volunteer. While I was in Japan, although the culture was very strange to me, I discovered that my Japanese colleagues at Pfizer shared our goal of discovering a new drug. Like my colleagues in San Diego, they were concerned about the geographical distances and time differences between our various offices. Leaders across Pfizer at the Year Beginning Meeting shared many of the same challenges. These included how to set a strong personal example of leadership and how to be comfortable taking calculated risks.

One way that we are changing the way the Board governs AWIS-SD is to empower Committees to make decisions and take action without feeling they need to get approval for every detail from the Board. To help the Committees become empowered, the Board has developed a number of tools – policies, role descriptions and contact lists – and, they will make these widely available, so it's clearer to people volunteering within AWIS what is expected of them and what their responsibilities are. We also strive for openness and transparency in the way decisions are made. I would like to remind you that Board meetings are open to any member to

attend. Please let me know if you would like to come and see how AWIS is governed.

I am looking forward with great excitement to AWIS-SD's major event in 2004, the Black and White Ball on Saturday May 22. This is your chance to dress up, mingle with AWIS members and leaders in the San Diego science community, and test both your science skills with the exhibits at the Fleet Science Museum and your swing and salsa steps on the dance floor. Be there or be square!

Until the next newsletter... Janet

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Greater San Diego Science and Engineering Fair Call for Volunteers!

By Jodi Connolly

The AWIS-SD Outreach Committee is looking for volunteer judges to represent the Chapter at the Greater San Diego Science and Engineering Fair (GSDSEF) on Wednesday, March 24. AWIS-SD judges will evaluate the student projects during the Professional Organizations portion of the Fair. Volunteering will require an estimated three-hour time commitment in the early afternoon. For more information about the GSDSEF, please visit www.gsdsef.org. To volunteer as a judge for AWIS-SD, please e-mail one of the Outreach Committee Co-Chairs, Tammy Garbett (tammylindell@hotmail.com) or Jodi Connolly (jodiAWISsd@yahoo.com).

AWIS-San Diego Scholarship Program

By Fran Putkey

Applications for the 2003-2004 Scholarship Program are now available! AWIS-San Diego is offering six scholarships, three of \$2000 and three of \$1000, to two community college, two undergraduate and two graduate women pursuing a degree in a science-related field at an accredited San Diego County college or university. The scholarship application deadline is March 31, 2004, and the Scholarship Committee will select the recipients of each award. The awards will be presented at the AWIS Gala on May 22, 2004. Applications and eligibility requirements can be found on the Scholarship Program link at www.AWISsd.org. If you are an AWIS San Diego student member and you meet the eligibility requirements, feel free to apply for the scholarship. If you would like to help the Scholarship Committee select the recipients, or if you would like more information about the Scholarship Program, contact Fran Putkey, Chair of the AWIS-SD Scholarship Committee, at fputkey@earthlink.net.

Science Writing Course Offered in April Through UCSD Extension

Lynne Friedmann, well-known science communications consultant and Principal of Friedmann Communications, will teach a science-writing course this spring. This nine-session course will be offered Tuesdays, April 6 to June 8 from 6:30 to 9:30 p.m. at the UCSD Extension Complex in La Jolla. Don't miss this opportunity to learn from this accomplished member of the National Association of Science Writers (<http://www.nasw.org>) and Editor of *ScienceWriters* (<http://www.nasw.org/swsampler.htm>). Read more about Lynne Friedmann at (http://awis.npaci.edu/wib_website/speakers/lynne_bio.htm).

This course will provide an introduction to science journalism and other kinds of science writing. The focus will be on writing techniques and strategies to help an audience of general readers understand scientific information. Course topics will include: opportunities for science writing, ethical issues and constraints that govern the reporting of scientific information, and the cultural place of science in our society. Class activities will incorporate broad reading and analysis of contemporary science writing, together with in-class and outside writing assignments. For more information, visit

<http://www.extension.ucsd.edu/Courses/index.cfm?vCourse=WCWP-40105> or contact Lynne Friedmann at lfriedmann@nasw.org.

SCHOLARSHIP GALA 2004:

The Black and White Ball

By Natalie Schiller

The Black & White Ball

The 2004 Scholarship Gala will be a PARTY! The Black and White Ball will be held on Saturday, May 22, 2004 at the Reuben H. Fleet Science Center in Balboa Park. The theme for this year's event is wide-open for interpretation. You can be wild or conservative, show up in zebra costumes or trippy, black and white go-go dresses or even the traditional black cocktail attire with white Converse sneakers. One thing is for certain, it's sure to be a blast!

To add to the fun, all the interactive science exhibits at the Fleet Science Center will be available for our experimentation during the event. The main hall of the Science Center will house ExploraZone®, an exchange between the Fleet and The Exploratorium in San Francisco, which contains 30 new exhibits that demonstrate the fun side of science, math and technology. Other planned exhibits include "About Faces," "Smoke and Mirrors," and "Signals."

Get out your dance shoes for workshops on Latin and Swing dancing led by Peter Edwards and his talented dance troupe from UCSD. Edwards is an experienced instructor and performer of international and American styles of Latin dancing as well as all styles of Swing dance. His extensive experience in group instruction guarantees a fun and entertaining workshop.

And that's not all! There will be appetizers, drinks (ask the bartenders about our signature drink), raffle prizes and, of course, a presentation of the 2004 AWIS Scholarship winners. (The award presentation starts at 8:00 p.m.) For more information, visit: http://awis.npaci.edu/gala_2004/gala2.htm

Tickets go on sale and will be available for purchase on-line on March 1!

If anyone would like to donate prizes for the raffle, please contact Natalie Schiller at nschill@cox.net.

Upcoming Events

By Barbara Armstrong

AWIS-Sponsored Event

March 9: New Frontiers in RNA Gene Regulation. Location: Diversa Corporation, 4955 Directors Place in Sorrento Valley
Networking: 6:00 p.m. to 6:30 p.m., Seminar 6:30 p.m. to 8:00 p.m.
Contact Events Committee at sdawisevents@hotmail.com for more information.

Strategy Sessions (tentative schedule)

All events take place at the Salk Institute 10010 N. Torrey Pines Rd. from 5:30 p.m. to 8:30 p.m. You must be an AWIS member to attend Strategy Sessions. Contact StrategySessions@hotmail.com for more information.

April 5: Communicating with Confidence

June 7: Thinking Outside the Box: Tapping into Your Creative Being

August 2: How to Get the Most Out of Working with Other People

October 4: Gender Gaps in the Workplace

December 6: Strategies on Building Self-confidence

Creativity and Shared Vision Are Hallmarks of the AWIS Retreat

By Hima Joshi

Picture this. It's December 2005. You are walking by a newsstand, and a headline catches your eye. PRESIDENT'S SCIENTIFIC ADVISOR SPEAKS AT WIB CONFERENCE SPONSORED BY AWIS-SD: The #1 Resource for Women in Science and Engineering. This was one of the many hypothetical newspaper headlines that the AWIS San Diego Board members and Committee Chairs drafted during our Retreat on January 31. We had lots of ideas about how we see AWIS in December 2005, but there was one common sentiment. Our goal is to become a high-profile organization that every female scientist in San Diego wants to join and every scientific company wants to support. In December 2005, we want to be able to say, "I'm a member of AWIS" without being asked, "What's that?"

We have already come a long way toward this goal. In the past several years, AWIS-San Diego has passed through its childhood into adolescence, and now we are on the brink of adulthood. The growth of our organization has been exhilarating! We have approximately 375 members. Our recent Women in Bioscience Conference attracted 370 participants. We are building revenue. The growth of AWIS-SD will continue, and we plan to be ready for it.

What can we do to encourage the growth of AWIS-SD? How can we increase our visibility? The members of the Board and the Committee Chairs identified the following four areas for action:

1. Membership: Increased Diversity and Greater Participation by Senior-level Scientists

The Board members and Committee Chairs agreed to develop a way to attract members from various age groups and fields of study. The Database and Membership Committees plan to analyze member turnover to help with this goal. In addition, we need more support and participation from senior-level scientists. The short-term plan is to perform a survey that will identify current members who are interested in playing a more active role in AWIS.

2. Accessibility: Development of Satellite Groups

Since many of our events are held in the University City area, scientists from SDSU, USD and North County may have difficulty attending. The Events Committee plans to launch a few trial "satellite" meetings in these locations. If these meetings are successful, we will eventually have self-sufficient satellite groups in various locations that organize AWIS-sponsored events and workshops.

3. Infrastructure: Refinement of Organization and Broadening of Volunteer Base

The Board members and Committee Chairs decided to strengthen our infrastructure to support AWIS-SD activities. The plan is to refine the general organization of AWIS-SD. The mission statements of each Committee will be clarified. Committees may merge or collaborate in order to better direct volunteers. We would also like to increase our volunteer base by enticing more members to become active on committees. So, be on the lookout for a description of volunteering opportunities that will be coming your way!

4. Public Relations: Collaboration with an Expert

Many of us don't know the first thing about public relations. So, we decided to consult a PR expert. This person will help us

develop a press kit for distribution to various organizations in the community. Our increased visibility will attract more members and support. The PR expert will work with a new AWIS-SD Public Relations Committee.

Although 5:15 p.m. on January 31 marked the end of a long day for the AWIS-SD Board members and Committee Chairs, it felt very much like a beginning. New ideas were generated. New plans were set into motion. It became clear that AWIS-SD has a very bright future, and we should all be proud to be part of it!

January AWIS Event:

Advancing Gender Equity in Professional Careers

Speaker: Lotte Bailyn, Ph.D.

By Janice Payne

She calls her project the "dual agenda," and she has defined this term as "the integration of work and personal life." Lotte Bailyn, Professor of Management at the MIT Sloan School of Management, has made great strides in a project that seems overwhelming. She joined us at our January AWIS event to discuss her progress.

Bailyn's presentation began with a description of the "leaking pipeline." Although women have been entering the workforce for many years, women advance slower than men, which results in having a smaller percentage of women in upper management positions.

In an attempt to explain this inequity, Bailyn has ruled out differences in skills and abilities between the genders. Intentional discrimination has also been driven underground. She believes there are other explanations for this gender inequity. Traditionally, women have been the family caregivers, and this role may require time away from work to care for children or aging parents.

Subtle discrimination is present and leads others to believe that women aren't good at certain tasks. Gendered institutions are also a problem. These institutions usually have men as core employees working on new projects while women are in coordinating roles. Without the opportunity to generate new ideas, women are undervalued in these roles.

Bailyn also described the stereotypical "ideal worker." The assumption has always been that the best workers are those who are always available and spend long hours at work. Bailyn and her team at MIT have been working with organizations to change work practices and assumptions regarding the good worker.

Allowing workers to integrate their work and personal lives can create fairness and equal opportunities for men and women. Specific examples of areas that Bailyn's team focuses on are family leave policies, need for travel, time of meetings, how time is used and job sharing. She believes the worker who is able to adequately care for his or her family is also more productive in the workplace.

For more information on Bailyn's work, check out her new book, *Beyond Work-Family Balance: Advancing Gender Equity and Workplace Performance*.

The January AWIS event was a joint event with the Network for Women in Science (NWIS) at The Scripps Research Institute. Visit the NWIS website at www.scripps.edu/services/nwis/. Thanks to NWIS and the AWIS Events Committee for organizing this event.

**November AWIS Event:
Myers Briggs Type Indicator**

Speaker: Ellen Kane
By Janice Payne

What’s your personality type? Are you an “ISTJ” or an “ENFP?” There are actually 16 different personality types based on the four character traits of the Myers Briggs model. These traits were clearly defined by our speaker, Ellen Kane, a trainer and facilitator with The Leadership Edge. Twenty-five attendees completed the online personality test, and Kane interpreted the results at our November event.

Katharine Cook Briggs and her daughter, Isabel Briggs Myers, developed the Myers Briggs test more than 50 years ago. The test is based on Carl Jung’s theory that differences in the behavior of healthy people result from inborn tendencies to take in and organize information in different ways. Myers and Briggs developed their self-test as a way to provide people with an understanding of their own and other personality types based on the four character traits.

Where do you get your energy? If you enjoy interacting with other people and draw energy from events around you, you would be considered an **extrovert (E)**. An **introvert (I)**, on the other hand, draws energy from internal reflections and solitude. An introvert is usually drained of energy after socializing with others, while an extrovert is energized.

How do you take in information? Are you practical, down to earth and focused on facts gathered through the five senses? This trait is known as **sensing (S)**. Its counterpart, **intuition (N)**, is a characteristic of people who focus on theory, insight and possibilities.

How do you process information and make decisions? Do you make decisions with your head or your heart? A person using logic and objectivity would possess the **thinking (T)** trait. A person with the **feeling (F)** trait would make decisions based on personal information and compassion.

How do you like the world around you? Is your life planned and organized or are you spontaneous and flexible? A **judging (J)** person prefers to set goals and have structure to life. A **perceiving (P)** person is adaptable, prefers an unstructured life and is open to new experiences.

The Myers Briggs model then uses a matrix to identify 16 personality types.

ISTJ	ISFJ	INFJ	INTJ
ISTP	ISFP	INFP	INTP
ESTP	ESFP	ENFP	ENTP
ESTJ	ESFJ	ENFJ	ENTJ

For example, an “ISTJ” draws energy internally, likes facts, uses logic in making decisions and likes to have a plan. The opposite type, an “ENFP” draws energy from the outside world, sees the big picture, uses personal values to make decisions and likes a flexible adaptable life.

As you analyze your personality type with the Myers Briggs model, try to remember that there is no right or wrong personality type. Each type has unique talents and traits. However, understanding your type and the types of those around you may greatly improve your interactions with co-workers, friends and family.

Two books that may provide more information about your personality type are *The Introvert Advantage*, by Marti Olsen Laney and *Type Talk at Work* by Theusen, Rutledge and Kroeger.

Many thanks to our speaker Ellen Kane for an enlightening evening!

Strategy Session on Financial Matters

By Julie Kinyoun

On February 2, 2004, Dianna M. Greene of Merrill Lynch presented a workshop on financial strategies for everyday life. She based her seminar on David Bach’s book “Smart Women Finish Rich.” Each participant was given a pamphlet of notes with blanks to be filled in during the session. This pamphlet also included sections to be filled out at a later time about individual retirement, savings and investment information.

Greene started her talk with statistics about women in business; she included numbers on how many women own businesses and how many head households with significant assets. Following these statistics, she plunged into an explanation of steps toward financial freedom.

Greene said that there are seven steps to finishing rich:

- Learn to earn. (Take a class, learn one thing about money every day, and read two investment books every year)
- Put your money where your values are. (Figure out your values and goals)
- Figure out where you stand financially. (Take a financial inventory of all your assets.)
- Build your retirement basket (Calculate a daily savings to ensure your retirement security.)
- Use the “Power of the Latte Factor.” (Figure out an area of consistent overspending and eliminate it. The most common example of this is a daily trip to Starbucks for a latte.)
- Build your security basket. (Keep money in the bank for hard times, keep a will or living trust, and make sure you are properly insured.)
- Build your dream basket. (Enumerate investment goals over a calculated amount of time.)

In the hour-long seminar, Greene explained each of these steps for building financial success. Exercises completed by participants included an examination of values by writing them down on a ladder of importance. Each person wrote down goals that require money to be achieved. Greene skipped several pages in the pamphlet that could be filled out at home. She briefly covered types of retirement plans including 401(k) and IRAs. The time value of money was stressed as something to consider when deciding which retirement options to use.

Overall, Greene suggested clear documentation of money matters and communication between spouses in organizing finances. All participants left the workshop with documents to discuss with their families.

San Diego Bioinformatics Forum

Bioinformatics Applications in Chemical Genomics:

A Tale of Bacterial Fitness

Speaker: Liangsu Wang, Ph.D.

Elitra Pharmaceuticals

By Barbara Armstrong

At the San Diego Bioinformatics Forum held on December 10, Dr. Liangsu Wang talked about the drug discovery process for anti-microbial drugs at Elitra Pharmaceuticals. Elitra focuses on bringing new anti-microbial drugs to the market because 20% of all prescribed drugs are anti-microbial.

Dr. Wang argued that the current drug discovery process is what limits us from novel drug scaffold discovery, not the lack of targets or the limit of chemical space. Target-based screening is only as good as the screening library. "Novel scaffolds come from novel discovery strategies not novel targets, per se," said Dr. Wang.

A major drawback of the drug screening process is the cost (one dollar per high-throughput screening well). To limit the cost of the screening process, drug companies need to find ways to narrow their search before starting their screen.

Elitra's answer is a fitness test. Four hundred bacterial strains are grown in a single well. Each strain has one down-regulated essential gene, which makes the strain sensitive to compounds that interact with the target gene. Next, compound X is added, and the bacterial culture is allowed to grow for several generations. The strain that is sensitive to the compound will drop out of the culture. The test is done in parallel with a culture not exposed to the chemical.

Elitra tested this method using *Staphylococcus aureus*, a major human pathogen containing 300 essential genes. Here is a schematic comparison of the old and new methods used for searches...

Traditional method: "Omics" => Target => Compound => Effect

New method: Effect => Compound => Target => Better drug

Bioinformatics tools are used to search an enzyme database to find and annotate gene-enzyme relationships and to predict protein-protein interactions from data already in the literature.

During the discussion session, a member of the audience suggested removing targets that are similar to human genes from the screen. Another member of the audience said that this method didn't address the problem that the old method has: drugs can drop out later in the screening process for being too toxic to human cells.

Time Logic, a genome scale analysis company, sponsored the meeting. Their products include a field programmable gate array, a faster way to do BLAST searches, SNP analysis with BLAST, and other database searches.

The San Diego Bioinformatics Forum (SDBF) is a non-profit volunteer organization dedicated to promoting a greater understanding of bioinformatics in the local biotech industry and facilitating quality networking within the community. The next SDBF meeting will be held on April 13 and will feature a presentation by Morrison and Foerster on intellectual property. For information about future meetings, visit the SDBF website:

www.sdbioinfo.org

FEATURES

Life as a New Faculty Member –
An Academic Profile on Karen Oegema

By Shermali Gunawardena

Karen Oegema is an assistant professor in the Department of Cellular and Molecular Medicine at UCSD and an associate member of the Ludwig Institute of Cancer Research. Her lab studies the metazoan model, *C. elegans*, to understand the mechanisms of cell division. Oegema uses a combination of techniques ranging from functional genomic approaches to high-resolution live microscopy and biochemistry to elucidate cell division in the one-cell stage *C. elegans* embryo. "The early *C. elegans* embryo was a powerful emerging system for studies of cell division even before the Nobel prize. However, the prize has increased recognition of *C. elegans* as an important model system in biomedical research" Oegema says, referring to the 2002 Nobel Prize in Physiology or Medicine awarded to Sydney Brenner, Robert Horvitz and John Sulston for the establishment of *C. elegans* as a model for development genetics.

At a very young age, Oegema knew she wanted to do something related to science. "My dad is a scientist, and he encouraged my interest in science as a child. He would bring home chicken eggs that we could incubate and hatch, or we would go to the pond and collect tadpoles that we would keep in an aquarium in our basement until they developed into frogs." A three-year citywide accelerated mathematics program during junior high school also influenced her. "Initially, I was not confident" she says, but "participating in this program instilled a combination of discipline and confidence that helped me in everything that I have done since then." During high school, she spent her summers working in her father's lab studying proteoglycans. She did her undergraduate degree at Caltech, which she says, "I attended almost by accident, because they offered me a full scholarship, as part of a campaign to recruit women to improve their 8:1 male-to-female ratio." Oegema remembers thinking that she did not know if she could do it, as Caltech was a very intense place, but then she thought, "why not give it a try?" The experience at Caltech turned out to be wonderful, and she was able to sample a variety of potential fields, which lead her to pursue a degree in chemical engineering. But how did she end up as a cell biologist? "When it came time to apply for graduate school I realized that I was most attracted to biological research because it seemed to have lots of open and interesting questions and many more career possibilities. So I ended up going to grad school with only one semester of biology!"

At UCSF, her interest in cell biology and biochemistry led her to do a rotation studying mitosis segregation with Andrew Murray, a cell biologist now at Harvard. "Andrew suggested that I check out Bruce Albert's lab" since he did not have space for her. After talking to Albert, she immediately joined his lab to work on protein complexes that allow chromosomes to segregate. Oegema was Albert's last graduate student before he left to become president of the National Academy of Sciences. She later worked with Tim Mitchison, a cell biologist now at Harvard studying microtubule dynamics and mitosis, who adopted the people who remained in Albert's lab. When asked about her grad school experience she says, "Bruce had a very dynamic and diverse group of people, so day-to-day life was never boring, either scientifically or personally. Bruce's lab had more fun doing science, and other activities outside the lab, than any other group of people that I have worked with. As a scientist, Bruce is a great role model. Bruce was not interested in

competing with other labs to do the next obvious thing; he was always trying to take the next large step." Since her graduate mentor was not around much, she says she "had lots of space to develop on my own with the support from other people in the lab." She admits that this independence "resulted in some less-than-ideal project choices," although in the long-term she learned to choose a problem and to pursue it productively. Although her graduate advisor was Bruce Albert, she says "Tim Mitchison had more of an impact on my scientific development. Tim was a real intellectual mentor for me." The time with him she says, "was one of the most productive and intellectually stimulating [times] in my scientific career."

Choosing her postdoctoral mentor was a joint decision with her husband Arshad Desai, whom she met during graduate school. He is also an assistant professor in the Department of Cellular and Molecular Medicine at UCSD and an associate member of the Ludwig Institute of Cancer Research. "Neither of us set out to go to Europe - we were just following the science." Both she and her husband were focused on what they wanted to do. Her husband wanted to study kinetochores, and she wanted to develop the *C. elegans* embryo to study the mechanics of cell division. They both ended up at Tony Hyman's lab then at the European Molecular Laboratory (EMBL) in Heidelberg, Germany. She says that, "there were only a few places where it was reasonable for us to pursue these projects." Working at EMBL made her appreciate the international nature of science. Although EMBL is situated in Germany, it does not belong to any of its member countries and thus this special status allows scientists from around the world to come together and work in a politically neutral environment. While at EMBL, Oegema and her husband held special diplomatic visas. However, moving to the Max Planck Institute in former East Germany after two years was different since they moved from an international environment to a more German one. Hyman moved his lab to the Max Planck Institute in Dresden, Germany after he accepted its directorship.

Comparing life in Europe to life in the US, Oegema says, "the surprising thing for most North Americans is how deep the cultural differences between North America and Continental Europe really are. My husband grew up in India, and we were surprised to find that life in India and North America are in many ways more similar than life in Germany. Both India and the US are societies that emphasize the individual; there is a strong emphasis on entrepreneurship- working hard to "get ahead." In Germany, there is much more of a socialist emphasis, with the goal of sustaining acceptable standards for everyone, coming to a consensus and moving in an agreed upon direction as a society." She says "the second major difference which may make this consensus approach possible, is that unlike the US, Germany is not an immigrant culture. In Germany, people move around much less and tend to maintain much stronger connections to the region of their birth." She says that "to many young people it is more desirable to have a secure position, for example as a secretary in a respected firm in their hometown, than to take a chance on a higher profile career that would require them to move away from their friends and family." She says that another difference between Germany and the U.S. "is that in Germany there is strong social pressure to not work too much, to take vacations, and reserve time in the evenings and on weekends for family and a personal life," which allows for a much slower pace of life.

One of Oegema's favorite experiences in Europe was a weekend visit to Vienna to celebrate the graduation of an Austrian Ph.D. student she helped mentor. The Austrian student took her on a personal tour of Vienna. The next day, she visited Freud's

apartment and the museum quarter. A trip to France to attend the wedding of two of her friends from EMBL was also memorable. She says that, "the amazing thing about this experience for me was seeing how different generations live and interact with each other in Europe. I think people develop much more mature relationships with their adult children, and tend to enjoy each other's company more than is usually the case here." She concluded that the most important thing is that "I feel that by living in Europe for four years I had the privilege of viewing it from the 'inside,' which was an illuminating life experience."

Both Oegema and her husband decided to come back to the US since "the opportunities for young scientists in the US [were] more open ended than in Europe. In Europe, [the] most attractive positions are at institutes for a fixed term of five to seven years, after which you have to look for another job. Although you often don't have to write as many grants, these positions generally come with less independence than typical positions in the US." After about 10 interviews both Oegema and her husband settled on working at the Ludwig Institute/UCSD. Speaking about the transition from working at the bench to being a new faculty member, she says, "the most difficult [part] was to supervise others. It is very challenging to learn how to supervise each individual such that they reach their goals and the projects move forward. Learning to be a good supervisor takes patience and a lot of learning by trial and error, and I am still in the error part!" She says that teaching is also challenging. "The first time you give a set of lectures, it is much more work than you think to get all the materials together." Her advice to young women postdocs who want to follow the academic track is "try to have a project that results in at least one or two publications that will be out there when you start your job search. No matter how good your future prospects are, it is very difficult to get an interview without one or two publications under your belt." Also she says, "be visible, make an effort to attend meetings, talk to people, present your work whenever possible. This increases the chances that someone on the search committees at the institutes where you apply for jobs will be familiar with your work which can get you in the door." She adds that, "many women defeat themselves by undercutting the value of their work."

Speaking on challenges and sacrifices she had to overcome to be able to get to where she is now, she says her "biggest challenge has been to overcome her own insecurities." Her main advice to young scientists is "to go for it. Be willing to try something, even if you are not confident that you will succeed. Diving in is by far the fastest way to learn new things." She adds that, "if you already know that you can do it, it is not much of a challenge." Encouragingly, she adds, "don't be afraid to do things your own way. As a woman scientist, social pressures come at you from all sides (parents, colleagues, society as a whole), [and] it is important to keep these in perspective and not be afraid to work out your own solution[s]."

Oegema admits that having a partner who is also a scientist and who supports her career goals "on par with his own" has made it much easier for her to keep the balance. She says that since both of them "have similar goals, [they] can usually find a way to make things work out between the two of them." She says it is important to admit to yourself that "it isn't possible to do everything. You have to identify your top one or two priorities and balance these as well as you can." For Oegema and her husband, the priorities are managing their own labs and taking care of their newborn son. Although she likes to read, watch movies, cook and travel, her biggest interest now is taking care of her three-week-old son.

Her goal as a scientist "is to push forward the frontiers of cell biology." She says, "working on centrosome dynamics and cytokinesis are old problems that have been appreciated at a phenomenological level for over a century but have remained largely inaccessible for technical reasons. My goal is to overcome some of these technical challenges to begin to unravel these classic questions." She also wants to use what she learns during her investigations to address issues with medical relevance. As an educator, her primary goals "are to foster the intellectual atmosphere in my lab and in the cell biology community in San Diego, and to help my graduate students and postdocs to reach their goals."

DEPARTMENTS

Your Two Cents

Compiled By Hima Joshi

Question from last time:

What is the best class you have ever taken (in grade school, high school, college, graduate school or beyond)?

Responses:

Molecular biology 100A, required for the undergrad MoBi Major, UC Berkeley, in fall 1982. It was taught by Rich Calendar, who had a dry, DRY sense of humor that broke me up nearly every lecture, and who had a distinct historical perspective. I ended up in Rich's lab for an undergraduate project and the rest, as they say, is history.

- Susan Forsburg

Speech class as an undergrad. As horrible as it seemed, it laid a good foundation to be able to share ideas, give presentations, and defend a position--politely.

- Barbara Coleman

My mom once asked me to join her on a 3-day patchwork and quilting workshop. I was a bit skeptical in the beginning because:

- I had never taken a "class" with my mother and I wasn't sure if she would correct me all the time
- I had no clue what would await me and
- I thought quilting and patchwork is something women over 65 start as their hobby.

But, it seemed very important to my mom, so I thought well, why not give it a try.

As it turned out, my mom was a wonderful workshop companion. We laughed a lot and drank a lot of champagne in our creative breaks. I also discovered a new hobby for myself, and I have been quilting and patchworking very passionately ever since. I got very close to my mom again, and, because we suddenly shared the same passion, we had a lot to talk about. She also had an ally now when my father inquired why we were buying fabrics that we didn't know what to do with! I still was by far the youngest quilter in our workshop, but it didn't really matter.

- Ursula Kessen

In college, I really enjoyed my physics classes. The teacher was extremely enthusiastic, and I felt that he really cared whether I understood the concepts or not. He also spent a lot of his free time after class with students. I also enjoyed the class because it made me think; it wasn't a class where I simply had to pull things from my memory, but I had to apply logic and work out problems. Physics was a challenging subject to learn, and I felt rewarded when I received an A in the class.

- Tobey Tam

My favorite was "Creative Management" - a course in creative problem solving techniques that were especially suitable for scientists working in R&D. That was part of my MBA program. We got to practice all kinds of creativity techniques, including hypnosis and lying on the floor visualizing (e.g. seeing the world through the eyes of an animal.) It was wacky, fun and also very helpful in life!

- Janet White

The best and worst class I ever took was physical chemistry.

- Karin Lucas

We have all had decision points in our careers that took us down different paths. When I was 30-something I took Outward Bound, an outdoor survival class that lasted for 23 days. I climbed to the top of the Three Sisters in Oregon, three mountains that are about 10,000 feet in elevation. But, it's the process that changed my life. I learned how to be a team member and leader by dealing with reality, communicating clearly and convincingly, and resolving conflict. But, most of all, I KNOW I AM A STRONG WOMAN.

- Swanie Schmidt

Question for next time:

In your opinion, what is currently the greatest hindrance to scientific progress?

We would like to publish your responses to this question in the next Newsletter! Please reply to Hima Joshi (hjoshi@san Diego.edu).

Note: Unless you indicate that you would like to remain anonymous, your name will be included with your response.

AWIS Book & Movie Club Review for December: Movie Review: 'Etre et avoir'

By Anil Kumar Challa

There are movies that give away the theme at the outset. There are those that keep their audience on edge, while revealing the plot. There are some with hard-to-grasp themes. Less known are those that are purely reflective. These movies have nothing tangible to offer. They stand like mirrors. They allow the audience to truly immerse themselves into the theme and experience the journey. Nicolas Philibert's documentary, 'Etre et avoir' (To be and to have), is certainly one such movie. This documentary is about the life of an old teacher and his pupils, set in a small French village in the remote Auvergne region.

Mr. Georges Lopez has been a teacher in a rural school for a long time and is on the verge of retirement. His class is a mixed group of children ranging from 4 to 12 years of age. The majority of the movie shows the apparently mundane, albeit very entertaining, routine in the class. The film shows their departure from home, the time they spend with their teacher in the classroom learning new lessons, the time spent playing with each other which is interspersed with an occasional fight. The children steal the teacher's attention with their innocent acts in and out of the class. The mentoring that Mr. Lopez provides to allow his children develop and get ready for real life is subtle, yet clear. Against a backdrop of changing seasons and beautiful scenery, the frustrations of learning, be it in solving a math problem, breaking an egg or making pancakes, as well as the eventual triumphs in the classroom are amply depicted. While the story revolves around children and their transactions with life, Mr. Lopez remains the main character, actively participating in the children's learning. He shows a lot of care and warmth in teaching lessons and in other

instances. One conversation with one of his students, who is emotionally struggling with her father's sickness, is moving. His concern, while attempting to assuage pain, also provides her with strength and courage. The girl, unable to comprehend the consequences of her father's sickness, feels helpless and cries. Mr. Lopez's soothing talk comforts her and gives her a sense of understanding. Yet another episode when one of the students is lost at a picnic is consuming. Mr. Lopez, along with the rest of the students, begins a search. Silence, except for the occasional yelling of the student's name, conveys the depth of the moment. While apprehension rises slowly (in the audience), the unexpected, uneventful ending is reached. The student is found!

The movie also shows the involvement of parents and family in the children's lives. In one striking scene, the whole family gets involved in helping one of the students solve a math problem. Mr. Lopez also interacts with parents and conveys his deep interest in seeing his students grow and be happy.

Some of the students will soon graduate from Mr. Lopez's class and move on to a middle school. This is a subtle prelude to the end of the story. The students will have to move on to a new life and so will Mr. Lopez. He will retire and not return to his school and the children. He is as upset, if not more, as the children are about the departure. But the changing seasons remind us of the cycle of life. Everyone has something happy to look forward to. It would be a happier world if we had more teachers like Mr. Lopez.

With excellent cinematography, Philibert tells the story unobtrusively. He remains truly inconspicuous behind the scenes. The camera captures beautiful moments inside the class and outdoors, apparently unbeknownst to the characters. The movie got a final rating of three out of five stars from the AWIS Book and Movie Club members. I recommend this movie to all interested in education and children.

AWIS Book & Movie Club Review for January: Book Review: *The Life of Pi*

By Margaret Dunbar

When *The Life of Pi* was first published, one review noted that it was good to find an author that 'can still tell a story.'

The Life of Pi is about a teenage son of a zookeeper that travels with his family as they relocate from India to Canada.

They are on board a cargo ship that is carrying some of the animals that they are selling to other zoos. The cargo ship sinks suddenly and unexpectedly. Unsure of exactly how it happens, Pi, the only apparent surviving member of his family ends up on a lifeboat with several zoo animals. Ultimately, Pi and the tiger are the only ones left on the lifeboat where they survive for 227 days. The story is told as a recounting by Pi long after the ordeal is over.

In India, before his family embarked on their trip to Canada, Pi had been exploring his spirituality. He had whole-heartedly and earnestly embraced Hindu, Christian and Muslim beliefs and rituals simultaneously. His thought process as he explores the various religions helps to give the reader an understanding of Pi as the survivor in the life boat, as well as invite the reader to think about various aspects of religion and beliefs.

Pi explains that in college he majored in both zoology and religious studies. The author gives the reader healthy portions of each. There are many passages chronicling animal behavior and biology,

pointing out the differences and similarities for animals that live in a zoo rather than the wild.

The reader has the choice of following the story on its face as a story of survival with all of its impossible choices, or to follow the story on a more metaphoric level where almost every character and event symbolizes someone or something else.

Within the Book and Movie Club there were almost as many interpretations and opinions as there were readers. The book provoked a lot of opinions and was a great vehicle for discussion. While not everyone liked the ending or certain portion of the story, some part or another of the story seemed to captivate each of us.

AWIS - San Diego Chapter Welcomes New Members:

By Emily Leong

Sholeh J. Azar	
Nathalie Bruey-Sedano	The Burnham Institute
Tracie M. Gibson	The Salk Institute
Erin M. Hau	
Petra Herguth	UCSD
Jacinte R. Jean	
Elissa A. Keogh	
Marla Melnick	
Deepa Mohan	
Renee H. Montgomery	San Diego County
Amy R. Noe	Allermed Laboratories
Robin J. Rosenfeld	The Scripps Research Institute
Mina C. Stemm	
Kimberly S. Straley	Vertex Pharmaceuticals
Pamela Diane Torrance	Pinnacle BIO Consulting
Dominique Verhelle	Celgene
Jennifer Louise Wampler	Purdue University

AWIS Member News

In this section of the newsletter, we report on the accomplishments (new jobs, promotions, awards, publications, etc.) of AWIS-SD members. If you have any news to report, send it to Barbara Armstrong at baawis@nethere.com, and write "AWIS member news" in the subject heading.



Dr. Sonya Summerour Clemmons has joined MediVas as their Director of Business Development (<http://www.medivas.com>). MediVas synthesizes its own family of novel polymers and is capable of designing polymers with unique characteristics that complement drug, gene and biologic delivery. The company's polymers can be modified to change drug elution rates and physical characteristics in order to meet the needs of a wide variety of drug families. Dr. Clemmons will lead the company's efforts in moving the technology forward into the interventional cardiology, biologics, and pharmaceutical drug delivery markets.

Dr. Clemmons was recently named Science and Technology "Trailblazer of the Year" by the organization Blacks in Technology. The award is given to "...exceptional people who have shown outstanding personal commitment to successful innovation involving the application of science and technology for the benefit of San Diego."

Dr. Susan Forsburg will join the faculty at the University of Southern California (USC), in the Molecular & Computational Biology Section of the College of Arts and Sciences on June 1. USC is undergoing a major expansion in biological research and is investing in significant resources including new buildings. Susan's research on DNA replication and chromosome biology in fission yeast will strongly complement the expertise in DNA dynamics and molecular genetics of her new department. She encourages AWIS-SD academics to keep USC in mind when looking for graduate, postdoc, or faculty positions.

Dr. Siobhan Malany is part of a synchronized ice skating team. Her team placed 1st at Pacific Coast Sections in Salt Lake City on Jan. 30 in the adult category and will compete at the 2004 Synchronized Skating National Championships held at the San Diego Sports Arena March 3-6. For more information, go to: www.synchronationals.org.

Job Postings

For an up-to-date list of jobs and job requirements, please check our website: http://awis.npaci.edu/newsletter/job_board_viewer.cgi. The username is *awis* and the password is *gala*.

Subscribe to the Free AWIS E-mail List

The AWIS e-mail list will keep you up-to-date (between newsletters) with news of job opportunities, AWIS news, and events. To subscribe, please send e-mail to sdawis@san.rr.com. Include your full name, address, and phone number.

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. The newsletter is free to AWIS members. The subscription rate for non-members is \$20 a year.

March/April Newsletter staff:

Janice Payne	Hima Joshi	Shermali Gunawardena
Julie Kinyoun	Barbara Armstrong	Siobhan Malany
Joanne Mullen	Susan Brown	Sumita Anant
Celeste Ozaki	Tobey Tam	

Send news items and comments to Barbara Armstrong via e-mail: baawis@nethere.com; or AWIS, PO Box 178096, San Diego, CA 92177-8096. If you would like your article to be included in the next issue, please submit it by April 2, 2004.

Moving? Address Change?

Please notify us of your new address so you won't miss our mailings! Please log onto our new membership update page <http://awis.npaci.edu/html/login.html> using your AWIS-San Diego username and password. If you have not yet received a username and password, or have misplaced them, please e-mail sdawis@san.rr.com. If necessary, you can also mail your updated information to: AWIS - San Diego, PO Box 178096, 92177-8096.

To post jobs in the AWIS newsletter, contact Natalie Schiller at nschil@cox.net, or AWIS PO Box: 178096, San Diego, CA 92177-8096 for details. Deadline for inclusion in the next AWIS newsletter is April 2, 2004. If submitting by snail mail, include the words "ATTN: Natalie Schiller" on the bottom left corner of the envelope.

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