

Plant Biology '99—Celebrating ASPP's 75th Anniversary!

The American Society of Plant Physiologists is proud to celebrate its 75th anniversary and has planned many special events to commemorate the occasion. Here are a few of the reasons to join us in Baltimore July 24–28!

Special President's Symposium: Global Issues in Plant Biology

One of the major highlights of Plant Biology '99 will be the President's Symposium scheduled for Wednesday, July 28, from 2:00 p.m. to 5:00 p.m. This special 75th anniversary symposium was conceived of several years ago by ASPP president Brian Larkins. It will focus on the global issues that face plant scientists as we enter the 21st century. Featured will be three scientists whose interests and experience affect different issues.

Dr. Lester Brown is president of the Worldwatch Institute, which monitors the state of agriculture and the environment throughout the world. In addition to its annual publications *State of the World* and *Vital Signs*, Worldwatch publishes a number of publications dealing with health and safety. Dr. Brown is also the author of a provocative book entitled *Who Will Feed China?* that clearly describes the challenges facing world agriculture in the coming decade.

Dr. Peter Raven is the director of the Missouri Botanical Garden, and his scientific interests center on population biology, evolution, and ecology.

Dr. Robert Fraley is president of Cenergen, a division of Monsanto and a leader in plant biotechnology applications in agriculture. Monsanto has played a leading role in the development of the first transgenic crops and is aggressively exploring the application of genetic engineering to agricultural production.

The perspectives of these individuals will help frame the state of the world and the challenges we face, as well as the options and opportunities afforded us.

Online Abstracts, Schedule, and Program

The electronic submission of abstracts has once again made it possible for the abstracts and program schedule to be available in a fully searchable format and printable in PDF through ASPP's Web page several months before the meeting. And, for those attending the meeting, a more complete and cohesive abstract supplement and printed program will be distributed.

Dynamic Meeting Format—Includes Afternoon & Evening Poster Sessions

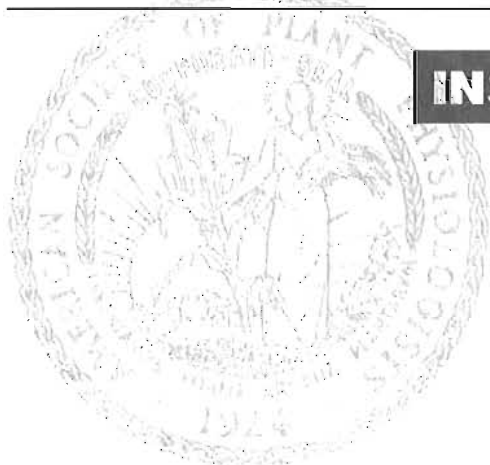
The format for Plant Biology '99 is modeled after the more dynamic meeting schedule that debuted last year and will feature 23 minisymposia. These minisymposia were selected by the Program Committee from among the submitted abstracts, suggestions from the membership, and hot topics. In addition, the poster sessions will feature more than 1,000 posters on display for four full days and two evening sessions. And of course our program will again be highlighted by five major symposia: Auxin Biology, Cell Cycle Regulation, Functional Plant Genomics, Biochemical Genetics, and the President's Symposium: Global Issues in Plant Biology.

Minisymposia Lineup

Sunday, July 25, 2:00–4:00 p.m.
Signal Perception and Transduction I
Cell Development
Membrane Transport

Sunday, July 25, 4:30–6:00 p.m.
Cell Walls
Abiotic Stress—Phosphorus
Resource Allocation

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Future ASPP Annual Meetings

1999

Saturday, July 24, through
Wednesday, July 28
Baltimore, Maryland
ASPP's 75th anniversary
meeting

2000

Saturday, July 15, through
Wednesday, July 19
San Diego, California

2001

Saturday, July 28, through
Wednesday, August 1
Providence, Rhode Island



ASPP NEWS

ASPP NEWS is distributed to all ASPP members and is published six times annually, in odd-numbered months. It is edited and prepared by ASPP staff from material provided by ASPP members and other interested parties.

Copy deadline is the 10th day of the preceding even-numbered month (for example, December 10 for January/February publication). Submit copy by e-mail whenever possible; submit all other copy by mail, **not by fax**.

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Monday, July 26, 2:00–4:00 p.m.

Plastid Development
Remediation
Plant–Insect Interactions

Monday, July 26, 4:30–6:00 p.m.

Enhancing Ethnic Diversity in the
Plant Sciences
Signal Perception and Transduction II
Lipids in Cell Biology

Tuesday, July 27, 2:00–4:00 p.m.

Abiotic Stress—Drought
Plant–Pathogen Interaction
Regulation of Gene Expression

Tuesday, July 27, 4:30–6:00 p.m.

Clocks
What Does Research Tell Us About Learning?
Polysaccharides

Wednesday, July 28, 8:30–10:00 a.m.

Cytoskeleton
Plant Research Benefiting Human Health
Kinases and Phosphatases

Wednesday, July 28, 10:30–12:00 noon

Organelle Biogenesis
Reproductive Biology

Variety of Workshops

Plant Biology '99 will also feature workshops in several strategic areas. The Committee on Public Affairs will sponsor a workshop on Saturday, July 24, from 6:00 p.m. to 7:00 p.m. entitled "Perspectives of Science Leaders." This session will feature the distinguished Dr. Rita Colwell, National Science Foundation director.

A special Careers Workshop targeted to postdoctoral associates and graduate students will take place on Monday, July 26, from 6:00 p.m. to 10:00 p.m. This workshop is being organized by the Committee on the Status of Women in Plant Physiology. It will feature brief introductions by speakers with Ph.D.s in plant biology who have chosen career paths that have diverged from the research university track. The speakers are expected to include representatives from industry, government, publishing, patent law, finance, and other fields. Workshop attendees will break up into small groups and have the opportunity to rotate among the speakers for small-group question-and-answer roundtable sessions. Only a limited number of slots are available for this workshop, so be sure to sign up early.

The Education Workshop will be held Wednesday, July 28, from 10:30 a.m. to 12:00 noon. Sponsored by the ASPP Education

Committee, the workshop will look at present and future uses of the Internet in undergraduate education. A live Internet connection will be used for the presentations. The use and utility of the Bionet Plants Education newsgroup will be demonstrated as a tool for obtaining assistance from other plant educators. The use of World Wide Web resources in teaching lecture and laboratory courses will also be covered. Several gateways to useful resources for plant biology education will be identified. Finally, the future of course delivery will be explored with a demonstration of a commercial software package that provides a user-friendly environment, including content delivery, announcements, online quizzes, automatic scoring and cumulative grading, threaded discussion groups, chat rooms, drop boxes for written assignments, and internal capability for student e-mail accounts and Web pages.

The ASPP Education Committee is sponsoring a K–12 Teachers Workshop on Saturday, July 24, from 1:00 p.m. to 5:00 p.m. For more details contact Jim Saunders at 301-504-7477.

Featured Luncheons and Speakers

Plant Biology '99 will feature two luncheon programs. On Sunday, July 25, from 12:00 noon to 2:00 p.m., the Committee on Minority Affairs will sponsor a luncheon featuring Dr. Terry Medley, director of regulatory affairs at DuPont. Dr. Medley was formerly the chief administrator of USDA/APHIS (Animal and Plant Health Inspection Service). He was the highest ranking African American in the USDA and headed the 8,000-person APHIS. He has a doctorate in law, as well as an in-depth understanding of biotechnology and was primarily responsible for developing the regulatory framework at USDA.

The Committee on the Status of Women in Plant Physiology will sponsor a luncheon on Monday, July 26, from 12:00 noon to 2:00 p.m. featuring Eileen Dowse of Human Dynamics, Inc., in Research Triangle Park, North Carolina. Ms. Dowse will speak on "Communicating to Overcome Resistance and Increase Success." Having the aptitude to communicate effectively is paramount in any relationship. Outstanding leaders succeed by developing effective communication styles. They are committed to improving relationships by openly and honestly discussing and resolving issues. This program is designed for understanding the past, working in the present, and orienting yourself to the future.

Space will be limited for both luncheons, so we suggest that you purchase your tickets with your meeting registration.

New Time and Spotlight for Awards Symposium and Ceremony

The ASPP Awards Symposium and Ceremony will be highlighted as the opening event on Saturday, July 24, beginning at 2:00 p.m. Dr. Hans Kende will give the ASPP Hales Prize address, "A Wondrous Journey Through Hormoneland."

Anniversary Dinner

A special dinner will be held Sunday night, July 25, to celebrate the achievements of ASPP over the past 75 years and recognize the contributions of former officers and award winners. Former presidents Jim Siedow and Harry Beevers will serve as masters of ceremonies during a short program to reminisce on the fun and excitement ASPP has experienced over its 75-year history. Plan to join your friends and colleagues and help make this a very memorable occasion. Tickets are very limited for this event.

Baltimore Orioles Game

Unwind and relax Wednesday evening, July 28, after a fast-paced meeting by enjoying a major league baseball game between the Baltimore Orioles and Texas Rangers. Join your colleagues in the ambiance of Orioles Park at Camden Yards. The stadium is just a few minutes' walk from the Baltimore Inner Harbor hotels. A limited number of reserved-seat tickets are available in a block specially reserved for Plant Biology '99 attendees.

ASPP Educational Pedigree Family Tree

In celebration of ASPP's 75th anniversary, discover your "roots" and trace your "branches" on the ASPP Educational Pedigree Family Tree. The tree will be on display during the meeting at the Baltimore Convention Center.

Subsidized Childcare

ASPP will provide up to a \$200 subsidy per child for childcare or babysitting services at Plant Biology '99. Parents should make their own arrangements and then provide receipts to the ASPP registration desk at the meeting. Reimbursements will be processed at ASPP headquarters immediately after the meeting. Please check the registration package or ASPP's Web page (<http://aspp.org>) for more details.

Job Fair

On-site interviews and job information opportunities will be available with Pioneer Hi-Bred, Novartis, and other corporations throughout the meeting. Be sure to bring copies of your C.V.

Exhibits and Product Presentations

An interesting array of exhibitors will be presenting their products and services to all attendees in the exhibit hall with the posters. Exhibit hours will be Sunday, July 25, from 2:00 p.m. to 9:00 p.m.; Monday, July 26, from 10:00 a.m. to 5:00 p.m.; and Tuesday, July 27, from 10:00 a.m. to 5:00 p.m. Several vendors will conduct special product presentations and demonstrations during the evening poster sessions on Sunday, July 25, and Monday, July 26.

Special Functions

Other functions not to be missed include the Small Colleges/Primarily Undergraduate Institutions Breakfast, scheduled for Sunday morning, July 25; the "Plant Runners Stamped" 5k and 10k Fun Run, scheduled for Tuesday morning, July 26, in Baltimore's Inner Harbor area; and the Chesapeake Bay Crab & Chicken Feast with live music for dancing at the Baltimore Museum of Industry, scheduled for Tuesday evening, July 27.

Registration, Housing, and Information

Watch your mail for the Plant Biology '99 registration package. It contains hotel/housing forms as well as registration forms and information. This information and other program details on the special 75th anniversary events and general Baltimore visitor information can also be found on the ASPP Web site at <http://aspp.org>.

Don't miss this landmark meeting and opportunity to celebrate the growth and depth of plant physiology. Baltimore and the Inner Harbor area will be a truly exciting meeting venue in July, so make your hotel and travel reservations as soon as possible.

The Program Committee would like to thank all of the Plant Biology '99 attendees for their participation. We look forward to an intensive week of science . . . and fun!

Plant Biology '99 Program Committee

Dan Bush, Debby Delmer, Roger Hangarter, Rich Jorgensen, Brian Larkins, Don Ort, Mike Salvucci, Danny Schnell
Staff: John Lisack, Jr., Susan Chambers

Stay involved in your Society!
Attend the Annual Business Meeting
Tuesday, July 27, 1999
6:00 p.m. to 7:00 p.m.
Baltimore Convention Center
Room 318

New ASPP Brochure Highlights Principles of Plant Biology

ASPP and the ASPP Education Foundation have produced a new brochure entitled *Principles of Plant Biology: Concepts for Science Education*. This brochure features the 12 principles of plant biology developed by ASPP to provide basic plant biology concepts for science education for school children.

Education Committee chair John Markwell and committee member Carol Reiss developed the brochure. It lists the 12 principles and suggestions for the integration of the principles into the science education standards of the National Research Council. These standards, the "Life Science Standards," may be found on the Internet at <http://www.nap.edu/readingroom/books/nses/html/contents.html>.

The principles were first proposed by the Education Foundation Board. The Education

Committee, Publications Committee, and the Committee on Public Affairs further developed them. They have been used in contact with decision makers for evolving state science standards, with national education meetings and associations, and with many educational workshops.

Principles of Plant Biology: Concepts for Science Education was distributed at the March 1999 convention of the National Science Teachers Association in Boston. It is suitable for outreach efforts to teachers, students, and organizations to enhance elementary, middle, high school, and undergraduate science education programs.

For complimentary copies of the brochure, send an e-mail message to the ASPP Education Foundation at asppel@aspp.org.

Principles of Plant Biology Concepts for Science Education

1. Plants contain the same biological processes and biochemistry as microbes and animals. However, plants are unique in that they have the ability to use energy from sunlight along with other chemical elements for growth. This process of photosynthesis provides the world's supply of food and energy.
2. Plants require certain inorganic elements for growth and play an essential role in the circulation of these nutrients within the biosphere.
3. Land plants evolved from ocean-dwelling, algal-like ancestors, and plants have played a role in the evolution of life, including the addition of oxygen and ozone to the atmosphere.
4. Reproduction in flowering plants takes place sexually, resulting in the production of a seed. Reproduction can also occur via asexual propagation.
5. Plants, like animals and many microbes, respire and utilize energy to grow and reproduce.
6. Cell walls provide structural support for the plant and also provide fibers and building materials for humans, insects, birds, and many organisms.
7. Plants exhibit diversity in size and shape ranging from single cells to gigantic trees.
8. Plants are a primary source of fiber, medicines, and countless other important products in everyday use.
9. Plants, like animals, are subject to injury and death due to infectious diseases caused by microorganisms. Plants have unique ways to defend themselves against pests and diseases.
10. Water is the major molecule present in plant cells and organs. In addition to an essential role in plant structure, development, and growth, water can be important for the internal circulation of organic molecules and salts.
11. Plant growth and development is under the control of hormones and can be affected by external signals such as light, gravity, touch, or environmental stresses.
12. Plants live and adapt to a wide variety of environments. Plants provide diverse habitats for birds, beneficial insects, and other wildlife in ecosystems.

THREE ASPP MEMBERS ELECTED TO ACADEMY

On April 27, the National Academy of Sciences announced the election of 60 new members and 15 foreign associates from 10 countries in recognition of their distinguished and continuing achievements in original research. This honor was bestowed on three ASPP members: Joanne Chory, of The Salk Institute in San Diego, Enid MacRobbie, of Cambridge University and a corresponding member of the Society, and Yasuyuki Yamada, of the Nara Institute of Science and Technology in Nara, Japan.

Joanne Chory

Joanne Chory is an associate editor of *Plant Physiology* and professor of plant biology at The Salk Institute for Biological Studies, San Diego, California.

Since joining the Salk Institute in 1988, Chory has isolated and studied several genes that respond to light and contribute to the cascade of molecular signals that turn plants green. Her work could one day result in a bumper crop of faster-growing and larger plants for the marketplace.

Among other things, Chory has been studying signal transduction in plants, or how signals are transmitted along a chain that ultimately results in the switching on of dormant genes. In one pursuit, she focused on a family of genes known as DET that is involved in a plant's responses to red light. Work in her lab revealed that a member of the genetic family, DET2, acted as a genetic switch that controls the production of a plant steroid called brassinolide. Further studies showed that this steroid was necessary for plants to reach their normal

size, whereas an excess of the steroid created even larger plants.

Born and raised in Massachusetts, Chory did her undergraduate work at Oberlin College in Ohio, where she received a bachelor's degree in biology with honors. She moved to the University of Illinois for graduate studies in microbiology, turning her attention to bacterial genetics.

Armed with a doctoral degree, Chory returned in 1984 to Massachusetts and postdoctoral studies at Harvard Medical School. There she delved into the genetics of plants and a scruffy green weed that was of little interest to anyone else, a mustard plant formally known as *Arabidopsis thaliana*. With only five pairs of chromosomes, it housed the smallest genome of any known plant. It wasn't long before other molecular geneticists around the world learned what Chory and a few others had discovered—that many of the secrets held by plants could be more easily revealed by studying *Arabidopsis*. The little mustard plant is now a standard model organism in plant biology.

In 1994, Chory received one of the nation's most prestigious science awards: the Award for Initiatives in Research of the National Academy of Sciences. As well as belonging to ASPP, she is also a member of the Genetics Society of America and a fellow of the American Academy of Arts and Sciences.

Enid A. C. MacRobbie

Dr. Enid A. C. MacRobbie is professor of Plant Biophysics, Department of Plant Sciences, University of Cambridge, United Kingdom. She earned her B.Sc. with 1st

class honours in physics at the University of Edinburgh, her Ph.D. in Biophysics at the University of Edinburgh (supervisor: Dr. J. Dainty), and her Sc.D at the University of Cambridge. In 1991, she was elected a fellow of the Royal Society. Within the Botany School (later the Department of Plant Sciences) at the University of Cambridge, she has been university demonstrator, lecturer, reader in plant biophysics, and professor of plant biophysics.

Dr. MacRobbie's research has been concerned with ion transport in plant cells and tissues and falls into two parts. In the first part she worked on basic processes of ion transport using giant Characean algal cells as convenient experimental material. One of her main interests was in the mechanism and control of vacuolar salt accumulation, which led her to switch experimental material to stomatal guard cells, cells in which vacuolar salt levels change dramatically, cycling between very high levels in the guard cells of open stomates and low levels in the guard cells of closed stomates, either in the normal diurnal cycle or in response to environmental signals.

The second part, the guard cell work, has occupied the past 20 years and has been concerned both with the nature and mechanism of regulation of ion transport processes in guard cells and with the signaling chains by which environmental signals are transduced to changes in specific ion transport activities at both plasmalemma and tonoplast.

Her current work is centered on establishing the signal transduction mechanisms by which stomatal closure is induced by the

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Joanne Chory



Enid A. C. MacRobbie



Yasuyuki Yamada

drought hormone, abscisic acid, and in particular the mechanisms by which ion release across the tonoplast is triggered. The overall aim is to contribute to the identification of the signaling intermediates, second messengers, and target processes involved in each of the identified changes in ion channel activity that follow application of abscisic acid and lead to reduction in guard cell turgor and stomatal closure.

Her personal research effort has used tracers to investigate ion fluxes, both in guard cells and earlier in giant algal cells, but her research group has also used electrophysiological methods (patch clamping and whole cell impalement) and biochemical techniques in the study of guard cell signaling. Most of her group's research has been concerned with giant algal cells and with stomatal guard cells, but earlier they also worked on a wider range of physiological processes concerned with transport in plant cells and tissues. These include studies of mechanisms of salt tolerance in halophytes, excretion of salt by halophytic salt glands, translocation in phloem, cytoplasmic streaming, study of plant ion channels in planar lipid bilayers, biochemical studies on phosphoinositide signaling pathways in guard cells, and studies on action potentials in Characean cells.

Dr. MacRobbie has taught plant physiology and cell biology in a wide range of courses. Some of this material has covered cell membranes and a variety of transport processes in plants, and she has also taught courses on cell structure, photosynthesis, bioenergetics, and metabolic processes in plants.

Dr. MacRobbie has found teaching a stimulating and helpful adjunct to research work, each activity of benefit to the other. She believes she has been extremely lucky over the years in the graduate students and postdoctoral students who have worked in her group and contributed to its research output.

Yasuyuki Yamada

Yasuyuki Yamada received his doctorate from Kyoto University in 1963. From 1962 to 1965 he was a Fulbright Research Fellow at Michigan State University. He returned to Japan in 1967 as associate professor of agricultural chemistry at Kyoto University. In 1982 he became professor, and in 1984 director of the Research Center for Cell and Tissue Culture, Kyoto University.

Dr. Yamada has made major contributions to three areas of plant science. He was a pioneer in regenerating rice plants from cultured cells and protoplasts. Using an improved electrofusion method, he produced

hybrid rice plants through asymmetric fusion of protoplasts of cytoplasmic male sterile and fertile rice plants.

He has also studied the photoautotrophic culture of plant cells, leading to new cell lines and mutants central to characterizing the nature and composition of chloroplast-nucleoids.

His third and major area has been exploration of the concept that cultured plant cells are heterogeneous with respect to genetic potential. He succeeded in selecting cells with special functions unique to plants and established an experimental system for the large-scale production of such cells. This system enabled him to study the functional expression of secondary metabolism in higher plants and to clarify how the biosynthesis of secondary metabolites is regulated (that is, isoquinoline alkaloids and tropane alkaloids)—a very difficult if not near impossible undertaking using plants themselves or plant-derived noncellular systems.

Dr. Yamada has received many awards and honors, among them the Academy Prize of the Japan Academy of Sciences (1991) and election as a foreign member to the Swedish Royal Society of Sciences/Uppsala (1994) and as a member to the Japan Academy of Sciences (1995). In 1994, he became professor of the Graduate School of Biological Sciences, the Nara Institute of Science and Technology, which was newly founded as the National Graduate School University in 1991. He was elected president of the university in 1997.

* * *

The election was held during the business session of the 136th annual meeting of the Academy. Election to membership in the Academy is considered one of the highest honors that can be accorded a U.S. scientist or engineer. Those elected at this meeting bring the total number of active members to 1,825. Foreign associates are nonvoting members of the Academy with citizenship outside the United States. This election brings the total number of foreign associates to 313.

The National Academy of Sciences is a private organization of scientists and engineers dedicated to the furtherance of science and its use for the general welfare. The Academy was established in 1863 by a congressional act of incorporation, signed by Abraham Lincoln, that calls on the Academy to act as an official adviser to the federal government, upon request, in any matter of science or technology.

Newly elected members and their affiliations at the time of election

ANDERSON, JOHN R.; professor of psychology and Walter Van Dyke Bingham Professor

of Cognitive Science, Carnegie Mellon University, Pittsburgh
ASKEY, RICHARD A.; Gabor Szego Professor of Mathematics, University of Wisconsin, Madison

AUSTIN, ROBERT H.; professor of physics, Princeton University, Princeton, N.J.

BABIOR, BERNARD M.; professor of molecular and experimental medicine, and head, division of biochemistry, Scripps Research Institute, La Jolla, Calif.

BARDEEN, WILLIAM A.; scientist III, theoretical physics department, Fermi National Accelerator Laboratory, Batavia, Ill.

BELFORT, MARLENE; research scientist and director, division of genetic disorders, Wadsworth Center for Laboratories and Research, New York State Department of Health, Albany

BERLEKAMP, ELWYN R.; professor of mathematics, University of California, Berkeley

CARNEIRO, ROBERT L.; curator of anthropology, American Museum of Natural History, New York City

CHORY, JOANNE; associate investigator, Howard Hughes Medical Institute, and professor, Plant Biology Laboratory, Salk Institute for Biological Studies, La Jolla, Calif.

CLEAVER, JAMES E.; professor of radiology, laboratory of radiology, University of California, San Francisco

COFFIN, JOHN M.; director, HIV drug resistance program, National Cancer Institute, Frederick, Md.; and American Cancer Society Research Professor, Tufts University School of Medicine, Boston

DEGRADO, WILLIAM F.; professor of biochemistry and biophysics, School of Medicine, University of Pennsylvania, Philadelphia

DEPUY, CHARLES H.; professor of chemistry and biochemistry, University of Colorado, Boulder

DESIMONE, ROBERT; chief, laboratory of neurophysiology, and scientific director, National Institute of Mental Health, Bethesda, Md.

DONAHOE, PATRICIA K.; Marshall K. Bartlett Professor of Surgery and chief, pediatric surgical services, Massachusetts General Hospital, Boston

FELSENSTEIN, JOSEPH; professor of genetics, University of Washington, Seattle

FIENBERG, STEPHEN E.; Maurice Falk Professor of Statistics and Social Science, Carnegie Mellon University, Pittsburgh
FLEURY, PAUL A.; dean and professor, School of Engineering, University of New Mexico, Albuquerque

GREY, HOWARD M.; president, La Jolla Institute for Allergy and Immunology, San Diego

- HAMILTON, RICHARD S.; professor of mathematics, University of California, San Diego
- HAMMOCK, BRUCE D.; professor of entomology and environmental toxicology, University of California, Davis
- HANRATTY, THOMAS J.; James W. Westwater Professor of Chemical Engineering, emeritus, University of Illinois, Urbana-Champaign
- HANSEN, LARS PETER; Homer J. Livingston Professor of Economics, University of Chicago
- HAXTON, WICK C.; director, National Institute for Nuclear Theory, and professor of physics, University of Washington, Seattle
- HIRSCHMANN, RALPH F.; Makineni Chair of Bioorganic Chemistry, University of Pennsylvania, Philadelphia
- IGNARRO, LOUIS J.; professor of pharmacology, Department of Molecular and Medical Pharmacology, School of Medicine, University of California, Los Angeles
- JONES, VAUGHAN F. R.; professor of mathematics, University of California, Berkeley
- KAHN, C. RONALD; Mary K. Iacocca Professor of Medicine, Harvard Medical School, Boston
- KARLIN, ARTHUR; Higgins Professor of Biochemistry and Molecular Biophysics, and director, Center for Molecular Recognition, College of Physicians and Surgeons, Columbia University, New York City
- KIVELSON, MARGARET G.; professor of earth and space sciences, and professor of geophysics and space physics, Institute of Geophysical and Planetary Physics, University of California, Los Angeles
- LANDY, ARTHUR; professor of medical science and University Professor, Brown University, Providence, R.I.
- LILLY, DOUGLAS K.; distinguished senior scientist, National Severe Storms Laboratory, and professor emeritus, Cooperative Institute for Mesoscale Meteorological Studies, University of Oklahoma, Norman
- LINDOW, STEVEN E.; professor, department of plant and microbial biology, University of California, Berkeley
- MCDUFF, DUSA M.; professor of mathematics, State University of New York, Stony Brook
- MCINTOSH, J. RICHARD; professor of molecular, cellular, and developmental biology, and American Cancer Society Research Professor, University of Colorado, Boulder
- MERZENICH, MICHAEL M.; Francis A. Sooy Professor of Otolaryngology, School of Medicine, University of California, San Francisco
- MILLER, JANICE M.; veterinary medical officer, Animal Disease Center, Agricultural Research Service, U.S. Department of Agriculture; and professor of microbiology, immunology, and preventative medicine, Iowa State University, Ames
- MURRAY, CHERRY ANN; director, Physical Research Laboratory, Bell Laboratories, Lucent Technologies, Murray Hill, N.J.
- PETES, THOMAS D.; professor of biology and professor, program in genetics and molecular biology, University of North Carolina, Chapel Hill
- PHELPS, MICHAEL E.; associate director, Laboratory of Structural Biology and Molecular Medicine, and Norton Simon Professor and chair, department of molecular and medical pharmacology, School of Medicine, University of California, Los Angeles
- PHILLIPS, TOM L.; professor of plant biology and professor of geology, University of Illinois, Urbana-Champaign
- POHL, ROBERT O.; professor of physics, Cornell University, Ithaca, N.Y.
- PRITCHARD, DAVID E.; professor of physics, Massachusetts Institute of Technology, Cambridge
- PROBSTEIN, RONALD F.; Ford Professor of Engineering, Massachusetts Institute of Technology, Cambridge
- ROBERTS, JEFFREY W.; professor of biochemistry and Robert J. Appel Professor of Molecular and Cell Biology, Cornell University, Ithaca, N.Y.
- ROKHLIN, VLADIMIR; professor of computer science and mathematics, Yale University, New Haven, Conn.
- RUOSLAHTI, ERKKI; president and chief executive officer, Burnham Institute, La Jolla, Calif.
- SAYKALLY, RICHARD J.; professor of chemistry, University of California, Berkeley
- SCHAAL, BARBARA A.; professor of biology and of genetics, Washington University, St. Louis, Mo.
- SCOTT, MATTHEW P.; investigator, Howard Hughes Medical Institute, and professor, developmental biology and genetics, Stanford University School of Medicine, Stanford, Calif.
- SIEH, KERRY E.; professor of geological sciences, California Institute of Technology, Pasadena
- SKYRMS, BRIAN; distinguished professor, School of Social Science, University of California, Irvine
- SLEEP, NORMAN H.; professor of geophysics, Stanford University, Stanford, Calif.
- SPELKE, ELIZABETH S.; professor, department of brain and cognitive sciences, Massachusetts Institute of Technology, Cambridge
- WACHTER, KENNETH W.; chair, department of demography and professor of demography and statistics, University of California, Berkeley
- WALKER, DAVID; professor of geological sciences, Lamont-Doherty Earth Observatory, Columbia University, Palisades, N.Y.
- WEIGERT, MARTIN G.; professor of molecular biology, Princeton University, Princeton, N.J.
- WELCH, WILLIAM J.; professor of electrical engineering and of astronomy, and Watson and Marylyn Alberts Professor, University of California, Berkeley
- WELLS, JAMES A.; president and chief scientific officer, Sunesis Pharmaceuticals Inc., Redwood City, Calif.
- WOMACK, JAMES E.; coordinator, cattle genome research program, U.S. Department of Agriculture, and W. P. Luse Professor, Texas A&M University, College Station

Newly elected foreign associates, their affiliations at time of election, and their country of citizenship

- ARROYO, MARY T. K.; professor of biology, University of Chile, Santiago (New Zealand)
- BERRIDGE, MICHAEL J.; deputy chief scientific officer, Laboratory of Molecular Signalling, The Babraham Institute, Cambridge (U.K.)
- HOFMANN, ALBRECHT W.; director, Geochemistry Division, Max-Planck Institute for Chemistry, Mainz (Germany)
- HUNT, R. TIMOTHY; senior scientist, Imperial Cancer Research Fund, Clare Hall Laboratories, Herts (U.K.)
- LATORRE, RAMON; executive director, Centro de Estudios Científicos de Santiago, Santiago (Chile)
- LEVINE, RAPHAEL D.; professor of theoretical physics, Hebrew University of Jerusalem, Givat Ram, Jerusalem (Israel)
- MABOGUNJE, AKINLAWON L.; executive chairman, Development Policy Centre, Ibadan (Nigeria)
- MACROBBIE, ENID; professor of plant biophysics, Department of Plant Sciences, University of Cambridge (U.K.)
- MIRRLEES, JAMES A.; professor of political economy, Department of Economics and Politics, University of Cambridge (U.K.)
- OMURA, SATOSHI; president, Kitasato Institute, Tokyo (Japan)
- SALZANO, FRANCISCO M.; professor, Federal University of Rio Grande do Sul, Porto Alegre (Brazil)
- SIMINOVITCH, LOUIS; director of research, Samuel Lunefeld Research Institute, Mount Sinai Hospital, Toronto, Ontario (Canada)
- SINAI, YAKOV G.; professor of mathematics, Princeton University, Princeton, N.J. (Russia)
- STORMER, HORST L.; professor, department of physics, Columbia University, New York City (Germany)
- YAMADA, YASUYUKI; professor, Nara Institute of Science and Technology, Nara (Japan)

ASPP Welcomes New Managing Editor for Plant Physiology

ASPP is delighted to welcome Melissa Junior on board as the new managing editor of *Plant Physiology*.

Melissa was formerly with the Society for Neuroscience, where she served as production manager of the *Journal of Neuroscience*. In that role she oversaw the production of the print and electronic versions of the semimonthly peer-reviewed journal and coordinated the development and implementation of new online initiatives for peer review and publication. She has a strong background in journal editing and production as well as the peer review process and worked extensively with JN's editorial boards and committees.

Prior to her job at SFN, Melissa was director of the Center for Books on Aging at Serif Press, Inc., in Washington DC. She directed the operations of book publishing and distribution and marketed more than 2,500 titles nationally for over 400 publishers via catalog and on-site sales efforts at national conferences. She also compiled and produced a quarterly bibliography in the area of school transportation and created, wrote, and edited several newsletters. She started her career as a publications assistant with PsycINFO, at the American Psychological Association, where she coordinated produc-



Melissa Junior

tion for one monthly, two annual, and six quarterly publications. She has a bachelor of arts degree in English and French from Dickinson College in Carlisle, Pennsylvania.

Melissa replaces Deborah Weiner as managing editor of *Plant Physiology*. Deb left the Society in February to assume the position of editorial and production manager at the Georgetown University Press.

Third Joint U.S.—Mexico Symposium to Be Held in Merida, Yucatan

Several years ago, biannual meetings were initiated that are held jointly with the Plant Biology section of the Mexican Biochemical Society. Although not officially cosponsored by ASPP, the Society nevertheless has encouraged its members to participate and in the past has received NSF grants to launch these meetings and help pay for U.S. participation. The first meeting was held in Cocoyoc in 1996 and the second one in Guanajuato in 1998. The third meeting is scheduled for October 30 to November 3, 1999, and will be held in Merida, the capital of the state of Yucatan. The meeting has a Mexican (Teresa Hernandez) and a U.S. (Hector Flores) organizer. CICY (the Centro de Investigacion Cientifica de Yucatan) will

host the meeting. Speakers from Mexico and the USA will be featured in the major symposia. Given the proximity of Merida to the East Coast of the United States (just south of Miami) and the presence of the outstanding Mayan ruins in Yucatan, we hope that many of our members will take the opportunity to become better acquainted with plant biology in Mexico and the rich cultural history of Yucatan. Further information about the cost of registration, the availability of housing, and the scientific program can be obtained on the Web at <http://www.cicy.mx/index.html>.

Maarten J. Chrispeels
University of California San Diego

U.S.—Japan Cooperative Science Program

Launched in 1961 and implemented by the National Science Foundation and the Japan Society for the Promotion of Science (JSPS), this program supports travel and subsistence costs required for cooperative research. Japanese counterpart scientists and engineers are typically associated with universities and colleges. American researchers from any sector may apply. Cooperative research projects may be supported for one to three years. Visits made in conjunction with such projects are short term, usually several weeks to three months each year. Support is also offered for travel and living expenses for graduate students and postdoctoral investigators who can contribute significantly to a project.

Proposal deadlines: NSF—June 15 of each year; JSPS—May 23 of each year.

The Japanese counterpart principal investigator must submit a proposal to JSPS. Joint approval of such projects by NSF and JSPS is required, and the U.S. investigator's proposal to NSF must include a copy of the cover page of the proposal submitted to JSPS.

A detailed project description and budget can be found by visiting <http://www.twics.com/~nsftokyo/home.html>.

Three Awards Presented at Midwest Sectional Meeting

The Midwest Section of ASPP met March 19–20 at Michigan State University, East Lansing. Undergraduate students, graduate students, and postdoctoral associates gave 22 talks to an audience of over 70 plant physiologists from the midwestern states and Canada. Two graduate students were selected for awards for outstanding presentations: Robyn M. Perrin and Mark A. Johnson, both of Michigan State University. Niki T. Pham, of the University of Michigan, was given an award for an outstanding paper by an undergraduate student.

The keynote talk was given by Laura Privalle, of Novartis Seeds, Inc., on Biotechnology and Its Impact on Agribusiness. For the Friday evening symposium, Rebecca S. Boston, of North Carolina State University, spoke on "RIP: Defense Functions of Maize Ribosome-Inactivating Protein," and Daniel R. Bush, of the University of Illinois, spoke on "Understanding Plant Sugar and Amino Acid Transporters in the Context of Resource Allocation and Multicellular Growth." The conference was supported by ASPP, Dekalb Genetics Corporation, Pioneer Hi-Bred International, Inc., Dow Agrisciences, and Ball Helix.

Plant Dyes Produce World of Color for International Chemistry Celebration

To promote hands-on science learning activities for elementary school teachers and students, ASPP joins the American Chemical Society in a year-long global project called the "International Chemistry Celebration" (IchC). ASPP past president Ken Keegstra brought this project to the attention of ASPP. It supports one of the main thrusts of the ASPP Education Foundation—to improve plant science education.

A guidebook entitled *A World of Color: An International Search for Natural Dyes* describes in 13 languages two activities involving plant dyes. It "enables you to find natural dyes. You even get to participate in a global experiment to map the sources for eight colors. Through chemistry, you can create an enormous number of colors using natural plant materials," states the English version. By performing the experiments, participants demonstrate how plant materials may be extracted, used, and chemically changed to produce colors. They may find several sources for dyes. Participants should submit a data form via the Web (www.chemcenter.org/ichc); by fax: 1-202-833-7722; or by mail to American Chemical Society, 1155 16th Street, NW, Washington, DC 20036, USA. Forms can be submitted through September 1999. The activities are suitable for teaching students from ages 8 to 18 in a variety of settings.

The celebration includes two unifying investigations involving a search for natural dyes. The two experiments are Plant Rubbing and Extraction and Dyeing. Both use common materials found around the home. Plant Rubbing may be completed in 15 minutes or less; Extraction and Dyeing takes two to three hours over a two-day period. The guidebook gives detailed instructions to complete each experiment. As a part of the global celebration, participants may send one or more dyed samples to the American Chemical Society, which is creating a global collage of the samples.

Interested students and teachers can contact the International Chemistry Celebration 1999 at the above fax or mail addresses, at ichc@acs.org via e-mail, or by phone at 1-800-227-5558, ext. 4458. More information and continuous updates on the International Chemistry Celebration 1999 are available on the Web at www.chemcenter.org/ichc. Access is also available through the ASPP Web site at <http://aspp.org> in the Education section.

National Academy of Sciences Plant Biology Section and ASPP Symposium Explores Frontiers in Plant Biology

Following the Midwest Section meeting was the National Academy of Sciences Plant Biology Section/ASPP-sponsored symposium titled "Frontiers in Plant Biology: Plants for the 21st Century." The symposium was organized and moderated by Hans Kende, of the MSU-DOE Plant Research Laboratory. It was attended by 280 people, including undergraduate students from nearby colleges and universities, as well as instructors and students from community colleges. There were also high school teachers from the surrounding area.

Charles J. Arntzen, president of the Boyce Thompson Institute for Plant Research at Cornell University, spoke on "Designing Plants to Produce and Deliver Oral Vaccines." Arntzen predicted that in the next century, plant physiology would be more closely associated with the medical field. Plants are easily transformed and are ideal candidates for increased production of specific nutrients and even medicines and vaccines.

Dean Della Penna, of the University of Nevada at Reno, talked about "Progress on Improving the Nutrient Composition of Plants to Enhance Human Nutrition and Health." Many vitamins and all essential amino acids are made exclusively in plastids among eukaryotes, so plants are the natural source of these nutrients. Dietary recommendations of the past have been based on how much is required to avoid obvious deficiency diseases, but for some nutrients, much more is required for optimum health. Nutrient composition can be altered so that plants of the future will provide more of the essential nutrients needed by humans. In addition, some plants have specific chemicals that have beneficial effects. Plant physiologists are actively engaged in engineering plants to increase the amounts of beneficial compounds in the diet to therapeutic levels.

Chris Somerville, director of the Department of Plant Biology of the Carnegie Institution of Washington at Stanford University, spoke on "Agricultural Biotech-

nology and Human Population Growth." He made the provocative point that wheat breeders, by nearly doubling the average yield of wheat per acre, reduced the demand for land for agriculture by a very large amount. This land is then available for reserves, parks, and the like. In this way, wheat breeders have done more to protect the natural environment than anyone, according to Somerville. An important question is, how can agricultural biotechnology help continue to meet the demand for food, fuel, and fiber without requiring an ever-increasing proportion of the available land surface?

Pamela J. Green described the ways that the immense amount of information being produced as a result of various genome projects is being made available to understand the many genes involved in most plant processes. In her talk, "Functional Genomics: Large-Scale Approaches to Understanding Gene Function," she described the advances in studying gene expression using a microscope slide with thousands of genes simultaneously present. This process, DNA chip technology, will facilitate the discovery of unknown genes important during one or another phase of the plant life cycle. Green also described knockout technology, in which large collections of plant lines will be available with nearly every gene knocked out in at least one of the lines. Several rounds of polymerase chain reactions can find a plant with a particular gene knocked out. The plant can be studied to see how loss of that gene affects plant function.

The overall tone of the symposium was that in the 21st century, plant science will have a profound influence on the quality of human life. The speakers conveyed great enthusiasm for the field of plant physiology on the eve of what promises to be a great era for plant biology.

Thomas D. Sharkey
Secretary/Treasurer, MWASPP

As I did last year in Philadelphia, I again represented our Society at the annual business meetings of our affiliated AAAS sections, Biological Sciences (G) and Agriculture, Food & Renewable Resources (O). These three- to four-hour sessions both covered a wide range of topics, three of which stand out in my mind as of potential interest to our membership.

First, both section meetings had considerable discussion about future symposium topics for the annual meetings to be held in 2000 (February 17–22 in Washington, DC) and 2001 (February 15–20 in San Francisco). Such topics, by definition, must be interdisciplinary in nature and of sufficient breadth to appeal to as wide an audience as possible, ideally involving a “partnership” with at least one other AAAS section and having some possible connection to the host city or region. For example, this year I attended a very interesting symposium organized by Cal Qualset (UC Davis) on Accelerating Crop Evolution for Greater Productivity and Better Biodiversity Conservation that was cosponsored by Sections O and G . . . regretfully, none of the six invited speakers were ASPP members! I would greatly appreciate receiving any “proposals” for future topics, organizers, and speakers from our membership in advance of next year’s meeting.

Second, both of our affiliated sections (and AAAS) are very interested in receiving highly worthy nominees for yearly election as a AAAS fellow (that is, “an AAAS member whose efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished”). This area is clearly one in which ASPP’s existing fellows could be more active; for example, out of the roughly 75 fellows elected in 1998 from Sections G and O, I recognized only six names from our membership: O—A.J.M. Smucker and J. R. Whitaker; G—W. Cruissem, E. M. Lord, P. S. Low, and R. Chollet (see the October 30th issue of *Science*). Any potentially interested nominators should contact Linda McDaniel at AAAS (202-326-6635; lmcdanie@aaas.org) or myself, or visit the AAAS Web site (<http://www.aaas.org>) for nomination avenues, details, and forms. Finally, for those ASPP members in the Washington, DC, area, there will be several days of interesting, interactive “Science on the Mall” the weekend of October 15th . . . young and old alike are encouraged to attend and participate!

Raymond Chollet
University of Nebraska–Lincoln

Don’t forget to mark your calendars for the annual luncheon of the Committee on the Status of Women in Plant Physiology (CSWIPP), which will be held on Monday, July 26, 1999, during the ASPP annual meeting in Baltimore. The committee is pleased to have Eileen Dowse, of Human Dynamics, Inc., Research Triangle Park, North Carolina, as its speaker for the luncheon. Ms. Dowse is a motivational speaker, mediator, and educator with more than 20 years of business experience. She is a commentator for National Public Radio and has written a book entitled *The Naked Manager*. The title of her talk at the luncheon is “Communicating to Overcome Resistance and Increase Success.” This presentation should be of great interest to all members of the Society, so reserve your space early.

CSWIPP is also sponsoring an alternative careers workshop the same evening, starting at 6:00 p.m. with a pizza dinner. The workshop, entitled “Where Are the Job\$?” will consist of 10-minute talks from individuals with Ph.D. degrees in some aspect of plant biology who are working in professions outside universities and small colleges. The tentative list of speakers includes Shawn Anderson of DuPont, Becky Chasan of the American Institute of Biological Sciences and editor of *BioScience*, Ellen Johnson of Wilmington Friends School, Julianne Lindemann of Monsanto, Stefan Kirchanski of Graham & James LLP, and Steve McCurry of Cargill. This workshop should be of particular interest to younger attendees, giving them the opportunity to learn about careers outside the typical academic track. Attendance is limited, so please sign up early to reserve a space!

CiteTrack: NEW ONLINE BENEFIT!

ASPP is pleased to offer its members free access to a new research-alerting service: **CiteTrack**.

CiteTrack will alert you by e-mail whenever new content in the online version of *Plant Physiology*, *The Plant Cell*, or any of nearly 90 other participating journals is published that matches criteria based on the topics, authors, and articles you want to track.

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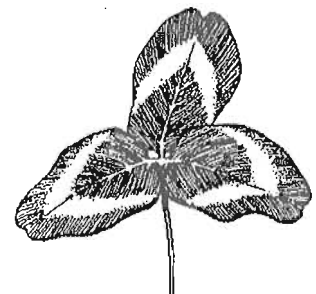
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NSF Director Rita Colwell to Speak at ASPP Annual Meeting

Rita Colwell, director of the National Science Foundation, will be the distinguished speaker for the "Perspectives of Science Leaders" program at the 75th Anniversary annual meeting of ASPP. Her presentation will be at 6:00 pm on Saturday, July 24, in the Baltimore Convention Center.

ASPP president Brian Larkins and Committee on Public Affairs chair Lou Sherman invite all those attending the annual meeting to participate in the "Perspectives of Science Leaders" program.

On August 4, 1998, Dr. Colwell was sworn in as director of the National Science Foundation, an independent agency of the federal government that provides support for research and education in science, mathematics, engineering, and technology.

In just a short time as director of NSF, Dr. Colwell has forged important new initiatives that will further encourage interdisciplinary research efforts on complex biological problems in the environment. Dr. Colwell is seeking increased support for the development and use of information technologies to aid all researchers. She has established the need for improvements in science education in the schools as a priority area.

Dr. Colwell has spoken on the importance of NSF-sponsored plant research before Congress. She has given strong support for the plant genome research initiative and other areas of plant research. Plant genome research would increase by 10 percent in fiscal year 2000 in NSF's first budget proposal developed under Dr. Colwell.

Immediately prior to becoming NSF director, Dr. Colwell was president of the University of Maryland, Biotechnology Institute and professor of microbiology at the University of Maryland, positions she had held since 1991 and 1972, respectively. While at the University of Maryland, Dr. Colwell also served as director of the Sea Grant College, acting director of the Center for Environmental and Estuarine Studies, and vice president for Academic Affairs.

Dr. Colwell began her career in 1957 as a research assistant at the University of Washington, where she also held the positions of predoctoral associate and assistant research professor. She served as guest scientist at the National Research Council of Canada from 1961 to 1963. From



Rita Colwell

1963 to 1972, she was a member of the biology faculty at Georgetown University.

A member of the National Science Board from 1984 to 1990, Dr. Colwell has held numerous other advisory positions in the U.S. government, in private foundations, and in the international community. She is a nationally respected scientist and educator and has authored or co-authored 16 books and more than 500 scientific publications. She produced the award-winning film *Invisible Seas* and has served on editorial boards for a variety of journals.

Dr. Colwell has received numerous awards throughout her career, including the Medal of Distinction from Columbia University and the Andrew White Medal from Loyola College. She has also been awarded five honorary degrees from institutions of higher education and has held several honorary professorships.

Dr. Colwell is currently chairman of the Board of Governors of the American Academy of Microbiology. She has served as president of the American Association for the Advancement of Science, the Washington Academy of Sciences, the American Society for Microbiology, the Sigma Xi National Science Honorary Society, and the International Union of Microbiological Societies.

Born in Beverly, Massachusetts, Dr. Colwell holds a B.S. in bacteriology and an M.S. in genetics from Purdue University and a Ph.D. in marine microbiology from the University of Washington.

Remember!

Job listings on

ASPP's Web site are

updated every

Friday, so be sure to

check in frequently.

Some jobs listed

online are not listed

in the newsletter.

<http://aspp.org/JOBS>

ASPP Lauds Nobel Prize—Winning Research Supported by Division of Energy Biosciences

In a statement submitted March 26 to the U.S. House Appropriations Subcommittee on Energy and Water Development, ASPP Committee on Public Affairs chair Lou Sherman explained areas of basic plant research supported by the Department of Energy, Division of Energy Biosciences.

The division funds basic research in the plant sciences and nonmedical microbiology in several major areas, including the use of the sun's energy to manufacture chemicals producing renewable sources of energy, the use of plants and microbes to manufacture new products, and the use of plants and microbes to clean up toxic wastes.

Sherman noted that the importance of the Division of Energy Biosciences to the overall mission of the DOE Office of Science was amply detailed in the testimony provided by Dr. Martha Krebs on March 11, 1999.

In her opening comment, Dr. Krebs highlighted the outstanding awards that had

been won by individuals funded through the Office of Science. In particular, she mentioned the 1997 Nobel Prize for Chemistry, awarded to Professor Paul Boyer, who was funded for many years by the Division of Energy Biosciences for his pioneering work on ATP formation. Knowledge gained from research on energy capture and use in plants and bacteria will contribute to new and more efficient roles for plants in helping meet growing energy needs in the United States and worldwide. The 1997 prize was the sole Nobel Prize awarded for all DOE-supported research the past two years.

Investigators funded by the Division of Energy Biosciences are interested in basic research that will eventually be aimed at simple and inexpensive solutions to our energy problems, Sherman said. Such solutions will not require large-scale development projects or extensive societal disruptions. These solutions will mimic the

best features of nature and will allow for industrial growth and development, but yet help protect the environment.

Sherman said that basic research on plants and microbes offers some of the most promising opportunities to reduce U.S. dependence on imports of foreign petroleum and to provide new, more cost-effective approaches to large-scale environmental remediation.

ASPP is supporting the department's request that the Division of Energy Biosciences receive an increase of \$1.364 million, to \$31.226 million. Sherman noted that the division's program is an example of the optimum way basic science can be used to solve some of our country's most challenging energy and environmental problems.

ASPP Supports Board on Agriculture Selection of Scientists in Plant Expressed Protectant Study

ASPP submitted comments on April 7 to the Board on Agriculture of the National Research Council/National Academy of Sciences to support the selection of appropriate scientists to the Committee on Genetically Modified Crops Containing Pesticide Genes.

There was a movement among some interests to seek more organic farmer representation on the committee. Ralph Quatrano, past chair of the ASPP Committee on Public Affairs, alerted the Society to the attempts by some interest groups to diminish representation of scientists on the committee. ASPP's comments supported the respected plant and other scientists selected by the committee. ASPP president Brian Larkins was among those selected to the Committee on Genetically Modified Crops Containing Pesticide Genes. Following are ASPP's comments:

The American Society of Plant Physiologists, a professional society of nearly 6,000 plant scientists, has reviewed the proposed membership of the Committee on Genetically Modified Crops Containing Pesticide Genes. ASPP strongly supports the Board on Agriculture in its selection of highly qualified committee members representing diverse and relevant areas of study, Committee on Public Affairs chair Lou Sherman noted.

The study of the issue of genetically modified crops containing pesticide genes is one of significant importance to consumers, producers, and the environment. The use of modern transformation technologies to improve natural pest resistance of food crops is boosting crop yields and reducing the need for use of synthetic chemical pesticides on much of the farmland in the United States.

A study by the Board on Agriculture on genetically modified crops containing pesticide genes is needed to help address questions that have been raised on regulation of modified crops. Selection of qualified committee members representing the diverse areas relating to the science and regulation of genetically modified plants is essential to development of a valid study on this topic.

The committee membership posted by the Board on Agriculture March 17, 1999, includes leading scientists in integrated pest management, plant breeding, genetic engineering, plant pathology, entomology, toxicology, control of gene expression, and ecology. Recognized experts on biotechnology and food safety risk assessment, pesticide regulation, and economics of pesticide regulation join leading botanists in bringing needed diverse expertise to this committee.

ASPP commends the Board on Agriculture and its staff for selecting eminently qualified

members representing relevant areas of expertise for the Committee on Genetically Modified Crops Containing Pesticide Genes. ASPP sees no need for changes to be made to the committee membership as posted by the Board on Agriculture March 17, 1999.

ASPP NEWS welcomes comments on topics covered in the newsletter and on other points of interest to the profession. Letters are published as space permits and may be edited for clarity and length. Submissions may not necessarily be published; receipt is not acknowledged. Mail letters to the Editor, ASPP NEWS, 15501 Monona Drive, Rockville, MD 20855-2768 USA; e-mail: nancyw@aspp.org.

ASPP Warns of Chilling Effect on Industry/University Research Collaborations As Possible Result of OMB Circular A-110 Revision

In comments submitted to the U.S. Office of Management and Budget, ASPP president Brian Larkins pointed out a number of the problems created for federally supported research by the proposed revision of OMB Circular A-110.

If OMB follows the congressional mandate (which it is required to do unless Congress changes the law), some previously confidential research data related to published findings could be subject to disclosure under the Freedom of Information Act (FOIA). Larkins urged the OMB to conduct an extensive review of the proposed revision. A longer review would give Congress more time to potentially revise or repeal the existing statute. Following are the comments Larkins submitted on behalf of ASPP on March 26:

These comments are submitted in response to the Office of Management and Budget's proposed revision of OMB Circular A-110. The proposed revision would make some confidential data relating to published research findings subject to disclosure under the Freedom of Information Act (FOIA). The data subject to the FOIA request would be data relating to published research findings produced under an award if the data were used by the federal government in developing policy or rules, under the proposed revision.

The drafted revision was written by OMB at the direction of Congress in Public Law 105-277. We request that OMB withhold final action on implementation of the proposed revision of Public Law 105-277 until there has been the opportunity for further review by the office, the science community, and Congress of data access provisions of Public Law 105-277 and of OMB's proposal implementing the statute.

As you know, this provision was not the subject of hearings in Congress. Questions of rights to privacy, confidentiality, and patent rights were not studied or resolved. Will this provision have an adverse effect on the quality of work of the nation's research community? We have no hearing record to look to on this, although our concern is that this revision under the statute could diminish the strength of the research enterprise in the United States.

We fear that under this revision, scientists could be subjected to nuisance requests for information. Research-based, fact-finding efforts could be stymied by fears of lost confidentiality or lost privacy. In applying this in the context of a patent dispute, it seems that data that normally could only be obtained in a court procedure with appropriate defenses could now be obtained in an unrestricted manner through a Freedom of Information Act request.

Will U.S.-based industry partners in research become reluctant to collaborate with federally funded university scientists if overseas and domestic competitors could access sensitive, confidential data through an FOIA request? We have consulted scientists in our society and heard back that there are concerns that many companies would now have an incentive to do more work in-house. Reducing access of American industry to the world's most effective, university-based research community can be expected to have a negative effect on American science, innovation, and productivity.

We encourage the Office of Management and Budget to take a deliberate and comprehensive fact-finding approach in developing this revision. We recommend that the office—

- conduct regional listening sessions for public input on the proposed revision
- conduct a study of freedom of information access by American firms to research data in other nations
- support a study of the economic effect the proposed revision could have on U.S.-based research, such as diminished collaborations between industry and university-based researchers, potentially reduced productivity, and potential loss of federal revenues
- conduct a second comment period to allow for further analysis of comments received by the office.

The sizable degree of potential harm that this proposed revision could do to the quality of U.S.-based research merits a deliberate and thorough comment collection period by the Office. Premature promulgation of a final proposal while Congress considers legislation to repeal the data disclosure provision of Public Law 105-277 could cause confusion and turmoil in the nation's science community if Freedom of Information Act filers deluge researchers and agencies with their requests to take advantage of the window opened prior to the potential repeal.

The Office will best serve the intent of Congress and the vitality of the nation's research community by conducting thorough and expansive solicitations of public comments. Thank you for this opportunity to submit initial comments on the proposed revision. We look forward to future opportunities to work with the office in providing needed public input into this proposed revision.

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<http://aspp.org/meetings/meetings.htm>

Plant Research Could Help Reduce Need for Crop Disaster Payments

In a statement submitted by ASPP to the House Appropriations Subcommittee on Agriculture, Rural Development, FDA and Related Agencies on March 18, 1999, the Society explained how billions of dollars in federal emergency payments for disaster relief could be saved with increased support for plant research.

Billions of dollars in emergency payments have gone to farmers from the Department of Agriculture in fiscal year 1999 to alleviate disasters caused in large part by drought stress, ASPP noted. An increased investment in plant stress research could help reduce crop losses due to drought, cold, freezing, and other climatic stress.

Understanding the fundamental mechanisms of model plants in tolerating higher levels of salinity during periods of drought will lead to the transfer of these traits to crop plants, ASPP said. Greater understanding of the fundamental mechanisms of plants in tolerating drought stress will lead to improved varieties of crops benefiting farmers for years into the future. In contrast, federal payments, which can be in the billions of dollars, to compensate for losses of crops due to drought and other stress may be needed every year that there are substantial losses from use of non-tolerant crops.

ASPP also pointed out the need for increased support of photosynthesis research. The Society cited a decline in published articles by U.S. authors as an indicator of a loss of U.S. leadership in photosynthesis research. In the process of photosynthesis, plants use atmospheric carbon dioxide to fix carbon. Photosynthesis is one of the most fundamental, life-sustaining, energy conversion processes on earth. Germany, Japan, Belgium, and other nations have recognized the importance of supporting photosynthesis research. However, the United States appears to have fallen behind Germany, and some say other nations as well, in photosynthesis research.

It is not clear how the loss of U.S. leadership arose. However, it is possible to help document this loss by evaluating the national origins of contributions in 1984 and 1995 to the international photosynthesis congresses that are held every third year. The percentage of contributions from the United States dropped from 31 percent in 1984 to 14 percent in 1995. Contributions from Germany jumped to 18 percent in 1995 from just 12 percent in 1984. Those coming from The Netherlands jumped from 9 percent in 1984 to 12 percent in 1995.

An area related to photosynthesis research is carbon management. Increased levels of carbon dioxide in the atmosphere have been measured. ASPP said that one might think that photosynthesis would increase when there is more carbon dioxide in the atmosphere; however, scientists have found that plants possess finely balanced regulatory mechanisms that preclude them from responding automatically to atmospheric carbon enrichment.

Greater understanding of these mechanisms could lead to greatly enhanced growth and development of plants. This in turn would lead to more efficient production of biofuels. Increased use of biofuels, instead of fossil fuels, would reduce increases in carbon dioxide levels in the atmosphere. ASPP urged more research in this area to address potential threats to the environment posed by the rise in carbon dioxide levels in the atmosphere. At the same time, support in this area and other areas of photosynthesis research could help strengthen photosynthesis research in the United States.

ASPP also cited the need for support of research in other areas, including nitrogen fixation and plant resistance to pests. ASPP strongly supported the Department of Agriculture's FY2000 request for research sponsored by the National Research Initiative Competitive Grants Program (NRI) and the Agricultural Research Service (ARS).

The department's request for \$200 million for the NRI for FY2000 would produce very significant benefits for American farmers and consumers, ASPP said. Its request for \$837 million for ARS-supported research will help support the scientists needed to address the broad range of pressing agricultural research problems faced by producers.

The department's proposed increase to \$200 million for the NRI is expected to face some major obstacles this year. Many land-grant agricultural experiment station and extension service administrators who see the proposed increase for NRI as taking away money from formula funds have already asked Congress for a reduction of some \$40 million in the department's request for the NRI. There is also expected to be a shortage of funds in the overall budget allocation for the appropriations subcommittee, making it harder to meet requested increases.

With Help from Congress, Science Societies Make Progress on Reforming Plant Pesticide Proposal

At the joint hearing of two U.S. House Agriculture subcommittees March 24, science societies including ASPP, the Biotechnology Industry Organization, the American Crop Protection Association, and the Environmental Protection Agency (EPA) appeared to be in general agreement on reforms needed for the EPA plant pesticide rule.

In 1994, the EPA proposed regulating genetically engineered plants that contain genes for pest resistance. Under this rule, plants modified to naturally defend against diseases and insects would be regulated as pesticides despite the absence of added chemical protectants. The scientific validity of this regulation has been widely questioned by science societies and throughout the agricultural biotechnology sector.

EPA witness James Aidala, associate assistant administrator, Office of Prevention, Pesticides, and Toxic Substances, explained at the hearing that EPA was prepared to offer a new comment period in which it would address changing the term "plant pesticide" to "plant expressed protectant." The EPA official said the need for additional exemptions sought by the science societies will also be addressed.

ASPP Committee on Public Affairs member Jim Cook, of Washington State University, testified on behalf of a consortium of 11 scientific societies formed to seek needed reforms in the EPA proposal. Cook explained the need to change the term "plant pesticide" to "plant expressed protectant" and addressed the need for further exemptions. Arthur Keiman, representing the standing science coalition, the Council for Agricultural Science and Technology (CAST), questioned EPA's attempt to classify plant resistance systems as plant pesticides in its earlier proposed rule.

Members of the House Agriculture subcommittees appeared to sympathize with the science societies and to be critical of EPA's previous efforts to regulate in the manner suggested earlier in EPA's proposed rule. "The importance of U.S. biotechnology reaches beyond production agriculture to the international trade arena and while it is necessary to have a regulatory process in place to ensure the health and safety of consumers and the environment, we must assure that regulatory excess does not suffocate this industry," said Thomas Ewing (R-IL), chair of the Risk Management, Research, and Specialty Crops Subcommittee.

Committee on Public Affairs Visits Congressional Offices, NSF

Due to the age of the rule, Ewing requested that EPA consider re-proposing the rule and provide for a new comment period to address issues raised at today's hearing. These include replacing the term "plant pesticide" with "plant expressed protectant," expanding the proposed exemptions, and performing a thorough cost-benefit analysis of the new rule.

"Today's hearing brought to the forefront the need to reevaluate this proposed rule," said Rep. Gary Condit (D-CA), the Risk Management Subcommittee's ranking member. "Congress should exercise its oversight to make certain that EPA's final rule includes regulations which are scientifically based, not unduly burdensome, and maintain global acceptance of genetically modified products. In addition, EPA, the regulated community, and scientific societies should work together to develop a rule that satisfies their concerns while ensuring the health and safety of consumers and the environment."

"We understand that this is an evolving science and what might be considered safe today might cause unknown challenges tomorrow," said Bob Goodlatte (R-VA), chair of the Department Operations, Oversight, Nutrition, and Forestry Subcommittee. "Sound scientific review may be appropriate. I am concerned, however, that EPA's proposed rule will become an inefficient, burdensome regulatory process that will retard innovation and take a promising technological tool from our farmers."

The American Crop Protection Association acted quickly to seek to craft an agreement with the science societies in advance of the hearing after it was announced there would be a congressional hearing on the proposed rule. A meeting was held March 16 at which science societies and life science industry representatives arrived at an agreement on what to ask of EPA. Cook advocated adoption of the new term "plant expressed protectant," and there was general agreement on the need for this new term to replace "plant pesticide."

Throughout the several-year process of the consideration of the EPA proposal, Cook and Cal Qualset have written major documents reviewed by and presented on behalf of the consortium of 11 science societies. Much ground appears to have been gained by the science societies in seeking changes in the proposed rule. However, some observers are cautioning that the forthcoming final rule that EPA issues will need to be carefully reviewed to see if it meets the requests of science societies.

As part of the Committee on Public Affairs meeting March 20-22 at ASPP headquarters and in Washington, DC, committee members and ASPP president Brian Larkins and president-elect Deborah Delmer conducted visits with their congressional offices.

The 17 offices visited heard from constituent plant scientists who explained the importance of federal programs supporting plant research. Committee chair Lou Sherman of Purdue University met with committee staff of Senate Agriculture Committee chair Richard Lugar (R-IN). Lugar authored the Initiative for Future Agriculture and Food Systems competitive grants program, which gained significant support in the Senate but did not gain full agreement from the House last year. However, a compromise resulted in an additional \$60 million for agricultural research programs including the NRI, ARS, and formula funds in the fiscal year 1999 budget. The Initiative for Future Agriculture and Food Systems will be considered again this year, and Sherman continued his support of Senator Lugar's efforts. Sherman's comments in support of the initiative have been published in the journal *Science* and other media. Sherman also met with the office of Senator Evan Bayh (D-IN) of the Energy and Natural Resources Committee.

Jim Siedow of Duke University met with appropriations staff of Congressman David Price (D-NC) concerning support for NSF. Price is a member of the appropriations subcommittee with spending jurisdiction over NSF. In a very important demonstration of support, Price's office told Siedow it would take steps to bolster the NSF plant genome

research program. Siedow has worked with Congressman Price and his office for many years. He also conducted meetings with the offices of Senator Jesse Helms (R-NC; Senate Agriculture Committee), Congressman Bob Etheridge (D-NC; House Agriculture Committee and House Science Committee), and Senator John Edwards (D-NC).

Peggy Lemaux of UC Berkeley and Debby Delmer of UC Davis met with the offices of Senators Barbara Boxer (D-CA; Budget Committee and Environment and Public Works Committee) and Dianne Feinstein (D-CA; Appropriations Subcommittee on Agriculture). Lemaux also met with the office of Congresswoman Ellen Tauscher (D-CA), and Delmer met with the office of Congressman Doug Ose (R-CA; Agriculture Committee).

Dawn Luthe of Mississippi State University met with the office of Senator Majority Leader Trent Lott (R-MS), who is also a member of the Commerce, Science and Transportation Committee. She also met with the office of Congressman Chip Pickering (R-MS). Pickering is a member of the Commerce Committee and its Subcommittee on Energy and Power.

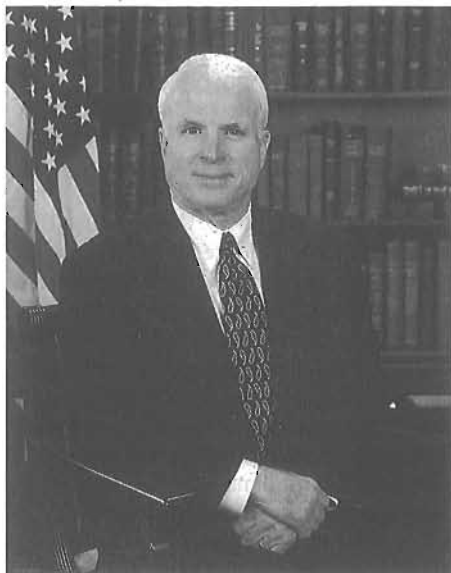
Brian Larkins and Rob Leonard of the University of Arizona met with the committee staff of Senator John McCain (R-AZ), who chairs the Senate Commerce Science and Transportation Committee. They also met with appropriations staff of Senator Jon Kyl (R-AZ), a member of the appropriations subcommittee with spending jurisdiction over NSF, and with the office of Congressman Jim Kolbe (R-AZ), a member of the House Appropriations Committee, which has spending jurisdiction over all research. A story on Larkins and Leonard's meeting with



David Price



Richard Lugar



John McCain

Representative Ed Pastor follows this article.

Jim Cook of Washington State University met with Congressman George Nethercutt (R-WA) and his staff. Nethercutt is a member of the appropriations committee with spending jurisdiction over agricultural research. He is also on the House Science Committee. On March 24, Cook testified before a joint hearing of two House agriculture subcommittees on behalf of ASPP, the American Phytopathological Society, and nine other science societies seeking reforms in the EPA plant pesticide proposal. (See related story on page 14.)

The committee members met collectively with Mary Clutter, NSF assistant director and head of the NSF Biological Sciences

Rep. Pastor Supports Basic Plant Research

Congressman Ed Pastor's (D-AZ) office demonstrated strong support for the DOE Division of Energy Biosciences in a meeting with ASPP president Brian Larkins and Robert Leonard of the Committee on Public Affairs. At the time of the meeting, March 22, there was a serious question on funding for Basic Energy Sciences in the proposal for the FY2000 budget. Pastor's office followed up with ASPP to collect additional information to aid basic plant research supported by DOE. Pastor is a member of the appropriations subcommittee with spending jurisdiction over energy research. He has an impressive record of support for basic plant research and has made very effective efforts to help basic plant research at DOE at a number of key times.



Trent Lott

Directorate, Machi Dilworth, NSF Biological Infrastructure Division director, and David Meinke, Plant Genome Research Program director. Discussions included developments in the plant genome research program and the proposed biocomplexity in the environment program. The new biocomplexity program could encompass many disciplines of research including plant biology. Committee members noted how Dr. Clutter and her staff have gained recognition in the life sciences community for their effective administration of research programs, including programs supporting basic plant research.



Ed Pastor

Research on Signaling System for Plant Nutrients Could Boost Yield and Nutrition

New discoveries by ARS plant physiologist and ASPP secretary Dan Bush about how plants distribute nutrients internally could lead someday to crops that are more nutritious, that can produce higher yields, or that overcome environmental challenges, the Agricultural Research Service reported in a recent news release.

Just like animals have a signaling system between the brain and the stomach to tell them when to stop or start eating, plants also have a special signaling system that regulates nutrient distribution, ARS noted.

The "signaler" in the system is sucrose, the major form of sugar transported in the plant's vascular system. The plant responds to sucrose's signal by increasing or decreasing nutrient flow to roots, seeds, and storage organs known as "sink" tissues, the ARS news release explained.

These tissues are called sinks because they import sugars and amino acids to support plant growth and development, according to Bush. Bush works in the ARS Photosynthesis Research Unit at Urbana, Illinois.

When sucrose exits plant leaves, it flows through elongated structures called phloem cells, which lie end to end, forming a continuous conduit in the plant's vascular system. A specialized sucrose transport protein loads the sugar into the phloem. Inside the phloem cells, the concentration of sucrose is 100 times greater than that outside. This attracts water into the cells.

The release of sucrose into "sink" tissues causes the water to leave the phloem cells, creating a hydraulic pressure difference between the leaf and the sink phloem that drives long-distance nutrient transport, the ARS news release continued. This is similar to the pressure-driven flow of blood pumped through the animal's body.

A story about this research appears in the March issue of *Agricultural Research*, which can be found on the World Wide Web at <http://www.ars.usda.gov/is/AR/archive/mar99/sugar0399.htm>.

Stumpf Professorship in Plant Biochemistry Endowed at UC Davis

ASPP member and professor emeritus Paul Stumpf and his wife, Ruth, have donated \$350,000 to endow the Paul K. and Ruth R. Stumpf Professorship in Plant Biochemistry, an endowed chair in the Division of Biological Sciences at the University of California at Davis. The initial appointee will be a full professor who teaches and conducts research in plant biochemistry and resides in either the Section of Molecular and Cellular Biology or the Section of Plant Biology. The appointee will serve a term of five to seven years.

"I am personally honored to announce the endowment because Paul has always looked to the future, and the Stumpfs' gift is a lasting testament to their belief in the bright future of plant biochemistry at UC Davis," said Mark McNamee, dean of the Division of Biological Sciences. "Paul provided superb mentorship for me and others when we started our careers at UC Davis, and his advice to new colleagues is still timely."

An emeritus professor since 1984, Stumpf came to the Davis campus from UC Berkeley in 1958. He was the founding chair of the Department of Biochemistry and Biophysics and served on three other occasions as chair of the department.

According to McNamee, "Paul Stumpf played a major role in the development of all areas of biochemistry at UC Davis, and he remains a strong advocate for the biochemistry program, which attracts over 800 undergraduate majors and over 50 graduate students."

Stumpf feels deep ties to the University of California. "Since the UC was my home for over 50 years, fully supporting my academic career and providing a challenging environment in which my career flourished, my wife and I thought it most appropriate to endow a professorship in plant biochemistry. It's an area in which I taught and researched and achieved some eminence."

Stumpf added that the endowment also acknowledges Ruth Stumpf's contributions to his career. "As with all partnerships, my wife played an integral role throughout my

career and thus richly deserves to be named as a sponsor."

Ruth Stumpf graduated with a B.S. degree in chemistry from the University of Michigan. She joined the U.S. Marine Corps during World War II and rose to the level of sergeant. In the 1960s, she was president of the University Farm Circle, a group that supports UC Davis programs. She has also been a long-time volunteer with the Kaiser-Permanente Group, both in Sacramento and Davis.

Paul Stumpf's achievements include the 1952 publication of groundbreaking work that showed how plants synthesize fatty acids. The foundation of modern plant lipid biochemistry was established in his laboratory, university officials noted. They added that many of the leading plant lipid biochemists in the country were trained in his laboratory.

Stumpf and his research group published more than 250 papers on plant lipid biochemistry. In addition, he co-authored with John B. Neilands two editions of *Outlines of Enzyme Chemistry*, and with Eric Conn five editions of *Outlines of Biochemistry*. He also was the co-editor-in-chief with Eric Conn of the 16-volume treatise *Biochemistry of Plants*. Conn comments, "Paul is the world's authority on lipid metabolism in higher plants, both biosynthesis and catabolism."

Stumpf is a member of the National Academy of Sciences and in 1994 was elected fellow of the American Association for the Advancement of Science. In 1996 he was given the Award of Excellence from the UC Davis College of Agricultural and Environmental Sciences. He has also received the prestigious Stephen Hales Prize from the American Society of Plant Physiologists and the Lipid Chemistry Award from the American Oil Chemists Society. From 1988 to 1991 he served as chief scientist of the National Research Initiative Competitive Grants Agency in the U.S. Department of Agriculture in Washington, DC.

Johns Hopkins Woman's Club Bridge Group Gives Memorial to ASPP Education Foundation

The Bridge Group of the Johns Hopkins Woman's Club has made a donation to the ASPP Education Foundation in memory of former member Patricia Jackson, who died March 30, 1999. Pat Jackson was a member of ASPP for nearly 40 years.

New Editor for Education Forum

The Education Forum is delighted to welcome a new editor, Carol Reiss. Carol takes the helm from Bob Wise, who ended his term with the March/April column.

Carol is currently a visiting scientist at Brown University. She taught plant physiology labs at Cornell for 20 years before taking early retirement to move on to other activities. Lately, she has been an itinerant teacher doing sabbatic replacements at local colleges and is writing seven chapters for a new introductory biology book for Prentice Hall. She is also the author of *Experiments in Plant Physiology*, a laboratory manual published in 1994 (Prentice Hall). She wrote a pamphlet for ASPP entitled "Teaching a Plant Physiology Laboratory for the First Time?" and redesigned the Society's *Principles of Plant Biology: Concepts for Science Education* brochure this year. In 1998, she received ASPP's Excellence in Teaching Award.

Welcome aboard, Carol!



Carol Reiss

Compiled and edited by Carol Reiss, Division of Biomed—Box G-14, Brown University, Providence, RI 02912, e-mail hcr@brown.edu

Education Forum Says Good-bye to Bob Wise

As of this issue, Bob Wise will no longer be writing and editing the Education Forum. He has done an excellent job over the past five years, having developed the column from its inception. He will be a hard act to follow; in fact, the Ed Forum will now be under the joint supervision of Carol Reiss and Gary Kuleck, both members of the Education Committee. We will do our best to follow in Bob's footsteps.

Plant Biology '99

A number of activities focused on education will take place at this summer's meeting. First, be sure to check out the Education Posters; there are always a wealth of good ideas, new experiments, and experiences to share. Also make a point of stopping at the Education Booth to see what's going on. There will be several demonstrations given each day and ongoing displays of information. Volunteers are needed to staff the booth during the meeting; if you are interested please contact Carol Reiss (hcr@brown.edu) or Eric Davies (eric_davies@ncsu.edu) to get on the list of volunteers. There will also be a sign-up sheet available at the meeting; look for it and select your favorite block of time at the Booth.

The Education Committee is gathering a list of frequently asked questions (FAQs) for inclusion on the Education page of the ASPP Web site. Once we have a sufficient supply of good questions, we will be soliciting expert answers, written at an appropriate level for students and teachers. There will be a station at the Education Booth at this summer's meeting for you to add questions (with or without your own answers). It is hoped that inclusion of such questions and answers on the Web page will provide useful direction to students and teachers, especially at the K-12 level. It might also save some of us from answering the same questions over and over again!

Education Workshop at Plant Biology '99: Internet Use in Lecture and Laboratory Classes

The ASPP Education Committee is hosting a workshop looking at present uses and future trends in using the Internet in undergraduate education. The workshop will utilize a live Internet connection for the presentations. The use and utility of the bionet.plants.education newsgroup will be demonstrated as a tool for obtaining assistance from other plant educators, with two ASPP members demonstrating how they use Web resources in teaching lecture and laboratory courses. Several gateways to useful resources for plant biology education will be identified.

Finally, the future of course delivery will be explored with a demonstration of a commercial software package that provides a user-friendly environment including content delivery, announcements, online quizzes, automatic scoring and cumulative grading threaded discussion groups, chat rooms, drop boxes for written assignments, and internal capability for student e-mail accounts and Web pages.

The participants will be John Markwell, University of Nebraska, Jon Monroe, James Madison University, and Blackboard Inc. in Washington, DC, developers of CourseInfo. The workshop will be held on Wednesday, July 28, from 10:30 a.m. till noon.

Newly Designed Principles Brochure

Be sure to stop by the Education Booth and get a copy of the newly designed *Principles of Plant Biology: Concepts for Science Education* brochure. The brochure was distributed at the annual meeting of the National Science Teachers Association, March 24-27 in Boston. It includes specific references to the National Research Council's Life Science Standards at all grade levels and features a drawing by Karl Niklas on the cover. Check it out.

Ernest K. Akamine

Ernest K. Akamine, a University of Hawaii emeritus professor of plant physiology, died January 5 at the age of 86.

Professor Akamine is credited with contributing much to the study of plant physiology, publishing both popular and scientific articles on seed germination, sugar cane growth, herbicides, and other subjects. He is considered a pioneer in the field, and his works are standard references.

During his 42-year career, Prof. Akamine conducted studies in seed physiology, herbicides, sugar cane culture, and hot water and irradiation treatments for shipped commodities. He became a national and international figure in the field of postharvest plant physiology. His pioneering research in the development of postharvest treatment of many tropical fruits, vegetables, and ornamentals provided solutions to problems encountered by local farmers and growers. His work enabled Hawaii to export and market key agricultural products.

Prof. Akamine considered the development of the hot water treatment for export papayas to be his most significant research accomplishment. He found that dipping papayas in hot water effectively controlled both fruit fly infestation and storage decay in transit and on the retail shelf. For his extensive work on this fruit, he was honored on several occasions by the Hawaii Papaya Industry Association.

In addition to research, in the early 1960s Prof. Akamine developed and taught the first course in postharvest plant physiology at the University of Hawaii.

His bibliography lists 131 publications, mainly in technical journals. Prof. Akamine earned bachelor's and master's degrees at the University of Hawaii and later did postgraduate work at the University of California at Los Angeles.

He retired from the University of Hawaii in 1977 as emeritus plant physiologist and emeritus professor of plant physiology. His affiliations included the American Society of Plant Physiologists, the Hawaiian Academy of Sciences, and the American Society for Horticultural Sciences.

Professor Alexandra Poljakoff-Mayber, one of the pioneers in plant physiological research and teaching in Israel, died in Jerusalem in January at the age of 83. She was born in Russia (in the same village Chagall was born in) and emigrated to Palestine with her mother when she was eight. Alexandra (universally known as Alex) studied first at the Yelin Teachers Seminary and then enrolled as a biology student at the Hebrew University of Jerusalem on Mount Scopus. Her studies were interrupted by the outbreak of World War II; she joined the British Army and saw service with the ATS in Egypt. After the war she returned to the university, but these were the turbulent final years of the British Mandate in Palestine, and her laboratory demonstrations to junior students tended to alternate with more clandestine sessions in which she instructed fledgling members of the Hagana (the Jewish defense organization) in weapons use. In 1953, she was appointed to the staff of the Botany Department and remained a member of this department throughout her career.

Alex worked for her Ph.D. under the direction of Michael Evenari on the germination process in seeds, a field to which she later made substantial contributions, notably with regard to the regulation of metabolic processes in the seed by germination inhibitors and promoters. Stress physiology was another major research interest. Alex was among the early investigators of the responses to salinity stress at the subcellular level and focused on ultrastructural as well as biochemical aspects. Her interests included naturally occurring halophytes and the mechanisms by which they survive.

Alex was among the founders of the national Centre for Science Education in Israel and the Hebrew University Department for Science Teaching, and she directed both bodies until her retirement. The former was initially sponsored by Unesco, and Alex assisted other similar Unesco projects in various Asian countries. Her educational efforts had a major impact on the teaching of science in Israeli schools, in recognition of which the Weizmann Institute of Science awarded her an honorary doctorate shortly before her death.

Alex had an exceptional gift for getting on with people, a gift which transcended cultural and political barriers. Her many friends on five continents are saddened to hear of her passing. She is survived by her son Yoav and two granddaughters, Shachar and Inbal.

Leonora Reinhold
The Hebrew University of Jerusalem

ASPP headquarters was recently informed of the death of emeritus member R. H. Haskins of Saskatoon, Canada, on March 17, 1999. Dr. Haskins had been a member of ASPP since 1961.

Patricia C. Jackson

ASPP headquarters was recently informed of the death of Patricia C. Jackson of Clarksville, Maryland, on March 30, 1999. Dr. Jackson had been a member of ASPP since 1959.

William Kelly

ASPP headquarters was recently informed of the death of emeritus member William Kelly, professor emeritus at Cornell University. Dr. Kelly had been a member of ASPP since 1948.

Antonio R. Sampietro

ASPP headquarters was recently informed of the death of member Antonio R. Sampietro of San Miguel - Tu, Argentina, on February 10, 1999. He had been a member of ASPP since 1991.



I read with interest the obituary on Brian Mudd in the last issue of the *ASPP NEWS*.

J. Brian Mudd did indeed play an important part in the scientific attack on air pollution in California. But he also began and sustained a very important career in the area of plant lipid biosynthesis.

He initiated this work in my laboratory at UC Davis as a postdoctoral fellow in 1959 when I assigned him the problem of studying the synthesis of oleic acid in plants. In this work he established for the first time the absolute requirement for molecular oxygen in the synthesis of oleic acid when radioactive acetate was added to a particulate system obtained from avocado mesocarp. In the absence of oxygen, stearic acid accumulated in triglycerides. Because he was also able to show that both added radioactive palmitic and stearic acids were readily incorporated into triglycerides in the presence of CoA but were not desaturated to palmitoleic or oleic components, it was obvious that the acyl CoAs were not substrates for desaturation (*JBC*, **236**, 2601-2609; 1961).

On the completion of his postdoctoral period, he applied and was appointed assistant professor of biochemistry at UC Riverside. There, he not only established a vigorous research program on plant fatty acid biosynthesis, but he also rapidly became one of the most popular lecturers on the campus.

Mudd had a knack of expressing difficult subjects in a humorous but carefully crafted series of statements that made complete sense to his students. In fact, I understand that he was voted by his UCR biochemistry students as their most popular teacher. This ability to communicate difficult problems in a highly articulate manner resulted in many invitations to international meetings in the area of plant lipid research.

Having known Brian since 1959 as a personal and close friend, and having followed his research over many years, I felt it important to add these comments to his obituary and thereby complete a description of his life achievements as a pioneer in the area of plant lipid research, to which he made many important contributions.

Paul K. Stumpf
Professor Emeritus of Biochemistry
University of California, Davis

Gatherings



The *ASPP NEWS* publishes dates, titles, locations, and contact names and addresses for meetings, courses, seminars, and the like that are of interest to ASPP members. Submit announcements via e-mail to sbraxton@aspp.org or mail to Sylvia J. Braxton, *ASPP NEWS*, 15501 Monona Drive, Rockville, MD 20855-2768 USA. **Faxed transmissions are not accepted.**

FUTURE ASPP ANNUAL MEETING SITES

1999: Baltimore, Maryland
Saturday, July 24, through
Wednesday, July 28
ASPP's 75th Anniversary!

2000: San Diego, California
Saturday, July 15, through
Wednesday, July 19

2001: Providence, Rhode Island
Saturday, July 28, through
Wednesday, August 1

1999

MAY

May 25
Exotic Pest Conference
Sacramento Convention Center
Sacramento, California
For information contact the Agricultural Issues Center at 530-752-2320 or agissues@ucdavis.edu.

May 26–29
Sixth Annual Workshop
Teaching Research Ethics
Indiana University, Bloomington
For information, contact Kenneth D. Pimple, "Teaching Research Ethics," Project Director, Poynter Center, Indiana University, 618 East Third Street, Bloomington, IN 47405; telephone 812-855-0261, fax 812-855-3315, e-mail pimple@indiana.edu, Web site <http://www.indiana.edu/~poynter/index.html>.

JUNE

June 5–9
1999 Congress on In Vitro Biology
The Radisson Hotel, New Orleans, Louisiana
Contact Tiffany McMillan; telephone 301-324-5054, fax 301-324-5057. For meeting registration rates and updated program information, visit Web site at <http://www.sivb.org>.

June 8–18
"Advanced Plant Biochemistry: Signal Transduction and Metabolic Engineering"
ASPP-Cosponsored Workshop
Wuhan, China
For information, contact Qifa Zhang (qifazh@public.wh.hb.cn) in China or Xuemin Wang (wans@ksu.edu) in the United States.

June 19–23
Plant Biology Canada '99
(Annual Meeting: Canadian Society of Plant Physiologists)
Delta Bessborough Hotel
Saskatoon, Saskatchewan
Conference Web site: <http://www.usask.ca/biology/cssp>. Contact Rosemarie Gallays, NRC/PBI, fax 306-975-5571, e-mail rgallays@pbi.nrc.ca.

June 21–July 2
21st Annual Summer Postharvest Technology Short Course
University Extension
University of California, Davis
For information or to enroll, call 800-752-0881.

JULY

July 4–August 13
Summer Course: Exploration of Plant Science
Northern Illinois University at Oxford
Oriol College, Oxford, United Kingdom
For information, please see the Oxford Program Web site at <http://www.niu.edu/niuabroad/britli99.html>, or contact Dr. Gabriel Holbrook, Plant Molecular Biology Center, Northern Illinois

University, DeKalb, IL 60115; telephone 815-753-3199, e-mail gholbrook@niu.edu.

July 10–13
Annual Meeting of the Phytochemical Society of North America
Montreal, Canada
Symposium lectures on "Evolution of Plant Metabolic Pathways," a minisymposium on "Brassinosteroids," and oral and poster sessions on all aspects of phytochemistry. For more information, please contact V. De Luca at vince.deluca@seeds.novartis.com, R. Ibrahim at ragibra@vax2.concordia.ca, or L. Varin at varinl@clone.concordia.ca.

July 10–15
27th Annual Meeting of the American Society for Photobiology
Grand Hyatt Washington, Washington, DC
For more information, contact Dr. Sherwood Reichard, Secretariat, 1021 15th Street, Suite 9, Augusta, CA 30901; telephone 706-722-7511, fax 706-722-7515, e-mail maps@csrnet.com.

July 10–24
1999 Plant Biochemistry Summer Course
Washington State University, Pullman
For information and registration forms, contact Karen Maertens at telephone 509-335-5496, fax 509-335-7643, e-mail maertens@wsu.edu.

July 11–14
The 26th Annual Meeting of the Plant Growth Regulation Society of America (PGRSA)
Costa Mesa, California
For information, check the PGRSA Web site at <http://www.griffin.peachnet.edu/pgrsa/>.

July 11–16
Forest Biotechnology '99
A joint meeting incorporating the 3rd International Wood Biotechnology Symposium and the IUFRO Working Party for the Molecular Genetics of Trees (S.04-06)
Oxford, United Kingdom
Contact Malcolm M. Campbell, Department of Plant Sciences, University of Oxford, South Parks Rd., Oxford OX1 3RB, UK; telephone +44-1865-275135, fax +44-1865-275074, e-mail forest.biotech99@plants.ox.ac.uk, Web site <http://www.plants.ox.ac.uk/top.htm>.

July 11–24
Plant Biochemistry Training Course
Washington State University, Pullman
For information contact Karen Maertens, telephone 509-335-5496, fax 509-335-7643, e-mail maertens@wsu.edu.

July 13–16

Annual Meeting of the American Peanut Research and Education Society
Hyatt Regency Hotel, Savannah, Georgia
Information can be obtained from John Beasley, Local Arrangements Chairman, UGA Crop and Soil Sciences Department, Tifton Campus, Tifton, GA 31794; telephone 912-386-3430, or Ron Sholar, APRES, Executive Officer, 376 Ag. Hall, Oklahoma State University, Stillwater, OK 74078; telephone 405-744-9634.

July 17–21

International Symposium on Plant Peroxidases
Columbus, Ohio
For more information, please contact Dr. L. Mark Lagrimini, Department of Horticulture and Crop Science, Ohio State University, 2001 Fyffe Ct., Columbus, OH 43210-1096; e-mail lagrimini.1@osu.edu, Web site <http://www.hcs.ohio-state.edu/pod/pod.htm>.

July 18–22

The VII Brazilian Congress on Plant Physiology
Brasilia, Federal District, Brazil
Updated information can be found at the Brazilian Society of Plant Physiology's Web site at <http://www.rbfv.org.br>. For additional information contact Secretaria Geral do VII CBFV, Depto de Botanica, University de Brasilia, CP 04457, CEP 70919-970, Brasilia-DF, Brasil, fax +55-61-272-2743, e-mail cbfv99@cnpn.embrapa.br.

July 19–23

2nd International Symposium on Plant Dormancy
Angers, France
For information and registration forms, contact Dr. J. D. Viemont, Université d'Angers, Faculté des Sciences, 2 Boulevard Lavoisier, F-49045 Angers, Cedex, France; fax +33-241-73-53-52, e-mail jean-daniel.viemont@univ.angers.fr.

July 20–23

The 13th John Innes Symposium
Attack & Defence in Plant Disease
Norfolk, United Kingdom
Contact Symposium Secretary, John Innes Centre, Norwich Research Park, Colney, Norwich, Norfolk, NR4 7UH, United Kingdom; telephone +44-1603-452571, fax +44-1603-456844, e-mail jennifer.fox@bbsrc.ac.uk.

July 24–28

Plant Biology '99
Baltimore, Maryland
The 1999 ASPP Annual Meeting will celebrate the 75th Anniversary of the American Society of Plant Physiologists. Contact Susan Chambers, 15501 Monona Drive, Rockville, MD 20855-2768; telephone 301-251-0560, ext. 11, fax 301-279-2996, e-mail chambers@aspp.org or on the World Wide Web see URL <http://aspp.org/meetings/meetings.htm>.

July 26–30

International Symposium
Auxins and Cytokinins in Plant Development
Prague, Czech Republic
Detailed information about the symposium and a preliminary registration form can be found at <http://www.ueb.cas.cz/acpd>. Other contacts: Mirek

Kaminek or Eva Zazimalova, Institute of Experimental Botany, Rozvojova 135, CZ 165 02 Prague 6, Czech Republic; (Kaminek) telephone +420-2-20390-445, fax +420-2-20390-446, (Zazimalova) telephone +420-2-20390 429, fax +420-2-20390 474. Symposium e-mail acpd@ueb.cas.cz.

July 27–30

Rendez-vous BioAtlantech 1999
Farm, Forests & Fish Genomics Technologies—Mapping Tomorrow's Resources
Fredericton, New Brunswick, Canada
Contact PO Box 636, Stn A Fredericton, New Brunswick E3B 5A6; telephone 506-444-2444, fax 506-444-5662, e-mail jgartley@fundy.net, Web site <http://www.bioatlantech.nb.ca>.

AUGUST

August 3–7

6th International Congress on Amino Acids
Bonn, Germany
Contact Bijay K. Singh, American Cyanamid Company, PO Box 400, Princeton, NJ 08543-0400; telephone 609-716-2066, fax 609-275-5216, e-mail singhb@pt.cyanamid.com.

August 7–11

1999 APS/CPS Annual Meeting
Palais des Congres de Montreal, Quebec, Canada
Closing date is May 14, 1999. Contact Rhonda Wilkie, Advertising & Exhibit Sales Representative, 3340 Pilot Knob Road, St. Paul, MN 55121-2097; telephone 651-454-7250, fax 651-454-0766, e-mail rwilkie@scisoc.org.

August 15–20

International Conference on Assimilate Transport and Partitioning
Integration of Structure, Physiology and Molecular Biology
NSW, Australia

Information can be found at <http://www.newcastle.edu.au/icatp/> or contact Assoc/Prof Tina Offler, Co-Convenor & Conference Secretariat ICATP'99, Department of Biological Sciences, The University of Newcastle, Callaghan NSW 2308, Australia; telephone +61-2-4921-5704, fax +61-2-4921-6923, e-mail icatp@newcastle.edu.au.

August 28–September 1

Cellular Responses to Oxidative and Osmotic Stress, Sensing, Signalling and Gene Expression
Egmond aan Zee, Netherlands
Meeting registration deadline is April 2, 1999. For information contact Dr. Pim Mager, telephone +31-20-444-7569, e-mail mager@chem.vu.nl, and for more details visit our Web site at <http://www.chem.vu.nl/STAR99/index.html>.

SEPTEMBER

September 3–8

Tetrapyrrole Photoreceptors in Photosynthetic Organisms
Castelvecchio Pascoli, Italy
Deadline for applications: May 3, 1999. Chairman: Roberto Bassi, ViceChairman: Samuel I. Beale. For information and application forms, contact the Head of the Euresco Unit: Dr. Josip Hendekovic, European Science Foundation, 1

quai Lezay-Marnésia, 67080 Strasbourg Cedex, France; telephone +33-3-88-76-71-35, fax +33-3-88-36-69-87, e-mail euresco@esf.org, Web site <http://www.esf.org/euresco>.

September 12–17

CO₂-Fixation and Metabolism in Green Plants
Gordon Research Conference, Queen's College Oxford, United Kingdom
Organizers: H. J. Bohnert, R. Chollet, C. Foyer. Contact H. J. Bohnert, fax 520-621-1697, e-mail bohnerth@u.arizona.edu. For a tentative program, see <http://www.grc.uri.edu/programs/1999/CO2.htm>.

September 14–18

International Symposium
Ethnobotany Medicinal Plants:
Folk Traditions, History, Pharmacology
San José, Costa Rica
For participation and information please contact the organizers:
Simposio, PO Box 6131, 1000 San José, Costa Rica; e-mail simposio@nexos.co.cr. Ronald Chaves can be contacted at fax +506-283-02-63 (Costa Rica) and Professor Alain Touwaide can be contacted at fax +506-283-02-63 (Spain). Visit our Web site at <http://www.costarica.com/wg/simposio>.

OCTOBER

October 6–14

Optical Microscopy and Imaging in the Biomedical Sciences
Short Course
Marine Biological Laboratory
Woods Hole, Massachusetts
Deadline August 3, 1999. For application forms and information contact Carol Hamel, Admissions Coordinator, Marine Biological Laboratory, 7 MBL Street, Woods Hole, MA 02543-7401; telephone 508-289-7401, e-mail admissions@mbl.edu, Web site <http://www.mbl.edu>.

October 10–13

The 9th Gatlinburg Symposium
University of Tennessee, Knoxville
For information on the scientific program, contact Dr. Barry D. Bruce at 423-974-4082 or bbruce@utk.edu. For conference details and registration information, contact Ms. Susan Davis, 212 Conference Center Bldg., Henley Street, University of Tennessee, Knoxville, TN 37996; telephone 423-974-0280, e-mail susandavis@utk.edu.

October 30–November 2

3rd México-US Symposium
"Plant Biology at the End of the Second Millennium, a Bilateral Overview"
Mérida, Yucatán, México
For information contact Teresa Hernández-Sotomayor Ph. D. at ths@cicy.mx or see Web site at <http://www.cicy.mx/index.html>.

2000

MARCH

March 26–29, 2000

The 5th International Conference on "Plasma

Membrane Redox Systems and Their Role in Biological Stress and Disease”

Hamburg, Germany

Detailed information about the conference and a form to receive the first circular can be found at <http://www.rrz.uni-hamburg.de/biologie/fialb/redox2000/redox.htm>. You can also contact the organizers by sending e-mail to REDOX2000@botanik.uni-hamburg.de or contact M. Böttger, O. Döring, and S. Lüthje, Institut für Allgemeine Botanik, Ohnhorststr. 18, D-22609 Hamburg, Germany, telephone +49-40-82282-345 /348, fax +49-40-82282-254.

APRIL

April 1–5, 2000

The XVI International Congress on Sexual Plant Reproduction

Banff, Alberta, Canada

Co-organizers: Dr. D. D. Cass, University of Alberta (d.cass@ualberta.ca) and Dr. V. K. Sawhney, University of Saskatchewan

(sawhney@admin.usask.ca). For information check our Web site at <http://www.usask.ca/biology/spr/>.

MAY

May 13–18, 2000

Auxin 2000

Ajaccio, Corsica

Organizers: Alan Jones, Catherine Perrot-Rechenmann, Mark Estelle. For information on the speakers, venue, application for participation, and estimated costs, visit the Web site at <http://www.isv.cnrs-gif.fr/CR/aux2000> or contact alan_jones@unc.edu.

May 14-19, 2000

10th International Symposium on Iron Nutrition and Interactions in Plants

Houston, Texas

Organizing Committee Chairman: Michael A. Grusak. For information contact Stancia Pemberton, USDA/ARS Children's Nutrition

Research Center, 1100 Bates Street, Houston, TX 77030; telephone 713-798-7020, fax 713-798-7078, e-mail stanciap@bcm.tmc.edu.

JUNE

June 11–16, 2000

International Symposium on Grapevine Physiology & Biotechnology Heraklion, Crete, Greece

For information contact Professor K. A. Roubelakis-Angelakis, Department of Biology, University of Crete, PO Box 2208, 71409 Heraklion, Greece; telephone/fax +30-81-394459; e-mail poproube@biology.ucl.ac.uk. Also, visit the symposium Web site at <http://www.biology.ucl.ac.uk/meetings>.

Research Leader USDA, REE, Fargo, North Dakota

USDA, REE, Agricultural Research Service–Northern Plains Area, Red River Valley Agricultural Research Center, Sugarbeet and Potato Research at Fargo, North Dakota, seeks a permanent full-time scientist with demonstrated expertise in plant genetics, plant physiology, or plant pathology to serve as Research Leader. The incumbent will be responsible for all aspects of the unit's management, including planning, conducting, and reporting original research; leading research programs and supervision of scientists within the unit on relevant research problems; determining research needs and customer expectations; and evaluating, reviewing, and recommending and/or implementing changes in the research programs as needed. Incumbent's personal research program will be consistent with the unit's mission and include the development and transfer of new germplasm information and technology related to disease resistance and quality of sugar beets or the postharvest quality of potatoes. The incumbent will maintain a research program in his/her specialty. U.S. citizenship is required and a Ph.D. or equivalent is desired. Salary commensurate with experience (\$67,298–\$102,907 per year). Comprehensive benefits package includes paid sick and annual leave, life and health insurance, and a savings and investment plan (401K type) available with the Federal retirement plan. For information on the research program and/or position, contact Dr. Will Blackburn at 970-229-5557 or via e-mail at blackbuw@ars.usda.gov. A full copy of the vacancy announcement will be available on the ARS Web site at <http://www.ars.usda.gov/afm/hrd/resjobs>. For information on application procedures, contact Melanie Nyquist at 701-239-1203. Applications must be postmarked by the closing date and need to be mailed to USDA, ARS, HRD, WOB, 5601 Sunnyside Avenue, Beltsville, MD 20705-5106. The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital and family status. Persons with disabilities who require alternative means for communication of program information should contact USDA's TARGET Center at 202-720-2600 (voice or TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

ASPP Placement Service

This form may be used only by members of the American Society of Plant Physiologists.
Please print or type your placement information on this form (curriculum vitae will not be accepted) and send it to
Donna Gordon, ASPP Headquarters, 15501 Monona Drive, Rockville, MD 20855-2768

LAST NAME	TITLE	FIRST NAME	INITIAL
STREET ADDRESS			
CITY	STATE	ZIP	COUNTRY
TELEPHONE	FAX	E-MAIL	

I am seeking the following position (check all that apply):

- | | | | |
|------------------------------------|-------------------------------------|---------------------------------------|--------------------------------------|
| <input type="checkbox"/> Permanent | <input type="checkbox"/> Temporary | <input type="checkbox"/> Postdoctoral | <input type="checkbox"/> Industrial |
| <input type="checkbox"/> Academic | <input type="checkbox"/> Government | <input type="checkbox"/> USA only | <input type="checkbox"/> Outside USA |

US citizen? Yes No **Date available:** _____

Fields of interest, specialties, and publications titles: _____

Thesis, dissertation topics, professor: _____

Professional societies and honors: _____

Degree/year	Major	Minor	College/university and its location

Postdoctoral study (specialty and with whom, where, when): _____

Employer and location	From	To	Position, Title, Duties

References (names, addresses, telephone numbers):

ASPP Job Placement Service



I. Registering with the ASPP Placement Service and Obtaining Placement Files

ASPP headquarters in Rockville, Maryland, operates a placement service in which are kept active two files of resumes of individuals who are seeking employment. Employers are urged to survey the resume files for those seeking permanent positions and those seeking postdoctoral or similar positions. The files cost \$25 each and may be ordered from Donna Gordon, ASPP Placement Service, 15501 Monona Drive, Rockville, MD 20855-2768 USA. Those seeking employment should complete the Placement Service Form on the facing page to be included in the service.

II. Placing a Position Ad in *ASPP NEWS* and on the ASPP World Wide Web Homepage

Submit all ads by e-mail to Sylvia J. Braxton at sbraxton@aspp.org (or by mail to Sylvia J. Braxton, 15501 Monona Drive, Rockville, MD 20855-2768; **FAXED ADS ARE NOT ACCEPTED**). A fee of \$150 for print, Web, or both is charged for all academic/government/industry permanent positions and for all positions, regardless of rank, posted by private companies (private nonprofit companies are not charged a fee). If a fee is charged for your ad, please include billing information at the time the ad is submitted.

- **Academic/Government/Industry Permanent Positions (Ph.D.):** Limited to 200 words; ad will run 12 weeks on the Web and appear in one issue of *ASPP NEWS*. (If the ad runs only on the Web, the word limit is waived.)
- **Postdoctoral Positions and Research/Technical Positions (non-Ph.D.):** At universities and government installations, limited to 100 words; at private companies, limited to 200 words. Ad will run 12 weeks on the Web and appear in one issue of *ASPP NEWS*. (If the ad runs only on the Web, the word limits are waived.)
- **Assistantships, Fellowships, Internships, etc.:** Announcements of programs and fellowships or internships for students seeking advanced degrees run at no charge and without a word limit. They will run two times in *ASPP NEWS*: the first time, they will run at full length; the second time, they will include location, contact name, and address, with a reference to the original posting. These announcements will run on the ASPP World Wide Web homepage for 12 weeks from the date of posting.

ACADEMIC/GOVERNMENT/INDUSTRY PERMANENT POSITIONS (Ph.D.)

Faculty Position

The Boyce Thompson Institute, Ithaca, New York (Received 03/01)

The Boyce Thompson Institute for Plant Research at Cornell University invites applications for a tenure-track position for a junior-level scientist who uses genomics or proteomics approaches to study fundamental mechanisms underlying plant biodiversity at the organismal or population levels. Research areas of interest include, but are not limited to adaptation to biotic or abiotic stresses or environmental factors; genetics and biochemistry of plant-insect or plant-pathogen interactions; molecular analysis of ecological systems. The successful candidate will establish an independent, extramurally funded research program and collaborate with colleagues at the Boyce Thompson Institute and elsewhere on the Cornell University campus. This position is synergistic with the Cornell Genomics Initiative, which is a comprehensive effort to recruit 20 new genomics faculty to the Cornell campus and significantly upgrade facilities and infrastructure for genomics and proteomics research. Excellent start-up funds and benefits are available. Review of applications will begin April 5, 1999, and continue until the position is filled. Applicants should send a curriculum vitae, statement of research interests, and names of at least three references to Molecular Biodiversity Search

Committee, Boyce Thompson Institute, Ithaca, NY 14853. Questions regarding the position may be directed to Dr. David Stern, 607-254-1306; e-mail ds28@cornell.edu, or Dr. Robert Kohut, 607-254-1233, e-mail rjk9@cornell.edu. Boyce Thompson Institute is a private, independent, non-profit research institute formally affiliated with Cornell University. The institute is an affirmative action, equal opportunity employer and is committed to increasing the diversity of its faculty and staff. Applications from women and minorities are encouraged.

Associate Specialist University of California, Berkeley (Received 03/04)

An associate specialist position is available to develop and utilize transformation technologies for grains (rice, wheat, corn, and soybean). The successful applicant will utilize *in vitro* tissue manipulation and physical and biological transformation techniques to introduce value-added genes. A Ph.D. in plant biology and five years of postdoctoral experience in vector construction, gene isolation, and cereal transformation is required. Strong analytical and written communication skills required. Initial one-year appointment with possibility of renewal contingent on funding. Salary range is \$42,000-\$51,000 at 100% time, commensurate with experience. Send a letter of application, including a curriculum letter and names of three references,

by June 30, 1999, to Dr. Peggy C. Lemaux, 111 Koshland Hall, University of California, Berkeley CA 94720-3102; e-mail lemauxpg@nature.berkeley.edu. The University of California is an EOE/AA employer.

Gordon D. Cain Endowed Chair in Agriculture Louisiana State University, Baton Rouge (Received 03/05)

The candidate must have a Ph.D. and be a nationally or internationally recognized scientist and scholar. The field of concentration is open; however, preference will be given to candidates with excellent research credentials in plant biotechnology. The incumbent will teach at the undergraduate and/or graduate levels, direct graduate students, counsel other faculty, and conduct research in association with the Louisiana Agricultural Experiment Station. The incumbent will be expected to develop cooperative research efforts with geneticists, molecular biologists, pathologists, and other scientists on campus. The candidate will serve as leader to establish a successful and innovative plant molecular working group at LSU. Applicants should submit a letter of application, curriculum vita, statement of research and teaching interests, and names of at least three references to Dr. J. P. Snow, Chair of the Search Committee, Department of Plant Pathology and Crop Physiology, Louisiana State University, Ref. #014964, Baton Rouge, LA 70803. Nominations of potential

THE DEADLINE FOR ADS FOR THE JULY/AUGUST ISSUE OF *ASPP NEWS* IS JUNE 30, 1999.
Check ASPP's World Wide Web site (<http://aspp.org/JOB/>) every Friday for new job listings.
Jobs with early application deadlines are listed on the Web site, but might not appear in *ASPP NEWS*.

candidates will be appreciated. Application deadline is July 1, 1999, or until candidate is selected. LSU is an equal opportunity/equal access employer.

**Assistant Professor
Cornell University, Ithaca, New York
(Received 03/17)**

A tenure-track position, 70% research 30% teaching, is available in. Responsibilities: direct an innovative program on genetic improvement of potato to address current and future needs of this crop in New York, the Northeast, and globally, combining techniques of breeding, cell/molecular biology, and genomics; continue development of improved germplasm for regional growers, with support from other experienced personnel; contribute to Cornell's interdisciplinary projects on pathogen and pest resistance and to programs on genomics of solanaceous crops; interact effectively with industry representatives and international groups; teach a course related to plant breeding/genetics and contribute to graduate training in plant breeding. Qualifications: Ph.D. in plant genetics, plant breeding, plant molecular biology, or related discipline and the ability to direct a breeding program; postdoctoral and/or other relevant experience is desirable. The starting date is September, 1999, or as negotiated. Salary is commensurate with background and experience. Submit a letter of application, curriculum vitae, academic transcripts, and have three letters of reference to Potato Search Committee Chair, Department of Plant Breeding, Cornell University, Ithaca, NY 14853-1901. Additional information can be obtained at <http://www.plbr.cornell.edu> or by contacting Cynda Farnham by telephone at 607-255-2180, fax 607-255-6683, e-mail clf4@cornell.edu. Review of applications will begin May 1, 1999, and will continue until a suitable candidate is identified. Cornell University is an EEO/AA employer.

**Assistant Professor
University of Connecticut, Storrs
(Received 03/24)**

The Department of Plant Science invites applications for a nine-month, tenure-track, research and teaching position (60% research, 40% teaching) in plant molecular genetics. The successful candidate will demonstrate the ability to develop an externally funded research program utilizing the tools of molecular biology, biotechnology, and/or functional genomics. A strong interest in research relevant to the improvement of turfgrass, nursery crops, woody plants, or floriculture crops is desirable. Interaction with our plant biotechnology team is encouraged, including faculty in plant breeding, molecular biology, physiology, crop science, and pathology. A strong commitment to teaching is expected, including an undergraduate course in plant breeding and genetics. Applicants must have a Ph.D. in plant biology, horticulture, crop science, or related field. To apply, send a letter highlighting research and teaching goals, curriculum vitae, representative publications, and the names of three references to Dr. Carol Auer, Search Committee, Department of Plant Science, U-67,

University of Connecticut, Storrs, CT, 06269; email cauer@canr1.cag.uconn.edu. Applications will be accepted until May 1, 1999, or until a suitable candidate is identified. Applications from underrepresented groups, including minorities, women, and people with disabilities, are encouraged.

**Assistant Professor
Queen's University, Kingston, Ontario
(Received 03/31)**

We invite applications for a tenure-track position in plant biology at the assistant professor level. We are particularly interested in candidates in the area of plant metabolism, molecular physiology, or physiological ecology. We have a strong group in plant sciences located in the recently constructed Biosciences Complex, which is equipped with extensive greenhouse, growth chamber, and tissue culture facilities. A 2,200-hectare field station is within one hour of campus. Salary will be commensurate with experience. Expected date of appointment will be September 1, 1999, or as negotiated. Application deadline is June 30, 1999, or until position is filled. Qualifications include a Ph.D. and published evidence of excellent research ability. The successful candidate will be expected to develop a vigorous research program and should be an enthusiastic, competent teacher. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Queen's University is committed to employment equity and welcomes applications from all qualified women and men, including visible minorities, aboriginal people, persons with disabilities, and persons of diverse sexual orientations. Applications should include a curriculum vitae and statement of current and prospective research interests plus three letters of reference and be sent directly to the Head, Department of Biology, Queen's University, Kingston, Ontario, K7L 3N6, Canada. Visit our Web site at <http://biology.queensu.ca>.

**Program Director
CREES/USDA, Washington, D.C.
(Received 04/07)**

The National Research Initiative Competitive Grants Program of the U.S. Department of Agriculture seeks a qualified scientist to serve as program director for grants administration in the area of plant physiology and biochemistry. Candidates must have an advanced degree with major study in plant physiology, biochemistry or a closely related field. It is preferable that the candidate have a Ph.D. or equivalent specialized experience. Familiarity with plant molecular biology and plant genetics is required for this position. This is a competitive vacancy open to all U.S. citizens. The closing date is May 17, 1999. Applicants will be evaluated against quality ranking factors detailed in the vacancy announcement. For information on the position, contact Mr. Jeffery Conrad, Acting Division Director, National Research Initiative Competitive Grants Program, CSREES/USDA, STOP 2241, 1400 Independence Avenue S.W., Washington DC 20250-2241; telephone 202-401-6188, e-mail jconrad@reeusda.gov. For information on

application procedures/forms, contact the Human Resources Division, at 301-344-3960. USDA is an equal opportunity employer. The vacancy announcement can also be obtained from the Human Resources Division or by viewing the Web site at <http://www.reeusda.gov/hrd/99-082.htm>.

**Faculty Position
Tel Aviv University, Israel
(Received 04/08)**

Applications are invited for a tenure track position in the Department of Plant Sciences at Tel Aviv University starting October 2000. The successful candidate is expected to develop independent research in one of the following fields: organismic botany, ecology, plant cell biology, developmental biology, or plant physiology using modern tools. The qualified individual is expected to participate in teaching one of the introductory courses, general botany, plant physiology, ecology, plant cell biology, or plant biotechnology. Candidates are requested to send applications including curriculum vitae, bibliography, a statement of future research plans, and the names of at three persons who have been asked to send letters of recommendation to Professor Adina Breiman, Chairperson of the Department of Plant Sciences, Tel Aviv University, Ramat Aviv 69978, Israel.

**Ph.D. Research Positions
University of Minnesota, St. Paul
(Received 04/12)**

The Department of Horticultural Science at the University of Minnesota receives and evaluates applications from candidates for temporary part- and full-time research positions continuously. Positions become available throughout the year and are not continually available. Open temporary positions may be obtainable by persons holding an earned doctorate degree with applicable research training and/or experience; degree must be in hand at time of appointment. Submit a letter of interest and resume to Dr. Gary M. Gardner, Head, Department of Horticultural Science, University of Minnesota, 305 Alderman Hall, St. Paul, MN 55108. Filing deadline is April 15, 2000. The University of Minnesota is an equal opportunity educator and employer.

**Assistant Cooperative Extension
Vegetable Specialist
USDA/ARS Research Center
Salinas, California
(Received 04/12)**

An 11-month, career-track extension position is available. This academic position has 100% cooperative extension responsibilities, which include research, outreach, and education. The appointee will be located at the UC/USDA Research Center in Salinas and will be an integral part of the UC Davis Department of Vegetable Crops. Research and education emphasis will be on economically and environmentally sound soil, nutrient, water, and crop management practices for cool-season vegetable crops in the Central Coast region of California. Appointee will provide statewide extension leadership, interact with numerous clientele groups, and provide farm adviser training and advising. Appointee will have

the opportunity to participate in departmental teaching and in directing undergraduate and graduate research. Requirements include a Ph.D. in horticulture, agronomy, soil science, plant nutrition, water science, plant physiology, botany, or closely related discipline; demonstrated ability to conduct independent research in irrigated agricultural systems; understanding of extension methodologies; excellent written and oral communication skills; and a record of scholarly and academic achievement. Experience with the commercial vegetable industry is highly desirable. To ensure comprehensive evaluation send a curriculum vitae; statement of extension and research interests; documentation of extension, research, and teaching experience; official transcripts (if within five years of graduation), and names and addresses of at least three professional references by August 15, 1999, to Dr. Timothy Hartz, Search Committee Chair, Department of Vegetable Crops, University of California, Davis, CA 95616-8746; telephone 530-752-1738, fax 530-752-9659; e-mail hartz@vegmail.ucdavis.edu. For additional information, see the complete position description on our Web site at <http://veghome.ucdavis.edu/positions/CESpecialist.html>. The University of California is an affirmative action/equal opportunity employer.

Assistant Professor

Colorado State University, Fort Collins
(Received 04/12)

A research and teaching tenure-track position is available. Responsibilities include conducting fundamental and developmental research emphasizing potato and other vegetable crop quality, contributing to interdisciplinary research (e.g., with food science and plant breeding); obtaining external funding and teaching one course per year and advising graduate students. A Ph.D. in horticulture, plant physiology, or closely related plant science discipline is required. Knowledge of the diversity and nutritive value of horticultural food crops and their market quality is important. A curriculum vitae, transcripts, description of research and teaching interests, and four professional reference letters should be sent to Dr. Stephen J. Wallner, Head, Department of Horticulture and Landscape Architecture, Colorado State University, Fort Collins, CO 80523-1173; telephone 970-491-7018, fax 970-491-7745. Applications and nominations will be considered until the position is filled; however, applicants should submit applications by August 1, 1999 for full consideration.

Lecturer

University of Maryland, College Park
(Received 04/26)

The University of Maryland, College Park, invites applications for a lecturer position in the Department of Cell Biology and Molecular Genetics. The position is a 12-month renewable non-tenure track appointment. The appointee will lecture in a plant biology course for non-science majors and coordinate the laboratory associated with the course. Additional duties will include advising undergraduate Biological Sciences majors. Qualifications include a Ph.D. and the ability and interest to teach plant biology. Send a

curriculum vitae and the names and addresses of three references to Dr. David Straney, Chair of Search Committee, Department of Cell Biology and Molecular Genetics, H. J. Patterson Hall, University of Maryland, College Park, MD 20742-5815. For the best consideration please submit applications by May 25. Additional information is available at <http://www.life.umd.edu/CBMG/search>. Women and minorities are strongly encouraged to apply. The University of Maryland is an equal opportunity/affirmative action employer.

Cotton Specialist
University of California, Davis
(Received 04/30)

An academic career-track position, assistant/associate specialist, is available in the Agricultural Experiment Station (100%). Responsibilities include organization/operation of a variety testing program in Upland and Pima cotton. Develop a specialized research program that encompasses, but is not limited to, the establishment of a germplasm collection in support of experimental studies focusing on the development and release of improved germplasm. Collaboration with existing academic research programs in cotton molecular genetics and biotechnology, physiology, and breeding in the public sector is strongly encouraged. Experience in research in cotton is preferable, but not essential. Send a statement of research interests; curriculum vitae; publication list; reprints and key publications (up to five); copies of undergraduate (if within five years of degree) and graduate transcripts; and the names, addresses (including e-mail addresses), and telephone numbers of at least five professional references to Dr. Robert L. Travis, Chair, Search Committee; Dept of A&RS; University of California, One Shields Avenue, Davis, CA 95616-8515; telephone 530-752-6187, fax 530-752-4361, e-mail rltravis@ucdavis.edu. Review of applications will begin on August 30, 1999. Position to remain open until filled. The University of California is an affirmative action/equal opportunity employer.

POSTDOCTORAL POSITIONS

Postdoctoral Research Position
Oklahoma State University, Stillwater
(Received 02/22)

An NSF-supported postdoctoral position is available to participate immediately in a large-scale project investigating plant stress tolerance. The successful candidate will utilize the sequenced transformable cyanobacterium *Synechocystis* PCC6803 to study mechanisms of stress tolerance, especially in relation to factors affecting photosynthetic function. A motivated colleague to be sought to employ state-of-the-art techniques to study genome-wide expression profiles characteristic of specific stress responses. Applicants with strong background in biochemistry and/or molecular biology should send their curriculum vitae and contact information three referees to Dr. Robert Burnap, Microbiology & Molecular Genetics, Life Sciences East, Oklahoma State University, Stillwater, OK 74078; e-mail burnap@biochem.okstate.edu.

Postdoctoral Positions
University of Kentucky, Lexington
(Received 02/22)

Several positions are available within a multidisciplinary team to investigate genes involved in plant development and disease resistance. These positions are part of a collaborative effort between Drs. Joe Chappell and Glenn B. Collins. The developmental project involves determining the temporal and spatial expression patterns of genes (cDNAs) within specific tissues and organs, isolation of select genomic clones, and the dissection of tissue specific promoter elements using reporter gene/transgenic plant approaches (Plant J. 16, 1). The first position requires demonstrated quantitative skills and a familiarity with biochemical and molecular biology techniques. The disease-resistance project involves the development of transgenic plants containing novel gene constructs and a complete assessment of the transgenic plants' responses to viral, bacterial, and fungal infections (Plant Physiol. 115, 437). The second position requires proficiency with advanced molecular skills and a strong background in plant-pathogen interactions. A third position is focused on the molecular dissection of terpene biosynthetic enzymes (PNAS 93, 6841; Science 277, 1815). The third position requires familiarity with advanced molecular techniques of mutagenesis, and gene expression systems and an appreciation for standard methodology in analytical chemistry. All positions are available immediately and are renewable for up to three years. Please forward by e-mail, a letter of interest, curriculum vitae, and the names of three references to ideaton@ca.uky.edu.

Postdoctoral Research Positions
Institute of Biological Chemistry
Washington State University, Pullman
(Received 03/03)

Several postdoctoral research positions are available to study virus-host interactions using a model system in the laboratory of Jim Carrington (<http://www.wsu.edu:8080/~ibc/faculty/jc.html>). Creative scientists who wish to exploit molecular, genetic, and genomics approaches to understand the basis for compatible and incompatible interactions are sought. This laboratory has developed a wide range of experimental tools with which to identify and isolate cellular genes involved in promoting or restricting tobacco etch virus (TEV) infection in Arabidopsis. Particular emphasis is being placed on understanding the roles of the RTM1 and RTM2 genes in an antiviral pathway that restricts TEV to inoculated leaves, the activation and suppression of gene silencing responses to viruses, and genetic selections and screens for new classes of Arabidopsis susceptibility mutants. For publications relating to some of these areas, see: Mahajan et al. Plant J. 14, 177-186, 1998; Carrington et al. Plant J. 14, 393-400, 1998; Kasschau and Carrington Cell 95, 461-470, 1998; Whitham et al. Proc. Natl. Acad. Sci. USA 96, 772-777, 1999. For consideration, please send a curriculum vitae, a statement of interests, and the names of three references by e-mail or fax to James C. Carrington, telephone 509-335-2477, fax 509-335-2482, e-mail carrington@wsu.edu.

Postdoctoral Position
University of Georgia, Athens
(Received 03/04)

A postdoctoral position is available to study RNA processing and replication of the ambisense tomato spotted wilt tospovirus (TSWV) with the goal of developing an in vitro transcription system to investigate viral replication. Initial appointment for one year with availability of second year dependent on progress. Incumbent must have Ph.D. and relevant experience in virology, molecular biology, and/or cell biology. A curriculum vitae, a summary of incumbent's research approach to the project not to exceed two pages, and three letters of reference should be provided by April 12, 1999, to C. Michael Deom, Department of Plant Pathology, University of Georgia, Athens, GA 30602-7274; e-mail deom@arches.uga.edu. UGA is an equal opportunity/affirmative action employer.

Postdoctoral Research Position
University of Iowa, Iowa City
(Received 03/05)

A two-year postdoctoral position is available starting July 1, 1999, for a plant scientist with experience in protein chemistry to join a USDA-funded investigation of phloem sieve element membranes and membrane proteins. Our lab is able to raise phloem-specific monoclonal antibodies against isolated sieve element protoplasts. The selected person will use these antibodies to identify and purify phloem-specific proteins (see Wang, Monroe and Sjölund, *Plant Physiol.* 109, 743-750, 1995). A Ph.D. in plant physiology, plant biochemistry, or related field is required. Applicants should have extensive experience with protein purification and analysis, including purification of membrane proteins, 1 and 2-D gels, immuno-affinity, Western blotting, IEF, and the preparation of samples for N-terminal and internal amino acid sequencing. Additional experience in plant molecular biology including the production and screening of cDNA libraries is desirable. The salary range is \$24,000-\$25,000/year plus benefits. Please send three letters of recommendation, a curriculum vitae, course list or transcripts, and a letter describing your career goals to Prof. R. D. Sjölund, Department of Biological Sciences, Room 312, Chemistry Building, University of Iowa, Iowa City, IA 52242; e-mail r-sjolund@uiowa.edu. The University of Iowa is an affirmative action/equal opportunity employer. Women and minority candidates are encouraged to apply.

Postdoctoral Positions
Washington State University, Pullman
(Received 03/05)

Positions to study plant virus-host interactions are available. This laboratory has developed tools to identify and isolate cellular genes that promote or restrict virus infection in *Arabidopsis*. Emphasis is being placed on novel antiviral pathways, activation and suppression of gene silencing responses to viruses, and genetic selections and screens for new classes of *Arabidopsis* susceptibility mutants (*Plant J.* 14, 177, 1998; *Cell* 95, 461, 1998; *PNAS* 96, 772, 1999). Please send a curriculum vitae, statement

of interests, and names of references by e-mail or fax to James Carrington, Institute of Biological Chemistry, Washington State University, Pullman, WA 99164; fax 509-335-2484, e-mail carrington@wsu.edu, Web site <http://www.wsu.edu:8080/~ibc/faculty/jc.html>.

Postdoctoral Position
USDA/ARS Appalachian Fruit Research Station
Kearneysville, West Virginia
(Received 03/11)

A research associate position is available to identify promoter sequences that confer tissue specificity and timing for a number of fruit-related promoter sequences. The test systems will include tomato, plum, and peach. The applicant must have the requisite skills for construct synthesis, sequencing and plant transformation. Specific experience with *Agrobacterium* and biolistic-mediated transformation, GUS, and GFP quantitation is desirable. A two-year appointment will be made at the GS-11 level (\$40,714). Certain citizenship restrictions apply. Submit applications to Dr. Ann Callahan, USDA/ARS/AFRS, 45 Wiltshire Road, Kearneysville, WV 25430; e-mail acallaha@afrs.ars.usda.gov. More information is available at <http://www.intrepid.net/afrs/afrs.htm>.

Postdoctoral Research Associate
University of Arkansas, Fayetteville
(Received 03/17)

A research associate position is available to study mechanisms of gene regulation using *Chlamydomonas* as a model genetic organism. The focus of the project will be on identifying and characterizing genes that mediate global and pathway-specific regulation of nitrate assimilation. Requirements include a Ph.D. and extensive experience in molecular biology and genetics. The starting date is targeted for July 1, 1999. The University of Arkansas is a land grant university and the primary doctoral degree granting institution in the state. Fayetteville is located in northwest Arkansas, a dynamic and fast-growing region, in the scenic Ozark Mountains close to lakes, rivers, and national forests. Send a curriculum vitae, statement of interests, and the names and addresses of three references to Dr. Rogene Schnell, Biological Sciences Department, SCEN 629, University of Arkansas, Fayetteville, AR 72701; fax 501-575-4010, e-mail rschnell@comp.uark.edu, Web site <http://comp.uark.edu/~rschnell>.

Postdoctoral Position
The Ohio State University, Columbus
(Received 03/19)

A postdoctoral position is available to study the function of plant Myb-domain proteins. Research will be carried out primarily using, but not restricted to, maize as a model system. The project will involve the identification of transposon insertion alleles in selected Myb genes, and their ectopic expression in plants or plant cell cultures. The possibility of using Myb genes to manipulate important plant metabolic pathways will also be investigated. Applicants should have a demonstrated expertise in molecular genetics or plant biochemistry. Send a

letter of application outlining research experience and interests, curriculum vitae, and the names, addresses, and e-mails of three references to Dr. Erich Grotewold, Plant Biotechnology Center, The Ohio State University, 206 Rightmire Hall, 1060 Carmack Road, Columbus, OH 43210; e-mail grotewold.1@osu.edu.

Postdoctoral Research Associate
University of Arizona, Tucson
(Received 03/19)

Two postdoctoral research associate positions are available to study molecular genetic and cell biological aspects of maize endosperm development. The research will investigate questions relating to the role of the cytoskeleton in protein synthesis and mRNA trafficking and genes regulating DNA endoreduplication. Candidates must have a Ph.D. and experience in several of the following areas: molecular genetics and recombinant DNA technology, protein purification and analysis, cell biology and ultrastructural analysis, and plant cell culture and gene transformation techniques. Starting salary is \$25,000-\$30,000, depending on experience and qualifications. The positions are available starting April 1, 1999. Interested candidates should send a resume and three letters of recommendation to Dr. Brian Larkins, Department of Plant Sciences, University of Arizona, Tucson, AZ 85721; e-mail larkins@ag.arizona.edu.

Postdoctoral Position
University of Wisconsin, Madison
(Received 03/30)

A position is available to study plant defense signal transduction. Projects focus on *Arabidopsis* RPS2 protein function, new RPS2 defense pathway genes, the DND1 or DND2 gene products and pathways, soybean disease resistance, or other topics of candidate's choice. Our lab will move to Madison, Wisconsin, in July 1999. Send cover letter, curriculum vitae, and address information for three references to Dr. Andrew Bent, Department of Crop Sciences, University of Illinois, 1201 West Gregory Dr., Urbana, IL 61801; telephone 217-244-6308, e-mail a-bent@uiuc.edu, Web site <http://w3.aces.uiuc.edu/CropSci/faculty/b/bent/>.

Postdoctoral Position
University of California, Davis
(Received 04/05)

A postdoctoral position is available to study molecular mechanisms of auxin action. We are focusing on the Aux/IAA class of early auxin-inducible genes in *Arabidopsis*, which encode short-lived nuclear proteins with properties reminiscent of transcription factors. Aux/IAA proteins interact with auxin response factors and are proposed to regulate secondary gene expression in response to auxin. Current research centers on biochemical aspects of Aux/IAA protein function and its regulation. Candidates must have a strong background in protein biochemistry/molecular biology and should have demonstrated experience with the analysis of protein-DNA interactions. The appointment is initially for two years. Preference will be given to candidates with the potential to obtain independent funding.

Applicants should send a curriculum vitae, a cover letter describing research experience and interests, and the names of three references to Steffen Abel, University of California, Davis, Department of Vegetable Crops, One Shields Avenue, Davis, CA 95616; telephone 530-752-5549, fax 530-752 9659, e-mail sabel@ucdavis.edu. The University of California is an affirmative action/equal opportunity employer.

Postdoctoral Position
University of California, Berkeley
(Received 04/06)

A postdoctoral position is available to study the function of Arabidopsis immunophilins using biochemical, cellular, and genetics approaches. Interested candidates please send curriculum vitae to Dr. Sheng Luan at sluan@nature.berkeley.edu.

Postdoctoral Position
The Samuel Roberts Noble Foundation
Ardmore, Oklahoma
(Received 04/08)

A two- to three-year postdoctoral position is available immediately to continue studies involving genetic manipulations of phytoalexins and other natural products in alfalfa. Experience in molecular biology and/or biochemistry is essential. Experience with plant tissue culture, high-performance liquid chromatography, binary vector construction, or plant-pathogen interactions is beneficial, but training is available. Send curriculum vitae, names of three references, and letter describing research interests and experience to Dr. Nancy L. Paiva, Plant Biology Division, The Noble Foundation, PO Box 2180, Ardmore, OK 73402; fax 580-221-7380. For general information on past/current projects, visit our Web site at <http://www.noble.org/AR98/NP98.htm>.

Postdoctoral Position
Salem-Teikyo University, Salem, West Virginia
(Received 04/08)

A postdoctoral position is available immediately to transform wetland species with cloned genes to develop a model for studying transgenic plant systems for enhanced phytoremediation of metal contamination. The individual will develop *Agrobacterium* transformation and selection systems, regenerate transformants, assay for expression, and verify gene integration. Experience with plant cell cultures required. Strong background in molecular biology and *Agrobacterium* transformation preferred but not required. Send curriculum vitae, publication reprints, unofficial transcripts, and names, addresses, and telephone numbers of three references to Dr. Suzanne Rogers, Department of Bioscience, Salem-Teikyo University, Salem, WV 26426; telephone 304-782-5585, fax 304-782-5579, e-mail rogers@salem.wvnet.edu. EOE/AA.

Postdoctoral Position
University of Arkansas, Fayetteville
(Received 04/12)

A postdoctoral position is available immediately to study signal transduction mechanisms in plant

disease resistance (Gene & Dev. 11, 1621-1639; 1997). Using rice as a model plant, the project will focus on the identification and characterization of signaling components involved in monocot disease resistance. The candidate should have a Ph.D. with a strong background in plant molecular biology and/or molecular plant pathology. Experience in cDNA subtractive cloning, yeast two-hybrid screening, and/or rice transformation is preferred. Please send a letter of application, curriculum vitae, and list of three references to Dr. Yinong Yang, Department of Plant Pathology, 217 Plant Science Building, University of Arkansas, Fayetteville, AR 72701; fax 501-575-7601, e-mail yyang@comp.uark.edu.

Postdoctoral Position
University of California, Riverside
(Received 04/13)

A postdoctoral position will be available August 1 to investigate translational regulatory mechanisms of cellular and viral mRNAs. Studies will include protein-protein and protein-RNA interactions using biochemical assays and genetic analysis of the translational machinery using transgenics and functional assays in yeast. Both general and specific regulatory mechanisms will be investigated. The work will focus on the role of translation initiation factors as well as on specific regulatory factors. Candidates must have a strong background in molecular biology and protein biochemistry. Send curriculum vitae (by e-mail) and three letters of recommendation to Dr. Daniel R. Gallie, Department of Biochemistry, University of California, Riverside, CA 92521; fax 909-787-3590, e-mail drgallie@citrus.ucr.edu.

Postdoctoral Position
University of Arizona, Tucson
(Received 04/16)

A postdoctoral position is available to investigate mechanisms of post-transcriptional gene silencing in monocots. The project will emphasize fundamental studies in rice, with a view toward applications in oil palm. Position requires a Ph.D. in plant molecular genetics or related discipline. Send curriculum vitae and three letters of recommendation to Rich Jorgensen, Department of Plant Sciences, University of Arizona, Tucson, AZ 85721-0036; e-mail raj@ag.arizona.edu. Refer to position # 13085. (See Web site at <http://hr2.hr.arizona.edu/13085rsp.htm>.)

Postdoctoral Position
University of California, Berkeley
(Received 04/16)

A postdoctoral position is available to clone and functionally characterize genes involved in the repair/recovery of photosystem-II from photoinhibition. Applicants should have a strong background in molecular biology/genetics. Experience with the green alga *Chlamydomonas reinhardtii* is desirable but not essential. The starting salary is \$30,000 per year plus benefits. Send inquiries to Dr. Tasios Melis, Plant & Microbial Biology, University of California-Berkeley, CA 94720-3102; e-mail melis@nature.berkeley.edu. For more information, please visit the Web sites <http://>

plantbio.berkeley.edu/Faculty/faculty_members/Melis.html and <http://plantbio.berkeley.edu/Profiles/jpegs/Melisslide.jpg>.

Postdoctoral Fellowship
Max-Planck-Institute of Chemical Ecology
Jena, Germany
(Received 04/20)

A postdoctoral fellowship is available immediately to study the biochemistry and molecular regulation of plant defense metabolism in Arabidopsis and other crucifers. Research will focus on an early step in the formation of aliphatic glucosinolates in *Arabidopsis thaliana* and related species and involves enzyme characterization, cDNA expression, and the use of transformants to evaluate pathway regulation and ecological function. Previous experience in protein biochemistry, analytical chemistry, or plant molecular biology is required. The Institute of Chemical Ecology is international in character with English as the official language. Applications are invited from scientists of all nationalities. Please send curriculum vitae and names of three references to Jonathan Gershenzon, Max-Planck-Institut fuer Chemische Oekologie, Tatzendpromenade 1a, D-07745 Jena, Germany; fax +49-3641-643650, e-mail gershenzon@ice.mpg.de.

Assistant Specialist
Plant Gene Expression Center
University of California
Berkeley, California
(Received 04/20)

An assistant specialist position is available to investigate signaling intermediates in the phytochrome phototransduction pathway of plants. The objective of this work will be to identify and isolate genes encoding such intermediates from Arabidopsis. Qualifications: Ph.D. in plant molecular biology and genetics or related field; postdoctoral experience in plant photomorphogenesis, molecular genetics, and molecular biology; and experience in the use of Arabidopsis photomorphogenic mutants, positional cloning, production of transgenic plants, and yeast two-hybrid screening. Send curriculum vitae and names of three referees by June 30, 1999, to Dr. Peter H. Quail, Plant Gene Expression Center, 800 Buchanan St., Albany, CA 94710; fax 510-559-5678. The University of California is an equal opportunity/affirmative action employer.

Postdoctoral Position
University of Quebec, Montreal, Canada
(Received 04/26)

A postdoctoral position is available to study molecular mechanism of drought tolerance in plants. Candidates should have experience in plant molecular genetics and biochemistry. Please submit your curriculum vitae along with names, telephone numbers and e-mail addresses of three references to Dr. Zohreh Tabaeizadeh, Department of Biological Sciences, University of Quebec in Montreal, PO Box 8888, Station "Centre Ville," Montreal, QC, H3C-3P8, Canada; telephone 514-987-3000, ext. 8563, fax 514-987-4647, e-mail tabaeizadeh.zohreh@uqam.ca.

**RESEARCH/TECHNICAL POSITIONS
(Non-Ph.D.)**

**ExSeed Genetics Limited Liability Company
Ames, Iowa
(Received 03/08)**

Research positions for postdoctoral and M.S. scientists are immediately available to study gene functions affecting grain output traits. The individual is to isolate genes affecting corn output traits and develop a transgenic approach to improve corn quality for animal feed, food processing, and industrial uses. Candidates must have at least two years' direct research experience in molecular biology, molecular genetics, and enzymology. Expertise in screening and characterizing transgenic plants is highly desirable. ExSeed Genetics is a specialty grain company focused on developing value-added products in cereals. ExSeed will offer a competitive salary with company benefits. ExSeed also provides a stimulating environment and opportunities to interact with Iowa State University researchers and collaborators. If you are highly motivated to make a difference in agriculture through biotechnology, we will provide all the opportunities for you to succeed. Please send two copies of your applications and full curriculum vitae to Dr. Hanping Guan and Dr. Peter Keeling, ExSeed Genetics L.L.C., Food Science Building, Ames, IA 50011-1061. Review of applications will start on April 12, 1999, and continue until a desirable candidate is found. Visit our Web site at <http://www.exseedgenetics.com>.

**Research Technician Position
University of Wisconsin, Madison
(Received 03/30)**

A position is available to study plant defense signal transduction. Emphasis is on laboratory research with *Arabidopsis* and soybean. Duties will also include laboratory organization, student training and supervision, and some seasonal field studies. Full benefits included. Our lab will move to Wisconsin this summer; position can start June 1999. Send cover letter, curriculum vitae, and address information for three references to Dr. Andrew Bent, Department of Crop Sciences, University of Illinois, 1201 West Gregory Dr., Urbana, IL 61801; telephone 217-244-6308, e-mail a-bent@uiuc.edu, Web site <http://w3.aces.uiuc.edu/CropSci/faculty/b/bent/>.

**Research Fellow Position
University of Minnesota, St. Paul
(Received 04/12)**

The Department of Horticultural Science at the University of Minnesota receives and evaluates applications from candidates for temporary part- and full-time research positions continuously. Positions become available throughout the year and are not continually available. Open temporary positions may be obtainable by persons holding an earned master's degree with applicable research training and/or experience; degree must be in hand at time of appointment. Submit a letter of interest and resume to Dr. Gary M. Gardner, Head, Department of Horticultural Science, University of Minnesota, 305 Alderman Hall, St. Paul, MN 55108. Filing deadline is April

15, 2000. The University of Minnesota is an equal opportunity educator and employer.

**Senior Research Assistant—
Molecular Marker/Genomics
The Samuel Roberts Noble Foundation
Ardmore, Oklahoma
(Received 04/23)**

The Forage Biotechnology Group (FBG) at The Samuel Roberts Noble Foundation is seeking a senior research assistant in the area of molecular marker/genomics research. The senior research assistant will provide technical support in the use of DNA and PCR based marker systems for identification of QTL and marker assisted breeding in forage grasses. Requirements include an MS in plant/biological sciences, work experience with lab procedures for RFLP/AFLP/SSR or other types of molecular markers, and computer skills in database management. Experience in growing and maintaining plants in greenhouses and growth chambers is a plus. The salary is \$24,890–\$37,330 depending upon qualifications and experience. Health and retirement benefits provided. Please send a letter of application, and a detailed resume and arrange for three letters of reference to be sent to ATTN: Position #40 - FBC Senior Research Assistant, Human Resources Department, The Samuel Roberts Noble Foundation, PO Box 2180, Ardmore, OK 73402. Applications will be received until June 15, 1999, or until a suitable applicant is found. The Noble Foundation is an equal opportunity employer.

**Research Associate Position
Queen's University, Kingston, Ontario, Canada
(Received 04/27)**

A research associate position is available to study biochemical and physiological aspects of the interactions between carbon and nitrogen metabolism in green algae and vascular plants. The successful candidate will play a key role in managing an active lab program. Individuals should have an interest in integrating observations at the molecular, biochemical, and physiological levels of organization with questions of whole organism biology. Send a cover letter outlining research interests and experience, curriculum vitae, reprints, and the names, addresses, e-mail addresses and telephone numbers of three to five references to Dr. David H. Turpin, Department of Biology, Queen's University, Kingston, Ontario K7L 3N6 Canada; e-mail turpind@post.queensu.ca.

ASSISTANTSHIPS, FELLOWSHIPS, INTERNSHIPS, ETC.

**Ph.D. Student's Position
University of Osnabrück, Osnabrück, Germany
(Received 02/22)**

A two-year Ph.D. student's position (third year can be offered) is immediately available. Research is on primary metabolism in heterotrophic plant tissues under elevated CO₂ and in the presence of various N-sources. Transgenic plants will be constructed and analyzed. For related work see *Planta* 205, 359–366 (1998) and 207, 105–114. Candidates must have an M.Sc. or equivalent in

plant physiology or biochemistry. Applications (including the names and addresses of three referees) should be sent to Professor Dr. Renate Scheibe, Plant Physiology, FB Biology/Chemistry, University of Osnabrück, D-49069 Osnabrück, Germany; telephone +49-541-969-2284, fax +49-541-969-2265, e-mail scheibe@biologie.uni-osnabrueck.de.

**Graduate Research Assistantships
Louisiana State University, Baton Rouge
(Received 03/08)**

Research assistantship positions to support graduate study leading to a Ph.D. degree in plant molecular biology will be available starting the fall semester of 1999 in the Department of Plant Pathology and Crop Physiology at Louisiana State University and LSU Agricultural Center. Particular areas of training emphasis include studies of gene regulation in transgenic rice, protein structure/stability relationships, and transcriptional regulation of bean and rice seed storage proteins. Please refer to our recent publications: Dyer et al., *Protein Chem.* 14, 665–678 (1995); Kawagoe et al., *Plant J.* 5, 885–890, (1994); Zheng et al., *Plant Physiol.* 109, 777–786 (1995); Sen et al., *Transgenic Research* 2, 21–28 (1993). Research assistantships are available from the Department of Plant Pathology and Crop Physiology. Other fellowships are available from the LSU Board of Regent's Graduate Fellowships in Agriculture and the LSU Alumni Federation Graduate Fellowships. Stipend ranges from \$12,000 to 18,000 annually. Research facilities include state-of-the-art equipment for molecular and cellular biology, biochemistry, biophysics, and computation. Candidates should have a strong background in molecular biology, genetics, plant physiology, biochemistry, or related fields. Please submit a letter of interest, resume, undergraduate and graduate transcripts, and GRE/TOEFL scores and arrange to have three letters of reference sent to Dr. Norimoto Murai, Department of Plant Pathology and Crop Physiology, Louisiana State University and LSU Agricultural Center, Baton Rouge, LA 70803 1720; telephone 225-388-1380, fax 225-388-1415, e-mail nmurai@lsu.edu.

**Postdoctoral/Graduate Student Positions
University of Connecticut, Storrs
(Received 03/25)**

Biotechnology: postdoctoral and graduate student positions are available in the Department of Plant Science at the University of Connecticut. The research interests of faculty are as follows: Dr. Carol Auer (cauer@canr1.cag.uconn.edu): Biochemical and genetic approaches to understanding plant hormone (cytokinin) biosynthesis, regulation, and signal transduction; hormonal control of plant growth and development, especially developmental processes (shoot organogenesis) critical to plant transformation. Dr. Gerald Berkowitz (gberkowi@canr1.cag.uconn.edu): Molecular characterization of ion channel proteins. Molecular genetic approaches, in addition to biochemical, and patch/voltage clamp electrophysiological approaches are employed to study structure: function aspects of transport proteins. Dr. Mark Brand (mbrand@canr1.cag.uconn.edu):

Improvement of woody ornamental crops via gene transfer techniques. Emphasis is on disease/insect resistance and enhancement of ornamental qualities. Dr. Mark Bridgen

(mbridgen@canr1.cag.uconn.edu): In vitro techniques for plant breeding, especially for Alstroemeria and other geophytes, and plant micropropagation procedures for commercial implementation. Dr. Yi Li (yli@canr1.cag.uconn.edu): Manipulation of plant hormone concentrations in transgenic plants; molecular mechanisms of auxin and gravity effects on plant growth and development; improvement of agricultural and horticultural crops via gene transfer techniques; animal vaccine and antibody development in plants. Dr. Richard Mcavoy (rmcavoy@canr1.cag.uconn.edu): Applied biotechnology: Using modern gene transfer techniques to improve production and post-harvest characteristics of commercially important ornamentals. Focus is on the development of commercial plant products. Dr. Susanne Von Bodman (svbodman@canr1.cag.uconn.edu): Molecular characterization of signal-induced bacterial gene systems involved in plant pathogenicity and host-microbe interactions. Plant genetic engineering for enhanced disease resistance. Applicants should contact individual faculty directly via e-mail.

Graduate Assistantship
University of Arkansas, Fayetteville
(Received 04/12)

A graduate assistantship is available in the fall of 1999 to study signal transduction mechanisms in plant disease resistance (*Gene & Dev.* 11, 1621-1639; 1997). The candidate may pursue a Ph.D. degree in cell and molecular biology or plant pathology. Please submit a letter of interest, resume, undergraduate and graduate transcripts, GRE/TOEFL scores, and list of three references to Dr. Yinong Yang, Department of Plant Pathology, 217 Plant Science Building, University of Arkansas, Fayetteville, AR 72701; fax 501-575-7601, e-mail yiyang@comp.uark.edu.

MS Graduate Position
Salem-Teikyo University, Salem, West Virginia
(Received 4/12)

Scholarship and stipends are available in the Department of Bioscience, Salem-Teikyo University, Salem, WV, for the MS Graduate Program in Molecular Biology and Biotechnology. A position is available to work on the Agrobacterium-mediated transformation of wetland monocots with novel genes with activity against specific metals to develop a plant model for the study of metal remediation. Interested individuals should submit official transcripts, curriculum vitae, and three letters of reference to Dr. S. Rogers, Department of Bioscience, Salem-Teikyo University, Salem, WV 26426-0500; telephone 304-782-5585, fax 304-782-5579, e-mail rogers@stuniv.salem_teikyo.wvnet.edu. EOE/AA.

Graduate Assistantships
University of Florida, Gainesville
(Received 04/15)

Research/teaching assistantships are available for studies leading to an M.S. or a Ph.D. degree. Program areas include plant production and nutrition, postharvest physiology and technology, biochemistry, molecular biology, seed physiology, and plant breeding and genetics. Stipends range from \$14,000 to \$15,000 plus a tuition waiver. The diverse climatic conditions and cultural practices in Florida offer research opportunities with temperate, subtropical, and tropical commodities. U.S. applicants are encouraged to apply. For further information contact Dr. D. J. Huber, Graduate Coordinator, Horticultural Sciences Department, PO Box 110690, University of Florida, Gainesville, FL 32611-0690; telephone 352-392-1928, ext. 216, e-mail rego@gnv.ifas.ufl.edu. Please refer to position number 1117. The University of Florida is an equal opportunity employer.

Science Writing & Publishing Intern
American Society of Plant Physiologists
Rockville, Maryland
(Repeat)

The American Society of Plant Physiologists seeks a science writing and publishing intern for a period of 9-12 months to gain extensive hands-on experience in science writing, journal production, and scholarly publishing. ASPP publishes *Plant Physiology* and THE PLANT CELL. The intern will write four to six one-paragraph "Research Highlights" summarizing selected articles for each issue of *Plant Physiology*; write and edit several "In This Issue" columns for THE PLANT CELL; research and write other front-section articles for THE PLANT CELL; and gain hands-on experience with peer-review and journal production processes. Qualifications: Within one year of having completed Ph.D., or a senior Ph.D. candidate who has passed qualifying exams; thesis research must involve modern plant biology, and candidate must have broad appreciation for all areas of plant science. Strong writing skills; ability to gain a rapid and detailed understanding of unfamiliar research areas; ability to work under constant deadline pressure and on several tasks simultaneously. ASPP membership required (dues: students—\$30; postdocs—\$50). Salary: \$25,000 per calendar year plus health insurance; vacation/sick leave. ASPP will partially subsidize moving expenses. Send cover letter, C.V., and names of three references, including current adviser, to Publications Director, ASPP, 15501 Monona Drive, Rockville, MD 20855-2768. Submit (1) an "In This Issue"-type article highlighting a recent paper of the applicant's choosing from THE PLANT CELL and (2) a 150- to 200-word paragraph summarizing a recent article in *Plant Physiology*. Application deadline: April 30, 1999. Start date: September 1999.

Graduate Assistantships
University of Delaware, Newark or Lewes
(Repeat)

Contact Dr. Bertrand Lemieux, Dr. Jim Hawk, and Dr. John Boyer, Department of Plant and Soil Sciences, University of Delaware, 149 Townsend Hall, Newark, DE 19711. Lemieux can be reached at 302-831-1390 or blemieux@udel.edu. Hawk can be reached at 302-831-1379 or 20715@udel.edu. Boyer can be reached at 302-645-4014 or boyer@udel.edu. (Details March/April 1999 *ASPP NEWS*)

Graduate Assistantships
University of Florida, Gainesville
(Repeat)

For information, contact Dr. D. J. Huber, Graduate Coordinator, Horticultural Sciences Department, PO Box 110690, University of Florida, Gainesville, FL 32611-0690; telephone 352-392-1928 ext. 216, e-mail rego@gnv.ifas.ufl.edu. Please refer to position number 1115. The University of Florida is an equal opportunity employer. (Details March/April 1999 *ASPP NEWS*)

NSF-Funded Graduate Fellowships in
Molecular and Cell Biology
University of Arkansas, Fayetteville
(Repeat)

Contact Dr. Rogene Schnell, Department of Biological Sciences, SCEN 629, University of Arkansas, Fayetteville, AR, 72701; telephone 501-575-6346, e-mail rschnell@comp.uark.edu. Additional information about the Biological Sciences Department and the graduate program can be found at <http://comp.uark.edu/~bioinfo/bisc.html>.

Graduate Assistantships
University of Florida, Gainesville
(Repeat)

For information, contact Dr. D. J. Huber, Graduate Coordinator, Horticultural Sciences Department, PO Box 110690, University of Florida, Gainesville, FL 32611-0690; telephone 352-392-1928 ext. 216, e-mail rego@gnv.ifas.ufl.edu. Please refer to position number 1116. The University of Florida is an equal opportunity employer. (Details March/April 1999 *ASPP NEWS*)

Graduate Research Assistant
Virginia Tech, Blacksburg
(Repeat)

For information, please contact Dr. James Westwood, Virginia Tech, Department of Plant Pathology, Physiology, and Weed Science (see <http://www.ppws.vt.edu>), 410 Price Hall (0331), Blacksburg, VA 24061; telephone 540-231-7519, e-mail westwood@vt.edu. Application information for the Virginia Tech Graduate School is available at <http://www.vt.edu/vl98/admissions/gradadmissions.html>. (Details March/April 1999 *ASPP NEWS*)

Editor-in-Chief, *Plant Physiology*

The American Society of Plant Physiologists is seeking a plant biologist to assume the duties and responsibilities of editor-in-chief of the journal *Plant Physiology* effective July 1, 2000. The individual who takes the position must be able to make at least a five-year commitment to the journal.

Plant Physiology is an international journal devoted to diverse aspects of plant biology, including development, cell and molecular biology, biochemistry, physiology, and the interactions of plants with their abiotic and biotic environments. The editor-in-chief must possess a broad knowledge of these areas and of the new directions in which plant biology is moving; provide a vision for the future direction of the journal; set journal editorial policy; select associate and monitoring editors; serve as arbiter when publication decisions are in dispute; and work productively with the managing editor and the production staff.

To effect a smooth editorial transition, we plan to name a successor to the current editor-in-chief later in 1999. Individuals interested in either applying for the position or nominating a qualified individual are invited to do so in writing to the chair of the Publications Committee by June 1, 1999. Applicants should ascertain that their institutions will permit them to assume the duties and responsibilities of this position. Letters of nomination must indicate that the nominee is aware of and has approved his or her nomination. In both cases, the applicant or nominee must be prepared to begin the transition process no later than January 2000.

Applications and nominations will be evaluated by members of the Publications Committee, and the committee will recommend a candidate to the Executive Committee. It is planned that the Publications Committee will be able to make a recommendation at Plant Biology '99 in July in Baltimore, and that the Executive Committee will announce the name of the new editor-in-chief either at the meeting or shortly thereafter.

Submit letters of application or nominations for editor-in-chief of *Plant Physiology* by June 1, 1999, to Rebecca Chasan, Chair, ASPP Publications Committee, American Institute of Biological Sciences, 1444 Eye St., NW, Suite 200, Washington, DC 20005.

ASPP Headquarters Telephone Extensions and E-Mail Directory

For your convenience, keep this listing of extension numbers and e-mail addresses handy when you contact ASPP headquarters so that you can reach the person best able to assist you.

Our office telephone number is 301-251-0560

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ASPP NEWS

American Society of Plant Physiologists
15501 Monona Drive
Rockville, MD 20855-2768 USA

PERIODICALS

ASPP NEWS (ISSN 0279-9936) is published bimonthly by the American Society of Plant Physiologists, 15501 Monona Drive, Rockville, MD 20855-2768 USA, telephone 301-251-0560, fax 301-279-2996. Members' dues include a subscription price of \$2 per year to ASPP NEWS. Subscription price to nonmembers is \$30 per year. Periodicals postage paid at Rockville, MD, and at additional mailing offices. Postmaster: Please send address changes to ASPP NEWS, 15501 Monona Drive, Rockville, MD 20855-2768 USA.