The AAAS, Pacific Division and its affiliated societies and sections will hold its 88th annual meeting at the Boise Center on the Grove in Boise, Idaho. Parts of the program will also take place on the campus of Boise State University, located just over a mile from the Boise Center. The Division’s Program and Special Events Committee is making a special effort to design a program of exceptional scientific merit and interest.

In an exciting departure from the norm, our meeting will be co-located with the 62nd annual meeting of the Northwest Region of the American Chemical Society (NORM). We would like to take this opportunity to publicly thank the folks of NORM and also the meeting staff of the American Chemical Society (ACS) for their generosity in sharing space in the Boise Center and also providing additional services, such as the on-line abstract submission that we will be trying out this year. As part of being co-located, the Pacific Division and NORM have agreed to allow reciprocity between the two meetings. Whichever meeting an individual registers for will allow that person to attend all sessions of both societies’ meetings. Some sessions may require an additional charge for registrants of either society.

All scientists and graduate and undergraduate students are invited to present research papers of their research results either orally or as posters. All registrants for the meeting may attend the scientific sessions as well as participate in the many other activities. Some activities, notably field trips and selected workshops, require advance registration and payment of additional fees. Dr. Owen McDougal, Department of Chemistry and Biochemistry, Boise State University is chair of the local organizing committee for this year’s annual meeting.

This Newsletter contains a preliminary description of the continued on bottom of page 10, right column
BOISE AND BOISE STATE UNIVERSITY

History of Boise

Nestled on a high desert plain in the shadow of the Rocky Mountains with a pristine river flowing through its center, Boise finds its roots from the gold rush days of the 1800s.

In 1834 Fort Boise, owned by the Hudson Bay Company, was established by British fur traders. The fort, now known as Old Fort Boise, was located at the mouth of the Boise River, 40 miles from present day Boise. In 1854, due to frequent Indian raids, the fort was abandoned. Despite this, the military desired to build another fort in the area, but, before this plan could go into effect, gold was discovered in the Boise Basin in 1862. It was now necessary, more than ever, to protect the vast number of travelers coming to the area.

On July 4th, 1863, the military chose a location for the new Fort Boise and construction began soon afterward. A town site was located next to the fort, and with the protection of the military, the town grew quickly. A major reason for this growth, other than the gold rush, was its location along the Oregon Trail.

The Oregon Trail was a thoroughfare for thousands of travelers heading for the Oregon Territory. Of all the western roads, the Oregon Trail was the longest at 2,020 miles. It began in Independence, Missouri and ended at Oregon City, Oregon. Its route in Idaho began at the Idaho-Wyoming border, crossed through Bear Valley, turned north toward Fort Hall and then followed the Snake River until it reached the Boise River. It followed the south side of the river winding through what is now the southern part of Boise. To this day, wheel ruts can still be seen along various spots of its path.

Adding to this major thoroughfare were the routes to the Boise Basin and Owyhee mines. These routes crossed the Oregon Trail at the Fort Boise location. Because it was located at these major crossroads, Boise became a prosperous commercial center.

In 1864, when the territorial legislature held its second session in Lewiston, Boise was incorporated as a city and proclaimed the capital of the Idaho Territory. This same year,
on July 26, the Idaho Statesman newspaper produced its first publication and became the second newspaper in Idaho. The first was the Idaho World in Idaho City.

After the gold rush, Boise’s population declined from 1,658 citizens in 1864 to 995 in 1870. With new construction, including the territorial prison in 1869 and the U.S. Assay Office in 1872, Boise began to grow again. The capitol building was completed in 1886 and in 1887 Boise built a streetcar system. In 1890, Idaho became a state.

In the early 1900s Boise once again enjoyed rapid growth. This growth came with the expansion of irrigation in the valley in 1902. This led to the construction of Arrowrock Dam, the tallest in the world from 1915 to 1932.

In the late 1930s, Boise was graced with the massive migration of Basques from their native home in the Western Pyrenees Mountains. These proud people became sheepherders, a large industry at the time, and gradually moved into the mainstream of city life in Boise, bringing their colorful culture with them. Today Boise has the largest concentration of Basques per capita outside the Pyrenees Mountains.

As the Great Depression ravaged many cities in the nation, Boise enjoyed growth. And during World War II, multitudes of airmen trained at Gowen Field, Boise’s air base.

Today Boise is still the largest metropolitan community in the state with over 185,000 residents. Numerous international, national, regional and state corporations have their headquarters in Boise. Some of these include Boise (formerly Boise Cascade), Simplot Corporation, Albertsons, Micron and Washington Group International. Boise is the hub of commerce, banking and government for the state and is located midway between Salt Lake City, UT and Portland, OR.

Boise2

Known as the City of Trees, Boise is located in a land of infinite variety. To the south are rich farmlands; a rugged, high-mountain desert; North America’s tallest sand dunes; and the famous Birds of Prey Natural Area. To the north, forests, whitewater rivers, and mountain lakes provide opportunities for kayaking, fishing, hunting, and hiking. For example, Bogus Basin ski resort is just 16 miles from the Boise State University campus, and world-famous Sun Valley is less than three hours away.

The Boise Greenbelt, a network of city parks and riverside paths, runs through the Boise State University (BSU) campus. Three city parks are within walking distance of BSU, and a footbridge spans the Boise River, linking the campus to Julia Davis Park, where the Boise Art Museum, Idaho State Historical Museum, and Zoo Boise are located. An array of outdoor activities—fishing, hiking, skiing, river rafting, golf, tennis, and camping—are available only a short

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2 Boise and Boise State University information excerpted from Boise State University Undergraduate Catalog, 2006 – 2007, Chapter 1.

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continued on page 4, right column

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Visit us: http://pacific.aaas.org
The city and campus offer many cultural opportunities, such as the Boise Philharmonic, American Festival Ballet, Boise Civic Opera, Idaho Shakespeare Festival, Gene Harris Jazz Festival, and a variety of other theatrical and musical productions. Touring artists frequently perform in the Morrison Center and The Taco Bell Arena, both on the Boise State University campus. In addition, a variety of national sporting events are held at The Taco Bell Arena.

Boise State University
In 1932, the Episcopal Church founded Boise Junior College, the first post-secondary school in Idaho’s capital. When the Episcopal Church discontinued its sponsorship in 1934, Boise Junior College became a nonprofit, private corporation, sponsored by the Boise Chamber of Commerce and by the community. In 1939, the State Legislature created a junior-college taxing district to fund the college through local property taxes. By the end of the 1930s, Boise Junior College boasted an enrollment of 600 students. Originally located at St. Margaret’s Hall, near the present site of St. Luke’s Regional Medical Center, the school was moved in 1940 to its present location alongside the Boise River. In 1965, Boise Junior College became a 4-year institution and was renamed Boise College. In 1969, the school was brought into the state system of higher education as Boise State College and was designated Boise State University in 1974. In 1971, the Graduate College was established.

Each semester, Boise State University enrolls more than 18,000 students in its academic and applied technology programs. Students come to Boise State University from every county in Idaho, from nearly every state in the nation, and from numerous foreign countries. The university’s urban setting both attracts and complements this diverse student body, which includes many nontraditional students as well as traditional students enrolling directly from high school.
Many academics and other professionals aim straight for the mark. They decide early what they want to do, make a plan, and follow it closely. Not me. Meandering rivers, unexpected tributaries and cul-de-sacs are my venues. This is the story of intellectual growth and development of a young woman who grew up not knowing that a Ph.D. existed or what it was.

Ours was modest house in a small New Jersey town. Our family seemed to split down the middle, Dad and me, Mom and my older brother. My Dad, a life-long Boy Scout leader, took me to all sorts of camporees, jamborees, and scout meetings. Scouts practiced their first aid on me and I climbed the towers they built of sticks. Often there was just one horse available and I was the one allowed to ride him through camp. Dad bought a sailboat taught me the rudiments of sailing. I even visited my Dad’s AT&T office on Canal Street in New York City, climbing to the top of tall rolling ladders and pretending I knew what to do with the racks of intricate telephone equipment. During WW II blackouts, we sometimes walked together at night, crunching through the snow, watching for breaches of light in the darkness. By opening the doors of the male preserve to me, I believe my Dad empowered me. I didn’t realize that until I read a study reporting that most women scientists of my day had close relationships with their fathers.

But I learned another lesson, too: Men were born to be in charge. How did I come to believe that? Perhaps it was because, at home, Dad ruled. Maybe it was the US government’s program promoting at-home Moms after WW II. Maybe it was the ‘50s ambience. In any event, I thought I knew what was and was not expected of me. Consequently, when my GPA put me at the head of my class in high school, I felt it wasn’t right. It would be improper, I thought, for a girl to be Valedictorian. So I actually worked to lower my GPA. I succeeded in dropping it to a tenth of a point below that of my closest GPA neighbor, a popular football player in the general studies curriculum. I felt great satisfaction when he became Valedictorian. Belief is a powerful thing.

I applied to study biology at Rutgers University, twenty miles from home. But I was steered into Douglass College, the girl’s school on the other side of town. After one semester, I knew I needed to get out. I did that by switching to a major in the College of Agriculture – because this major wasn’t offered at Douglass. Since the ‘Preparation for Research in Agriculture’ major paralleled the pre-med curriculum, I was able to take all the science courses I wanted at Rutgers. Field Crops and Dairy Judging were simply icing on the cake. With 21 units per semester and classes five and a half days a week (yes, even Saturday mornings), I was a happy camper. I guess my philosophy is either Learning matters, and you can’t get too much of it, or else I’m a glutton for punishment.

One summer I worked at the Waksman Institute, isolating DNA from calf thymus. A mundane job, but a definite step up from my previous five years as a waitress. Then I had a conversation with a friend, a year ahead of me in the same major. It was snowing lightly and we were walking down a sidewalk at Rutgers. He told me about the revolutionary works of Watson and Crick, Meselson and Stahl. I tingled from head to toe. Mendel was way ahead of his time, Darwin stirred the pot of controversy, but the world was waiting for Watson and Crick. And I was delighted because I was already on familiar terms with DNA; I had seen it and felt it and wound it around my glass rod.

The next summer, I was asked to teach a biology lab at Rutgers. Graduate students were unavailable, fighting the Korean War. What a thrill! I studied for hours every night to stay ahead of my students. They were older than me, Korean War veterans,
More News Flashes!!!

Pacific Division Returns to Hawai‘i in 2008

The Pacific Division Council recently approved a plan to hold our 2008 meeting in Hawai‘i, on the Big Island. We’ll likely return to the Hawai‘i Preparatory Academy in Waimea, which is at about the 3,000 foot level, which means pleasant afternoons and cool nights. Watch for details, as we plan field trips to the stars, the volcanoes, and the mountains. Be sure to mark your calendar for mid-June, 2008, when we’ll meet again in Hawai‘i!

PD Sponsored Symposium at the National Meeting

Dr. Carl Maida, President of the Pacific Division and Professor of Public Health in the UCLA School of Dentistry, has co-organized the symposium, “Ecologies of Danger and Cultures of Resilience: Children in Extreme Situations,” for the AAAS National Meeting in San Francisco coming February. The Pacific Division is a co-sponsor for the symposium. The program will be on Saturday, February 17, starting at 8:00 a.m. It is presently scheduled in Franciscan D at the Hilton San Francisco but this can change so be sure to check your on-site program book for the final location.

Poster Judges Still Sought for AAAS National Meeting

Poster judges are being sought to help judge student presentations at the AAAS National Meeting on Saturday, 17 February 2007. Poster judges receive a full-meeting registration for the significantly reduced fee of $110. An application form may also be downloaded from http://www.sou.edu/aaaspd/NationalMeetings/2007/PosterJudge07.pdf or for more information you can speak directly with Jill Perla at (202) 326-6736 or e-mail her at jperla@aaas.org.

Division Activities and Student Awards at the San Diego Meeting

In June, 2006 the Pacific Division held its 87th annual meeting at the University of San Diego. The meeting was very successful, with 394 registrants, fourteen symposia, one large combined poster session, three contributed paper sessions, three workshops and three field trips.

Activities began Saturday morning with a pre-meeting overnight field trip led by Dr. Thomas Kretzschmar (Centro de Investigación Superior de Ensenada, Ensenada, MX) to regions of northern Baja California to explore wineries, view and discuss environmental problems caused by land development, brush fires and saltwater intrusion, view geological features, such as fracture and landslide zones of the Rosarito Formation and the famed blow-hole, la Bufadora, and explore the Russian museum in La Provenir. Participants spent the night in Ensenada. Participants agreed that the time was well-spent and that they gained many new insights into the northern Baja California area. Sunday saw a field trip, led by Drs. Elizabeth Baker and Eric Cathcart (Department of Marine Science and Environmental Studies, University of San Diego) to explore the sedimentary rocks that record the last 65 million years of geologic history in the San Diego coastal region. Stops at Torrey Pine State Beach, La Jolla and Cabrillo National Monument complemented the story woven by Drs. Baker and Cathcart. Sunday evening was a fascinating public lecture, “Saliva Diagnostics: Powered by Nano-technologies, Proteomics, and Genomics,” by Dr. David

continued from page 4, right column

Last spring, 3,129 degrees and certificates were awarded\(^3\), including 2,027 Bachelor’s, 410 Master’s and 11 Doctorates. The university attracts faculty who are dedicated to excellence in teaching, creative in generating new knowledge, and generous in using their expertise to solve society’s problems. Moreover, the faculty at Boise State University recognize that high-quality teaching is their primary goal, which gives students the opportunity to work with some of the West’s most respected scientists, artists, researchers, and educators.

In addition to helping students learn, Boise State University faculty assist business, industry, educational institutions, government agencies, and professional groups with educational programs and research-and-development efforts. The university also assists organizations in upgrading the knowledge and skills of employees. \(\star\)

\(^3\)From Boise State University “webfacts” page, http://news.boisestate.edu/facts/webfacts.pdf
The technical program began Monday morning and continued through Thursday afternoon. Many interesting symposia were presented over the course of the three days, including “Strategies for Promoting Active Learning in College Biology Classrooms: Lessons from Project First,” organized by Drs. Kathy S. Williams and Kathleen M. Fisher (San Diego State University, San Diego, CA); “Programmatic Assessment in Biology Using Diagnostic Assessment Items,” organized by Dr. Kathleen M. Fisher (San Diego State University, San Diego, CA); “Organic Aerosol Chemistry/Turbulence and Mixing,” organized by Drs. David De Haan and Frank Jacobitz (University of San Diego, San Diego, CA); “New Humanities and Science Convergences II,” organized by Drs. Robert Louis Chianese (California State University, Northridge, Northridge, CA) and Carl Maida (Schools of Dentistry and Medicine, University of California, Los Angeles, Los Angeles, CA); “Environmental and other Studies in the Guadalupe Valley,” organized by Dr. Thomas Kretzschmar (CICESE, Ensenada, MX); “The Second Law of Thermodynamics: Foundations and Status,” organized by Daniel P. Sheehan (University of San Diego, San Diego, CA); “Brain Structures Mediating Memory for Place, Object, and Emotion,” organized by Drs. Veronica Galván and Annette Taylor (University of San Diego, San Diego, CA); “Frontiers of Time: Reverse Causation Experiment and Theory,” organized by Dr. Daniel P. Sheehan (University of San Diego, San Diego, CA); “Mosquitoes as Vectors of Disease: Recent Advances in Biology and Control Strategies,” organized by Dr. Marjorie Patrick (University of San Diego, San Diego, CA); “Cadillac Desert Revisited: New Multidisciplinary Trends in Urban Water Research and Practical Applications,” organized by Dr. Suzanne M. Michel (University of San Diego, San Diego, CA); “Materials Science and Nanoparticles II,” organized by Drs. Panos Photinos, Sidney C. Abrahams, and George Quainoo (Southern Oregon University, Ashland, OR); “Heterogeneity of Individual Types Across Boundaries of Species, Cultures and Gender,” organized by Dr. Magoroh Maruyama (San Diego, CA); “The San Diego Biotech and Pharmaceutical Industry: Technology, Funding, Ethics, and the Preparation of Students,” organized by Dr. Debbie Tahmassebi (University of San Diego, San Diego, CA); and “Ecological Monitoring of Venice and Its Lagoon in a Time of Transition,” organized by Dr. Alberto Zirino (Scripps Institution of Oceanography, La Jolla, CA). Several symposia drew a number of presenters from Mexico and Europe, giving the meeting a very international flavor.

In addition to symposia and contributed paper sessions, Monday was filled with other activities. Dr. Gerald M. Edelman (the Neurosciences Institute and the Neurosciences Research Foundation, San Diego, CA), co-winner of the 1972 Nobel Prize in Physiology or Medicine, presented the noon talk, “From Brain Dynamics to Consciousness: How Matter Becomes Imagination.” A combined poster session later that afternoon and evening included twenty-one posters. Following the poster session, Dr. Marlan O. Scully (Texas A&M University and Princeton University) presented the talk, “The Demon and the Quantum: From the Pathagorean Mystics to Maxwell’s Demon and Quantum Mystery.” Following Dr. Scully’s talk, Dr. Mary E. Lyons, President of the University of San Diego, provided a sumptuous finger food and dessert reception for meeting participants. We were very pleased that Dr. Lyons was able to join us for the evening lecture. Dr. Lyons later welcomed meeting participants at the reception. She was very instrumental in providing meeting space and other help that made this meeting such a wonderful experience, for which we are very grateful.

In his Tuesday noon lecture, “Dementia and Alzheimer’s Disease: Nosology of Fallacy,” AAAS Fellow Dr. Fred C.C. Pang (Veterans General Hospital-Taipei, Taipei, Taiwan) presented his thoughts on historical
aspects of the diagnosis of Alzheimer’s Disease as a subset of dementia.

The annual Division Banquet on Tuesday evening began with a reception, which was followed by an excellent dinner. Following dinner was the presentation of the student Awards of Excellence (see page 9). Dr. Kathleen M. Fisher (Department of Biology and Center for Research in Mathematics and Science Education, San Diego State University, San Diego, CA), Pacific Division President, then gave the Presidential Lecture, titled “My Life as a Scientist / Educator Dilettante” Please see page 5 of this Newsletter for the text of the presentation. The evening culminated with the transition of the Pacific Division Presidency from Dr. Fisher to Dr. Carl A. Maida, incoming Pacific Division President for 2006/2007 (to officially occur at the close of the meeting).

During the Wednesday noon lecture, Dr. Aden Meinel, accompanied by his wife Marjorie Meinel, M.S. (retired, University of Arizona, Tucson, AZ and Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA), David Drach-Meinel (Las Vegas, NV) and Barbara Meinel (Mexico City, MX) spoke about cosmic ray pulses from a celestial object called the “Cat’s Eye” as a possible cause for the emergence of modern humans in their presentation titled, “Antiquity’s Fingerprints in an Ice Core: A Cosmic Encounter, A Cat’s Eye, and Us Modern Humans.” Late Wednesday afternoon a bus load of meeting attendees left for an evening field trip to the Mount Laguna Observatory to do some stargazing. Not only were participants treated to viewing a number of stars and planets through the observatory’s 21 inch telescope, but they were able to observe a lunar eclipse as one of Jupiter’s moons crossed between the sun and Jupiter, resulting in the shadow of the moon traversing the face of the planet.

In addition to all of the above-mentioned activities, the meeting also included several workshops. The first workshop, which was very well attended, took place on Saturday. Organized by Dr. Annette Taylor (University of San Diego, San Diego, CA), it was titled “Teaching Scientific Literacy and Critical Thinking Across Disciplines: Hands-on Workshops for Teachers of High School, Community College and University Students.”

The second workshop, also education-oriented, took place on Tuesday. Titled “Collaborative Lesson Study: Enhancing the Quality of Teaching Science Through Practice,” this workshop was organized by Mss. Marisa Ramirez and Jill Brownlee (San Diego City Schools, San Diego, CA). On Wednesday, Bio-Rad Corporation began a two-day workshop that was a series of five hands-on demonstrations of molecular biology kits that they offer to schools. These demonstrations were attended by high school, community college and university instructors who were exploring laboratory options for teaching molecular biology to their students. The demonstrations, first offered at the 2005 meeting in Ashland, OR, were again very popular, and continued through Thursday afternoon.

Dr. Anne A. Sturz (Marine Sciences and Environmental Studies Program, University of San Diego, San Diego, CA), served as chair of the organizing committee for the meeting. Helping in many ways was Dr. Kathleen M. Fisher (San Diego State University, San Diego, CA). They wish to express their thanks to all of the people who pitched in to make this meeting the tremendous success that it was!

The Pacific Division wishes to express its sincerest gratitude and appreciation to Dr. Mary E. Lyons for the invitation to the Pacific Division to hold our meeting on her campus, for her strong support of the meeting, and for hosting the Monday evening reception. We also wish to thank the many individuals on campus who made this meeting not only possible, but also so extraordinarily well run. Of special note is Mr. Louis Cappella, Director of Operations at the Joan B. Kroc Center for Peace and Justice, and his entire staff, whose dedication to providing for our needs went way beyond the “call of duty.” The meeting space provided and care to detail was exceptional and greatly appreciated. Finally, the Division wishes to express its great appreciation to Dr. Donald J. McGraw (formerly University of San Diego), who really started the ball rolling for this meeting at a time when it seemed quite impossible to meet on the USD campus. In the early stages of negotiations through securing the presidential invitation, his help was invaluable, for which we are most grateful.

**Student Awards**

Each year the Division’s affiliated societies and sections conduct student competitions for best presentations. San Diego was no exception. Thirty presentations...
were made by students, and the Division’s Awards Committee had a difficult time deciding between some very good presentations. The following awards were announced:

AAASPD Laurence M. Klauber Award for Excellence: Alexander A. Kane (Department of Physics and Astronomy, University of California, Irvine, CA) “High Temperature Conductivity and Reactivity of Carbon Nanotube Electronic Circuits.”

AAASPD Presidents’ Award for Excellence: Kristopher Naowamondhol (Department of Psychology, University of California, Los Angeles, CA) “Independent Component Analysis of Mismatched Negativity.”

AAASPD Best Poster Award for Excellence: Brett R. Goldsmith (Department of Physics and Astronomy, University of California, Irvine, CA) “Effects of Controlled Oxidation and Reduction of Carbon Nanotubes.”

AAAS-Robert I. Larus Award: Kyle Brucker (University of California, San Diego, La Jolla, CA) “Simulations of a Stratified Shear Layer.”

AAASPD Atmospheric and Oceanographic Sciences, and Ecology and Environmental Sciences Sections: [first place] Kyle Brucker (University of California, San Diego, La Jolla, CA) “Simulations of a Stratified Shear Layer.”


Award winner Jennifer Juhn.
AAASPD Chemistry and Physics Sections: [first place] Alexander A. Kane (Department of Physics and Astronomy, University of California, Irvine, CA) “High Temperature Conductivity and Reactivity of Carbon Nanotube Electronic Circuits.”

[second place] Brett R. Goldsmith (Department of Physics and Astronomy, University of California, Irvine, CA) “Effects of Controlled Oxidation and Reduction of Carbon Nanotubes.”

AAASPD General and Interdisciplinary Section: [first place] Jatila van der Veen-Davis (Gervitz Graduate School of Education and Department of Physics, University of California, Santa Barbara, CA) “Physicists and Firewalkers: The Co-construction of Community Identity through Narratives in Ritual Performances.”

AAASPD Health Sciences Section: [first place] Uyi E. Osaseri (UCLA/Charles R. Drew University College of Medicine, Los Angeles, CA) “A Study of Dietary Intake of Lutein/Zeaxanthin Among Modern Americans.”

AAASPD Psychology Section: [first place] Kristopher Naowamondhol (Department of Psychology, University of California, Los Angeles, CA) “Independent Component Analysis of Mismatched Negativity.”

Award winners received a monetary award a certificate of achievement and a year membership in AAAS, which includes weekly delivery of Science magazine.

EXECUTIVE COMMITTEE AND COUNCIL MEETINGS

The Division’s Executive Committee met on Saturday, June 17. At the meeting, chaired by Division President Kathleen M. Fisher, Dr. Roger G. Christianson, Pacific Division Executive Director, reported on Division activities that occurred during the preceding seven months, reviewed Division finances, and presented the 2007 budget for approval. Final plans for the San Diego meeting were discussed, as were plans for the 2007 meeting in Boise, ID.

AFFILIATED SOCIETIES AND SECTIONS SPONSORING SESSIONS AT THE BOISE MEETING

Western Society of Soil Science
Agriculture and Horticultural Sciences Section
Anthropology and Archaeology Section
Atmospheric and Oceanographic Sciences Section
Biological Sciences Section

continued from page 1

scientific program, a call for papers, directions for preparation of abstracts, and information about early registration, housing, transportation, special events, and field trips.

Following is a list of the Pacific Division sections that will sponsor sessions at the meeting. The names and addresses of session chairs are found on page 20.
Chemistry Section
Computer and Information Sciences Section
Earth Sciences Section
Ecology and Environmental Science Section
Education Section
Engineering and Industrial Sciences Section
General and Interdisciplinary Section
Health Sciences Section
History and Philosophy of Science Section
Physics Section
Psychology Section
Social, Economic and Political Sciences Section

**REGISTRATION**

All persons planning to attend the meeting should pre-register using the form on page 27 in order to receive the best registration rate. Advance registration fees are $75 for professionals, $45 for retirees/emeritus, and $30 for current students and spouses of registrants. K-12 and community college teachers are encouraged to attend the meeting for a reduced professional registration fee of $45. Advance one-day professional registration is $55. After May 25, higher registration fees will be charged: professional, $100; K-12, community college teachers and retirees/emeritus, $60; and students and participating spouses, $40. One-day professional registration will be available on-site for $75. If you attend more than one day, you must pay the full registration fee. Program organizers and presenters registering in the professional category may purchase a full meeting professional registration at the reduced, one-day rate. To be eligible for this discount, the individual must be listed as an organizer/co-organizer of a program or have submitted an abstract that is accepted for presentation at the meeting.

The first twenty K – 12 and community college instructors that register in advance for this meeting will receive a $75 stipend to help defray their expenses to attend the meeting. The stipend is not available to teachers who register on-site. See page 4 for details.

Students have the opportunity to apply for travel awards to help defray their costs to the meeting. See page 4 for details.

About field trips: Pre-registration for all field trips is required because of limited seating in the vehicles and the need to inform some destinations of the number of people arriving. If you are interested in one or more of the excursions, it is recommended that you register early. At least one member of a family group requesting field trip reservations must be a paid meeting registrant.

About workshops: All workshops are available to meeting registrants at no additional charge. However, in order to ensure adequate space for attendees, we ask that those planning to attend a workshop please indicate so on the early registration form (see pages 27 and 28 of this Newsletter). For those coming to attend the Bio-Rad workshops but not the meeting, there is a $10 workshop-only fee.

Please send your Advance Registration Form and accompanying payment to AAAS, Pacific Division, Southern Oregon University, 1250 Siskiyou Blvd., Ashland, OR 97520. Alternatively, you may phone (541-552-6869) or fax the information (541-552-8457 – a dedicated fax line).

Visit us: [http://pacific.aaas.org](http://pacific.aaas.org)
ACCOMMODATIONS AND FOOD SERVICE

Boise offers a wide variety of motels and hotels from which one may choose. Below is a list of hotels that have agreed to provide rooms to meeting attendees at reduced rates. All hotels with the exception of the Harrison Plaza Suite are within two blocks of the Boise Center. Reservations must be made directly with the chosen hotel (toll-free numbers provided below). Be sure to identify yourself as an attendee of the AAAS, Pacific Division meeting when making your reservation. All rates listed are for one to four people in a room, as available and unless otherwise noted, and are exclusive of taxes and other fees. If you are interested in arriving earlier than the 15th and/or staying later than the 20th, inquire with the hotel as to whether rooms are available at the negotiated block rate. Please note the reservation deadlines, which are different with each hotel. Beyond these deadlines, our room blocks are returned to inventory and rooms will be available only on a space-available basis.

- **The Safari Inn**
  1070 Grove St.
  Boise, ID 83702
  800-541-6556
  Rate: $64.00 one person/one queen bed
  $73.00 one person/one king bed (much larger room)
  $5.00 each additional person
  Reservation deadline: May 17, 2007
  Includes:
  - free parking
  - high speed internet (wired and wireless)
  - continental breakfast (6:00 a.m. – 10:00 a.m.)
  - airport shuttle service
  - check web site for full listing

- **Hampton Inn and Suites**
  495 S. Capitol Blvd.
  Boise, ID 83702
  208-331-1900
  Rate: $124.00 one king or two queens standard
  $134.00 one king or two queens suite
  Reservation deadline: May 16, 2007
  Includes:
  - free parking
  - hot breakfast
  - airport shuttle service
  - check web site for full listing

- **Harrison Plaza Suite Hotel**
  Approximately four miles from Boise Center
  409 S. Cole Road
  Boise, ID 83709
  800-376-3608; 208-375-7666
  Rate: $72.00
  Reservation deadline: May 25, 2007
  Includes:
  - free parking
  - hot continental breakfast
  - airport shuttle service
  - shuttle service to downtown locations for conference meetings
  - check web site for full listing

Information about additional hotels may be found at [http://www.boise.org/](http://www.boise.org/). Of course, other options including a variety of web sites such as expedia.com and travelocity.com that provide hotel information and rates are available to help you as you plan your trip to Boise. Please make your reservations for housing directly with the hotel/motel of your choice. Note that AAAS, Pacific Division lists the above hotels for information only, not as an endorsement for any specific commercial enterprise.

TRANSPORTATION AND PARKING

**By Automobile:** The Boise Center on the Grove is located in downtown Boise. Maps of the Boise area and also downtown parking are on page 31 of this Newsletter.

**From the west on I-84 E:**
- Keep left to take I-184 E via EXIT 49 toward CITY CENTER.
- Turn LEFT onto S. CAPITOL BLVD.
- Turn LEFT onto W. FRONT ST / US-20 W / US-26 W.
- BOISE CENTER is at 850 W. Front Street (see parking map on page 31).

**From the east on I-84 W:**
- From I-84 W take BROADWAY Ave / US-20 / US-26 exit – EXIT 54 – toward CITY CENTER.
- Turn LEFT onto W. FRONT ST / US-20 / US-26 W.
- BOISE CENTER is at 850 W. Front Street (see parking map on page 31).

**By Air:** Boise is served by several commercial airlines that fly into the Boise Air Terminal (BOI). The air terminal is about a 10-minute drive from downtown Boise and the Boise Center.

REGISTRATION CENTER

The Registration Center will be set up in the foyer of the Boise Center (see map on page 31). It will be open from 2:00 – 6:00 p.m. on Sunday, 7:30 a.m. – 5:00 p.m. on Monday and Tuesday and 7:30 a.m. – 3:00 p.m. on Wednesday.

MEETING ROOMS

This year’s technical sessions will meet in the Boise Center, along with the technical sessions of the Northwest Section of the American Chemical Society. Meeting rooms are expected to
be equipped with computers running Windows XP and PowerPoint 2003, and standard computer projectors. Please check the Pacific Division web site for up-to-date information regarding computers. Speakers requiring other specialized equipment such as slide or overhead projectors must make their requests when they submit their abstracts. Specialized equipment will be provided if available. If rental costs are incurred, payment will be the responsibility of the requestor. A Speaker’s Preview Room, with projection equipment, will be open during the meeting. The meeting rooms and times of presentations for the Pacific Division program will be published in the “Program with Abstracts” issue of the Proceedings (vol. 26, part 1), which will be given to those who register for the Pacific Division meeting. In addition, it is planned that registrants for either the Pacific Division or ACS meetings must fit within the assigned display space of 48” tall X 96” wide (1.2 m X 2.4 m). If you need more space, please contact the Division office by e-mail: aaaspd@sou.edu or telephone: 541-552-6869 to discuss your needs no later than May 11, 2007. By action of the Pacific Division Council in order to assure fairness, all student posters must fit no later than May 11, 2007. By action of the Pacific Division Council in order to assure fairness, all student posters must fit no later than May 11, 2007. By action of the Pacific Division Council in order to assure fairness, all student posters must fit no later than May 11, 2007. By action of the Pacific Division Council in order to assure fairness, all student posters must fit no later than May 11, 2007. By action of the Pacific Division Council in order to assure fairness, all student posters must fit no later than May 11, 2007.

Students must be present between 4:30 p.m. and 6:30 p.m. to allow judges the opportunity to discuss their work and to evaluate their posters. Posters should remain up until 9:30 p.m. to allow for extended viewing by meeting participants.

With the permission of Dr. Carol Waite Conner and the Geological Society of America, the Pacific Division has reprinted Dr. Conner’s article, “The Poster Session: A Guide for Preparation.” It can be found on the Division’s web site, http://pacific.aaas.org. Click on the 87th Annual Meeting home page and then Poster Preparation (listed in the left column).

Special Events

The following special events are planned for the meeting.

Sunday Evening Reception, hosted by the Pacific Division and its affiliated societies and sections and the Northwest Section of ACS (NORM). All registrants and their families are invited to enjoy the conviviality of this social event. A selection of soft drinks, chips, pretzels, and good conversation will be available.

Monday Evening President’s Reception. Boise State University President Dr. Robert W. Kustra will sponsor an informal reception following the evening public lecture. All participants and their families are invited to enjoy this relaxed occasion. Non-registered family members are welcome, but must be accompanied by a registrant. Please wear your registration badge.

Tuesday Evening Reception, Banquet, and Announcement of the Winners of the Student Awards for Excellence. The Divisional Reception and Dinner will be held Tuesday evening beginning at 6:00 p.m. in the Jordan Ballroom of the Boise State University Student Union. The cost is $26 per person and you must sign up in advance (please see Advance Registration Form, page 27). A portion of this fee helps to support student attendance at the banquet. Students who are in competition for an Award of Excellence are invited to attend at no charge as guests of the Division. If you are a student planning to attend the dinner, please be sure to check the appropriate boxes on the Advance Registration form. Dinner will be preceded by a no-host reception, starting about 6:00 p.m. The following entrees are offered for dinner: Garlic and Rosemary Roasted Tri-tip, Oven Roasted Halibut, and Towering Grilled Eggplant Napoleon. All of these selections include salad; fresh vegetables; freshly baked rolls; coffee, tea and water; and dessert. Please be sure to indicate your choice on the Advance Registration Form (page 27). Following dinner, AAAS, Pacific Division President Carl A. Maida will present awards to the winners of the Division’s Laurence M. Klauber Award for Excellence (unrestricted), Geraldine K. Lindsay Award for Excellence in the Natural Sciences, J. Thomas Dutro, Jr. Award for Excellence in the Geosciences, Rita W. Peterson Award for Excellence in the Geosciences, Rita W. Peterson Award for Excellence in the Geosciences, Rita W. Peterson Award for Excellence in the Geosciences...
Award for Excellence in Science Education, the President’s Award for Excellence (unrestricted), the Best Poster Award (for poster presentations only but otherwise unrestricted), and the AAAS Robert I. Larus Travel Award, which provides for travel and other expenses for the awardee to attend the 2008 annual meeting of AAAS in Boston, MA February 14 - 18, in order to present his/her winning presentation as a poster.

The Klauber, Lindsay, Dutro, Presidents’, Best Poster, Peterson, and AAAS Larus awards are given to those students whose presentations are judged the most significant in the advancement or understanding of science. Eligible students must: (1) register for the meeting, (2) present the paper or poster being judged, and (3) be the principal research investigator. Student presentations, oral and poster, are judged on their abstracts, content, style of delivery or presentation, and audiovisual aids and/or handouts (if used). The evaluation forms (oral and poster) are posted on the Division’s web site.

All are invited and encouraged to attend these annual events.

**Business Meeting of the Council of the Pacific Division.**
The Council of the AAAS, Pacific Division will hold its annual breakfast and business meeting at 7:00 a.m. on Wednesday, June 20, in the meeting room of the Hampton Inn. The Council will elect officers, discuss programs for the 2008 and 2009 annual meetings, and transact such other business as is required by the Division’s By-Laws.

**Public Lectures**
The following public lectures are planned. Additional ones may be scheduled as time permits.

**Sunday Evening Public Lecture.** The Sunday evening public lecture features Dr. Catherine T. (Katie) Hunt, 2007 President of the American Chemical Society. Dr. Hunt is the Leader for Technology Partnerships (Emerging Technologies) at the Rohm and Haas Company, Spring House, PA. She serves on the executive board of the Council for Chemical Research where she is active in their Research Investment Network, drafting Science and Technology (S&T) policy statements and advocating for science on “the Hill” (Capitol Hill). Katie was an organizing member of the Vision 2020 Nanotechnology Roadmap and continues to be active in the rollout. She is a member of several associations including: ACS, AAAS, Sigma Xi and the NY Academy of Science.

**Monday Noon Public Lecture.** The Monday noon public lecture will be presented by Dr. Sona Andrews (Provost and Department of Geography, Boise State University, Boise, ID). Check the Pacific Division web site for updated information.

**Monday Evening Public Lecture.** TBA

**Tuesday Noon Public Lecture.** The Tuesday noon public lecture will be presented by Dr. Kathleen M. Fisher, Past-president of the AAAS, Pacific Division. She will be talking about and showing pictures from a trip she recently took to the Galapagos Islands. Dr. Fisher is a Professor of Biology and also past Director of the Center for Research in Mathematics and Science Education at San Diego State University.

**Tuesday Evening Presidential Lecture.** Dr. Carl A. Maida, President of AAAS, Pacific Division, will be the featured speaker at the Division Reception and Banquet. Dr. Maida is Professor of Public Health in the School of Dentistry at the University of California, Los Angeles.

**Wednesday Noon Public Lecture.** Dr. Donald McGraw will present a lecture titled, “Tree-Ring Science: How it All Began.” Dr. McGraw is a historian of science with a special interest in tree ring dating. He organized the symposium, “Lords of the Rings: Dendrochronology Yesterday, Today, and Tomorrow” at the 2004 Pacific division meeting in Logan, UT.

Please watch the Pacific Division web site for updates on these and other potential lectures.

**FIELD TRIPS**

All field trips are open to meeting registrants and their families. At least one member of a group must be registered for the meeting. Others who are not registered for the meeting will be charged an additional one-time-only $10 field trip registration fee for this meeting. This fee is paid only once for this meeting, regardless of how many field trips a non-registered goes on.

Due to limited space, advance registration is required for all field trips. Reservation and payment of field trip fee(s) are included on the Advance Registration Form.

A full refund will be granted if a trip is cancelled by the Division. If a registrant cancels via e-mail or written notification postmarked no later than May 23, 2007, the registrant will receive a refund of the fee(s) paid less a $10 processing fee. If paid by credit card, an additional 3.25% of the original charge will be deducted from the amount being refunded to help pay for fees charged to the Division by credit card companies.

The following field trips are being planned:

**1) Sunday, June 17: 8:00 a.m. – 4:00 p.m. Bruneau Dunes State Park.** Out on the expansive Snake River Plain there exist countless insights and windows into the past. Join an Idaho Parks and Recreation Naturalist for a bus ride from Boise to Bruneau Dunes State Park. From the hotspot volcanism of the last 16 million years, through the grand ice-age floods that profoundly sculpted these lands, Bruneau Dunes stands 470 feet above the desert floor as a geologic testament of the power of water and as a rich, desert oasis for a diversity of life. With a morning hike and first-rate presentations in the Bruneau Dunes State Park multimedia auditorium, each participant will gain an exciting new perspective of this sandy, desert gem. Be sure to bring sturdy shoes, a hat, bug repellent, and sunscreen. The sand will potentially be hot, with a high heat index. The hike will be uphill in loose sand for approximately one-quarter mile or more, depending on the heat. Includes transportation, applicable entrance fees, box lunch, and water. Cost: $35.

**2) Sunday, June 17: 9:00 a.m. – 3:00 p.m. Snake River Birds of Prey National Conservation Area.** This field trip
will tour the world famous Snake River Birds of Prey National Conservation Area (NCA), located south of Boise. The NCA was established in 1993 to recognize and perpetuate the area’s wildlife values, especially related to raptors (birds of prey). Fifteen species of raptors nest within the NCA, and nine others use the area during migration or winter. Participants will be able to observe a variety of hawks, falcons, eagles, and owls in their natural surroundings. There will also be an opportunity for up-close observation of ongoing raptor research and banding projects. Afternoons in June could be sunny and quite warm. Alternatively, the weather could be windy and rainy. Be sure to wear field clothes appropriate for the weather and bring binoculars, camera, sunscreen and insect repellent. Includes transportation, field guide, applicable entrance fees, box lunch, and water. Limited to 20 participants. Cost: $35.

(3) Sunday, June 17: 1:30 p.m. – 3:00 p.m. The Nature of the Boise River: Science, Engineering, and Design. Led by Todd Shallet (Center for Idaho History and Politics, Boise State University, Boise, ID), this field trip is a walking tour along the Boise River from Boise State University through Julia Davis Park and back. The Boise River is a human artifact shaped by science, politics, grandiose dreams, and nightmarish expectations. The walk considers human and non-human factors that shaped the engineering design and continue to affect the ecology of the region. Included will be discussions of issues of historical and ecological importance related to the river. Participants should meet by 1:30 p.m. at the Friendship Bridge (spans the Boise River, connecting Julia Davis Park to the Boise State University campus) in Julia Davis Park. The walking tour will take about one and one-half hours. It is over fairly flat and paved terrain.

Plan to explore the many museums and the zoo of Julia Davis Park, both before and after the tour. The museums and zoo charge admission fees, which vary by institution.

There is no fee for this field trip. However, in order to provide an indication of how many participants to expect, you need to indicate on the Advance Registration Form if you plan to attend this field trip. Cost: none.

(4) Wednesday, June 20: 9:00 a.m. – 5:00 p.m. Western Society of Soil Science Field Trip. Includes transportation, box lunch. Cost: $30.

(5) Wednesday, June 20: 1:00 p.m. – 5:00 p.m. Boise Hydrogeophysical Research Site. Organized by Bill Clement (Center for Geophysical Investigation of the Shallow Subsurface (CGISS), Boise State University, Boise, ID), the trip will first visit a gravel outcrop near Discovery Park and then continue about 15 minutes to the mesoscale field laboratory. This research site is designed to investigate ground water flow problems. At the site, participants will have the opportunity to learn about and look at the capabilities and methods used to investigate the subsurface. The site itself is a flat gravel bar along the Boise river. Participants may walk down a dirt road at a slight incline to get to the site. At the site, the walking is easy on the gravel surface, but is not recommended for wheelchairs or walkers. Includes transportation and a short field guide. Cost: $20.

(6) Thursday, June 21: 8:00 a.m. – Saturday, June 23, about 5:00 p.m. Craters of the Moon, Volcanoes, and the Traveling Hot Spot. Led by Drs. J. Thomas Dutro, Jr. (retired, U.S.G.S. and Smithsonian Institution, Washington, D.C.) and Robert L. Christiansen (retired, U.S.G.S., Menlo Park, CA), this is a three-day field trip to explore the wonders of the Craters of the Moon National Monument and the volcanic activity that has dominated the Snake River plain for the past 2 1/2 million years. The trip will feature a traverse from Boise through the Salmon River Valley to Challis, highlighting the geological framework of the volcanics, including the Paleozoic limestone sequence, the Idaho granitic intrusion of the Snake River, and the Miocene basalt flows of the Thousand Springs area.

www.aaas.org/meetings
Late Cretaceous age and the related, Eocene (50 million year old), Challis volcanic rocks. The highway trip from Challis to Arco parallels the Lost River Range, which mostly consists of Paleozoic sedimentary rocks, and contains Borah Peak, the highest point in Idaho (12,862 ft.). We will spend the first night in a rustic motel in Arco. Most of the second day will be devoted to Craters of the Moon National Monument and its remarkable volcanic features that remind many of an Hawaiian analogue. The second night will be spent in Pocatello. The third day’s return westward to Boise will provide an opportunity to view the volcanic evidence of the northeasterward, relative movement of the volcanic “hotspot” that has ultimately reached the Yellowstone Park region. We will also stop at the Hagerman Fossil Bed National Monument, where bones of 3-million-year-old ancestors of the modern horse helped scientists to unravel mammalian evolution. We will arrive in Boise at about 5 o’clock on Saturday. The cost of the trip includes two nights stay (Arco and Pocatello), three lunches, transportation, a road log, a guidebook to the geology of Idaho, and all admission fees. Other items of personal nature are the responsibility of participants. Limited to 30 participants. Cost: $250 per person double occupancy, $375 per person single occupancy (as available).

WORKSHOPS
Molecular Biology Kits

Wednesday, June 20 and Thursday, June 21

Bio-Rad Corporation of Hercules, CA, will be presenting several hands-on workshops to give middle school, high school and university instructors the opportunity to try out some of the molecular biology kits they offer to educators. Bio-Rad representatives will provide certificates of attendance for those desiring to utilize these workshops for professional development credits.

More information about these and other Bio-Rad kits can be found on the internet at explorer.bio-rad.com.

Those wishing to participate in one or several of these workshops must pre-register for them (see Early Registration Form, pages 27 and 28 of this Newsletter). There is no additional charge for those registered for the rest of the meeting. For those coming just for these Bio-Rad workshops, there is a $10 “Bio-Rad only” registration fee (covers all five sessions), which must be paid in advance. Participation is limited to 24 in each session.

These workshops meet on the Boise State University campus, in a laboratory room in the Biology Department. For those driving onto campus, parking is in the large parking structure just to the west of the Science/Nursing Building, in which the Biology Department is situated. Please see Campus Map on page 31 of this Newsletter. The cost for parking is $1.00 per hour, with a maximum of $10.00 per day. Machines in the parking structure accept cash and credit cards.

Following is the tentative workshop schedule.

Wednesday, June 20

8:30 a.m. – 10:00 a.m. Bio-Rad Genes in a Bottle™ Kit
Can you see your DNA?
Enable your students to visualize and comprehend their DNA, the normally invisible substance of life. With this kit, students extract genomic DNA from their own cheek cells, then precipitate and capture it in a fabulously cool necklace.
10:30 a.m. – 12:00 p.m. Bio-Rad ELISA Immuno Explorer Kit
Biology’s magic bullet?
Simulate the outbreak of a disease in your classroom and use real antibodies to track it. Teach your students how diseases (HIV) and markers of cancer, pregnancy, or drug use are diagnosed.
1:30 p.m. – 4:00 p.m. Bio-Rad PV92 PCR Informatics Kit
What genes are you wearing?
Fingerprint your own DNA using forensic DNA extraction techniques, PCR amplification and electrophoresis. Using their actual kit results, this kit allows your students to test the Hardy-Weinberg equilibrium theory within their own classroom population, then go online to compare classroom results to population data worldwide. AP LAB 8

Thursday, June 21

9:00 a.m. – 11:30 a.m. Bio-Rad GMO Investigator™ Kit
Have your favorite foods been genetically modified?
Genetically modified foods do not require labeling in the USA. Using state-of-the-art DNA extraction techniques, PCR, and electrophoresis, this kit allows your students to verify whether their favorite foods have been genetically modified or not.
1:00 p.m. – 3:30 p.m. Bio-Rad Comparative Proteomics Kit
Is there something fishy about teaching evolution?
Extract muscle proteins from closely and distantly related fish species, use protein electrophoresis (SDS-PAGE), generate species-specific protein fingerprints, and create cladograms to infer evolutionary/phylogenetic relationships. Can molecular evidence be used to support or refute evolutionary theory? Your students decide.

INSTRUCTIONS FOR SUBMITTING PAPERS

Members of AAAS and its affiliated societies, students, teachers, and other scientists are encouraged to participate in the annual meeting and present papers. Those wishing to present a paper at one of the sessions should follow the instructions on page 26 of this Newsletter (Call for Papers) and submit their abstracts on-line. An e-mail will be automatically generated to confirm your submission when you have completed it. Submissions will be given their final reviews in late April/early May, with decisions about acceptance being sent via e-mail shortly thereafter. If you would like to discuss your submission with the chair of the section to which you are submitting it, please refer to page 20 of this Newsletter for the list of sections, chairs, and contact information. If you are unable, for some
reason, to submit your abstract via the web, please contact the Pacific Division office, 541-552-6869 or aaaspd@sou.edu. If your abstract contains special characters, please fax a print copy with the special characters clearly marked and notations indicating the font used to the Division office, 541-552-8457, in addition to submitting it on-line.

**Student Awards for Excellence**

The AAAS, Pacific Division offers each affiliated society and section participating in the annual meeting the opportunity to recognize outstanding student participants through the presentation of Awards of Excellence and cash prizes of $150 for first place and $75 for second place. Additionally, each winner also receives a one-year student membership in AAAS, which includes weekly issues of Science magazine. Societies often supplement these awards with their own cash prizes.

In 2007, seven Division-wide awards are available: Laurence M. Klauber Award for Excellence (unrestricted); Geraldine K. Lindsay Award for Excellence in the Natural Sciences; J. Thomas Dutro, Jr. Award for Excellence in the Geosciences; Presidents’ Award for Excellence (unrestricted); Rita W. Peterson Award for Excellence in Science Education; Best Poster Award (for posters only but otherwise unrestricted); and the AAAS Robert I. Larus Travel Award, which provides travel and other expenses for the awardee to attend the 2008 national meeting of AAAS in Boston, MA, February 14 – 18, 2008, for the purpose of presenting their winning presentation as a poster. The Klauber, Lindsay, Dutro, Presidents’, Peterson, Best Poster, and Larus awards are given to those students whose presentations are judged the most significant in the advancement or understanding of science.

To be eligible for a sectional award or one of these Divisional awards, a student must register for the meeting, present the paper or poster, and be the principal research investigator. Student presentations, oral and poster, are judged on their abstracts, content, style of delivery or presentation, and audio-visual aids and/or handouts (if used). The evaluation forms for both oral and poster presentations are posted on the Division’s meeting web page. Students who are eligible for Awards of Excellence are invited to be the Division’s guests at the Division Banquet Tuesday evening, June 19. Festivities that evening include the presentation of student awards. If you are one of these students, please be sure to fill in the appropriate boxes on the Advance Registration form to let us know you will be attending the dinner and which entrée you wish to have.

**IMPORTANT NOTE:** All judging for student awards ends by 3:00 p.m. on Tuesday, at which time the judges go into closed session to determine the winners for presentation at the banquet that evening. If you are a student wishing to compete for an Award of Excellence and your oral presentation is scheduled later Tuesday afternoon or Wednesday, you must, in addition to presenting orally as part of the symposium, prepare a poster for presentation at the poster session on Monday. That way your presentation will be judged and you will be in the pool of potential prizewinners. This may only occur if your presentation is part of a symposium. All oral contributed paper sessions are scheduled to ensure that student presenters are judged prior to the cut-off on Tuesday afternoon.

**Technical Sessions**

**Symposia**

The following symposia are planned for the annual meeting. Although most symposia are organized around invited papers, organizers often will consider adding one or more contributed papers if they are relevant to their programs. Should you wish to participate in one of these symposia, contact the symposium...
organizer. Should you wish to present a paper in one of the contributed paper sessions, refer to pages 20 and 26 of this Newsletter. Check the Division’s web site, pacific.aaas.org, for the latest information on symposia and other program events.

Please remember, at this time the listings below are tentative and subject to change. If you plan to attend the meeting largely for one symposium or technical session, check the Division’s web site for updates to the program or phone the Division’s office at 541-552-6869 to confirm the status of the session(s) before committing travel funds. As additional symposia are added to the program, they will be posted on the Division’s web site.

(1) Greening of the Disciplines: New Humanities and Science Convergences III. Organized by Robert Louis Chianese (California State University, Northridge, CA; e-mail: robert.chianese@csun.edu) and Carl A. Maida (University of California, Los Angeles CA; e-mail: cmaida@ucla.edu). This multidisciplinary symposium explores new or recent connections between the humanities and the sciences in order to survey positive cross-fertilizations they produce. Collaborations of unique kinds between the sciences on the one hand, and humanities, art, literature, music, dance, and architecture on the other, mark the current interdisciplinary scene. The symposium seeks to survey collaborations that eclipse former antagonisms between the sciences and the humanities and provoke questions about the very nature of each area as they draw from and influence each other. We give particular focus this year to the influence of ecology and sustainability in the evolution of the academic disciplines in both the humanities and sciences. A “green” concern for the content, theory, and methods in various disciplines has the capacity to transform them. Eco-criticism in literature moves literary theory beyond a focus on postmodern self-referencing to a wider grasp of the human condition in the physical world. Ecological concern in the arts produces environmentally themed works as well as sustainable, non-toxic methods of production. Sustainable methods of research in chemistry transform laboratory science. An ecological focus in the life sciences tends to integrate often separate disciplines and forge a new and dynamic “natural history.” Likewise, ecological concerns, such as population growth, large-scale development, biodiversity conservation and sustainability, have influenced both theory and practice across the social sciences. Growing public awareness of the many challenges to sustaining biodiversity and a high quality of human life on the planet produce “green” outlooks in many formerly “pure” academic disciplines that once eschewed public advocacy or social comment.

Additional ideas for symposia are always welcome but time is of the essence. As soon as possible, potential organizers should submit to the chair of the section in which the symposium will be presented (see list, starting on page 30) a title, brief description of the symposium, and a list of potential speakers and/or titles of presentations. Once approved, the symposium information will be added to the Division’s web site. At this time we are also considering proposals for the 2007 annual meeting.

(2) Sensors and Sensor Technology. Organized by Amy J. Moll (Department of Materials Science and Engineering; e-mail: amoll@boisestate.edu), David Bahr (School of Mechanical and Materials Engineering, Washington State University, Pullman, WA; e-mail: bahr@mme.wsu.edu) and Shalini Prasad (Department of Electrical and Computer Engineering, Portland State University, Portland, OR; e-mail: sprasad@pdx.edu). Symposium chair Panos Photinos (Department of Physics and Engineering, Southern Oregon University, Ashland, OR; e-mail: phaas@sou.edu). This symposium is co-sponsored by the Northwest Region, ACS. This third annual symposium on Materials Science and Nanotechnology emphasizes recent advances in sensors and applications. We solicit contributions from all individuals doing research in these areas, and especially graduate and undergraduate students.

(3) The Chemistry of Advanced Nuclear Systems. Organized by Aurora Clark (Department of Chemistry, Washington State University, Pullman, WA; e-mail: auclark@wsu.edu) and Wibe de Jong (Senior Research Scientist, Pacific Northwest National Laboratory, Richland, WA; e-mail: Wibe.DeJong@pnl.gov). This symposium is co-sponsored by the Northwest Region, ACS. The northwest is a hotbed of research geared towards understanding the fundamental chemistry and behavior of actinide and lanthanide elements as it pertains to the design and implementation of the next generation of nuclear energy systems and environmental remediation. This research area encompasses scientists from both academia and national laboratories, including (but not limited to) Washington State University, the University of Idaho, Pacific Northwest National Laboratory, and Idaho National Laboratory. Given current trends in federal funding, the formation of the Global Nuclear Energy Partnership, and the anticipated construction of several new nuclear reactors in the US, researchers in the northwest are poised to take center stage in what will be a national effort to tackle the major scientific challenges associated with advanced nuclear systems. These include: 1) mastering the chemistry and physics of actinides and actinide-bearing materials, 2) developing multiscale descriptions of material properties in complex materials under potentially extreme conditions, and 3) understanding and designing new molecular systems to gain control of chemical selectivity during processing. The proposed symposium will provide a forum for computational and experimental researchers from these and other institutions to share their progress on these issues, foster collaborative relationships, and address future areas of interest. There will be four umbrella topics, one for each half-day session. These will include: 1) Environmental Actinide Chemistry, 2) Theoretical modeling and simulation of heavy elements and new materials for nuclear systems applications, 3) Separations for spent fuel processing, and 4) fuels and waste forms, including material performance under radiative fields.
(4) Destiny of a Language: On-going Processes and Survival Strategies. Organized by Fred C.C. Peng, Ph.D. Taipei Veteran’s Memorial Hospital, Taipei, Taiwan ; e-mail: ccpeng@vghtpe.gov.tw and pengf001@hawaii.rr.com. This symposium covers the languages of Taiwan prior to and during the twentieth century, and language hegemony and a remedy for survival.

(5) Infectious Disease. Organized by Ken Cornell, Ph.D. (Department of Chemistry and Biochemistry, Boise State University; e-mail: kencornell@boisestate.edu). Two sessions are planned. The first session will focus on presentations by investigators and students involved in research into the identification of new therapeutic targets in infectious diseases and development of new antimicrobial drugs. The second session will center on the presentation of research identifying immune responses to infectious diseases, immune system targets, and new strategies for vaccination against pathogens.

(6) New Strategies for Cancer Treatment. Organized by Henry A. Charlier, Jr. (Department of Chemistry and Biochemistry, Boise State University; e-mail: hcharlie@boisestate.edu).

(7) Environmental Issues in Idaho: Earth, Wind, and Fire. Organized by Sondra Miller (Department of Civil Engineering, Boise State University, Boise, ID; e-mail: sondraller1@boisestate.edu). As the human population continues to grow throughout Idaho, we are faced with the impacts of urbanization on our natural environment. Such impacts include drinking water quantity/quality, fish/game habitat, air quality, and forest fire frequency/magnitude. In this symposium, we will examine these effects on Idaho’s earth, wind, and fire.

(8) Energy Policy in Idaho. Organized by Martin Orr (Department of Sociology, Boise State University, Boise, ID; e-mail: morr@boisestate.edu). Energy security is emerging as one of the core challenges of public policy in the 21st century. In the context of national and international events — conflict with major oil producing nations like Iran and Venezuela, disasters and accidents like Hurricane Katrina and the Alaskan pipeline failure — state and local governments will also have to respond to uncertainties in supplying a growing population. This symposium brings together, from government, industry, academia and the community, those most actively involved in shaping energy policy in Idaho.

(9) Approaches to the Study of Animal Behavior. Organized by Stephen Crowley (Department of Civil Engineering, Boise State University, Boise, ID; e-mail: StephenCrowley@boisestate.edu). Animal behavior is studied from a wide variety of perspectives. It is the subject of work by comparative psychologists, ethologists, ecologists and others within the life sciences. The goal of this symposium is to bring together workers from these different areas in a forum that will allow them to make clear what features of behavior they are trying to make sense of and the experimental and theoretical resources they make use of in explaining those features. Having set out some of these perspectives in the symposium, the aim of the workshop is allow for a discussion of similarities and differences in approach that will have become clear. The goal of this discussion is to generate a clearer understanding for all participants of their own project and, with luck, to provide a forum for initiating interdisciplinary exchange.

(10) Biomedical/Bio-related Materials. Organized by Tomoko Fujiwara (Department of Chemistry and Biochemistry, Boise State University, Boise, ID; e-mail: tomokofujiwara@boisestate.edu). Biomaterials made from synthetic and natural polymers or inorganic materials have wide-ranging applications, including use as tissue engineering scaffolds, drug delivery vehicles, clinical devices, and implant devices. Polymers have been used to generate coatings, films, fibers, hydrogels, microspheres, nanoparticles, and sponges. Their chemical modification has allowed for numerous crosslinking methods and combination with a wide variety of other molecules to create composite biomaterials. This session cuts across multiple biomaterial-related disciplines to provide a forum for researchers to present their recent developments in synthesis, characterization, and application of biomaterials.

(11) One Hundred Fifty Years of Human Activity in Sagebrush Steppe: Ecological and Genetic Consequences. Organized by Marcelo Serpe and Stephen Novak (Department of Biology, Boise State University, Boise, ID; e-mail: mserpe@boisestate.edu and snovak@boisestate.edu). Due to anthropomorphic activities, the sagebrush ecosystem of the Northern Great Basin has experienced significant changes in species composition and vegetation structure. The symposium will focus on analyzing the effects of these changes on the reproduction of native species, the genetic structure of plant populations, and the dispersal of exotic invasive weeds. Practices aimed at restoring sagebrush habitats and preventing further loss of biological diversity will also be discussed.

(12) Corrosion and Coatings Challenges in Industry. Organized by Abdel Salam Handy Makhlouf (Department of Materials Science and Engineering, Micron Engineering Center, Boise State University, Boise, ID; e-mail: Abdelsalam-Hamdy@boisestate.edu). FULL DAY, scheduled for.

Corrosion has a huge economic impact. Studies have recently confirmed that the cost due to corrosion problems amounts to 3 to 4% of the Gross Domestic Product of industrialized countries. Therefore, improving the reliability, efficiency and safety of materials used in plants and infrastructure has become a subject of great interest all over the world. The main objective of this symposium is to present the state-of-the-art for various topics in the field of corrosion and its prevention. Moreover, this symposium will enhance the interaction among the corrosion scientists and engineers from universities, scientific institutes and industry. The scientific and technical areas covered by this symposium are:

- Corrosion in petroleum, chemical, food processing, metallurgical, power, nuclear and building industries.
- Corrosion forms (pitting, crevice, galvanic, stress and fatigue).
CONTRIBUTED PAPERS AND Abstracts

Those wishing to submit papers for presentation at a contributed paper session should refer to the “Call for Abstracts” on page 26 in this Newsletter, or download instructions from the Division’s web site (pacific.aaas.org). If you are unable to submit your abstract on-line, please contact the Pacific Division office at 541-552-6747 or rchristi@sou.edu for instructions. If your abstract contains special characters, please fax a print copy of the abstract to the Pacific Division office, 541-552-8457, with the special characters clearly marked and notations indicating the fonts used.

Do not forget, the deadline for submitting abstracts is April 24, 2007. If an abstract comes in after this date, it may not make it into the program. Also, be aware that the abstract you submit will be published as written. It will not be edited. If it contains errors, they will appear as submitted. Use the spell checker in your word processor. And remember, keep the length of your abstract to no more than 250 words. Use 10-point Times New Roman (or variation) font (no exotic fonts, please!) for your abstract. Lastly, if yours is a student presentation, oral or poster, please state clearly that it is such so that it will be included in the judging competition. And please keep in mind if you are a student who is planning to be judged and you are part of a symposium that meets later Tuesday afternoon or Wednesday, you must present your work as a poster during the poster session on Monday. Otherwise, you will not be eligible for student awards because the judging concludes early Tuesday afternoon and awards are given at the banquet Tuesday evening.

PACIFIC DIVISION SECTIONS ACCEPTING CONTRIBUTED PAPERS FOR PRESENTATION AT THE MEETINGS

Agriculture and Horticultural Science. Section Chair and Program Coordinator: Contact the Pacific Division office for information.

Anthropology and Archaeology. Section Chair and Program Coordinator: Dr. Walter Carl Hartwig, Division of Basic Medical Sciences, Touro University College of Osteopathic Medicine, Mare Island, CA 94592. Phone: 707-638-5238; e-mail: whartwig@touro.edu.

Atmospheric and Oceanographic Sciences. Section Chair and Program Organizer: Dr. Anne A. Sturz, Department of Marine Science and Environmental Studies, University of San Diego, San Diego, CA 92110-2492. Phone: 619-260-4096; e-mail: asturz@sandiego.edu.

Biological Sciences. Section Chair and Program Coordinator: Contact the Pacific Division office for information.

Chemistry. Section Chair and Program Organizer: Dr. Owen M. McDougal, Department of Chemistry and Biochemistry, Boise State University, Boise, ID 83725. Phone: 208-426-3964; e-mail: owenmcdougal@boisestate.edu.

Computer and Information Sciences. Section Chair and Program Organizer: Dr. Alan E. Leviton, Department of Herpetology, California Academy of Sciences, 875 Howard St., San Francisco, CA 94103. Phone: 415-321-8276; e-mail: aleviton@calacademy.org.

Earth Sciences. Section Chair and Program Organizer: Dr. J. Thomas Dutro, Jr., U.S. Geological Survey (E-308), National Museum of Natural History, Washington, DC 20560-0137. Phone: 202-633-1322; e-mail: dutrot@si.edu.

Ecology and Environmental Sciences. Section Chair and Program Organizer: Dr. Michael Parker, Department of Biology, Southern Oregon University, Ashland, OR 97520. Phone: 541-552-6796; e-mail: parker@sou.edu.

Education. Section Chair and Program Organizer: Dr. William B.N. Berry, Department of Earth & Planetary Sciences, 307 McCone Hall, University of California, Berkeley, CA 94720-4767. Phone: 510-642-3925; e-mail: bberry@ucmerced.edu.

Engineering and Industrial Sciences. Section Chair and Program Organizer: Mr. Henry Oman (Boeing Company, ret.), 19221 Normandy Park Drive SW, Seattle, WA 98166. Phone: 206-878-4458; e-mail: homan@ieee.org. Section Co-chair and Program Co-organizer: Dr. Frank Jacobitz, Department of Engineering, University of San Diego, 5998 Alcalá Park, San Diego, CA 92110. Phone: 619-260-7820; e-mail: jacobitz@SanDiego.edu.

Health Sciences. Section Chair and Program Organizer: Dr. Fred C.C. Peng, Department of Neurosurgery and Neurological Institute, Taipei Veterans General Hospital, #201 Shih Pai Road, Section 2, Taipei, Taiwan; e-mail: (please use all three addresses as Dr. Peng travels regularly between Taiwan, Japan and Hawaii) ccpeng@vghtpe.gov.tw, fccp@cronos.ocn.ne.jp and pengf001@hawaii.rr.com.

History and Philosophy of Science. Section Chair and Program Organizer: Dr. Donald McGraw, 824 Southshore Drive, Chula Vista, CA 91913. Phone: 619-216-4650; e-mail: granttree@yahoo.com.

Physics. Section Chair and Program Organizer: Dr. Panos Photinos, Department of Physics, Southern Oregon University, Ashland, OR 97520. Phone: 541-552-6475; e-mail: photinos@sou.edu.

Psychology. Section Chair & Program Organizer: Dr. J. Ken Nishita, California State University, Monterey Bay, 100 Campus Center, Seaside, CA 93955-8001. Phone: 831-582-3563; e-mail: ken_nishita@csumb.edu.

Social, Economic and Political Sciences. Section Chair and Program Organizer: Dr. Mark Aldrich, Department of Economics, Smith College, Northampton, MA 01063. Phone: 413-585-3603; e-mail: maldrich@smith.edu.
and full of the devil. They harassed me unmercifully. They let our 10-foot snake out of its cage. They took the king crab out of the sink and put it onto the floor, where it skittered around knocking over chairs while they howled with laughter. They — well, you get the picture. I don’t think the term ‘classroom management’ had yet been coined, but I surely could have used it. At any rate, we all survived the summer, and I can only hope they learned half as much biology as I did. I had discovered what all teachers know, that you learn much more as a teacher than you ever did as a student.

In my senior year I eloped with my high school sweetheart. Upon graduation, we moved to Cincinnati where I worked in the malaria project at Christ Hospital Institute for Medical Research. I enjoyed the work immensely. My mentor was the Director of the laboratory, Dr. Leon Schmidt, a brilliant man who had graduated from the University of Chicago at age 16. I began each day by taking a drop of blood from the ear of each of our infected Rhesus monkeys. Animal handlers would catch the monkeys for me and hold them while I performed my task. I smeared their blood on a glass slide, fixed and stained the slides, and sat at a microscope to read them. Reading entailed counting the red blood cells and malaria parasites in them, identifying the stage of development of each parasite, and recording the data. I also treated the monkeys with intramuscular injections of anti-malarial drugs as needed, aiming to keep both monkeys and malaria parasites alive.

We raised our own Anopheles mosquitoes at the Institute. Often we dissected the salivary glands from thousands of these tiny mosquitoes to isolate the malaria parasites inside. Of all of my duties, my favorite was operating on Rhesus monkeys. In order to maintain our weakest malaria strain, we needed a steady supply of splenectomized monkeys. I found being a surgeon very satisfying, and perhaps would of, could of, should of gone off to medical school. Except for my inner voices and the traditional expectations of marriage holding me back.

During the cold Cincinnati winter, my lab partner came down with malaria. How extraordinary! At that time, no one believed diseases could jump across species. After checking with public health officials, however, we determined that the only place he could have contracted malaria was in our own facility. Could that be possible? To find out, we shaved the bellies of our Rhesus monkeys at the peak of their infections and fed about a thousand mosquitoes on each one. (Ouch!) Next, we removed the males, one at a time, from the mosquito population by sucking them into a glass tube with a cotton plug at the end. The males don’t ingest blood and so are easily distinguished from the engorged females.

We shipped the fat females overnight to a prison located in another state. Prisoner volunteers allowed themselves to be bitten on the arm by the mosquitoes. The volunteers came down with malaria like clockwork. Blood samples were then taken from them, sent to Cincinnati, and injected into fresh, uninfected monkeys with matching blood types. The monkeys came down with malaria like clockwork. Thus we demonstrated that malaria passes readily between Rhesus monkeys and humans. This is the primary reason why eradication of malaria has been and still is impossible in countries with wild monkey populations. It was exciting to learn that, Even as a lab technician, I could play a key role in making an important scientific discovery. I believe the prisoner volunteers were cured of their malaria and their prison time was shortened in recognition of their contribution to science. (Nonetheless, it seems unlikely that we could repeat this experiment with today’s constraints).

In 1963, twenty families from the Research Institute moved across the country with all of our Rhesus monkeys, to the University of California - Davis. We were to establish the National Primate Center there. I was in the operating room at UCD, leaning over my pregnant belly, splenectomizing the fifth of six monkeys in succession, when I heard over the loudspeaker that President John F. Kennedy had been shot and killed in Dallas. A month later, at age 53, my mother passed away, a victim of cigarettes, emphysema, and chronic lung infections. A month after that, my daughter was born on Thanksgiving Day.

For my daughter’s sake, I left the study of diseases behind (we studied cancer and TB as well as malaria) and moved to the UCD Department of Genetics, where I worked for Dr. Harris Bernstein. I was just in time for the raucous birth of molecular biology. Through the collaborative efforts of scientists all over the world, the 64 triplet codons that are involved in translating DNA to RNA to protein were elucidated. Every few weeks, a new codon would be discovered. There was intense competition among the young molecular biology upstarts. At the same time, frictions erupted everywhere between traditional biologists and these newcomers who thought they knew it all. I learned first-hand that Thomas Kuhn is right about scientific revolutions. Radical new ideas are rarely embraced by old-timers. I also realized that the old-timers’ beliefs about science were not too different from my beliefs about women. In both cases, our belief systems were like molasses, exerting a firm grip and impeding our movement into the future.

The next six years were incredibly hectic. We bought a 3,000 square foot Victorian house that was so dilapidated it had been condemned by the city. We adopted our son, Dore, just ten months younger than our daughter, and so had two babies in diapers – with a washing machine but no dryer and very rainy winters. My husband and I were both working full-time as laboratory technicians. We hired a live-in housekeeper to keep ourselves sane and rode a motorcycle ten miles to work.
to save gas money.

To keep up with the ongoing discoveries in molecular biology, I enrolled in a graduate course every semester. Since I was thriving on these courses, Dr. Bernstein encouraged me to get my Ph.D. It had never occurred to me to go that far. I was fearful. It didn’t seem right for a woman. Yet with a steady stream of encouragement I did it, with great trepidation. I learned that I could actually step across the line in the sand drawn by the nagging voices in my head.

After receiving my Ph.D., it seemed inappropriate to continue working as a lab tech. At the very same time, my husband left his job and opened a motorcycle shop in Davis. Our two comfortable salaries plummeted to zero. What was I to do? I couldn’t jet around the country looking for a position like my fellow graduates, because again, in my mind, I was expected to stay at my husband’s side. It wasn’t just my voices holding me back now. There were many external factors as well – hard-core reality. For the first time in my life, I became aware of sex discrimination. Betty Friedan had published her book six years earlier, but I had been too busy to notice. Now suddenly I could see how different things were for men and for women.

I decided to go to Chancellor Meyer for help. “Look, I said, you folks gave me this Ph.D. Can you help me figure out how to use it? Because if you can’t, I’m going to go sell motorcycles.” Shortly thereafter, I was invited to join the faculty in the UCD Department of Genetics as a Lecturer, to produce a televised genetics course they had been planning. This only emphasizes the familiar line, you’ll never know if you don’t ask.

A month later I found myself Chair of the Task force on the Status of Women at UC-Davis. I had never been on a university committee in my life and now I was chair of one. Wow. I found a way to let the committee grow from six to thirty women. As I learned more and more about the low status of women at all levels in the UC system, I became a raging feminist. This must have been the flip side of my internal voices. When I insisted on driving 50% of the time, the kids would ask, “What’s the matter? Is Daddy sick?”

A friend commented to me that “If you were already free like me, you wouldn’t need a Task Force.” I think I just smiled, but in my heart, I knew she was right. Our feminism issues definitely existed on both sides of our skulls. This was brought home again and again, as when we tried to organize the secretaries. We had some secretaries with Master’s degrees who were making less than some custodians with eighth grade educations. They had a legitimate gripe, but they didn’t want to ‘make waves.’

The Genetics Department and I first produced a series of talking head televised lectures. I knew in my gut this was a deadly approach, but it was their plan, and we did it. When our first disgruntled students marched on the Dean’s office in protest, I was dismayed, delighted and prepared.

My goal was to make the ‘Sesame Street’ of higher education. I submitted a proposal to the Alfred P. Sloan Foundation to develop a video-auto-tutorial method of teaching. My plan was to condense 50-minute lectures into 25-minute TV programs that were visually illustrated throughout. The programs would be played every half hour throughout the day and evening, in small, comfortable TV viewing rooms. Students could see the programs when they wanted and as many times as they wanted. Implementing the plan was an uphill battle all the way. It took me six months, for example, just to persuade the Regents to let me carpet the classrooms – a radical idea at the time. I learned that some innovations can succeed – at least for a while.

After a year as a lecturer, I thought I should become a full-fledged faculty member. My colleagues agreed with me. I was a little surprised, however, when a meeting was called that included the Academic Vice-Chancellor, the Dean of the College of Sciences, the Dean of the Division of Biological Sciences, and my Department Chair. They had drawn up a page delineating my responsibilities and their expectations, and we all signed it. I thought to myself, “What is the big deal?” Little did I know that paper would save my hide a few years down the road, when a couple of pissed-off colleagues tried to torpedo me at tenure time. I learned first-hand that If you take a novel path, you’d better cover your ‘a__’.

The Genetics faculty wrote the audio scripts for the programs and I created each video script. Inventing visual images to represent abstract as well as concrete ideas in genetics was challenging, exciting, and exhausting work, a lot of which I did at three in the morning. Talented student artists implemented my sketches. I produced the video programs and also conducted ongoing formative research on many aspects of the course, especially on student learning and attitudes. This helped us make fine adjustments as we went along.

The video-auto-tutorial method was a success. Students liked the fast-moving programs. They watched each tape two and a half times on average, so while the programs were shorter, students were spending more time listening than they would have in a traditional lecture course. About 7,000 students learned genetics from these videotapes over a period of about five years. It wasn’t quite Sesame Street, but it was definitely proof of concept. That experience laid the groundwork for me to collaborate subsequently with both the BBC and the Science Media Group at the Harvard/Smithsonian Center for
Astrophysics. Each layer of life’s experience lays the groundwork for the next one.

The Sloan Foundation offered to double my budget if I would not only produce TV, but also conduct research on student learning. In this not-so-subtle way, they seduced me into becoming a science education researcher. In collaboration with Stanford Research Institute, I compared introductory genetics learning at three different UC campuses. Alas, we were unable to detect any significant differences in student learning, but we did find large differences in student attitudes. Intense pre-med competition seemed to be quite discouraging. Student morale went down as the proportion of pre-meds went up. This illustrates a not uncommon event in research, that Experiments often produce completely unanticipated findings.

As the lone science education researcher at Davis, I was delighted when I was invited to join the SESAME Graduate Group in Science and Mathematics Education at Berkeley. Being part of the graduate group allowed me to work with graduate students and post-doctoral fellows for the first time in my career. SESAME’s weekly seminar program was worth its weight in gold. We enjoyed top-of-the-line speakers in science education, cognitive science, psychology, linguistics, philosophy, and computer science. I happily drove the seventy miles in each direction for this fare. The seminars were at 4 p.m. each Monday, and afterwards we would dine with the guest speaker, continuing the dialog. I loved these opportunities for learning!

At about the same time, I was appointed UCD’s Founding Director of the Teaching Resources Center, aiming to help graduate students and faculty improve their instructional skills. Five years later in quick succession, my husband and I divorced; I went to University Sains, Malaysia on a Fulbright Scholarship; and then served as Program Officer in the Research in Science Education program at the National Science Foundation. The assignment at NSF opened a window on the latest and greatest science education research, showing that science students across the country were increasingly memorizing the ‘facts’ and forgetting them just as quickly. Researchers were also discovering how students’ naïve conceptions often interfered with science learning. Large lecture classes and simplistic multiple choice testing were sinking American education!

The Director of our Division, Joseph Lipson, and I addressed the memorization issues in an article titled “The Crisis in Science Education,” which garnered a lot of attention. It was read into the Congressional record and excerpted into popular magazines. The NSF administration was incensed, however, because the paper had been given to a Congressional commit-

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Phone: (202) 326-6636 or e-mail: development@aaas.org.
... without ‘going through proper NSF channels.’ Dr. Lipson was summarily fired. Shortly thereafter, Ronald Reagan came to town and closed down the entire NSF Division of Science Education, firing us all. When people don’t like the message, they often shoot the messenger.

Returning to UCD, I teamed up with Joseph Faletti, professor of computer science. He had done his graduate work at Berkeley and was steeped in cognitive as well as computer science. We aimed to make a difference. With a small group of faculty colleagues, dubbed the SemNet Research Group, we designed a learning tool to help students move up the comprehension scale from memorization to meaningful learning. Joshua Callman, a Berkeley graduate student, created a computer-based mock-up of our plan. Joe wrote the first line of SemNet code 20 years ago, on June 28, 1986. SemNet was launched with UCD biology students in 1987. Apple Computer’s Wheels of the Mind contest awarded a third prize for the young SemNet software. Seventeen years after receiving my Ph.D., I finally found the project that would become a central theme in my life.

Then I began suffering from intense daily migraines. All attempts to mitigate them failed and I knew I had to do something. I suspected they would go away once the pressure subsided, so I took a year’s leave of absence to test my theory. Skipper Harris Freihon and I sailed out of San Francisco Bay under the awesome Golden Gate Bridge on his 35-foot sailboat, “Misty Sea.” We visited every port down the coast and fell in love with San Diego. Before heading into Mexico, I applied for a position at San Diego State University. Our SemNet collaborations continued even as Joe moved to the Educational Testing Service in New Jersey and I sailed into the sunset. Misty Sea was packed with long-life milk to keep my bones strong and with my Macintosh Plus computer and SemNet research data to keep my mind engaged. Much to my surprise, migraines continued to plague me daily. With a steady supply of migraine medicine (Cafergot), we nonetheless managed to enjoy a superb year of sailing. As we were beating up the coast, SDSU called me on the ham radio to come for an interview. Joining the Department of Natural Science and the Center for Research in Mathematics and Science Education (CRMSE), I was fully immersed in a wonderful group of science and mathematics education researchers. What a treat!

A liquid protein diet helped Harris and me shed the pounds added by all those churros, and bingo, my headaches disappeared. Imagine that: I was suffering in part from food allergies! With guidance from scientists at Optifast, I identified my sensitivities. This was another unexpected twist, but you could say the trip was successful, if indirectly. A doctor in San Diego told me about the rebound effect Cafergot has on the blood vessels: It clears today’s headache while triggering one tomorrow. With self-discipline at the table and limited use of Cafergot, my headaches were finally under control.

Fiscal woes at SDSU resulted in the dissolution of eleven departments, including Natural Science. Fortunately, I was welcomed into the Biology Department where I have enjoyed more wonderful colleagues and relished being able to teach biology again. When I was asked to take on the role of CRMSE Director, my reticence flared up but was more easily overcome. Having a supportive and encouraging partner helped.

Joe and I regrouped in San Diego and continued working on SemNet. Over the years, the software has been used by hundreds of faculty and teachers and thousands of students, from 3rd grade to post-graduate levels. College students who worked in groups to construct semantic networks about the topics they were studying were able to learn and retrieve significantly more than similar students who didn’t use the software, sometimes by a factor of two. Yet SemNet never became a commercial success, being Mac-based and thus limited to just 4% of the software market. I was getting ready to retire and “put the software to bed.”

Then in 2001, Richard Harrison and Charles Gillespie approached us with a desire to market SemNet. They had the experience, the know-how and the backing to launch a new company, Semantic Research Inc. (SRI). As the twin towers came tumbling down, SRI began its long slow climb upward. The coincidence was timely in that our software is proving especially useful to the intelligence communities, helping them to knit together little fragments of information. With Chip Harrison and Charles Gillespie leading the way, the Semantica software series has been launched. I learned that successful software development is 90% marketing!

In 2006, Harris and I went to my 50th high school reunion in New Jersey. I had not seen or kept in touch with any of my fellow students in fifty years. Yet the first thing many said to me was, “You should have been Valedictorian!” I was stunned. Dealing with the hazy insecurities of my youth, I made decisions that made sense to me, but I never thought about their impact on others. My clever avoidance of a wedding, aiming to spare my family unnecessary expense and hassle, and my avoidance of the Valedictorian honor, were actually hurtful to my family and friends. But it seems that most have eventually forgiven me. And as far as we know, I am the only one among our graduating class of 103 to earn a Ph.D. I’d like to think I now have the wisdom that comes with age, but think I’d just be telling myself more lies; all I can really claim is humility.  "A"
88th Annual Meeting  
co-located with the 62nd Annual Meeting of the Northwest Region,  
American Chemical Society  
Boise, ID  
June 17 – 21, 2007

Last Call for Symposium and Workshop Proposals

Members of AAAS and its affiliated societies, students, teachers and other scientists are encouraged to participate in the annual meeting by developing symposia and/or workshops. Persons wishing to develop a program for the 2007 Boise meeting should e-mail the title, description and other information (see instructions below) to the Pacific Division office, aaaspd@sou.edu.

Symposia may be 1/2- or full-day or longer. Individual presentations are usually scheduled with more time than for contributed papers (30 minutes rather than 20 minutes), but the actual scheduling depends on the needs of the symposium and may be longer or shorter, even a combination of the two. Please contact Dr. Roger Christianson, Pacific Division Executive Director, to discuss your specific needs. When preparing your submission, please indicate which presenters are confirmed or not (see Line 8 below). If you do not yet have a list of presenters, you may submit a list of potential presentation topics. Please keep in mind that we need as much information as early as possible in order to adequately publicize the symposium.

Workshops generally are 1/2- or full-day and may or may not accompany a symposium. If special facilities and/or equipment are required, be sure to identify what you need as completely as possible in your submission (see Line 8 below). If a cost is incurred, it will be passed along to participants as a workshop fee in addition to the ordinary meeting registration fee.

Questions? Contact Dr. Roger Christianson, AAAS, Pacific Division, Southern Oregon University, Ashland, OR 97520. Phone: 541-552-6747; e-mail: rchristi@sou.edu.

Please format your submission as follows:
1: Organizer’s name
2: Organizer’s full mailing address, including academic/professional affiliation, telephone number and e-mail address
3: Co-organizer’s name(s) (if any)
4: Co-organizer’s full mailing address, including academic/professional affiliation, telephone number and e-mail address
5: Is this a Workshop or a Symposium?
6: Number of 1/2-day (roughly three hours, depending on the needs of the program) sessions needed
7: Title of proposed program
8: Brief description of proposed program (please limit to 250 words)
9: If a symposium, list the names of proposed (confirmed?) speakers, including academic/professional affiliation, telephone number, and e-mail address for each. Presentation titles are optional at this time and will be requested later, along with an abstract for each presentation.
   If a workshop, indicate facilities and/or special equipment required and number of participants that can be accommodated.

phone: 541-552-6869 • e-mail: aaaspd@sou.edu • web: http://pacific.aaas.org
88th Annual Meeting of the AAAS, Pacific Division
co-located with the 62nd Annual Meeting of the Northwest Region,
American Chemical Society
Boise, ID
June 17 – 21, 2007

Call for Papers and Abstracts

Members of AAAS and its affiliated societies, students, teachers and other scientists are encouraged to participate in the annual meeting by presenting papers and/or posters. Persons wishing to present at one of the sessions should submit their abstracts on-line, not by e-mail as in past years, no later than April 24, 2007. This service is being provided complimentary to the Pacific Division this year by the American Chemical Society as part of our co-located meeting.

In addition to the various symposia, abstracts are being accepted for the following sections:

- Agriculture and Horticultural Sciences
- Anthropology and Archaeology
- Atmospheric and Oceanographic Sciences
- Biological Sciences
- Chemistry Section
- Computer and Information Sciences Section
- Earth Sciences Section
- Ecology and Environmental Science Section
- Education Section
- Engineering and Industrial Sciences Section
- General and Interdisciplinary Section
- Health Sciences Section
- History and Philosophy of Science Section
- Physics Section
- Psychology Section
- Social, Economic and Political Sciences Section

Names and contact information for section chairs and program organizers, should you have questions or need additional information, may be found starting on page 20 of this Newsletter.

Submit an abstract by
1) going to this web page: http://acs.confex.com/acs/norm07/cfp.cgi. Note that this web site is sponsored by the American Chemical Society. Thus, you will find links for both co-located meetings. Be sure to click on the appropriate links! At the top of the page you will find links to both meeting home pages and also links to lists of program organizers for both meetings. About a quarter of the way down the page you will find links for submitting abstracts, NORM first and AAASPD second.
2) Click on the AAASPD abstract submission link.
3) Follow the directions and prompts. Be sure to write down the ID number and Password that your abstract is assigned. You will need these in order to access your abstract at a later time to update or correct it. It is suggested that you prepare the abstract in advance in a word processor, run the spell check, etc., and then paste it into the appropriate box on the abstract submission web page. Alternatively, you can enter all of the information directly into the boxes on the web pages.
4) Special symbols can be added to your abstract following the procedures on the “How to insert a special character” link. If using special symbols, please fax a copy of your abstract to the Pacific Division office (541-552-8457) with the special character(s) clearly marked and notations indicating font used (nothing exotic!). Note that all text will be converted to Times New Roman (Macintosh).
5) The Pacific Division does not accept images for publication with abstracts.

Having problems with the system? Please contact Dr. Roger Christianson at 541-552-6747 or rchristi@sou.edu.
**ADVANCE REGISTRATION FORM**

FOR EARLY REGISTRATION, FIELD TRIPS, and OTHER SPECIAL EVENTS

*Note: Send this form directly to*

AAAS, Pacific Division • Department of Biology • Southern Oregon University • Ashland, OR 97520

Please PRINT or TYPE this form. If faxing, use black ink.

Name: ___________________________________________ Date: __________________________

Mailing Address: ______________________________________________________________________________

City, State, Zip: ________________________________________________________________________________

E-mail: ___________________________________________ Day Phone: ______________________________

Institution/Company, (for your name tag – if none, city & state will be used): __________________________

AAAS member: ☐ Yes ☐ No  Affiliated Society Membership: __________________________

Do you plan to present a paper or poster? ☐ Yes ☐ No

If so, in which program? ________________________________________________________________________

**REGISTRATION FEES:** Check all that apply.

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**One-day**

- Professional: ☐ $55 ☐ $75  ☐ Select day: ☐ Mon. ☐ Tues. ☐ Wed.

**Program Planners and Presenters**

- abstract ID number: __________________

- ☐ $55 ☐ $75

**Workshop** (only if not registering for one-day or full meeting)

- Bio-Rad (Wed/Thurs): ☐ $10

**Field Trip** (only for those going on one or more field trips but not registering for the meeting)

- ☐ $10

**DIVISION BANQUET** (June 19, Tuesday): The Division banquet will be held on the Boise State University campus. The program will include the presentation of Student Awards of Excellence and the Presidential Address. Tickets must be purchased in advance. Students who are registered for the meetings and who have presented an oral or poster paper are invited to be guests of the Division and do not have to pay to attend (see below). Please refer to page 13, SPECIAL EVENTS, for descriptions of entrees.

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**SEE REVERSE FOR FIELD TRIPS, WORKSHOPS and SUMMARY**
FIELD TRIPS: All trips are priced per person unless otherwise noted. See pages 14 – 16 of this Newsletter for details.

Field trip registration fee for non-registrants (once per person)   ___ reg. @ $ 10.00 $ __________________

Sunday
Field Trip #1:  Bruneau Sand Dunes   ___ tickets @ $ 40.00 $ __________________
Field Trip #2:  Snake River Birds of Prey   ___ tickets @ $ 35.00 $ __________________
Field Trip #3:  River Walk   ___ tickets @ $ no charge $ __________________

Wednesday
Field Trip #4:  Western Society of Soil Science   ___ tickets @ $ 30.00 $ __________________
Field Trip #5:  Boise Hydrogeophysical Research Site   ___ tickets @ $ 20.00 $ __________________

Thursday
Field Trip #6:  Craters of the Moon (3 days)   ___ tickets @ $250.00 each, dbl $ __________________
   ___ tickets @ $375.00 sngl $ __________________

Please note: Requests for refunds must be in writing and postmarked or date stamped no later than May 23, 2007. A $10 handling fee will be applied. An additional 3.25% surcharge will be applied to the total amount for credit card refunds.

Registration $ __________________
Workshops $ __________________
Banquet Tickets $ __________________
Field Trips $ __________________
TOTAL ENCLOSED $ __________________

(Make checks payable to AAAS, Pacific Division or use your credit card—see below.)

Preregistration for the Bio-Rad workshop is essential. Please check the box below if you intend to attend it. No additional cost for those who register for one-day or full meeting.

☐ Bio-Rad Molecular Biology

To help us estimate the numbers of people planning to participate in one or both of the events listed below, please indicate the number of people in your party that plan to attend each:

☐ Cracker Barrel Mixer (Sunday evening, no charge to registrants and family)
☐ Presidential Reception (Monday evening, no charge to registrants and family)

CREDIT CARDS
To pay for your advance registration by credit card, you may
• mail this completed form to the address below, or
• phone the information to 541-552-6869 between about 10:00 a.m. and 2:00 p.m. Pacific Time, or
• fax this completed form to 541-552-8457 (dedicated fax line into the Pacific Division office).

Type of Card: ☐ Visa ☐ Master Card ☐ Discover ☐ AmEx
Credit Card # ____________________________ Expiration Date __________________
Name on Card ________________________________________________________________________________
Complete Billing Address for Card ________________________________________________________________________________
Signature of Cardholder ____________________________________________ Date __________________

COMPLETE AND RETURN THIS FORM WITH YOUR PAYMENT TO:
AAAS, Pacific Division • Department of Biology • Southern Oregon University • Ashland, OR 97520
Should you have questions, e-mail us at aaaspd@sou.edu or call 541-552-6869 M - F 10:00 a.m. to 2:00 p.m., Pacific Time.
AAAS Annual Meeting
15–19 February 2007 – San Francisco

www.aaasmeeting.org
Visit the Web site for updates, registration details, and your personal itinerary planner.
Choose-your-price Book Sale*

1 for $10 • 2 for $9 ea. • 3 for $8 ea.

wow!!!

4 or more for $7 ea. wow!!!

*Sale Excludes BIODIVERSITY • MUSEUMS • PROCEEDINGS
Includes free domestic shipping (U.S.A. only)
With this form only. Sale ends April 1, 2007.

Please PRINT or TYPE this form. Use extra sheet of paper if necessary. If faxing, use black ink.

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<th>Quantity*</th>
<th>Title</th>
<th>Price Each</th>
<th>Total</th>
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<tr>
<td></td>
<td>Biodiversity and Taxonomy (2005; paper, 236 pp.); $35.00 (ISBN 0940228-62-9)</td>
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<tr>
<td></td>
<td>Museums and Other Institutions of Natural History: Past, Present, and Future (2004; paper, 325 pp.); $35.00 (ISBN 0-940228-60-2)</td>
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<td></td>
<td>San Francisco Bay: The Ecosystem (1996; cloth, 542 pp., color plates); $45.00 (ISBN 0-934394-11-3)</td>
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<td></td>
<td>Cracking Rocks and Defending Democracy: The Life and Times of Kirtley Fletcher Mather, 1888-1978 (1994; cloth, 342 pp., 39 photos); $31.95 (ISBN 0-934394-09-1)</td>
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<td>Crater Lake: An Ecosystem Study (1990; cloth 224 pp.); $26.95 (ISBN 0-934394-07-5)</td>
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Proceedings Series

| Meeting Program with Abstracts (Proceedings Vol. 1, Part 1, 1982 through Vol. 24, Part 1, 2005); $10.00 each |
| Evolutionists Confront Creationists (Proceedings Vol. 1, Part 3, 1984; paper, 213 pp.); $10.00 |
| California’s Master Plan for Higher Education in the Twenty-first Century (Proceedings, Vol 13, Part 2, 1996; paper, 118 pp.); $10.00 |

Address orders to: AAAS, Pacific Division • Department of Biology • Southern Oregon University • Ashland, OR 97520
Phone: 541-552-6869 • dedicated FAX: 541-552-8457 • E-mail: aaaspd@sou.edu

*ALL SALES FINAL — NO RETURNS*

Payment must accompany all orders. Make checks payable to AAAS, Pacific Division.

| SHIPING (no charge to U.S.A.; others contact us for amount) |
| TOTAL DUE WITH ORDER |

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City ____________________________ State ____________ Zip ____________________________ e-mail ____________________________

Daytime Phone ____________________________

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Credit Card # ____________________________ Expiration Date ____________

Name on Card ____________________________ Signature of Cardholder ____________________________

Complete Billing Address for Card ____________________________________________________________________________

E-mail us: aaaspd@sou.edu
Maps: Top left, city of Boise. The upper pink oval shows the approximate location of the Boise Center. The lower oval shows the approximate location of the Boise State University campus. Top right, downtown Boise. The light purple oval overlays the Boise Center. Parking garages are indicated by the three colored blocks above and below the Center. On-street parking is also available. Bottom, Boise State University. The upper yellow oval shows the location of the Sciences and Nursing Building, site of the Bio-Rad workshops. The bright yellow structure to the left is a parking garage. The lower yellow oval overlays the Student Union, location of the Division Banquet.
AAAS, PACIFIC DIVISION 88th Annual Meeting  
BOISE CENTER on the GROVE  
Boise, ID  
June 17 – 21, 2007  
PRELIMINARY ANNOUNCEMENT of SYMPOSIA,  
FIELD TRIPS and OTHER EVENTS

SYMPOSIA  
(see page 17)  
• Greening of the Disciplines: New Humanities and Science Convergences III  
• Sensors and Sensor Technology*  
• Biomedical/Bio-related Materials  
• Chemistry of Advanced Nuclear Systems*  
• Corrosion and Coatings Challenges in Industry  
• One Hundred Fifty Years of Human Activity in Sagebrush Steppe: Ecological and Genetic Consequences  
• Environmental Issues in Idaho: Earth, Wind, and Fire  
• Energy Policy in Idaho  
• Infectious Diseases  
• New Strategies for Cancer Treatment  
• Approaches to the Study of Animal Behavior  
• Destiny of a Language: On-going Processes and Survival Strategies  

FIELD TRIPS  
(see page 14)  
• Bruneau Sand Dunes (Sunday)  
• Snake River Birds of Prey National Conservation Area (Sunday)  
• Boise River Walk (Sunday)  
• Boise Hydrogeophysical Research Site (Wednesday)  
• Western Society of Soil Science (Wednesday)  
• Craters of the Moon, Volcanoes, and the Traveling Hot Spot (Thursday – Saturday)

WORKSHOPS  
(see page 16)  
• Selection of molecular biology workshops being offered by Bio-Rad Corporation. (Wednesday and Thursday)  
• Methodological Issues in the Study of Animal Behavior

NOTE: These programs are being planned as of December, 2006. However, changes in offerings frequently occur. For up-to-date information, please visit the Pacific Division web site, pacific.aaas.org

MARK YOUR CALENDAR!  
2008 Pacific Division Annual Meeting: WAIMEA, HAWAI’I

American Association for the Advancement of Science, Pacific Division  
Department of Biology  
Southern Oregon University  
1250 Siskiyou Boulevard  
Ashland, OR 97520

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