

AWIS 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

Historical Profile: Alice Catherine Evans

By Cathy Manner

Bacteriologist Alice Evans identified the organism in raw milk which causes undulant fever (brucellosis), a serious disease of both humans and cattle. Her pioneering research, which resulted in laws mandating pasteurization, saved countless lives worldwide.

Evans was born on January 29, 1881, in Neath, Pennsylvania. After completing high school, she taught for four years before enrolling at Cornell University. Initially planning on a career in teaching, she instead developed an interest in science and eventually earned two degrees in bacteriology – a B.S. from Cornell in 1909, and a M.S. the following year from the University of Wisconsin in Madison.

In 1910 she joined the Dairy Division of the U.S. Department of Agriculture, where she studied the bacteriology of milk and cheese. Three years later, she became the first woman to earn a permanent appointment in that division. Her research led to the groundbreaking discovery of a bacterium in milk, *Bacillus abortus* (later classified under the genus *Brucella*), that she demonstrated could cause fever in humans and spontaneous abortions in animals.

Evans' results caused great controversy following their publication in 1918. Since she was a woman without a Ph.D., other scientists did not take her findings seriously. Additionally, the dairy industry opposed her recommendation that milk be pasteurized to halt the spread of the disease and protect the food supply. Undeterred, Evans continued her research and worked to convince doctors, public health officials, veterinarians, and farmers of the importance of pasteurization. She did not give up her endeavors even after contracting undulant fever in 1922 and suffering periodic recurrences of the disease for several years. Her efforts eventually succeeded, and in the 1930s milk pasteurization became mandatory in the U.S.

In recognition of her achievements, she was elected the first woman president of the Society of American Bacteriologists (now the American Society for Microbiology) in 1928. She was also awarded an honorary medical degree from the Woman's Medical College of Pennsylvania and an honorary doctorate of science from her alma mater, the University of Wisconsin.

Although Evans retired in 1945, she remained professionally active and lectured frequently on scientific career development for women. She died in Virginia on September 5, 1975, at age 94.

The American Society for Microbiology continues to honor her life and work with the annual Alice C. Evans Award, given to individuals who foster the professional development of women in microbiology.

This issue of the AWIS newsletter begins a series profiling recent advances in scientific technology. The following article takes a look at the many uses computers have in contemporary research.

Technology Profile: Computers in Biology Workshop

By Tobey Tam

Make no mistake, computers are playing an increasingly important role in society. This is especially evident in the sciences, particularly biological research right now. With the sequencing of complete genomes for many organisms, including human beings, the task of integrating and analyzing huge amounts of data has even led to the rapid development of one whole branch of biology involving computers. By way of example, workshops on this topic have been held at many AWIS conferences.

Our San Diego AWIS chapter held a workshop on Computers in Biology at the Women in Bioscience Conference, held May 5 at the Salk Institute. Curious attendees were offered a glimpse into this young discipline by a panel of speakers whose varied backgrounds symbolized the dynamic, often chaotic gestation stage from which the field is just emerging. Dr. Debra Hope, Director of Bioinformatics Knowledge Engineering at Cellomics; Dr. Cindy Fisher, principal scientist at Structural Bioinformatics, Inc.; and Dr. Julie C. Mitchell, a postdoc at the San Diego Supercomputer Center, shared their perspectives from the forefront before an open forum.

One issue discussed was giving a name to this field, which turns out to be easier said than done. 'Bioinformatics' and 'computational biology' are terms commonly used to refer to the use of computers in biological research. But as with many buzzwords, nuances in vocabulary are often overlooked by the uninitiated. Bioinformatics, simply put, is information science applied to biology – the storage, organization, and indexing of information, usually sequence data. Computational biology is analysis of these data. However, 'bioinformatics' is frequently used to mean 'computational biology,' even though there is a distinction between the two. According to the panelists, the field is either divided into these two specialties or consists of one field (bioinformatics) in which people are presently concentrated on one activity (computational biology).

As if vocabulary weren't the only source of confusion, "biology computation" (if we can coin a blanket term) itself somewhat resembles a patchwork largely reflecting its multi-disciplinary origins. In general, those with an interest in biology and knowledge of computers have pioneered this area. But this would include many scientists from diverse backgrounds. For example, the workshop panel was made up of a biologist, a chemist and a mathematician. And the range of activities can be just as broad — one panelist mediates intradepartmental information at her company, another manages databases, and the third develops computational techniques. Other areas of research involve data-mining, microarrays and sequence analysis. Even now the field continues to undergo change with advances in technology and the collection of new types of data. The challenge to workers is to keep pace with developments and anticipate the direction they will take the rest of the field.

In light of this, it is perhaps not surprising that the question of (Continued on page 2)

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most interest to the audience was, "How difficult is it to enter this field?" For the panelists, initiative in learning how to program with computers, rather than formal training through an educational program, helped them advance into this field. Newcomers these days have help in the form of university graduate programs being offered in biology with a specialty in computer science training. But, as with any new venture, perhaps the most important ingredient for a successful career is the willingness to meet challenges with imagination and perseverance. And enjoying computer work doesn't hurt, either. (See the following related article.)

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This issue of the AWIS newsletter also begins a series describing new educational programs that target non-traditional career fields. The following article addresses the enormous potential and opportunity that computers offer to budding young scientists, as well as seasoned professionals.

Spotlight on Education: Bioinformatics/Computational Biology Programs

By Tobey Tam

In the last few years universities have responded to the growing use of computers in biology research by establishing bioinformatics/computational biology programs. A few of the universities that lead the way with strong programs were Washington University, University of Pennsylvania, and Stanford. The University of California at San Diego (UCSD) will officially start its own bioinformatics graduate program this fall. Because official approval for the program was not given until this past January, there are bioinformatics students who have already entered in the fall of 2000 under a companion program. Most came with a background in biology, computer science or both. They will take courses to strengthen their knowledge in each subject during their first few years. Core courses will include databases, sequence analysis, statistics, and metabolic modeling. They will graduate with the background and experience necessary to take up positions in database administration, data analysis, and data-mining, three of the skills required of any bioinformaticist these days.

Contrast this with only a few years ago, when a few graduate students in the departments of computer science, bioengineering, and the biomedical sciences literally had to design their own doctorate degrees. Lynn Fink entered the Biomedical Science graduate program at UCSD in 1995. Her interest in applying computers to biological questions led her to seek a mentor conducting research in this new field. But as the first student from the Biomedical Science graduate program to branch into bioinformatics, Fink had no precedents to follow. She ended up teaching herself how to program. Although the first few years were very frustrating, Fink says the move from pipetting on the lab bench to sitting at a desktop computer was definitely worth it. She is pleased to hear that a new bioinformatics program is now in place at UCSD, to provide the guidance and instruction that she did not receive.

Fink strongly encourages those who already have a graduate degree in biology to learn to program on their own. She also warns that learning to program is only one of the steps in making the transition from the bench to the workstation; the most successful bioinformaticians also have a good understanding of statistics, math beyond calculus, and computer performance issues. Employers look favorably on personal initiative in developing new skills, especially in those already in postdoctoral positions. Candidates

are especially impressive when they have been self-taught in a field completely different from the one they were trained in. From a potential employer's point of view, applicants are highly desirable when they require few resources and little time to educate in new techniques. However, biotech companies and research concerns may not have long to wait for such workers. Like any new popular field, Fink predicts that bioinformatics will be saturated with people within the next two years. Regardless, she is hopeful that biology computation departments will be established in leading universities and academic institutions.

Seeking out an education in bioinformatics/computational biology is certainly much easier than before. But even though there are such offerings to be had, one should be cautious with programs that are newly established. There are three important aspects to look for. First, determine whether the faculty listed in the new program actually do research in the field, rather than merely support or are adjunct to the program. Second, find out how much funding the program is receiving from the host university. The amount could indicate whether the university is committed to establishing a program that could ultimately become its own department, or is merely following a trend. Lastly, be sure that the degree you will receive is specific to bioinformatics/computational biology and not from another department. Even though time will decide whether a university program will eventually command high respect and renown, talented individuals can shine by themselves without a distinguished pedigree.

Awards Ceremony for the Greater San Diego Science and Engineering Fair

By Tobey Tam

On May 10th, the AWIS Outreach Committee held an awards ceremony in the faculty club at the Scripps Research Institute. Four women received the San Diego Chapter AWIS Science Fair Award. The winners — Anna Andersen, Elizabeth Michiko DePonte, Kylise Hare and Marguerite Mathews — were all in attendance, along with their families and some of their teachers. Each winner received a copy of *The Door in the Dream: Conversations with Eminent Women in Science* by Elga Wasserman and Rita Colwell, as well as a framed certificate. After each recipient presented herself, described her science fair project and received her award, everyone mingled and celebrated. AWIS members who also attended included Barbara Armstrong, Kim Barrett, Barbara Coleman, Melissa Cunningham, Melissa Fitzgerald, Anna-Maria Hays, Susi Jennings, Nicole Kresge, Alycen Nigro and Tobey Tam.

Dr. Richard Learner, President of the Scripps Research Institute, generously contributed refreshments and the use of Scripps' faculty club for the event.

AWIS Members on the Move.....

Lisa Grillone, Ph.D. has taken the position of Vice President, Clinical Research and Medical Affairs at ISTA Pharmaceuticals. ISTA Pharmaceuticals is focused on ophthalmology and the lead drug, currently in Phase III trials, is targeted to patients with vitreous hemorrhage (blood in the back of the eye.)

Marcelle Miller-Vogel has joined the Brand Institute/San Diego as Director of Business Development. 858-455-1000
www.brandinstitute.com

**The San Diego Chapter of AWIS welcomes the following
new members:**

Teresa Aja, Xenopharm, Inc.
 Heather Alexander
 Rebecca Allen
 Sheilamarie Alojipan-Shah, UCSD
 Jennifer Antonucci, UCSD
 Karen Arden, Ludwig Institute for Cancer Res./UCSD
 Claudia Averbuj, The Scripps Research Institute
 Jane Babin, Pillsbury Winthrop LLP
 Cara Baron, Neurocrine Bioscience
 M. Jane Chambers, Pfizer Global R & D - La Jolla Laboratories
 Julie Deardorff, Assoc. of Public Health Labs/CDC
 Melinda R. Duplessis, UCSD
 Lesley G. Ellies, UCSD Cancer Center
 Susan Fahy
 Patricia Glowacki
 Deepa Hammaker, The Scripps Research Institute
 Nancy Hein, Ligand Pharmaceuticals, Inc.
 Michelle Hickman, Marie Curie Academy
 Kristin Hood, UCSD
 Tina Jones
 Marcy Klemm Ho-Sing-Loy, Gen-Probe, Inc.
 Christi Kopelev
 Kara Lavender, Scripps Institution of Oceanography/UCSD
 Christina Lin
 Enchi Liu, Quintiles, Inc.
 Jaime Marach, UCSD
 Heather Matthews
 Teresa Mulder, Neurocrine Biosciences
 Joanne Mullen, Science Applications International Corp. (SAIC)
 Martha Mutomba, Structural Bioinformatics, Inc.
 Julie Muyco, UCSD
 Kari Ohlsen, Elitra Pharmaceuticals
 Flavia Pernasetti, UCSD, Dept. Reproductive Med.
 Frances Putkey, UCSD
 Melanie Quong, UCSD
 Laura Ramsundar, Rutgers University
 Julia Rempel, TSRI
 Joan Robbins, Immusol, Inc.
 Karen Sanborn, Lab Support
 Victoria Shalhoub, Amgen, Inc.
 Celsa Spina, UCSD, School of Medicine
 Marie Struttman
 Geetha Subramanian
 Suzanna Synenki, Pharmingen
 Maria Talantova
 Astrid Visser, The Scripps Research Institute
 Karin Whittaker
 Dorothy Sears Worrall, UCSD, School of Medicine
 Julie Yuan, The Scripps Research Institute
 Blanca Zauscher, UCSD
 Kerri Zawadzki, UCSD
 Karin Zeh, Aurora Biosciences

Meet our 2001 Platinum Corporate Sponsors

By Janice Payne

AWIS San Diego thanks the following corporate sponsors for their generous support of the 2001 Women in Bioscience conference.



Canji, a leading San Diego gene therapy company, employs approximately 55 scientists in labs that are located on John Hopkins Court in the Torrey Pines area. The company was founded in 1990 and became a wholly owned subsidiary of Schering-Plough Corporation in 1996. Canji is part of the Schering-Plough Research Institute (SPRI), which is headquartered in Madison, New Jersey.

Researchers at Canji are actively involved in developing cancer therapeutics based on the tumor suppressor genes p53 and retinoblastoma (RB). Mutations or loss of the p53 or RB gene can lead to malignancies, but replacement of these genes in cancer patients may suppress tumor formation.

Canji has also developed a recombinant adenoviral vector delivery system that has proved to be an efficient, reproducible method of gene transfer. Their p53 adenovirus gene product, which demonstrated tumor suppression in preclinical studies, is currently in Phase III clinical trials for treatment of ovarian cancer.

For information about career opportunities at Canji, call 858-597-0177 or visit the Schering-Plough website at www.schering-plough.com.



Digital Gene Technologies, Inc. (DGT), located in the Torrey Pines area of San Diego, was founded in 1995. One of their company goals is to identify the distribution and expression patterns of genes in any cell or tissue sample. This can be accomplished with their patented automated TOGA (Total Gene Expression Analysis) technology, which was invented by one of the company founders, Dr. J. Gregor Sutcliffe. Dr. Sutcliffe is a Professor in the Dept. of Molecular Biology at The Scripps Research Institute. The TOGA technology is quite powerful in that it allows identification of known or novel genes that may be involved in human disease.

TOGA assigns each mRNA species an identity based on a parsing sequence, a restriction endonuclease cleavage site plus a short adjacent sequence, and the distance from this short sequence to the 3' end of the mRNA. The parsing sequences are used as binding sites for primers in an automated PCR-based assay that reveals the presence and relative abundance of every mRNA in a sample, including novel mRNAs that have not yet been described. The pattern of gene expression revealed by TOGA can be compared between two or more tissue samples. For example, genes expressed by a malignant tumor could be compared to those expressed in non-diseased tissues.

DGT has established a variety of both corporate and academic research collaborations to allow researchers access to the TOGA technology. Immunex Corp. in Seattle is using TOGA to identify

genes associated with inflammatory diseases of the gastrointestinal (Continued on page 4.)

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tract. Academic researchers at institutions such as The Salk Institute, The Scripps Research Institute, Univ. of Illinois, etc. have access to TOGA at no charge in the hopes of promoting basic research in genomics. The technology will allow tracking effects of drug therapy as well as comparison of gene expression rates between normal and cancerous tissue. DGT also sells access to their proprietary databases of genomic profiles.

For more information or to check employment opportunities, call DGT at 858-552-1400 or visit their website at www.dgt.com.



Agouron was established in 1984 and was ranked as the largest San Diego biotech company by the San Diego Business Journal in August of 2000. Agouron's mission is to design, develop and market drugs to treat cancer, AIDS, and other diseases. They develop therapeutics using an approach known as protein structure-based drug design, which involves determination of the 3-dimensional structure of a disease-related protein and the design of a drug to act on the protein.

In 1990 Agouron scientists solved the structure of an HIV protease and then developed the protease inhibitor (Viracept®) to act upon it. Viracept® (nelfinavir mesylate) was launched in March of 1997 and has been approved for use in adults and children. At that time, Agouron became the first biotech company in San Diego to market a therapeutic drug based on its own research.

Agouron has another research program involving matrix metalloproteases (MMPs) which are enzymes involved in degradation of the extracellular matrix in tissue. In a cancer patient, this degradation by MMPs could lead to invasion, angiogenesis or metastasis of tumors. Agouron's compound AG3340 is an inhibitor of MMPs, specifically gelatinase A, stromelysin I and collagenase and is in Phase III clinical trials in patients with small cell lung cancer and prostate cancer.

(Continued from page 3... Corporate Sponsors)

Other protease inhibitors are currently under development at Agouron to treat rhinovirus, cytomegalovirus and hepatitis C virus. Agouron is also working in collaboration with the Immune Response Corporation to develop HIV specific immune-based therapy.

Warner Lambert acquired Agouron in May 1999 and Pfizer later acquired both Agouron and Warner Lambert. To investigate career opportunities at Agouron, visit their website at www.agouron.com.



Amgen, headquartered in Thousand Oaks, CA was founded in 1980 and was originally known as AMGen (Applied Molecular Genetics). Amgen, as it became known in 1983, is now the largest independent biotechnology company in the world and employs over 6400 people, 4000 of whom work in a complex of 39

buildings just north of Los Angeles. Amgen was ranked 57th this year on Fortune Magazine's list of "100 Best Companies to Work For."

Amgen's mission is to dramatically improve people's lives by developing the best human therapeutics based on advances in cellular and molecular biology. They currently support research programs in cancer, nephrology, inflammation, neurology and metabolism and they focus on four methods of therapeutic delivery; proteins, monoclonal antibodies, small molecules and gene therapy vectors.

Amgen has three products on the market (EPOGEN®, NEUPOGEN®, INFERGEN®) and an extensive pipeline of products in late stage development. EPOGEN® (Epoetin alfa) is a recombinant form of the protein erythropoietin, which is used to treat anemia associated with chronic renal failure. In healthy individuals, erythropoietin is made in the kidneys and stimulates red blood cell formation. Patients on dialysis can no longer make erythropoietin and treatment with EPOGEN® can dramatically improve their quality of life. NEUPOGEN® (Filgrastim) was approved by the FDA in February 1991 for treatment of neutropenia associated with chemotherapy. It is a recombinant form of granulocyte colony stimulating factor (G-CSF) that stimulates growth of neutrophils and can prevent infections in cancer patients. INFERGEN® (Interferon alfacon-1) is an artificial form of interferon-1 and is used to treat patients suffering from chronic hepatitis C virus. Products to treat osteoporosis, rheumatoid arthritis and several other diseases are in development.

To explore career opportunities at Amgen, visit their website at www.amgen.com.



Collateral Therapeutics, headquartered in San Diego, was established in 1995 and employs approximately 60 people. Their focus is primarily to generate gene therapy products to treat a variety of cardiovascular diseases such as coronary artery disease, heart attack and congestive heart failure.

GENERX® (Ad5-FGF4), their lead product, functions by stimulating angiogenesis in the heart muscle. It is made up of a gene for human fibroblast growth factor (FGF) with an adenoviral vector delivery system. It is designed for a single intra-arterial injection through a cardiac catheter. The gene is transfected into the cells of the heart and those cells then produce FGF, which stimulates production of new blood vessels. Treatment with GENERX® could be an alternative to bypass surgery or angioplasty for patients suffering from coronary artery disease. Phase I/II clinical trials have been completed on GENERX® and it was reported safe and well tolerated by patients. Phase IIb/III clinical trials are planned for this year.

Another product in development at Collateral is a therapeutic agent containing the gene for type 6 adenylate cyclase (AC-6). AC-6 may promote a stronger heartbeat in patients with congestive heart failure.

To see a video describing their products or to investigate career opportunities at Collateral, visit their website at www.collateralthx.com.



Merck Research Labs in San Diego (MRL-SD), formerly SIBIA Neurosciences, is one of several research sites operated by Merck & Co. Pharmaceuticals. SIBIA was founded by the Salk Institute in 1981 and Merck acquired SIBIA on August 2, 1999. Merck ranked 39th this year on Fortune Magazine's list "100 Best Companies to Work for."

With approximately 140 employees in labs in the La Jolla area, MRL-SD's mission is to discover and develop novel small molecule therapeutics to treat disorders of the central nervous system. These include Alzheimer's disease, Parkinson's disease, schizophrenia and stroke. Research divisions at MRL include basic research, pharmacology, medicinal chemistry, drug metabolism and others.

MRL-SD relies on a variety of tools to develop therapeutics, including genomics, bioinformatics, high throughput screening and combinatorial chemistry.

Career opportunities at Merck Research Labs are described on the Merck website at www.merck.com.

Letter to the Editors

Our "letters to the editors" section is a new feature of the AWIS newsletter. We would like to hear from you. Send your letters with suggestions, comments, or article submissions to: Barbara Armstrong, baawis@nethere.com.

Dear AWIS Newsletter Editors,

Have you ever considered publishing the AWIS newsletter on-line? I think I would be able to read more of the newsletter if I could receive it in electronic format.

Susi Jennings

Dear Susi,

Thank you for your letter. Yes, we have considered publishing the newsletter on-line. There are many advantages to publishing an on-line newsletter such as the ability to provide video files and photos. If enough AWIS members prefer this format to the hardcopy, the newsletter would be made available through the AWIS web page and as a printable PDF file. The members would be notified of new editions through e-mail containing a link to the newsletter webpage.

To our AWIS members -- What do you think? Would you prefer an electronic copy of the newsletter to a hard copy? Please let us know by e-mailing Barbara Armstrong at baawis@nethere.com.

The AWIS newsletter editors

Women in Bioscience Conference a Success

By Tobey Tam and Barbara Armstrong

Three hundred people attended the 2001 Women in Bioscience conference held on May 5th at the Salk Institute. Participants benefited from workshops entitled: "Your 'Stay or Leave' Equation", Computers in Biology, Advancing without a Ph.D., Ethical Issues in Biosciences, Negotiation Skills, How to be a Mentor, Managing Your Boss, Strategy for Balance, and others. A wine and cheese reception rounded out the day and provided the opportunity to talk with representatives of many biotech companies. The next Women in Bioscience conference will be held in 2003, so, if you missed this one, be sure not to miss the next one.

The 2001 WIB Publications Committee would like to thank everyone who filled out an evaluation of the AWIS Women in Bioscience Conference. We received approximately 100 evaluations out of 300 attendees. These evaluations are very important in planning the 2003 conference. We appreciate all the suggestions and comments.

Job Opportunities: Positions at Hybritech

Biotechnology RESEARCH ASSOCIATES

Hybritech Incorporated is a subsidiary of Fortune 500 Beckman Coulter and a recognized leader in the development of medical diagnostic products utilizing monoclonal antibody technology. Our vision is to help science create a significant difference in human health worldwide and improve the quality of life. In doing so, we are seeking scientists for our Research Department.

Assay Feasibility - This team player will be responsible for creating prototype immunoassays for novel tumor markers and subsequently testing preclinical samples with the prototype assay. Requirements include a BS/MS in the biochemistry or related field plus 2-6 years experience in biochemistry/assay development, specifically dual monoclonal immunoassays, antibody conjugation/ modification, and research ELISAs. Good protein biochemistry background is helpful. Willingness to work with human serum samples and the ability to work independently in a research environment are also essential.

Cell Biology - Successful candidate will have a BS/MS in Biological Sciences with 3-5 years of experience working in cell biology. Industrial experience would be helpful. Requires experience in mammalian cell culture. Supervision experience strongly desired. Job responsibilities include all aspects of hybridoma production (immunization, fusion, subcloning), ELISA based assays, small animal handling and all associated documentation.

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The AWIS Book-Review Committee

Beginning this September, the San Diego AWIS Chapter will start a new social committee aimed at encourage AWIS members to read popular scientific books. During the AWIS WIB conference in May a plethora of books were recommended by members for reading, but because many of us have busy schedules we have little time to read them. This Book Review Committee will try to help those who wish to read recommended works, as well as provide opportunities for socializing. At each meeting we will discuss the chosen book that was read, choose another book for the following meeting, find a volunteer to write a review of the new book for the upcoming newsletter, and AWIS will reimburse that reader for the cost of the book. At the first meeting, we will discuss which books we will read, when and where our regular meetings will be held, and who will write the review for each book. For further information, such as the time and place for the September meeting, please email Tobey Tam at tobey_tam@yahoo.com

Upcoming AWIS Events

July - date TBA: Sky Tonight Planetarium Show at Rueben H. Fleet. Family and children welcome.

August 7 (Tuesday): Alternative Medicines - Fact vs. Fiction. Speaker and program TBA.

Non-AWIS Event

Southern California Chapter of the Society of Toxicology Summer Meeting: "Current Concepts in Safety Pharmacology" will be held on July 19 at Allergan (in Irvine.) For more information contact Julie Doerr-Stevens at jstevens@neurocrine.com

Subscribe to the Free AWIS E-mail List

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

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Moving? Address Change?

Please notify us of your new address so you won't miss our mailings! E-mail **Susan Jennings** at: sdawis@san.rr.com, phone the AWIS voicemail: (619) 687-5580, or mail changes to AWIS - San Diego, PO Box 178096, 92177-8096.

Posting Jobs in the AWIS newsletter: Contact Elaine Weidenhammer at eweiden@hotmail.com, or AWIS voicemail: 619-687-5580, or AWIS PO Box: 178096, San Diego, CA 92177-8096 for the details. Deadline for inclusion in the next AWIS newsletter is August 3, 2001. If submitting by snail mail, include the words ATTN: Elaine Weidenhammer on the bottom left corner of the envelope.

IMPORTANT INFORMATION ABOUT



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The San Diego Chapter thanks the San Diego Supercomputing Center for hosting our web site.

About the AWIS Newsletter

The AWIS Newsletter is published bimonthly and provides AWIS members and supporters with information on chapter activities, career developments, and issues related to women in science. The newsletter is free to AWIS members. Subscription rate for non-members is \$20 a year.

July/August Newsletter staff:

Janice Payne Tobey Tam Susan Brown
 Cathy Manner Barbara Armstrong Christine Haws
 Send news items, comments, and subscription requests 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 included in the next issue, the deadline for inclusion is August 3, 2001.