

ASPB News



THE NEWSLETTER OF THE AMERICAN SOCIETY OF PLANT BIOLOGISTS

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President's Letter

ASPB: A Dynamic, Proactive Society of Plant Biologists

From our offices and laboratories around the world, we don't usually spend a lot of time thinking about ASPB unless, of course, we're waiting to hear about a recent manuscript submission or whether we've been selected as a speaker for a mini-symposium at the annual meeting. The fact that the Society isn't a major blip on your radar screen probably means things are going along pretty well relative to Society business, but it does not mean that the Society is a quiescent organization, sleepily publishing outstanding journals and organizing exciting scientific meetings. Indeed, ASPB is one of the most vibrant and visionary organizations I've had the pleasure to work with. In this letter, I list some examples of recent and future changes and activities associated with Society business that keep us at the leading edge of scientific publication, meeting organization, and public affairs.

Publications

Publication of *Plant Physiology* and *The Plant Cell* is our Society's most important contribution to plant science. Our journals continuously define the leading edge of published plant research. We've achieved that status because the Society and the journal editors constantly strive to enhance the efficiency, accessibility, and significance of each publication. Some recent examples of new initiatives or changes that impact our journals include the following:

1. Both journals are now using Bench>Press, an electronic submission and review system. Today, the vast majority of manuscript submissions move from review to production in a virtually paper-free process. This has yielded a substan-

tial cut in publication times. For example, in mid-2001, the average publication time for *Plant Physiology* was nearly 6.5 months. Today, that has been cut to about 3.5 months. Wow!

2. In July 2003, Richard Jorgensen will take over as editor-in-chief of the *The Plant Cell* from Ralph Quatrano. Ralph has set a high standard during his tenure as editor. We thank him for his thoughtful leadership and unselfish dedication. (A short commentary from Rich appears on page 5 of this issue.)
3. To spread publication costs more equitably across papers of varying length, we will institute page charges of \$55 per page in January 2003. In addition, as a new member benefit (and not-so-subtle attempt to encourage authors to join the Society), ASPB members will get a \$10 discount per page. The current fixed handling fee will be eliminated.
4. With electronic publication, both journals are placing new articles online as soon as production is complete. Online publication, before the assembled volume is printed, places our work in the public domain in the shortest time possible while retaining the high production standards of each journal.
5. Last year, the Society paid to have back issues of both journals digitized in a searchable PDF format. *The Plant Cell* is available back to the first volume (January 1989) and *Plant Physiology* to January 1993. We are currently examining options that will take *Plant Physiology* even further back. Importantly, HighWire Press, our online provider, is abstracting these articles in PubMed,

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ASPB Officers & Staff

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Deadline for March/April 2003
ASPB News: February 5, 2003

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ASPB News

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so that our older papers will reach a much wider audience. (Until we started electronic publication in 1998, our journals were abstracted only selectively in PubMed.)

- Both journals continue to produce timely, special-topics volumes. Those planned for next year for *Plant Physiology* include volumes on Grasses, Legumes, and Arabidopsis. *The Plant Cell* will publish a special volume on Plant Reproduction.
- Finally, the Society continuously explores new publication opportunities that will serve our members. Our textbook, *Biochemistry & Molecular Biology of Plants*, is an excellent example. This year we're publishing, in collaboration with editors Chris Somerville and Elliot Meyerowitz, the new *Arabidopsis Book*. This is an exciting project, not only because of the importance of Arabidopsis as a model plant, but also because it will be a completely electronic and free publication. The editors' vision is that *The Arabidopsis Book* will never be outdated because a substantial percentage of the chapters will be updated yearly, and even supplementary material or opinions can be submitted by new authors.

Meetings

Did I mention Hawaii? The annual ASPB meeting is, in my opinion, the most interdisciplinary and informative plant science meeting available. The Program Committee strives to keep the meeting structure and research topics as current and exciting as possible. The

shift to minisymposia a few years ago and the recent introduction of five-minute, one-overhead summaries of exceptional posters are just two examples of the vitality of this stimulating conference.

Did I mention Hawaii? The Program Committee has also identified a need for a special-topics meeting that focuses on emerging or poorly covered areas of interest to ASPB members. The first meeting, scheduled for October 22–26, 2003, focuses on Mechanisms of Genetic Variation. The aim is to organize one such meeting every fall. Please contact the Program Committee with your ideas for the next hot topic.

In case you haven't heard, the 2003 ASPB annual meeting will be in...Hawaii! We expect record participation from both mainland and Pacific Rim colleagues. In addition to outstanding science, there will be special events and tours exploring some of the remarkable wonders of this unique island environment. We received some exceptional financial incentives for using Honolulu's new convention center, so costs should be comparable to prior ASPB meetings.

Public Affairs

Over the past 10 years, ASPB has established itself in Washington, DC, as an influential supporter of plant research. The Public Affairs Committee and leadership of ASPB are frequently asked to comment on funding issues and research directions concerning NSF, USDA–NRI, USDA–ARS, and DOE. Moreover, the Society is also called on to provide expert commentary about critical issues in

biotechnology. The positive impact of the Public Affairs Committee on the health and vitality of plant research in the United States cannot be overstated. The committee's influence reflects, in part, the importance of public affairs to all of us. The public's concerns about biotechnology and a safe and healthy food supply affect all aspects of our professional careers, from basic research and education to product-driven genetic engineering. I encourage each of you to be active members of public affairs at your institutions and with ASPB.

I hope this brief overview leaves you with a clear sense of what a vibrant professional society you belong to. One of the key mechanisms for maintaining a strong professional society is recruiting the next generation of members that bring new ideas and excitement to the table. In recognition of the vital role recruitment plays, the Membership Committee mounted a major campaign to attract new members, and its current recruiting drive increased membership by more than 800! This is simply terrific. Not surprisingly, the Society won a Standard of Excellence Web Award for its web-based Get-A-Member Campaign. Tell your students and postdocs that the benefits of membership in ASPB include networking, opportunities for symposium presentations, editorial board service, Society leadership, publishing, professional service, and peer recognition. Young scientists are the engine that drives science. Let's get them involved in ASPB!

Daniel R. Bush

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NOTICE

Beginning with the January/February 2003 issue, the *ASPB News* will no longer carry job ads or meeting notices in the print edition. Job ads are posted weekly online at <http://www.aspb.org/jobbank/>. Meeting notices are posted at <http://www.aspb.org/meetings/>.

Rich Jorgensen Named Editor-in-Chief of *The Plant Cell*

Dr. Richard A. Jorgensen has been named the next editor-in-chief of the leading plant science journal, *The Plant Cell*, which is published by the American Society of Plant Biologists. Jorgensen will succeed Dr. Ralph Quatrano, whose term as editor-in-chief ends June 30, 2002.



Jorgensen is currently an associate professor in the Department of Plant Sciences, University of Arizona. His research program on epigenetic mechanisms of gene regulation focuses on RNA silencing and sense co-suppression in plants as well as functional genomics of the chromatin proteome. Previously, he was a research geneticist in the Department of Environmental Horticulture, University of California at Davis, and director of floriculture genetic engineering research with DNA Plant Technology Corporation in Oakland, California.

Jorgensen received his B.S. in biomedical engineering and his M.S. in chemistry from Northwestern University. He earned his Ph.D.

in biochemistry from the University of Wisconsin under Dr. William Reznikoff, where he worked on bacterial molecular genetics, including gene organization, expression, and evolution in transposons Tn5 and Tn10. He did postdoctoral work on plant molecular genet-

ics with Dr. William Thompson at the Carnegie Institution of Washington in Stanford, California, and on evolutionary and population genetics with Dr. Robert Allard at the University of California at Davis.

A member of *The Plant Cell* editorial board since January 2000, he has also been active in organizing scientific conferences and has an extensive publication record. His seminal work on petunias that led to the discovery of cosuppression of genes was recently featured on the front page of *The Wall Street Journal* and covered in *The Independent*.

In recent conversations about *The Plant Cell*, Jorgensen noted the responsibility for assuring quality publication decisions; the ex-

panding role of genetics in modern plant biology; the current revolution in publishing; and the need to emphasize excellence, novelty, and significance as essential criteria for publication while ensuring that the editorial process is fair, balanced, and inclusive of reasonable differences in point of view. Over the next several months, he will formulate his plans for the journal and work with Ralph Quatrano and the journal staff to ensure a smooth transition to editor-in-chief.

On learning of his appointment, Jorgensen offered, "I feel very privileged to be given the opportunity to lead the premier journal in plant biology during a time in which the field is seeing unprecedented growth and development. My intent is that *The Plant Cell* will continue to improve and evolve in concert with the field as it seeks to publish the most cutting-edge research that is of broad interest to plant biologists." He expands on his vision for the journal in a commentary on page 5 of this newsletter. 🌱

One Picture Is Worth a Thousand Words

Images from *Plants, Genes, and Crop Biotechnology* Now Online for ASPB Members

The wisdom from that old Chinese proverb has certainly rung true for most teachers. They heed it everyday as they develop visual materials to supplement their lectures and illustrate their points. To help plant biologists, the ASPB Education Foundation has made the illustrations from *Plants, Genes, and Crop Biotechnology* available online.

Launched in July 2002, the 2nd edition of this book by Maarten Chrispeels and David Sadava is available from Jones and Bartlett Publishers to ASPB members at a special discount. To make it easier to teach with the book, the images are now available to be downloaded into your presentation software. All illustrations are online, organized by chapter, to make it easy for you to find what you need and use it in your class.

Access to these illustrations is a membership benefit. To get to the images, go to the Foundation's homepage, click on Programs, and then click on the title of the book. Or go directly to [http://](http://www.aspb.org/education/foundation/pgcb/login.cfm)

www.aspb.org/education/foundation/pgcb/login.cfm and just log in using your member ID and password. Then click on the chapter you're teaching, and thumbnails of the images will show on your screen. Locate the images you want, click on them to enlarge them to full size, and then save them to your computer. You can do this by right-clicking on the enlarged image and choosing "save target as" or "save picture as," or you can click on "file" and then "save as" to save a jpg image to your computer. These can then be inserted into your presentations.

Using images and visuals in the classroom helps students focus on what you're saying and goes a long way toward helping them remember what you're teaching. As Confucius told us, and as learning research has proven, "What I hear, I forget. What I see, I remember." Adding visual content to words doubles the retention of what's being taught. People remember 20 percent of what they read or hear. They retain 40 percent of what they hear and see. 🌱

CALL FOR ABSTRACTS

PLANT BIOLOGY 2003

The annual meeting of the American Society of Plant Biologists, with the invited participation of the Japanese Society of Plant Physiologists, Australian Society of Plant Science, Botanical Society of Korea, and plant biology-related societies in Taiwan, New Zealand, China, and other Pacific Rim countries.

Saturday, July 26, to Wednesday, July 30, Honolulu, Hawaii, USA

Deadline: Friday, February 28, 2003
Do not submit abstracts before February 1, 2003.

The program format for the 2003 annual meeting will include five major symposia and a number of minisymposia selected primarily from the submitted poster abstracts, a limited number of “one-overhead” poster talks, and poster presentations. All posters will be on display for five days. **Authors should submit their abstracts in one of the 47 poster categories. The Program Committee will also use these abstracts as a basis for composing the minisymposia and “one-overhead” poster talks. These categories are listed on the reverse side of this call for abstracts.** All minisymposia presentations will require a PowerPoint presentation format. Suggestions or proposals for any additional minisymposium topics should be sent to Susan Rosenberry, chambers@aspb.org, or Plant Biology 2003, 15501 Monona Dr., Rockville, MD 20855 USA.

Abstracts to Be Submitted and Viewed Electronically for Plant Biology 2003

For Plant Biology 2003, abstracts should be submitted via the World Wide Web, and the annual abstract supplement will be available for viewing and searching on the Web beginning in April 2003. We will also publish a printed version of the abstract supplement in 2003 that will be available to attendees at the meeting.

Abstracts will be available for viewing, and program details will be attached to the abstracts, making it possible for you to plan your schedule at the annual meeting with precision long before you get to the meeting. The Web site will make it possible for you to prepare and print out a personal program to guide you at the meeting.

The deadline for submission is Friday, February 28, 2003. Abstracts may not be submitted before Thursday, February 1, 2003.

This system will work best for members who have access to the World Wide Web through a forms-capable Web browser. We strongly recommend Netscape or MS Internet Explorer, version 5.0 or higher. We will include links at the site to immediately download the latest version of these two browsers.

For all abstract submissions, authors will be strictly limited to 1,800 characters in the body of the abstract.

An automatic e-mail acknowledgment will be sent to all who submit abstracts.

On the reverse of this page are the new instructions for submitting your abstracts electronically. For this electronic submission project to work effectively, it is critical that you read and follow these new instructions carefully when you send your abstract for Plant Biology 2003. If you have any questions, contact Susan Rosenberry at chambers@aspb.org or 301-251-0560, ext. 111.

Remember the following guidelines:

- Limit the body of your abstract to 1,800 characters.
- Do not submit any abstracts before February 1, 2003.
- Be sure to submit by Friday, February 28, 2003.
- Do not use fax or mail.
- A \$50 fee will be required for each abstract (can be credited to registration fee or refunded if canceled by May 15, 2003).

FOLLOW THE INSTRUCTIONS EXACTLY.

Call for Abstracts—Plant Biology 2003
2003 ASPB Annual Meeting
Honolulu, Hawaii, USA, Saturday, July 26 to Wednesday, July 30

HOW TO SUBMIT AN ABSTRACT TO PLANT BIOLOGY 2003

Submitting Abstracts Via the World Wide Web

1. Select a poster presentation report category from the list below. A member may submit or sponsor one research poster abstract and one education poster abstract.
2. A US \$50 fee will be required when submitting each abstract. This fee can then be credited to the presenter's registration fee when registering for the meeting, or refunded if abstract cancellation occurs by the May 15, 2003, deadline.
3. A member may request that an abstract also be considered for a selected minisymposium category (optional) or a "one overhead" poster talk (optional).
4. Deadline for receipt is Friday, February 28, 2003. DO NOT USE FAX OR MAIL.
5. DO NOT include any graphics or tabular material in the body of your abstract.
6. Access URL <http://www.aspb.org/abstract/>. You must have a forms-capable browser (for example, Netscape 5.0 or higher or Internet Explorer).
7. Detailed instructions will be provided on the screen. Enter the information called for in each field. If you use special characters (superscripts or subscripts, italics, bold, or Greek letters), you will be asked to enter some simple text mark-up codes. The codes will be provided in the instructions on the screen. Those with Internet browsers 5.0 or higher have more automated functions for inserting the characters. The system will provide an immediate proofing copy to ascertain that you have entered the codes properly. The system will count the characters (minus the codes) and will not permit you to enter an abstract of more than 1,800 characters.
8. After proofing, press the "Submit" button. Acknowledgment will be sent to you by e-mail.

The meeting format for Plant Biology 2003 will include poster presentations, a limited number of "one-overhead" poster talks, major symposia, and minisymposia. All abstracts must be submitted as poster presentations in one of the following 47 poster session categories. The Program Committee will then review the poster abstract submissions and select a limited number of abstracts to compose the minisymposia as well as the limited poster talks. If you wish to have your abstract considered for a minisymposium presentation or a poster talk, please select either option on the form. If your abstract is chosen by the Program Committee for a minisymposium presentation or poster talk, you will be contacted before April 1, 2003.

POSTER PRESENTATION REPORT CATEGORIES

Ecophysiology	Plant Pathogen/Symbiont Interactions
Global Change	Clocks
Integrated Plant Biology	Evolution
Heavy Metals	Intercellular Signaling
Oxidative Stress	Lipids & Related Molecules
Salinity	Emerging Technologies
Temperature Responses	Biotech Risk Assessment
Water Relations	Bioinformatics
Enzymology	Comparative Genomics
Respiratory Pathways	Genomics Resources
Secondary Metabolism	Proteomics
Photosynthesis	Phytoremediation
Stomatal Physiology	Metabolic Engineering
Nutrient Biology	Chromatin Remodeling & Epigenetics
Long Distance Transport	Transcription Regulation
Vegetative Development	Posttranscriptional Regulation
Reproductive Development	Cell Cycle & Cytokinesis
Photomorphogenesis	Cytoskeleton: Structure & Function
Root Biology	Organelle Biogenesis
Seed Biology	Protein Targeting & Vesicular Trafficking
Hormones	Membrane Transport
Tropisms	Cell Walls
Plant Insect/Nematode Interactions	Education

Address any questions to Susan Rosenberry, chambers@aspb.org or 301-251-0560, ext. 111.

DEADLINE FOR SUBMISSION: FRIDAY, FEBRUARY 28, 2003. DO NOT SUBMIT BEFORE FEBRUARY 1, 2003.

The Plant Cell: Expanding on a Tradition of Excellence

Without a doubt, *The Plant Cell* is widely regarded to be the premier journal in plant biology. Evidence of this can be seen in the 30 percent increase in manuscript submissions during the past year, as well as our continued maintenance of the highest impact factor among non-review plant biology journals. As the next editor-in-chief, I have much to thank my predecessors for, including all of the 45 editorial board members over the past 14 years who have maintained the high standards for novelty and significance that have come to define *The Plant Cell*. I am well aware that the primary responsibility of the editor of any scientific journal must be to maintain and enhance the journal's reputation and standing in its field.

A goal to which I am especially committed is to broaden the journal's appeal to an even greater diversity of plant biologists. As a society, ASPB has actively expanded its mission, enthusiastically embracing the fact that plant biologists now address most problems in multi-disciplinary fashion. In fact, many of us no longer consider ourselves to be merely molecular biologists, geneticists, physiologists, or developmental biologists, but plant biologists. The diverse contents of *The Plant Cell* already reflect this fundamentally important step in the evolution of plant biology as a discipline, as can easily be seen in the increasing number of papers that address developmental biology, genetics, and genomics.

It seems appropriate then to formally broaden the journal's statement of scope (which currently defines the journal's disciplinary range as "plant cellular and molecular biology") to explicitly include genetics, developmental biology, and evolutionary biology. To promote an increasingly diverse subject matter and readership, we will actively solicit submissions of manuscripts from across the spectrum of plant biology. The pri-

mary criterion for publication will, of course, remain the presentation of new insights broadly interesting to plant biologists, not only to specialists.

While we concentrate on maintaining and enhancing the reputation of *The Plant Cell* as the elite journal in plant biology, it will be important to ensure that the journal does not also acquire a reputation for being elitist. The journal's stakeholders (readers, authors, and ASPB members and nonmember readers and authors) must feel confident that the editorial process, while emphasizing excellence and novel insight as the essential criteria for publication, is also fair, balanced, and inclusive of reasonable differences in point of view. Today, when our society at large is demanding high standards of integrity in business, academia, and government, all institutions must assure stakeholders that their decision-making processes serve the mission of the institution and meet high standards of integrity and fairness.

The quality and reputation of any journal, but especially *The Plant Cell*, depend heavily on the commitment of every editorial board member to making both difficult and fair decisions that result in publishing only the most cutting-edge research in plant biology. *The Plant Cell* is fortunate to possess a diverse editorial board of top-notch scientists who work diligently on behalf of the entire community of plant biologists to ensure the highest achievable quality in publication. As editor-in-chief, I promise to continue this tradition of excellence. Throughout the next five years, I invite members of the Society to communicate your ideas, your constructive criticisms, and your expectations for *The Plant Cell*. 🌿

Richard A. Jorgensen
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New Distance Learning Professional Master's Program in Biomedical Informatics

The Biomedical Informatics (BMI) training program at Stanford University will offer a professional master's degree beginning spring quarter 2003. The program is specially designed so students may remain fully employed while studying for their degree. It is possible to fulfill the requirements for the degree online through courses delivered by the Stanford Center for Professional Development. The goal of the BMI program is to train scientists with the necessary research skills to develop novel methods in biomedical informatics. For more information about the program and how to apply, please review the web site at <http://smi-web.stanford.edu/academics/>. 🌿

Western Section Election Results

W-ASPB Representative to Executive Committee
Dina Mandoli

Thea Wilkins, Chair
Steffen Abel, Secretary-Treasurer

ASPB Officers Assume Posts for 2002–2003

New ASPB officers and committee members assumed their responsibilities October 1. Dan Bush, University of Illinois, became president; Mary Lou Guerinot, Dartmouth College, became president-elect; Vicki Chandler, University of Arizona, became immediate past president; and Nick Carpita, Purdue University, became an elected member of the Executive Committee.

Following is a list of committee members for 2002–2003 as announced by Dan Bush:

Board of Trustees

Wendy Boss (03), *chair*
Mark Brodl (03), *treasurer*
Lou Sherman (04)
Elizabeth Hood (05)
John Lisack, Jr., *ex officio*

Constitution & Bylaws Committee

Joe Chappell (03), *chair*
Jan Zeevaart (04)
Douglas Randall (05)

Education Committee

Eric Davies (03), *chair*
Kenneth Nadler (03)
Larry Griffing (05)
Sheila Blackman (05)
Mary Williams (06)
Dina Mandoli (adjunct member)
Jeffrey Coker (adjunct member)
Carol Reiss (adjunct member)

International Committee

Deborah Delmer (05), *chair*
Arun Goyal (03)
Kenzo Nakamura (03)
Graciela Salerno (04)
Adrienne Clarke (04)
David Ho (05)
Norbert Sauer (06)

Membership Committee

Dina Mandoli (04), *chair*
Carol Reiss (03)
Edgar Spalding (03)
Jon Monroe (04)
Steve Rodermel (04)
Carl Bernacchi (05)

Minority Affairs Committee

Regina McClinton (05), *chair*
Robert Vellanoweth (03)
Sabeeha Merchant (03)

Peter Hepler (04)
William Gordon (04)
Buddy Orozco (05)

Nominating Committee

Mary Lou Guerinot (05), *ex officio, president-elect, chair*
Dan Bush (04), *ex officio, president*
Vicki Chandler (03), *ex officio, past president*

Program Committee

Roger Hangarter (03), *chair, secretary*
Mary Lou Guerinot (03), *president-elect*
Patricia Springer (03)
W. J. Lucas (03)
Richard Amasino (04)
Stephen Long (05)
Julia Bailey-Serres (06)

Committee on Public Affairs

Thomas Sharkey (03), *chair*
Vicki Chandler (03), *ex officio, past president*
Roger Innes (03)
Jim Siedow (04)
Barry Palevitz (04)
Daphne Preuss (05)

Karen Schumaker (06)
Pam Ronald (06)
Stephen Howell (06)

Publications Committee

Rebecca Chasan (03), *chair*
Doug Cook (04)
Sarah Assmann (05)
Robert Fischer (06)
C. Robertson McClung (07)

Women in Plant Biology Committee

Mary Tierney (04), *chair*
Patricia Okubara (03)
Brian Larkins (03)
Kan Wang (04)
Laura Olsen (05)
Lewis Feldman (05)

SECTION REPRESENTATIVES

Dina Mandoli (04), *Western*
Jon Monroe (04), *Mid-Atlantic*
Mel Oliver (05), *Southern*
Carol Reiss (03), *Northeastern*
Steve Rodermel (04), *Midwestern*

2002–2003 Awards Committees

Following is a list of the membership of the ASPB awards committees for 2002–2003, as announced by President Dan Bush. Members serve for three award cycles unless otherwise noted.

Corresponding Membership

(four-year terms)
David Ho (04), *chair*
Candace Haigler (03)
Jan Zeevaart (03)
Mike Jackson (05)
Ray Zielinski (06)

Charles Reid Barnes Life Membership

Janet Braam (03), *chair*
Russell Jones (03), *past winner*
Doug Randall (04)
Tom Buckhout (05)
Jill Deikman (05)

Stephen Hales Prize

Joanne Chory (04), *chair*
Mary Kay Walker-Simmons (03)
Elisabeth Gantt (04), *past winner*
Gary Gardner (04)
Maarten Chrispeels (06)

Charles F. Kettering Award

Steven Theg (03), *chair*
Archie Portis (04)
Christine Foyer (04)
Gayle Lamppa (06)
Gerry Edwards (08)

Charles Albert Shull Award

Sarah Hake (05), *chair*
Detlef Weigel (03), *past winner*
John Mullet (04)
Jeffrey Dangl (05)
Steve Huber (07)

Martin Gibbs Medal

Sue Wessler (04), *chair*
Ken Feldmann (03), *past winner*
Ilya Raskin (05)
Mary Lou Guerinot (05)
K. G. Raghothama (07)

Adolph E. Gude, Jr. Award

Howard Grimes (03), *chair*
Gary Toenniessen (04), *past winner*
Deborah Delmer (06)
Andrew Hanson (07)
Louise Anderson (08)

Dennis R. Hoagland Award

Roger Beachy (03), *chair, past winner*
Lawrence Rappaport (03)
Thomas Sharkey (05)
Don McCarty (06)
Niels Nielsen (06)

Excellence in Teaching Award

Anita Klein (06), *chair*
J. Monroe (03), *past winner*
Donna Fernandez (06)
Deborah Canington (06)
Sabine Rundle (09)

CALL FOR 2003 APPLICATIONS

ASPB Summer Undergraduate Research Fellowships (SURF)

About the Program

The goal of this program is to provide opportunities for students to pursue meaningful research in plant biology at their home institutions early in their college years. Ideally, students should be sophomores at the time of application and would conduct the research during the following summer. Exceptionally well-prepared first-year students and juniors who provide evidence of a strong commitment to plant biology will also be considered. In addition to conducting the research, recipients will be expected to present their results at Plant Biology 2004, the ASPB national meeting to be held in Orlando, Florida, July 24–28. Funding is available to attend the meeting through ASPB Travel Grants (grants may not cover all expenses). With this opportunity, ASPB hopes to encourage students to pursue advanced degrees and careers in plant biology. Open to both U.S. and foreign students.

Funding

Each fellowship provides the following:

- \$3,000 student stipend
- \$500 for supplies
- one-year student membership in ASPB
- application for a travel allowance to attend Plant Biology 2004. (A \$500 travel grant has been set aside for each winner to offset travel expenses to the Orlando meeting. The student must be a coauthor on an abstract to qualify for the travel grant. Students from overseas or who have very limited access to other resources for travel may make a case for additional travel funds.)

Eligibility

Students must

- be enrolled as a full-time, degree-seeking student
- be involved in a research project in the laboratory of a faculty mentor who is a member of ASPB
- not receive other direct financial support for their research (institutional stipend, Sigma Xi Grants-in-Aid of Research, Council on Undergraduate Research Fellowship, etc.).

Mentors must

- be a member of ASPB
- have an ongoing research program.

Selection Criteria

Competitive student applicants should demonstrate

- academic achievement
- strong motivation for research, with career objectives relevant to the aims of the fellowship program
- good preparation for conducting the research.

The faculty member sponsoring the project should demonstrate

- a commitment to undergraduate education and research
- a research program that is of high scientific merit—the project should clearly support the goals of the research program
- that the project is appropriate for undergraduate research
- that there are facilities to support the proposed work
- support from the administration (department chair or dean) for the project.

Preference is given to proposals that demonstrate the mentor's and the institution's financial commitment to the work and to proposals that show a significant impact on the mentor's ongoing research program.

Proposal Evaluation

ASPB is interested in supporting undergraduates at all types of institutions. To facilitate this goal, the proposals are grouped according to the applicant's institution type within the Carnegie classification scheme as follows:

Group A	Group B
Research Universities I	Masters Universities and Colleges I
Research Universities II	Masters Universities and Colleges II
Doctoral Universities I	Baccalaureate Colleges I
Doctoral Universities II	Baccalaureate Colleges II
	Associate of Arts Colleges

The number of proposals awarded funding in each group will be weighted according to the number of proposals received.

To Apply

This year, the application must be submitted online. The form can be downloaded through the ASPB web site: www.aspb.org. Look on the ASPB homepage for the 2003 SURF application.

Deadline

February 4, 2003

- Postmark date for transcript(s) and letter of recommendation
- Midnight upload to ASPB designated web site for application

Questions

Contact Paula Brooks at paula@aspb.org.

CALL FOR NOMINATIONS

Best Paper-of-the-Year Awards

Each year *Plant Physiology* and *The Plant Cell* sponsor The Young Scientist's Best "Plant Biology" Paper-of-the-Year Award. This year's award winners were Frans J. M. Maathuis, for his article that he co-authored with Dr. Dale Sanders (see *Plant Physiology* 127: 1617–1625) entitled "Sodium Uptake in Arabidopsis Roots Is Regulated by Cyclic Nucleotides," and Jason Lilly, for his paper "Cytogenomic Analyses Reveal the Structural Plasticity of the Chloroplast Genome in Higher Plants," which was coauthored by Michael J. Havey, Scott A. Jackson, and Jiming Jiang (*Plant Cell* 13: 245–254).

The winning papers (one from each journal) will be selected by a committee of editors from nominations that are submitted by the editorial boards of *Plant Physiology* and *The Plant Cell*, the reviewers of

papers, or others familiar with the scientific content of the paper. Letters of nomination are not to exceed two pages and should describe the research, its significance, and the role that the first author (the nominee) played in the discovery process. Articles must have been published during 2002. Papers that show truly novel mechanistic or conceptual insights at any level of biological complexity, from the molecular to the whole plant, will be considered. Six copies of the nominating letter and six copies of the paper should be sent to the editor-in-chief of the journal for which the paper is being nominated. The deadline for submissions will be February 15, and the selection will be made in March. The winners will be announced in the *ASPB News* and in each of the journals, as well as in the program of the annual meeting. Each winner will be the

first author of the paper and, to qualify, must be a graduate student or postdoc at the time the work was performed or the paper was written. If two authors contribute equally and their publication is chosen for an award, the prize will be split between the two. For scientists not on a traditional career track, five years of professional work post-Ph.D. will be the cutoff for consideration.

Each award consists of a \$1,000 cash prize and subsidy of up to \$1,500 to attend the annual meeting the year of the award. The ASPB Program Committee will schedule an appropriate mini-symposium at the annual meeting that will feature presentations by the award recipients. The winners and their presentations will be highlighted in the program. 🌿

Put the Education Foundation on Your Holiday Gift List and Get a Tax Benefit

Autumn is in the air, and as the holiday season begins, thoughts turn to our friends and family. We are thinking about giving and sharing. Many people are also reaching out to help those in need. There are toy collections and food and clothing collections to which we contribute. As you plan your holiday giving this year, consider putting the Education Foundation on your gift list. A contribution to the Education Foundation now will have a long-term impact on the field of plant biology and the messages it brings to the public.

You can also make a holiday contribution in honor of someone special or in memory of a colleague or loved one through the Honor and Celebrate program.

There's also time to add to your tax deductions for 2002. Make your gift before December 31, 2002, and you'll receive the deduction when you prepare your taxes for this year. This makes your contribution to the Foundation a gift to yourself as well.

It's easy to make a contribution online at <http://www.aspb.org/education/foundation/contribute.cfm> or to download the form online and send it in. For more information contact the Education Foundation staff at rlempert@aspb.org. 🌿

ASPB now accepts checks over the web.

It is simple and secure.

We will accept your university, company, or personal check.

Just go online, fill out the web form, and put the check information in the system.

We will receive your order of renewal as soon as you hit the submit button.

This is for checks drawn on U.S. banks in U.S. funds only.

If you have questions about this new service, please e-mail Kelley Noone at knoone@aspb.org.

Mel Tyree Receives Award From King of Sweden

ASPB member and USDA Forest Service scientist Melvin T. Tyree received the Marcus Wallenberg Prize for Forestry. His Majesty King Carl XVI Gustaf of Sweden presented the award in ceremonies held in Stockholm on September 26.

The Marcus Wallenberg Prize, which recognizes outstanding pioneering research that increases knowledge and progress in forestry, is considered the forest science equivalent of the Nobel Prize.

“We are extremely pleased with Dr. Tyree’s accomplishment,” said Forest Service Chief Dale Bosworth. “This reinforces the value of Forest Service research to understanding ecosystems worldwide.”

“Dr. Tyree is a world-class research scientist, and his work is highly relevant and consistently praised for its quality,” said Deputy Chief of Research Dr. Robert Lewis, Jr. “We are extremely proud of Dr. Tyree’s work and the recognition that he receives.”

In making the award, the Wallenberg Foundation cited Tyree’s pioneering scientific discoveries leading to basic understanding of water transport in trees. Tyree’s research is vital, it noted, because water is the most important factor in plant growth and distribution around the world. Tyree studies what he calls the “hydraulic architecture” of trees, or how their water transport system is designed. He determines how this affects their growth and survival and has invented scientific instruments to measure these effects.



H.M. King Carl XVI Gustaf of Sweden (right) presents the Marcus Wallenberg Prize to Dr. Mel Tyree.

Tyree also studies the impact of stresses such as drought and freezing on trees’ plumbing system and what happens when that system breaks down. Although his main focus has been trees, Tyree says his discoveries “apply to all plants, large and small.”

Born in California in 1946, Tyree grew up in the city of Ontario. He graduated from Pomona College, Claremont, California, in 1968, with a bachelor of science degree in physical chemistry. He earned his doctorate in plant biophysics from the University of Cambridge in 1972. He now serves as supervisory plant physiologist and project leader at the Forest Service’s North-eastern Research Station in Burlington, Vermont. He also conducts research with the Smithsonian Institution in Panama, investigating the impact of rainfall patterns and global climate change on plant survival and diversity in tropical forests.

The Marcus Wallenberg Prize is an international award, established in 1980 by the Swedish Forest Company, Stora Kopparbergs Bergslags AB, which merged with the Finnish company Enso to form Stora Enso. The prize is named in honor of Marcus Wallenberg, member and chair of the Stora Board of Directors for many years.

Tyree presented a paper at an international symposium on world water resources and the role of forest watersheds that was held in his honor in Stockholm.

Natasha Raikhel Wins Career Award from ASCB

Professor Natasha Raikhel has been selected by the Women in Cell Biology Committee of the American Society for Cell Biology to receive the 2002 Career Recognition Senior Award at the upcoming 42nd Annual Meeting of the ASCB, December 14–18, 2002. Previous plant biologists to win this national award are Mary Clutter and Ursula Goodenough.



Richard Dixon Is AAAS Fellow

ASPB member Richard A. Dixon, Plant Biology Division director at The Samuel Roberts Noble Foundation, Inc., has been awarded the distinction of American Association for the Advancement of Science (AAAS) Fellow, an election bestowed upon members by their peers. Dixon was among

291 members elected this year for their efforts to advance science or foster applications that are deemed scientifically or socially distinguished. He was recognized for his studies on the molecular elucidation and genetic manipulation of plant metabolic pathways that impact disease resistance, forage quality, or human health.

Searching the HighWire Portal

This piece is another in a series of short articles highlighting tools and features of the new HighWire Library of the Sciences and Medicine Portal. The portal provides free access to literature in the biological sciences and medicine. More than 430,000 full-text research articles are published by the 330+ HighWire journals, including *The Plant Cell* and *Plant Physiology*. In addition, the portal allows you to search all of the journals found in Medline. In the September/October issue of the *ASPB News*, we explained how to put the Favorite Journals features to work for you to narrow your search focus and monitor content in your favorite journals. This month we explain the citation quick search feature and the advanced search tool.

Citation Quick Search

One of the most frequent tasks the designers of the new HighWire portal saw researchers doing was also the most obvious one: looking up an article based on a reference citation. The design of the new HighWire site makes this as fast as it can possibly be: You type three numbers and click.

If you have the publication year, the volume, and the first page for any article in the 4,500 journals covered by Medline and HighWire's full-text journals, you can retrieve an article. You don't even have to type the journal name, and you don't have to first click your way to the journal's own online site.

The result when you enter those three numbers will be a full article citation, accompanied by a link to the abstract and—in most cases for recent articles—a link to the full text. Since more than 430,000 full-text articles are free at the HighWire site, there is a good chance you'll have full-text access.

From the HighWire Portal homepage at <http://highwire.stanford.edu>, just enter the year, volume, and page in the search entry boxes in the center of the homepage. If your article is in one of the 330+ HighWire-hosted journals, click on the appropriate radio button below the year; if not, or if you

don't know whether the journal is a HighWire-hosted journal, just click on the "HighWire + Medline" radio button.

We entered the year 2001, 13 for the volume, and first page 1063, then clicked the HighWire + Medline button. The search yielded two results: an article in the August 2001 issue of *International Immunology* and an article in the May issue of *The Plant Cell*. With each citation, an image of the journal cover appears, along with links to the abstract, full-text article, and the PDF. Underneath the cover image is an icon telling you whether the article is free to you (because your institution has purchased a subscription or because the publisher has made the article free to anyone on the Internet) or available for purchase, which means you can pay with a credit card and get immediate access to the full text. You also have the option to download the search results to citation manager by clicking a radio button.

Advanced Search

The HighWire portal provides for easy searching right on the homepage, where you can search by author, search for words anywhere in an article, or quickly look up an article by its citation.

But sometimes you want more precision in your searches, usually to avoid having to look through many results. You can fine-tune

The screenshot displays the HighWire portal search results interface. At the top, there is a navigation bar with links for Home, Search, My Email Alerts, For Institutions, For Publishers, About, Contact, and Help. Below this is a search form with fields for Author (e.g., Smith, JS) and Keyword(s) (matches on all terms), and a 'go' button. A 'Quick search' section offers options to search in 'My Favorite Journals', 'HighWire-based journals', or 'HighWire-based journals + Medline'. The search results are displayed in a list format, with each entry showing a journal cover image, a 'this article is FREE to you' icon, and a list of search results. The first result is for 'International Immunology' (Volume 13, First page: 1063) and the second is for 'The Plant Cell' (Volume 13, First page: 1063). Each result includes a 'For checked items' section with options to 'View abstracts in new window' and 'Download to citation manager'.

your searches on the Advanced Search page, shown here. You reach this page by clicking on the Search button on any page in the portal, or by clicking on the Advanced link next to Quick Search.

On the Advanced Search page you can do the following things:

- Search for articles by two or more authors.
- Search on words found specifically in the title or abstract.
- Search only in particular journals you select from a list, or search in all journals at HighWire and/or all journals in Medline. You can also easily select some or all of the journals by publisher. For example, you can ask for journals published by the American Society of Plant Biologists and the system will search in *Plant Physiology* and *The Plant Cell*.



The Bioethics Imperative VIII

- Search for articles published in a certain range of dates.
- Search only for reviews.
- Find articles containing any of the keywords you give, or all the keywords together in a phrase (see the any, all, and phrase radio buttons next to the keyword-entry text boxes on the Advanced Search page).

In addition, from the Advanced Search page you can control the format of your search result:

- Control whether the results are full citations—about five lines per article, with full information—or condensed citations limited to two lines per article and having fewer links.
- Customize how many results are shown per page, from 10 (the default) to 150. It does, of course, take longer to deliver a page of 150 items for viewing than a page of 10 items.
- Determine whether results are sorted to show the most recent articles first—which might show you articles with only one occurrence of your keyword ahead of articles that mention your keywords a dozen times—or the “best matches” first, which counts how many times your keywords are mentioned, to “rank” the article in your result. “Best matches” is the default.

All these options are easy to activate and control from the Advanced Search page. 🌿

“*Mokita*”: The truth we all know and agree not to talk about. *Papua New Guinea*.

Continued from Bioethics Imperative VII, on features of ethical mentoring.

I have come to believe that while ethical mentoring has many standard features, it is a very personal thing that you need to craft on your own. With that in mind, I share with you my “rules for the road.”

- Listening is a key feature of ethical mentoring. I am always amazed at how many different ways people find to hear or interpret the same words. Each person brings their own set of filters and garbage to the table. If I truly listen, I have a better chance of hearing all the sides of the argument and that posture, a 360° view, defines “ethical” anything.
- Treat others with respect. One of my mentors taught me that each person has something to teach you. No matter how small their grant, title, or position, they deserve my ear and my open mind. After all, if they are “down” one day, tomorrow may be my turn. For me, respect includes not saying things behind people’s backs that I could not say to their face given a proper moment. I find it preferable to say a person’s name rather than “he” or “she,” which creates an atmosphere of “them vs. us.”
- Saying “yes” is often the right and high moral ground: If that person cannot meet the bar even if you have said “yes,” then the blame cannot rest solely with you. This includes giving away reagents and information before publication with a collegial understanding expressed openly at the outset.

- Apologize or reverse yourself if you feel you have made an error. Admitting to human fallibility gives the other person license to do course corrections as well and sets an important tone for the lab. (This works wonders with teenagers, too!)

- Become aware of your rights as a mentor. Do not hesitate to seek outside advice from older PIs whom you respect *for their ability to mentor their students*, NOT for their science per se. Many of the very best scientists I have known have been the worst mentors. Looking at where they have placed their students can be telling. If need arises, seek advice from your ombudsman.

- Revisit these issues as a team periodically. Run properly, such meetings serve to remind folks that they are valued and open the conversation to all voices. Remind people that they can give input in many ways: e-mail, letter, in person, or on the phone. This hopefully scoops up the shy or introverted personas.

These rules, which are posted on my web site for prospective students, are ones I strive to achieve; I do not always succeed. Perhaps when I achieve perfection (ha!), I will be knighted or attain an immediate ticket to heaven, but I am not holding my breath! 🌿

Next: TBD

Dina Mandoli

University of Washington, Seattle
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ASPB members share a common goal of promoting the growth, development, and outreach of plant biology as a pure and applied science. This column features some of the dedicated and innovative members of ASPB who believe that membership in our Society is crucial to the future of plant biology.

If you are interested in contributing to this feature, please contact Kelley Noone, ASPB membership and marketing manager, at knoone@aspb.org.



Name: Jon Monroe

Title: Associate professor

Place of work or school: Department of Biology, James Madison University, Harrisonburg, Virginia

Research area: Starch hydrolases in Arabidopsis

Member since: Mid-1980s

1. **Has being a member of ASPB helped you in your career? If so, how?**
Most certainly! Careers develop from what and whom we know, and ASPB facilitates learning and connecting with influential people. As an undergraduate at the University of Michigan, I worked in the Natural Science library and spent a lot of spare time reading plant journals. I know that had a huge impact on my career. As a grad student, postdoc, and professor, I think my association with ASPB has been just as important. Outside my institution, most of the people I interact with are members of ASPB or the Council on Undergraduate Research (CUR) or both. Similarly, many of the activities I've been involved with over the years have been through ASPB and CUR.
2. **Why has being a member of ASPB been important?**
At a primarily undergraduate institution, one can feel isolated, so my asso-

ciation with ASPB has helped me stay connected with the larger community. In my position I spend a lot of time teaching and mentoring undergraduate researchers. I don't spend as much time reading and thinking about science as I would like to. The national ASPB meeting jump-starts me every year and has helped me make and keep a lot of great friends.

3. **Was anyone instrumental in getting you to join ASPB?**
I don't remember that far back! I do remember getting the journals (back when they had that lovely pea-green cover). Putting them on my shelf made me feel like I was a real scientist!
4. **What would you tell nonmembers to encourage them to join?**
I think all scientists should belong to a professional society because societies serve important functions that need to be supported. One should not just add up the tangible benefits when deciding to join. I don't know that ASPB is any better or worse than any other similar organization, but I like it.
5. **Have you gotten a job using ASPB job postings or through networking at the annual meeting?**
No, but that doesn't mean it isn't important.
6. **Do you still read print journals? Where do you usually read them: work, home, library, in the car, on the bus?**
Yes, but it is now a lot easier to find papers using the web. I think I read more at home than at work. I like the print

versions of *Plant Physiology* and *The Plant Cell* because I often stumble across something valuable that I would not have searched for or had the patience to find reading online.

7. **What do you think is the next "big thing" in plant biology?**
I'm still getting over the fact that whole genomes are being sequenced!
8. **What person, living or dead, do you most admire?**
The late Herb Wagner, a plant systematist and teacher extraordinaire, was a major influence in my becoming a plant biologist. Sharon Long and Richard McCarty are two of my scientific idols. They, like Herb, have a gift for speaking without thinking about their egos.
9. **What are you reading these days?**
Plant Physiology and *The Plant Cell*, of course! I am also reading *The Trouble with Testosterone* (Sapolsky), *Natural History* magazine, and the *Washington Post*—after my daughters get done with it.
10. **Do you have any hobbies?**
Cooking, backpacking, cycling, and music—Celtic and folk. (Current favorites are Great Big Sea, SOLAS, and Eddie from Ohio. Check them out!)
11. **What is your most treasured possession?**
Hard to say. I try not to put too much value on personal possessions.
12. **What do you have left to learn?**
If I knew, I wouldn't have as much fun searching for it.



National Academies Report Recommends Goals for Plant Genome Research

The report of the National Academies' committee to recommend goals for the next five years of the National Plant Genome Initiative (NPGI) has been released in a pre-publication. A public briefing on the report was held September 4 in the National Academies building at 500 5th Street, NW (new offices), Washington, DC.

ASPB member Jeff Dangl, who chaired the report-authoring committee, conducted the briefing, which was attended by about a dozen people, primarily officials from federal programs



Jeff Dangl

supporting plant genome research. ASPB Public Affairs staff also attended.

The committee recommended the following goals for the next five-year phase of the NPGI:

1. Focus the NPGI portfolio on a small number of key plant species for in-depth development of genome-sequence data and development of functional genomics tools.
2. Enable translation of basic findings from the reference species to related crops (comparative genomics).
3. Begin dissection of the evolutionary diversification of plants using genomics technologies.
4. Expand investment in bioinformatics to fully leverage the wealth of plant genomics data now being generated.
5. Create new interdisciplinary training opportunities for doctoral and postdoctoral researchers.

With regard to the first goal, the committee concluded that representatives from the families *Poaceae* (grasses), *Fabaceae* (legumes), and *Solanaceae* (including tomato and potato) should be selected as reference species, based on the criteria of genetic tractability, genome size and complexity, and the potential for

translation of data and tools to agronomically important relatives. Rice, maize, *medicago truncatula*, and tomato would be examples of species that meet most criteria for immediate expanded emphasis.

With regard to the second goal, the committee noted that draft sequencing of gene-rich regions of soybean and wheat could commence during the 2003–2008 time frame, as the cost of sequencing declines.

The National Plant Genome Initiative: Objectives for 2003–2008 can be read online for free at <http://books.nap.edu/books/0309085292/html/index.html>.

National Academies' staff noted that because the report is a pre-publication, there are some typos. Staff also noted that the list of reviewers in the acknowledgment section is slightly incorrect. According to National Academies' staff, the correct list of reviewers who provided comments on the draft report follows:

- Robin Buell**, The Institute for Genomic Research, Rockville, Maryland
Vicki Chandler (ASPB past president), University of Arizona, Tucson
John Doebley, University of Wisconsin, Madison
Michael Freeling, University of California at Berkeley
Vivek Kapur, University of Minnesota, St. Paul
Hei Leung, International Rice Research Institute, Makati City, Philippines
Elliot Meyerowitz, California Institute of Technology, Pasadena
Gill Kulvinder, University of Nebraska, Lincoln
Steven Rounsley, formerly of Cereon Genomics, Cambridge, Massachusetts
David Stern, Boyce Thompson Institute, Cornell University, Ithaca
Lila Vodkin, University of Illinois, Urbana-Champaign

Walsh, Mollohan, House Appropriations Seek 15 Percent Increase for NSF Biology Directorate

The House Appropriations Subcommittee on VA, HUD and Independent Agencies recommended on October 7 an increase of more than \$76.2 million for the NSF Directorate for Biological Sciences in the fiscal year 2003 budget. This amount represents an increase of 15 percent over fiscal year 2002 and is consistent with the overall percentage increase recommended for NSF Research and Related Activities.

House subcommittee chair James Walsh (R-NY) and ranking member Alan Mollohan (D-WV) led subcommittee efforts in approving the increase. The House subcommittee recommendation for a 15 percent increase compares favorably with the Senate Appropriations Committee recommendation of a 3.4 percent increase for biological sciences research. NSF had requested an increase for the biological sciences of 3.4 percent. The Senate Committee had recommended increases higher than NSF's request for the other science directorates.

ASPB members and staff worked with House members and staff to support a higher increase for biological sciences, which the House subcommittee recommended. ASPB also supported and participated in the recent formation of the Biological and Ecological Sciences Coalition (BESC) consisting of a number of biological science societies seeking higher funding for NSF-sponsored biology research. ASPB and BESC also supported a letter from the broad-based Coalition

continued on page 14

Cook, NRC Report on Biological Threats to Agricultural Plants and Animals

ASPB member Jim Cook, co-chair of the National Academy of Sciences, National Research Council, Committee on Biological Threats to Agricultural Plants and Animals, is quoted in the lead front-page story of the September 19, 2002, edition of USA Today concerning the committee's report. Following is the news story:

Agriculture an Easy Bioterror Hit, Panel Says

by Tim Friend, USA Today

Agriculture in the USA is vulnerable to an attack from biological organisms and there is little anyone can do to prevent it, a federal study by leading experts concludes.

But the infrastructure that is already in place to prevent natural epidemics in livestock and crops could be strengthened to provide rapid response and containment of a terrorist act, a National Academy of Sciences panel says in the study.

The panel was commissioned by the U.S. Department of Agriculture before the September 11, 2001, attacks to investigate potential threats to agriculture. The findings are scheduled to be released today. They were given to

the White House in March.

Because farmlands are so widespread, an attack could not harm the overall food supply, says R. James Cook, the panel's co-chairman and a specialist in wheat research at Washington State University. "But what can happen is economic havoc," Cook says.

The impact of a terrorist attack on agriculture, he says, might be similar to the mad cow disease epidemic in Great Britain and the rest of Europe. Farmers were forced to destroy herds of animals, products were quarantined, consumers lost confidence in the food supply and tourism was severely curtailed.

The intentional spread of microorganisms also might resemble how the West Nile virus epidemic has unfolded: human deaths, contaminated blood supplies and mass deaths among wild animal populations. The West Nile virus is thought to have been introduced into New York accidentally.

Panel member Harley Moon, professor of veterinary medicine at Iowa State University, says U.S. agriculture is based on a system of vast tracts of wheat, corn, soybean and other crops that are impossible to monitor. Likewise, commercial dairies, chicken farms and feedlots of livestock are especially vulnerable

to terrorist acts because of the size and concentration of animals.

The panel studied examples of previous terrorist acts on agriculture, including reports of poisoning of citrus fruits exported from Israel to Europe and Cold War attempts by both the United States and the former Soviet Union to turn pathogens such as wheat blight into weapons.

To improve response to a terror threat, the panel recommends that the government:

- Open communication between intelligence agencies and agriculture experts.
- Establish a network between labs to rapidly detect, identify and diagnose pathogens.

"The sky isn't falling," Cook says. "But sooner or later, someone will get to our agriculture. Now is the time to put in place the systems to respond."

http://www.usatoday.com/news/nation/2002-09-19-agterror_x.htm

[The NRC report is available at <http://national-academies.org>]

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Walsh, Mollohan, continued from page 13

for National Science Funding (CNSF) made up of many nonbiological and biological science organizations to House Appropriations leaders seeking a higher increase for biology.

The recommendation by the House appropriations subcommittee represents a major development for biological research funding in the fiscal year 2003 appropriations process. The full appropriations committee in the House subsequently approved the subcommittee's recommendation for biology research. More work will be needed

by ASPB and other biology societies in the eventual House/Senate conference. Generally, the conference would be held after passage by the full House and Senate of appropriations recommendations and appointment of conference members.

However, this budget year may include some variations on the usual procedure. For example, there is the prospect of a long-term continuing resolution that could be passed in place of the appropriations bills. Another prospect discussed is that a House/Senate conference would be appointed to consider ap-

propriations committee recommendations directly without a prior vote by the full House and Senate.

The House committee recommendation for the plant genome research program is at \$75 million. The NSF budget request is also at \$75 million. The Senate committee recommendation for the plant genome research program is \$85 million as requested by Senator Christopher Bond (R-MO) and approved by Chair Barbara Mikulski (D-MD), Bond, and their colleagues.

ASPB Member Herman's Research Could Provide Major Relief for People Allergic to Soy Foods

Plant research findings of ASPB member Eliot Herman could make soybean food products safe for consumption by humans and by livestock allergic to conventionally bred soybean products. Following is information from the USDA Agricultural Research Service on Herman's research.

Modified Soybeans May Be Less Allergenic

by Jan Suszkiw

Using biotechnology, researchers shut off the gene for a crucial protein that makes soybean seeds so allergenic to some consumers.

The advance—by scientists with the Agricultural Research Service, University of Arkansas (UA), and private industry—could shorten the list of products that soy-sensitive consumers often must avoid eating.

Worldwide, 6 percent to 8 percent of children and 1 percent to 2 percent of adults suffer food allergies. Soybeans, milk, eggs, peanuts, tree nuts, fish, wheat, and shellfish cause 90-plus percent of food allergic reactions, primarily in children.

More than half of all soy allergies are caused by a protein called P34. Now, however, Eliot Herman, Rick Helm, and collaborators have developed strains of soybean plants whose seed cannot make this allergenic protein. They resorted to a biotech method called “gene silencing,” rather than conventional plant breeding, because P34 is so widespread among both wild and cultivated soybeans.

Herman, an ARS plant physiologist at the Donald Danforth Plant Science Center in St. Louis, Missouri, believes this marks the first time a dominant human allergen has been eliminated from a major food crop by this method.

Field trials begun in 2001 indicate the modified beans' agronomic properties are no different from those of unaltered plants whose seed contains P34, Herman reports. Testing continues, though, to further verify their diminished allergenicity (or “hypoallergenicity”) and commercial potential.

For example, this summer the researchers began feeding the hypoallergenic beans to newborn piglets to compare the animals' reactions to those fed unaltered beans. The study, which includes skin-prick allergenicity tests, is being led by Helm, an immunologist at the UA–Arkansas Children's Hospital Research Institute in Little Rock.

Eventually, this study and others could serve as a springboard to clinical trials with humans and set the stage for commercial cultivars that could benefit many food products, including flour, cereals, and baby formulas.

A more detailed article on the research appears in this month's issue of *Agricultural Research* magazine at <http://www.ars.usda.gov/is/AR/archive/sep02/soy0902.htm>.

These findings by Herman, in addition to Peggy Lemaux's and Bob Buchanan's findings with wheat and other plants and milk, demonstrate the tremendous potential of biotechnology in providing safer foods to millions of people with food allergies. Lemaux's and Buchanan's research was the subject of a congressional exhibit Lemaux put together sponsored by ASPB earlier this year. An ASPB brochure by Lemaux, Buchanan, and Barbara Alonso produced for the exhibit and follow-up distribution can be found on the ASPB web page at <http://www.aspb.org/downloads/foodallerg.pdf>.



Photo Credit: Agricultural Research Service

ASPB member and ARS plant molecular biologist Eliot Herman observes Professor Rick Helm (right) and technician Gael Cockrell (center) perform an allergy test on an anesthetized, soybean-sensitive pig.

NSF Awards \$75.6 Million for Plant Genome Research for Fiscal 2002

The National Science Foundation awarded on September 26, 2002, a total of \$75.6 million to support 23 collaborative research projects in plant genomics.

Eight young investigators were also awarded a total of \$9.5 million under the inaugural Young Investigator Awards in Plant Genome Research competition.

NSF said that this year's competition emphasized collaborative research in functional genomics, including development of tools to facilitate gene expression studies. A project led by the University of Arizona will develop new, sensitive methods for measuring gene expression in specific types of cells and parts of cells, while a project led by the University of Alabama, Birmingham, will develop new methods for analysis of gene expression data on a genome-wide scale.

Two collaborative research awards were made to begin isolation and sequencing of maize genes, one led by the Donald Danforth Plant Science Center, St. Louis, and the other

led by Rutgers University in New Jersey. In the Danforth Center project, scientists will test two methods for isolating the gene-rich regions of the maize genome, while the Rutgers research team will sequence 20 million base pairs of the maize genome and assemble the sequence onto a detailed map, NSF said.

The Young Investigator Awards in Plant Genome Research focus on the development of the future leaders in plant genome research. Funded research includes development of new computational tools to compare plant genomes, analysis of genes involved in plant resistance to pathogens, and genes involved in root and fruit development. All the Young Investigator Awards recipients have earned doctorates since January 1997 and are at the beginning of their independent research careers.

Plant genomic research provides the nation with scientific understanding of the structure and function of genomes of plants that are important to agriculture, environmental

management, energy, and health. Besides maize, researchers will concentrate on other crops of economic importance including potato, tomato, pine, cotton, soybean, rice, and grape, NSF said. For more information from NSF on the awards and on the plant genome research program, contact Jane Silverthorne at (703) 292-7171; e-mail jsilvert@nsf.gov.

Senator Christopher Bond (R-MO), ranking member of the Senate Appropriations Subcommittee on VA, HUD and Independent Agencies, has championed support for plant genome research in providing appropriations from Congress. He has been joined by Subcommittee Chair Barbara Mikulski (D-MD) and their colleagues in support for the Plant Genome Research Program. The White House-appointed Interagency Working Group on Plant Genomes has issued annual progress reports citing the many benefits for society and the environment from research in this area and noting the important advances made possible through the program. ♣

Fiscal Year 2002 Awards, National Science Foundation, Plant Genome Research Program, Collaborative Research on Functional Genomics

Principal Investigator	Institution	Title	Total Award (\$)	Total Duration (yrs)
Allison, David 0217651	U of Alabama Birmingham New York Obesity Res Ctr (sub)*	Design & Analysis of Microarray Gene Expression Studies in Plants: Toward Sound Statistical Procedures U of Missouri Rolla (sub)*	\$2,220,275	4
Baker, Barbara 0218166	U of California Berkeley Cornell University (sub)*	Potato Functional Genomics: Application to Analysis of Growth, Development, Metabolism and Responses to Biotic and Abiotic Stress Institute for Genomic Research (sub)* U of Minnesota-Twin Cities (sub)* U of Wisconsin Madison (sub)*	\$7,618,912	5
Cairney, John 0217594	Inst Paper Sci & Tech Institute for Genomic Research (sub)*	Genomics of Loblolly Pine Embryogenesis	\$1,380,910	3
Carpita, Nicholas 0217552	Purdue University Colorado State University (sub)* U of Connecticut (sub)* U of Florida (sub)* U of Wisconsin Madison (sub)*	Identification and characterization of cell wall mutants in maize and Arabidopsis using novel spectroscopies	\$5,921,989	4
Cramer, Grant 0217653	U of Nevada Reno VA Polytechnic Inst & State University (sub)*	Integrative Functional Genomic Resource Development in <i>Vitis vinifera</i> : Abiotic Stress and Wine Quality	\$3,609,951	4
Dean, Jeffrey 0211807	U of Georgia	Transcriptome Responses to Environmental Conditions in Loblolly Pine Roots	\$1,651,752	3

Fiscal Year 2002 Awards, National Science Foundation, Plant Genome Research Program, Collaborative Research on Functional Genomics, *continued*

Principal Investigator	Institution	Title	Total Award (\$)	Total Duration (yrs)
Dinesh-Kumar, Savithramma 0211872	Yale University	Functional Genomics of Host-Virus Interactions	\$3,363,177	4
Dooner, Hugo 0211547	Rutgers University	A set of maize transgenic lines for localized mutagenesis based on the Ac-Ds transposon system	\$140,612	1
Fromm, Michael 0217312	U of Nebraska Lincoln U of Arizona (sub)* U of California Davis (sub)* U of California San Diego (sub)* U of Florida (sub)* U of Missouri Columbia (sub)*	A Protein Interaction Database For Rice Protein Kinases	\$6,047,772	4
Galbraith, David 0211857	U of Arizona U of California Riverside (sub)*	Technology Development: Novel techniques for discovery of patterns of gene regulation within complex eukaryotic tissues	\$625,227	2
Henikoff, Steven 0211732	F Hutchinson Cancer Res Ctr U of Washington (sub)*	Targeting Induced Local Lesions IN Genomes (TILLING) for plant functional genomics	\$568,551	1
Kamoun, Sophien 0211659	Ohio State University National Ctr for Genome Resources (sub)*	Functional Genomics of Phytophthora-Plant Interactions	\$1,891,617	4
Keegstra, Kenneth 0211797	Michigan State University	Functional Genomics of Hemicellulose Biosynthesis	\$4,945,077	5
Klee, Harry 0211875	U of Florida Cornell University (sub)*	Functional genomic analysis of fruit flavor and nutrition pathways	\$1,159,280	3
McCormick, Sheila 0211742	U of California Berkeley	Functional Analyses of Plant Gamete Gene Expression	\$1,135,486	4
Messing, Joachim 0211851	Rutgers University U of Arizona (sub)*	Sequencing the Maize Genome	\$4,291,099	2
Michelmore, Richard 0211923	U of California Davis U of Chicago (sub)*	Comparative Analysis of Resistance Gene Evolution	\$3,031,729	5
Nguyen, Henry 0211842	U of Missouri Columbia Danforth Plant Sci Center (sub)* U of Illinois Urbana (sub)*	Functional genomics of root growth and root signaling under drought	\$4,549,050	4
Schubert, Karel 0221536	Danforth Plant Sci Center Institute for Genomic Research (sub)*	Consortium for Maize Genomics	\$5,928,755	2
Sundaresan, Venkatesan 0211924	U of California Davis U of Arizona (sub)* U of Louisiana at Lafayette (sub)*	Insertional mutagenesis tools for functional genomics in rice	\$822,782	3
Tyler, Brett 0211863	VA Polytechnic Inst & State University Ohio State University (sub)*	Dissecting Phytophthora Resistance in Soybean using Expression Profiling and Analysis of Quantitative Trait Loci	\$6,764,462	5
van Wijk, Klaas 0211935	Cornell University U of Nebraska Lincoln (sub)*	From proplastid to chloroplast: Understanding plastid differentiation in maize through microarray and proteome analysis	\$3,827,647	5
Wendel, Jonathan 0211700	Iowa State University U of Arizona (sub)* U of Georgia (sub)*	Comparative evolutionary genomics of cotton	\$4,197,862	5

* Sub = Subaward

Fiscal Year 2002 Awards, National Science Foundation, Plant Genome Research Program, Young Investigator Awards in Plant Genome Research (YIA-PGR)

Principal Investigator	Institution	Title	Total Award (\$)	Total Duration (yrs)
Bodganove, Adam 0227357	Iowa State University	YIA-PGR: Genomics of rice susceptibility to bacterial diseases	\$1,095,589	5
Gang, David 0227618	U of Arizona	YIA-PGR: Functional Genomics of Plant Metabolism in Model Rhizome Species	\$1,114,787	5
Jackson, Scott 0227414	Purdue University	YIA-PGR: Comparative Genomics of Rice: reconstructing rice chromosome 1 in related species	\$1,630,537	5
Lawrence, Christopher 0227436	Colorado State University North Carolina State U (sub)*	YIA-PGR: The Alternaria-Brassicaceae Pathosystem as a Model for Necrotrophic Fungal-Plant Interactions	\$1,363,771	4

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Fiscal Year 2002 Awards, National Science Foundation, Plant Genome Research Program, Young Investigator Awards in Plant Genome Research (YIA-PGR), continued

Principal Investigator	Institution	Title	Total Award (\$)	Total Duration (yrs)
Springer, Nathan 0227310	U of Wisconsin Madison	YIA-PGR: Assessment of the Use of Oligonucleotide Microarrays for Single Nucleotide Polymorphism Detection in Maize	\$450,000	2
Van der Knaap, Ester 0227541	Ohio State University	YIA-PGR: Genetic, molecular and developmental analysis of variation in tomato fruit morphology	\$1,109,980	5
Vision, Todd 0227314	U of North Carolina	YIA-PGR: Tools for Plant Comparative Genomics	\$1,010,845	5
Weinig, Cynthia 0227103	U of Minnesota-Twin Cities U of California Davis (sub)*	YIA-PGR: Molecular evolutionary genetics of crop and weed responses to crowding	\$1,734,804	5

* Sub = Subaward

Wall Street Journal Explores “Why Africans Are Starving”

The following editorial is from the September 17, 2002, edition of The Wall Street Journal.

Why Africans Are Starving

Green groups and European bureaucrats aren't conspiring to starve millions of sub-Saharan Africans, but according to Andrew Natsios of the U.S. Agency for International Development, they may as well be.

Speaking at the Earth Summit in Johannesburg this month, Mr. Natsios said he's been unable to persuade Zambian President Levy Mwanawasa to accept food aid from the U.S., even though Southern Africa is facing its worst drought in a decade. The World Health Organization reports that famine-related deaths in the region could reach 13 million—2.4 million in Zambia alone.

The U.S. has shipped 17,000 tons of corn to Zambia, where many are already down to one meal per day, only to have it sit in storage. Because some of the U.S. corn has been genetically modified—to make it more resistant to pests, diseases and the region's harsh growing environs—Mr. Mwanawasa has declared it unsafe for consumption.

The green brigade, which likes to buttress its political opposition to GM foods with junk science, is cheering Zambia's intransigence.

And the willingness of Greenpeace, Friends of the Earth and the like to let Africans starve in the name of someone else's ideology is remarkable enough.

But the Europeans are also blameworthy. Zambia is just as worried about upsetting trade relations with Europe, its biggest export market. The European Union bans most GM crops—lest they upset Europe's heavily subsidized farm system—and Mr. Mwanawasa's concern is that the U.S. corn will cross-pollinate with non-GM varieties and taint future yields.

The eco-lobby has targeted the Third World with a five-year, \$175 million campaign against GM foods. The Sierra Club is calling “for a moratorium on the planting of all genetically engineered crops.” Greenpeace says it “opposes all releases of genetically engineered organisms into the environment,” an act it calls “genetic pollution.” Supposed hazards include the spread of allergens and toxins and the creation of “superweeds” immune to herbicides.

Science and experience have proven these fears to be unfounded. Biotechnology has had no ill effects on human health or the environment. Gene-splicing technology dates back more than 30 years, and GM products have been widely marketed in the U.S. for the bet-

ter part of a decade. Today some two-thirds of the food products in American supermarkets contain genetically modified ingredients. No superweeds, no allergies, no illnesses and certainly no fatalities have ever been linked to GM foods.

While Europe's scientists reject the pseudoscience pushed by biotech opponents, Europe's protectionist trade policies effectively endorse it. Roger Bate of the London-based International Policy Network says this thinking is shortsighted. “The costs of agricultural products will continue to fall due to genetically modified food technologies, which are increasing productivity by 10% to 15% per year,” says Mr. Bate. “Europe's subsidy programs will become that much more expensive, and their position on biotech that much more untenable.”

Genetic modification has led to a healthier, more abundant food supply that is cheaper to produce and less stressful on the environment. Now that we have the means to feed Africa's hungry, who would've guessed that some would lack the motive? 

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Education Outreach: Science Fairs Can Inspire and Engage Future Scientists

Dr. Marcia Harrison is a professor of biology at Marshall University in Huntington, West Virginia, where she has been faculty member since 1986. She received her Ph.D. in Dr. Peter Kaufman's laboratory at the University of Michigan and then did postdoctoral work with Dr. Barbara Pickard at Washington University. She has a long history of activity in education, particularly K–12 outreach. She became president of the West Virginia Jr. Academy of Science in 1999, a position that led her to the directorship of the West Virginia State Science and Engineering Fair in 2000. She managed to generate sufficient enthusiasm among her colleagues at Marshall University that Marshall now is the official and permanent host to and home for the State Science and Engineering Fair.

Dr. Harrison credits her involvement in high school science fairs as one of the deciding factors in her pursuit of science as a career. Her personal historical involvement with science fairs came full circle when her own children began to enter fairs and when she began to take a central role in leading the West Virginia state fair.

Since our education theme at this year's ASPB annual meeting in Denver was K–12 outreach, I thought it would be useful if Dr. Harrison could provide some of her insights into science fairs, since they represent an opportunity for our members to pursue outreach activities. I interviewed Dr. Harrison by telephone from her office at Marshall University.

Let's start with the origin of science fairs. How and why were they originally conceived?

Science fairs were developed as a kind of counterpart to sports activities for students interested in science, math, and engineering as a means of acknowledging and rewarding excellence in pursuit of these endeavors. There

are two issues now. For students, science fairs provide an opportunity to compete in science with a project done with a teacher sponsor. But I also think there is a larger issue insofar as curricula are becoming more and more research oriented and science fairs can really be in tune with, and support, those developments.

What is the evidence that students benefit from science fair participation in terms of their science achievement or learning?

Well, my own participation in science fairs was one reason I became interested in science, and I doubt I would have stayed in science or had that interest if I hadn't had the project and the relationship I had with my teacher in high school. I'm not so sure if university introductory biology and chemistry courses would have held me there otherwise. And I'm not alone. For a lot of students, the research pursued as part of their science fair project is what keeps them going. These are kids who compete every year, some of them beginning in middle school, and who continue developing ideas or projects from that first science fair project. Their interest is heightened even more if they make it to the regional level because there they start to win substantial prizes—trips, awards, money, scholarships.

Besides the benefits to students in terms of prizes, and their continued interest in science, are there less direct benefits from science fairs—for example, in creating lasting links between the K–12 community and the research community?

One thing that happened when Marshall took the state science fair is that the faculty really loved having the students on campus and were very excited about talking to the students about their research. And the students have responded very positively. It's like us going to poster sessions. The students get to talk about their research and some of the judges volun-

teer to go back and talk to the students for a while on their own initiative. That's the atmosphere I strive to create. Even though students may not end up a winner, they can come and talk about their research. And I've heard students tell other students that when they come to Marshall they're going to be talking to Ph.D.s about their projects. That's something they feel is a very valuable and worthwhile experience. On the flip side, I've also heard of bad experiences—where judges decide they're going to be really tough on the students. This can become very intimidating, especially at the middle- and grade-school levels. I think if you want to turn off kids, especially girls and minority students, just make them feel bad about their project.

So the competitive aspect of science fairs has both positive and negative sides?

Yes, if science is always presented as a competition, I think you lose something. If kids get the impression that not winning means that they're never going to succeed, it's a definite negative. I think older students can handle losing a bit more philosophically, but in the younger grades, I think, we probably lose students if we emphasize competition too much and give them bad experiences with judges. Getting a cadre of good judges is important. Some people are very good at judging, but others are just plain scary. Often our graduate students judge the middle- and grade-school projects, and we also have students in secondary education on campus who are a little less threatening for the younger kids.

Real science is not always a competition. Scientists have poster sessions where we are not judged (mercifully, sometimes). So, for younger students, I would suggest that open houses where they can present science projects in a noncompetitive atmosphere might be better

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than constant science fair-type competitions.

A common concern about science fairs is that they can be elitist. Do you see this as a valid criticism?

Well, in West Virginia there are not a lot of schools that serve a high proportion of minority students. But I see from the schools that do participate that visible minorities participate in proportion to their representation at the school. So it's clear that minorities are not being excluded from existing science fair programs in any way. Females are also heavily represented. Last year, 60 percent of our participants were female.

I also think that there are many ways that teacher sponsors, research mentors, and science fair organizers can help create a level playing field. The display itself can frequently take a lot of financial resources from students and

their families, but it certainly doesn't have to. Winning project displays can be made quite inexpensively, especially if mentors and teachers are willing to help with things like printing.

How can students become involved with scientists as advisers or mentors for their science fair projects?

The primary way that teachers and students become involved with faculty is by having the faculty host or mentor students in their labs. It is not uncommon, especially for students at the international competition, to be working in a research lab. For areas such as medicine, health, environmental science, or any project involving culture of living organisms, you almost have to be working in a research lab. It doesn't have to be an academic institution—many industries also have summer op-

portunities for students doing projects.

Some science fairs actually have formal mentor programs where students can identify potential contacts in academia or industry. In most cases, though, it's informal and consists of teachers passing students' names on to scientists they know.

Any final thoughts?

All indications are that American kids lose interest in science very early in their education. That's a shame because we scientists know how exciting science can be. Science fairs can appeal to the competitive spirit in young people and, if they're done well, can instill a passion and fervor for science that can last a lifetime. I would like to encourage ASPB members to participate in science fairs and consider the importance of their impact on a future scientist. 

CALL FOR APPLICATIONS ASPB Travel Award Program for Plant Biology 2003 in Honolulu

Applications for travel awards to Plant Biology 2003 are now being accepted for consideration by ASPB. The application form appears on the facing page of this issue of the *ASPB News* and will be posted on the ASPB web page at <http://www.aspb.org>.

The Society has allotted \$35,000 for the continuation of the travel award program. In 2003, ASPB will be awarding money for housing only. The goals of the program are to increase attendance of young scientists at the annual meeting by providing travel funds for those in financial need and to increase

diversity among the annual meeting attendees. Undergraduate students are heartily encouraged to apply, as are graduate students, postdocs, and faculty beginning their careers in plant science.

It is required that applicants submit an abstract of research to be presented at the meeting; they will also be asked to write a paragraph on the form expressing why attending Plant Biology 2003 would enhance their career. Two letters of recommendation are required as well.

Selection criteria will be based first on the

science and the quality of the abstract, second on the statement about how attending will have an impact on the applicant's career, third on the strength of the recommendations, and fourth on ethnic diversity. Applications must be received at ASPB headquarters by March 14, 2003. Those applicants selected to receive an award will be notified by April 25, and the money will be sent in advance of the meeting. The early-bird registration cutoff date is May 15, and housing reservations must be made no later than June 20, 2003. 

Would you like to spend three days sharing knowledge with worldwide experts in Plant Genetics?

Mark your calendar now for the American Society of Plant Biologists' first annual Specialist Conference.

Plant Genetics 2003: Mechanisms of Genetic Variation

October 22–26, 2003

Snowbird Resort & Conference Center, Snowbird, Utah

At this exciting new ASPB event, experts from around the world will explore the nature and mechanisms of genetic variation and their effects on the evolution of plant form and function as well as on plant speciation and crop domestication. The conference is designed exclusively for plant geneticists, researchers, educators, and students. (Participation by graduate students and young postdoctoral fellows is strongly encouraged, and discounted rates for registration and accommodation will be available.)

Full details and registration information are online at http://www.aspb.org/meetings/pg_2003/.



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NOTICE Beginning with the January/February 2003 issue, the *ASPB News* will no longer carry job ads or meeting notices in the print edition. Job ads are posted weekly online at <http://www.aspb.org/jobbank/>. Meeting notices are posted at <http://www.aspb.org/meetings/>.

ASPB News publishes dates, titles, locations, and contact names and addresses for meetings, courses, seminars, and the like that are of interest to ASPB members. **Submit announcements via the Web** at <http://www.aspb.org/calendar/addevent.cfm>. Questions? Contact Donna Gordon at dgordon@aspb.org. You may also reach us at *ASPB News*, 15501 Monona Drive, Rockville, MD 20855-2768 USA. **Faxed transmissions are not accepted.**

2002

December 4–5
Discussion Meeting: Mechanisms Regulating Gene Flow in Flowering Plants
The Royal Society, 6-9 Carlton House Terrace, London, United Kingdom, SW1Y 5AG
Contact Suzi White, telephone +44 (0)22 7451 2581;
e-mail discussion.meetings@royalsoc.ac.uk;
<http://www.royalsoc.ac.uk/events>.

2003

JANUARY

January 2–5
12th Western Photosynthesis Conference
Asilomar Conference Center, Pacific Grove, CA
For more information visit
<http://uwadmnweb.uwyo.edu/Botany/Asilomar%202003/default.html>.

January 8–12
2nd International Congress of Plant Physiology on Sustainable Plant Productivity Under Changing Environment
New Delhi, India
Contact Dr. G. C. Srivastava, Secretary General (ICPP 2003), Division of Plant Physiology, Indian Agricultural Research Institute, New Delhi 110012, India; telephone +91-011-5782815/5788773/5740616, fax +91-011-5766420/5751719, e-mail girish_chand_srivastava@rediffmail.com,
<http://www.ispponline.org>.

January 15–19
Frontiers of Plant Cell Biology: Signals and Pathways, the 22nd Symposium in Plant Biology
Riverside Convention Center
Riverside, California
For more information contact Kathy Barton; telephone 909-787-4588,
e-mail kathryn.barton@ucr.edu,
<http://www.cepceb.ucr.edu/news/news.htm#1>.

January 21–24
Introgression from Genetically Modified Plants into Wild Relatives and Its Consequences
Amsterdam, Netherlands
Contact Hans den Nijs (e-mail nijs@science.uva.nl) and Detlef Bartsch (e-mail bartsch@zalf.de)
<http://www.science.uva.nl/research/ibed/Introgression/>.

January 26–31
Gordon Research Conference on Temperature Stress in Plants
Ventura, California
For information contact Kay Walker Simmons, USDA/ARS National Program Staff, Beltsville, Maryland; telephone 301-504-5560, e-mail kws@ars.usda.gov, <http://www.grc.org>.

January 26–29
Molecular Genetics and Biophysical Aspects of Photosynthesis
Les Diablerets (Switzerland)
Organizers: J. D. Rochaix, W. Rutherford, F. A. Wollman. For more information visit <http://www.molbio.unige.ch/embo/>.

FEBRUARY

February 16–21
Gordon Research Conference on Agricultural Sciences
Ventura, California
For more information visit <http://www.grc.org/>.

MARCH

March 9–13
World Cotton Research Conference III
Cape Town, South Africa
For more information visit <http://www.cottonconference3.co.za>.

March 16–19
Conference on Plant-Made Pharmaceuticals
Québec City, Canada
Contact CPMP 2003 Conference Secretariat, c/o Agora Communication, 2600, Boulevard Laurier, Suite 2680, Sainte-Foy, QC G1V 4M6, Canada; telephone 418-658-6755, fax 418-658-8850, e-mail info@cpmp2003.org, <http://www.cpmp2003.org>.

March 24–28
Optimisation of Water Use by Plants in the Mediterranean
Cala Bona, Mallorca, Spain
For more information contact
martin.parry@bbsrc.ac.uk, <http://www.aab.org.uk/meetings/mtgs2003/optimize.htm>.

APRIL

April 6–9
Phytochemistry and Biology of Lignans
Conference Center Walberberg
Cloister St. Albert, Rheindorfer Burgweg 39, D-53332 Bornheim-Walberberg, Germany
Contact Professor Dr. Maike Petersen, Institut für Pharmazeutische Biologie, Philipps-Universität Marburg, Deutschhausstr. 17A, D-35037 Marburg, Germany; telephone 49-0-6421-2825821, fax 49-0-6421-2825828, e-mail petersen@mail.uni-marburg.de.

April 9–12
Signals, Sensing and Plant Primary Metabolism
Potsdam, Germany
For more information e-mail
eva.hackenbergr@zr.hu-berlin.de, <http://www.biologie.hu-berlin.de/~symposium>.

April 10–16
Keystone Symposia on Plant Biology: Functions and Control of Cell Death
Snowbird Resort, Utah
Contact info@keystonesymposia.org; telephone 800-253-0685 or 970-262-1230, fax 970-262-1525, <http://www.keystonesymposia.org>.

MAY

May 18–22
Third International Symposium on Molecular Breeding of Forage and Turf
Dallas, Texas, and Ardmore, Oklahoma
For more information contact us at
mbft2003@noble.org, <http://www.noble.org/mbft2003>.

May 25–29
Plants and Microbe Adaptations to Cold
Quebec City, Canada
Contact Dr. Annick Bertrand, Agriculture and Agri-Food Canada, 2560 Hochelaga Blvd., Sainte-Foy, Quebec, Canada, G1V 2J3; e-mail bertranda@em.agr.ca, <http://www.pmac2003.org>.

May 28–31
Plant Protein Phosphorylation–Dephosphorylation
University of Missouri, Columbia
For more information visit <http://www.plantgroup.org/symposium.html>.

JUNE

June 2–6
Fourth International Symposium on Adventitious Roots
Savannah, Georgia
For more information please contact Barry Goldfarb; e-mail barry_goldfarb@ncsu.edu.

June 5–8
Transposition, Recombination and Application to Plant Genomics
Scheman Continuing Education Building,
Iowa State University, Ames
Contact Gulshan Singh; e-mail pbmb@iastate.edu, <http://www.bb.iastate.edu/~gfst/phomepg.html>.

June 7–12
Tree Biotechnology 2003, Umeå Plant Science Center, SLU
Umeå, Sweden
For more information please contact Ulrika Hjelm; e-mail ulrika.hjelm@genfys.slu.se, <http://www.treebiotech2003.norrnod.se>.

June 16–27
25th Annual Postharvest Technology of Horticultural Crops Short Course
University of California, Davis
For more information contact Ms. Sharon Munowich, University Extension, University of California, Davis, CA 95616; telephone 530-757-8899, fax 530-757-8634, e-mail smunowit@unexmail.ucdavis.edu.

June 23–28
7th International Congress of Plant Molecular Biology
Barcelona, Spain
ISPMB 2003 Congress Secretariat, c/o AOPC-ISPMB 2003, Av. Drassanes 6, 19th floor, E-08001 Barcelona, Spain; telephone 34-93-302-75-41, fax 34-93-301-12-55, e-mail congress@aopc.es, <http://www.ispmb2003.com>.

JULY

July 6–11
XIX International Congress of Genetics
Melbourne, Australia
For more information visit <http://www.geneticscongress2003.com>.

July 19–24
12th International Congress on Genes, Gene Families and Isozymes
Berlin, Germany
Contact Dr. Claus Schnarrenberger, telephone 0049-30-838-53123, e-mail schnarre@zedat.fu-berlin.de; or Dr. Brigitte Wittmann-Lieboldt, telephone 0049-3328-3949-12, e-mail wittmannlieboldt@wita.de, <http://www.ctw-congress.de/genes>.

July 20–25
4th International Plant Biomechanics Conference
Michigan State University, East Lansing
For further information visit the conference website <http://www.plantbiomechanics2003.msu.edu> or contact Dr. Frank W. Telewski, W. J. Beal Botanical Garden, 412 Olds Hall, Michigan State University, East Lansing, MI 48824; e-mail telewski@cpp.msu.edu.

July 20–24
19th International Congress of Biochemistry & Molecular Biology
Toronto, Ontario, Canada
For more information visit <http://www.iubmb2003.org>.

July 26–30
Plant Biology 2003
Honolulu, Hawaii
For more information visit <http://www.aspb.org/meetings/pb-2003/>.

AUGUST

August 3–8
The 36th Meeting of the Brazilian Phytopathological Society
Uberlândia, Minas Gerais, Brazil
For additional information contact Mr. Fabricio Rodrigues, Department of Plant Pathology, University of Florida, Gainesville; telephone 352-392-6902; e-mail far@scientist.com, <http://www.36cbf.iciag.ufu.br>.

August 6–8
South Dakota Plant Physiology/Plant Biochemistry Symposium
South Dakota State University, Brookings
For information contact Lucinda (Cindy) Olson; telephone 605-688-5156, e-mail lucinda_olson@sdstate.edu, http://plantsci.sdstate.edu/conferences/plant_symposium.

August 9–13
The Annual Meeting of the American Phytopathological Society (APS)
Charlotte, North Carolina
For information contact Kathy Aro; telephone 651-454-7250, e-mail karo@scisoc.org, <http://www.apsnet.org>.

August 17–23
Fourth International Symbiosis Congress
Halifax, Nova Scotia
Organizers: Douglas Zook and David Richardson; e-mail david.Richardson@stmarys.ca. For more information visit our web site <http://people.bu.edu/dzook/>.

Future ASPB Annual Meeting Sites

2003: Honolulu, Hawaii
Saturday, July 26, through
Wednesday, July 30

2004: Orlando, Florida
Saturday, July 24, through
Wednesday, July 28

2005: Seattle, Washington
Saturday, July 16, through
Wednesday, July 20

August 23–26
SEB Symposium 2003
Membrane and Protein Trafficking in Plants
Glasgow University
telephone +44(0)20-7439-8732, fax +44(0)20-7287-4786, e-mail c.trimmer@sebiology.org, <http://www.sebiology.org>

September 4–December 4
Signals, Sensing and Plant Primary Metabolism
University of Potsdam, Germany
For more information contact e-mail eva.hackenberg@zr.hu-berlin.de, <http://www.biologie.hu-berlin.de/~symposium>.

SEPTEMBER

September 26–October 1
4th International Crop Science Congress 2004
Brisbane Convention Centre, Brisbane,
Queensland, Australia
For more information visit <http://www.crops2004.com>.

OCTOBER

October 22–26
ASPB Conference on Plant Genetics: Mechanisms of Genetic Variation
Snowbird, Utah
Organizers: V. Sundaresan, University of California at Davis; R. Jorgensen, University of Arizona. For more information visit our website <http://www.aspb.org/meetings/pg-2003>.

October 24–27
First International Symposium on Saffron Biology and Biotechnology (ISSBB)
Albacete, Spain
For more information visit <http://www.uclm.es/cursos/azafran>.

October 27–31
20th International Scientific Colloquium on Coffee
Kauai, Hawaii
For more information visit <http://www.asic-cafe.org>.



ASP Placement Service Form

This form may be used only by members of the American Society of Plant Biologists. Please print or type your placement information on this form (curriculum vitae will not be accepted) and send to: **Donna Gordon, ASPB Headquarters, 15501 Monona Drive, Rockville, MD 20855-2768 USA; e-mail dgordon@aspb.org**

LASTNAME	TITLE	FIRSTNAME	INITIAL
STREET ADDRESS			
CITY	STATE	ZIP	COUNTRY
TELEPHONE	FAX	E-MAIL	

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

- Permanent Temporary Postdoctoral Industrial
- Academic Government USA only 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 location

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

Employer and location	From	To	Position, title, and duties

References (names, addresses, and telephone numbers): _____



NOTICE

Beginning with the January/February 2003 issue, the *ASPB News* will no longer carry job ads or meeting notices in the print edition. Job ads are posted weekly online at <http://www.aspb.org/jobbank/>. Meeting notices are posted at <http://www.aspb.org/meetings/>.

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

ASPB operates a placement service in which are kept active two files of résumés of individuals who are seeking employment. Employers are urged to survey the résumé 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, ASPB Placement Service, 15501 Monona Drive, Rockville, MD 20855-2768 USA. Those seeking employment should complete the Placement Service Form on the previous page to be included in the service.

II. Placing a Position Ad on the ASPB Homepage

You may now submit jobs directly online. Simply go to <http://www.aspb.org/jobbank/> and select **Submit a Job**. If you have any questions, please contact Donna Gordon at dgordon@aspb.org.

- **Academic/Government/Industry Permanent Positions (Ph.D. level):**
Fee: \$150. Includes 12 weeks on the ASPB online Job Bank.
Word Limit: No limit for online ad.
- **Postdoctoral Positions**
Fee: No charge for universities, nonprofit organizations, and government installations; \$150 for commercial companies. Includes 12 weeks on the ASPB online Job Bank.
Word Limit: No limit for online ad.
- **Research/Technical Positions (non-Ph.D.)**
Fee: No charge for universities, nonprofit organizations, and government installations; \$150 for commercial companies. Includes 12 weeks on the ASPB online Job Bank.
Word Limit: No limit for online ad.
- **Assistantships, Fellowships, Internships**
Fee: No charge; ad will appear for 12 weeks on the ASPB online Job Bank.
Word Limit: None.

PERMANENT ACADEMIC

Assistant Professor of Genomics of Abiotic Stress

Cornell University, Ithaca, New York
(Received 09/15)

Applications are sought from candidates whose research focuses on molecular aspects of environmental stresses in plants. Responsibilities: 70% research and 30% teaching. The research program shall focus on molecular aspects of environmental stresses, such as freezing, drought, salinity, mineral nutrient deprivation, hypoxia, soil compaction, soil acidity, and soil metal toxicity. The work will focus on mechanisms that are responsible for gene regulation during acclimation to abiotic environmental stresses and have long-term applications in agronomic crops. This may include the identification of regulatory genes, the use of genomic/proteomic approaches or metabolic profiling, and the development of transgenic lines and mutants for use in providing rational approaches for the improvement of the freezing, drought or root-zone stress

tolerance of crop species. Successful candidates will be part of the larger Cornell Genomics Initiative, and will collaborate with scientists in the Department of Crop and Soil Sciences and other departments at the Ithaca and Geneva campuses to identify and determine the function of genes involved in abiotic stress tolerance. An enhanced start-up package for equipment and initial support staff will be provided; however, the applicant is expected to generate external funding for a vigorous research program. Teaching responsibilities include an undergraduate and a graduate level course in an area of the applicant's expertise. Qualifications: A PhD in molecular biology of plants or related area with preference given to those with postdoctoral experience in molecular biology. Experience in stress physiology is desirable though not essential. Location: Department of Crop and Soil Sciences, New York State College of Agriculture and Life Sciences, Cornell University. Starting Date: July 2003.

Application Instructions: Applicants should submit a cover letter of application, curriculum vitae, a concise statement of research and

teaching interests, and names of at least three references to: Cornell Genomics Search Committee, Cornell University, 249 Emerson Hall, Ithaca, NY 14853-1901; (cugenomics@cornell.edu); telephone 607-254-7261; fax 607-255-6683. Cornell University is an Affirmative Action, Equal Opportunity Employer.

Related Web Site: <http://www.genomics.cornell.edu/>

Job Contact Email: cugenomics@cornell.edu

Assistant Professor The Ohio State University, Columbus (Received 09/23)

A tenure track Assistant Professor position is available for a Plant Molecular Biologist in the Program in Plant Molecular Biology/Biotechnology and in the Department of Plant Biology at The Ohio State University. Areas of interest include but are not restricted to proteomics, genomics, bioinformatics, development, metabolic engineering, physiology, cell biology, and biochemistry. The successful candidate is expected to establish a creative and productive

Check ASPB's web site (<http://www.aspb.org/jobbank/>) every Friday for new job listings.

research program, and to excel in undergraduate and graduate teaching. Please submit curriculum vitae, a concise statement of research plans, a description of teaching experience and interests, and three reference letters to Fred Sack, Dept. of Plant Biology, Ohio State University, 1735 Neil Avenue, Columbus, OH 43210-1293. Review of applications will begin December 6, 2002. For background see <http://www.biosci.ohio-state.edu/~plantbio/plantbio.html> and <http://www.ag.ohio-state.edu/%7Epmbb/>. The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and individuals with disabilities are encouraged to apply.

Application Instructions: Please submit a curriculum vitae, a concise statement of research plans, a description of teaching experience and interests, and three reference letters to Fred Sack, Dept. of Plant Biology, Ohio State University, 1735 Neil Avenue, Columbus, OH 43210-1293.

Related Web Site: <http://www.biosci.ohio-state.edu/~plantbio/plantbio.html> and <http://www.ag.ohio-state.edu/%7Epmbb/>

Job Contact Email: sack.1@osu.edu

**Assistant Professor—Plant Molecular Biology
Indiana University, Bloomington
(Received 09/25)**

Faculty Position, Plant Molecular Biology, Indiana University, Bloomington. The Department of Biology and the Indiana Molecular Biology Institute invite applications for a tenure track Assistant Professor position in the area of plant molecular biology. Candidates should be investigating fundamental questions in plant biology at a mechanistic level. IU-Bloomington is significantly expanding in the life sciences. These efforts include construction of a major research building, a new interdepartmental initiative in Biochemistry and Biophysics, and numerous recent hires that have greatly expanded our strengths in the areas of microbiology, biochemistry, structural biology, cell and developmental biology, molecular evolution, and ecology. We are now expanding in the plant sciences and will be hiring at least two additional plant molecular biologists in the next few years. The plant molecular biology group occupies a set of large contiguous labs in newly renovated Myers Hall, the home of the Indiana Molecular Biology Institute. For more information about the Biology Department and the Institute and for links to information about the campus and the Bloomington community, see <http://www.bio.indiana.edu>.

Application Instructions: Candidates should send a curriculum vitae, a statement of research (past, present, and planned), and representative publications, and arrange to have three (or more) letters of recommendation sent to: Dr. Mark Estelle, Plant Molecular Biology Faculty Search, Department of Biology, Indiana

University, 1001 E. 3rd St., Bloomington, IN 47405-3700. Review of applications will begin October 15 and will continue until suitable candidates are identified. Indiana University is an Affirmative Action/Equal Opportunity Employer. Women, minority candidates, and couples are encouraged to apply.

Related Web Site: <http://www.bio.indiana.edu>

Job Contact Email: mestelle@bio.indiana.edu

**Endowed Professorship in Plant Sciences
University of Missouri—St. Louis and Danforth
Plant Science Center, St. Louis
(Received 09/27)**

The University of Missouri—St. Louis announces a search for the E. Desmond Lee and Family Fund Professorship in Plant Sciences, a position created to enhance the partnership between the University and the Donald Danforth Plant Science Center, an independent research institution. The E. Desmond Lee Professor will be a faculty member in the University's Department of Biology, with comparable status at the Danforth Center. The position offers a competitive salary, set-up funding, and funds renewed annually from the endowment to support programs of mutual interest to the Department and the Danforth Center, including the candidate's research. The Danforth Center and the University are committed to excellence in research combined with global outreach efforts. The Department of Biology has a graduate program—including a joint program in biochemistry with the Department of Chemistry and Biochemistry (<http://www.umsl.edu/~chem/>)—that attracts scholars from around the world.

Application Instructions: Application review begins immediately; the position will remain open until filled. Applications should include a cover letter outlining qualifications and interests, curriculum vitae, a statement of research interests and goals, and the names and addresses of five references. Please send applications via email to Maryann Hempen, mhempen@jinx.umsl.edu. In addition, please send copies of two significant papers to Plant Sciences Search Committee, Department of Biology, University of Missouri—St. Louis, 8001 Natural Bridge Rd., St. Louis, MO 63121. The University of Missouri—St. Louis is an affirmative action, equal opportunity employer committed to excellence through diversity.

Related Web Site: <http://www.umsl.edu/~biology/> and <http://www.danforthcenter.org/>

Job Contact Email: mhempen@jinx.umsl.edu

**Assistant/Associate Professor
University of Delaware—Dept. of Plant and Soil
Sciences, Newark
(Received 10/03)**

One of the oldest institutions of higher education in this country, the University of Delaware today combines tradition and innovation, offering students a rich heritage along with the latest in instructional and research technology. The University of Delaware is a Land-Grant, Sea-Grant, Urban-Grant & Space-Grant institution with its main campus in Newark, DE, located midway between Philadelphia and Baltimore. The Department of Plant and Soil Sciences and the Delaware Biotechnology Institute (DBI) invite applications for a tenure-track faculty position at the assistant or associate professor level. The successful candidate will be expected to develop a vigorous extramurally funded research program with a high potential for unique fundamental discoveries, and participate in teaching. All areas of contemporary plant biology will be considered. Applications are particularly welcomed from candidates who could help solidify the ties between areas of Plant Biology that are developing at UD. These include plant/microbe interactions, RNA dynamics, cell surface biology, and the biology of the plant/soil interface. Candidates whose research would be maximally enhanced by the interactions within a new multidisciplinary institute are particularly encouraged to apply, as are those interested in exploring systems approaches to biological problems and/or the collaborative application of basic research for crop improvement. The University of Delaware is committed to building a world-class research and education program in plant biology through the combined efforts of the Department of Plant and Soil Sciences, the Delaware Biotechnology Institute (DBI), and other units on campus. DBI-associated faculty hold appointments at the University of Delaware in one or more of the following units: Plant and Soil Sciences, Marine Studies, Animal and Food Sciences, Chemical Engineering, Computer and Information Sciences, Biological Sciences, Chemistry and Biochemistry, Business and Economics, Electrical and Computer Engineering, Material Science and Engineering, and Mechanical Engineering. For more information on the DBI and its faculty, see www.dbi.udel.edu. Competitive salary/startup packages, new modern lab space, and state-of-the-art facilities for microarray/gene chip analysis, proteomics, bioimaging and computational biology are available. Candidates must have a Ph.D., postdoctoral training, and a demonstrated excellence in innovative research at the molecular level.

Application Instructions: Applicants should forward a curriculum vitae, a statement of research interests and future plans, and have three reference letters sent to: Pamela J. Green,

Chair, Plant Biology Search, c/o Kathy Fleischut, University of Delaware–Delaware, Biotechnology Institute, 15 Innovation Way, Newark, DE 19711. The review of applications will begin November 1, 2002 and continue until a suitable candidate is identified. The curriculum vitae and letters of reference shall be shared with departmental faculty. The University of Delaware is an Equal Opportunity Employer which encourages applications from Minority Group Members and Women.

Related Web Site: <http://dbi.udel.edu>

Job Contact Email: green@dbi.udel.edu

Assistant/Associate Professor
Department of Biology
Grand Valley State University, Allendale,
Michigan
(Received 10/03)

The Biology Department at Grand Valley State University is seeking a Plant Molecular Biologist (tenure track) to join an interdisciplinary faculty and rapidly expanding program that includes implementation of a new M.S. degree program. Teaching responsibilities will include Cell and Molecular Biology (team-taught) and introductory biology. Opportunities exist for new course development. Successful candidates will be broadly trained biologists with a Ph.D. and interest and experience in approaching problems in plant biology from a molecular perspective. Preference will be given to candidates who have demonstrated success in teaching and research involving undergraduates. Excellent communication skills are required.

Application Instructions: A complete application consists of an application letter; curriculum vitae; unofficial transcripts; statements of teaching and research interests, goals, and expectations; and names and addresses of three references. Review of candidate files will begin 11 November 2002. Applications will be accepted until the position is filled. Submit materials to: Dr. Patrick A. Thorpe, Chair; Plant Molecular Biology Search Committee; Biology Department; Grand Valley State University; Allendale, MI 49401-9403. Email: thorpep@gvsu.edu. Telephone: (616) 895-3175. Fax: (616) 895-3446. Web site: www.gvsu.edu/biology.

Related Web Site: <http://www.gvsu.edu/biology>

Job Contact Email: thorpep@gvsu.edu

Assistant Professor
University of Florida, Gainesville
(Received 10/04)

The Department of Botany at the University of Florida invites applications for a tenure-track, Assistant or Associate Professor in the area of plant biology, to begin in August of 2003. The

successful applicant will be part of the University of Florida Genetics Institute. Preference will be given to applicants with postdoctoral experience and who use genetics or genomics approaches in an area such as (but not limited to) cell wall and/or cytoskeleton dynamics, signal transduction, and morphology/development. Applicants who complement existing strengths in plant physiology, developmental biology, signal transduction, and genetics are desired. A strong commitment to both undergraduate and graduate teaching and training is required. Teaching responsibilities include cell biology and a graduate course in their area of expertise.

Application Instructions: Applicants should send a curriculum vitae, brief statements of research goals and teaching philosophy, and three letters of reference to: Search Committee, Department of Botany, 220 Bartram Hall, University of Florida, Gainesville, FL 32611-8526 by December 9, 2002. The University of Florida is an Affirmative Action/Equal Opportunity Employer.

Related Web Site: <http://web.botany.ufl.edu>

Assistant Professor
University of Wisconsin–Madison
(Received 10/09)

The Botany Department, University of Wisconsin–Madison, invites applications for a tenure-track Assistant Professor to begin as early as August 2003. We seek an individual who uses innovative approaches to study significant questions in the field of plant structure (which may range from the cell to organismal level). The successful applicant will be expected to develop a nationally competitive research program and will have ample opportunities to form productive collaborations within the large and strong community of plant biologists on the Madison campus. Teaching responsibilities include an undergraduate course in plant structure (anatomy/morphology/development) and contributions to teaching at the introductory and/or graduate level. UW–Madison is an Equal Opportunity/Affirmative Action Employer.

Application Instructions: Applicants should submit their curriculum vitae, a statement of research and teaching goals, selected reprints, and have three letters of recommendation sent to: Dr. Donna Fernandez, Plant Structure Search Committee, Botany Department, 132 Birge Hall, 430 Lincoln Drive, Madison, WI 53706-1381. To ensure competitive consideration, applications should be received by December 15, 2002.

Related Web Site: <http://www.botany.wisc.edu>

Job Contact Email: dfernand@facstaff.wisc.edu

Assistant or Associate Professor in Floriculture
Michigan State University, East Lansing
(Received 10/16)

Responsibilities and Expectations: 75% research, 25% teaching; 12-month tenure track faculty position at the Assistant or Associate Professor level (rank and tenure is negotiable based on qualifications) in the Department of Horticulture, Michigan State University. This position is available starting August 1, 2003. The successful candidate will be an integral member of an internationally recognized and productive floriculture research team with a commitment to support and provide leadership for Michigan's expanding \$300 million floriculture industry. Additionally, the successful candidate will collaborate with faculty in horticulture and other disciplines to develop a recognized program of excellence. Basic and applied research will target production, management, and physiology of floriculture crops, including but not limited to bedding plants, herbaceous perennials, and potted plants. Specific research topics could include: whole-plant and postharvest physiology, crop modeling, controlled environments, and introduction of new crops. The candidate is expected to publish in refereed journals and trade magazines, deliver presentations to scientific and industry audiences, interact with Michigan's floriculture industry, and secure extramural funding from public and private sources. Teaching and advising responsibilities include teaching one undergraduate course in floriculture production and management, team teaching a second senior or graduate level course in their subject of expertise, graduate advising, and undergraduate academic and internship advising.

Qualifications and Application Procedure: A Ph.D. in Horticulture or related field is required. Postdoctoral, faculty, and/or industry experience in floriculture, agricultural engineering, ecology, and/or environmental horticulture is desirable. A record of, or the potential for, research productivity of the highest quality is essential. Excellent communication and interpersonal skills are needed. Screening of applications will begin February 1, 2003 and will continue until a desirable candidate is identified. Michigan State University is an equal opportunity employer. Women, minority and international candidates are encouraged to apply.

Application Instructions: Applicants should submit a letter of intent, a resume, and the names and addresses of at least five references to Dr. Art Cameron, Search Committee Chair, Department of Horticulture, Michigan State University, A220 Plant and Soil Sciences Bldg., East Lansing, MI 48824. Any questions can be addressed to cameron@msu.edu.

Related Web Site: <http://www.hrt.msu.edu>

Job Contact Email: cameron@msu.edu

**Assistant/Associate Professor in Biochemistry
University of Nevada, Reno****(Received 10/23)**

Functional Genomics of Plant Abiotic Stress at the University of Nevada, Reno

The Nevada Agricultural Experiment Station and College of Agriculture, Biotechnology and Natural Resources at the University of Nevada, Reno are soliciting applications from outstanding candidates at the Assistant/Associate Professor level to fill two new 12-month tenure-track faculty positions (75% research, 25% teaching) in the Department of Biochemistry in the general area of functional genomics of plant abiotic stress. Areas of interest may include plant biochemistry and molecular genetics of signaling and response pathways to abiotic (e.g. cold, heat, salinity, dehydration) stress.

Candidates are sought whose research uses functional genomics to address fundamental questions in abiotic stress signaling and adaptation in plants. Research directed at elucidating and manipulating pathways responsible for improving plant abiotic stress tolerance in a manner relevant to agriculture are particularly appropriate. Contribution to undergraduate and/or graduate teaching programs is expected.

Application Instructions: For complete position announcement and requirements, see: <http://jobs.unr.edu> or contact: Plant Genomics Search Committee Coordinator, Biochemistry Department/330, University of Nevada, Reno, NV 89557-0014. *Attn.* Sharon Brush, Telephone 775-784-6031, FAX 775-784-1419. Applications received by 12/1/02 will receive full consideration. EEO/AA

Related Web Site: <http://www.ag.unr.edu/biochem/>

Job Contact Email: sbrush@unr.edu

**Assistant Professor of Plant Functional
Genomics****Department of Crop Sciences****University of Illinois, Urbana****(Received 10/28)**

The Department of Crop Sciences, University of Illinois, invites outstanding candidates to apply for a 9-month tenure-track faculty position in Plant Functional Genomics with relevance to plant growth, development, or metabolism using model and/or economic crop systems. The University offers excellent facilities, an interactive, collegial environment to foster the development of exceptional academic careers, and multi-disciplinary research opportunities in which the candidate is encouraged to participate. Candidates must demonstrate excellent potential to conduct independent research, attract extramural funding, and develop an outstanding teaching program. The successful candidate will be provided with ample space and a competitive salary package.

Application Instructions: A letter of application, curriculum vitae, a statement of research and teaching goals, certified transcripts, and three letters of recommendation are required. See complete job announcement at <http://www.cropsci.uiuc.edu>. Send all materials to: Chair, Plant Genomics Faculty Search Committee, c/o Carol A. Phillippe, Department of Crop Sciences, Turner Hall, 1102 S. Goodwin, Urbana, IL 61801. Full consideration will be given to applications received by January 10, 2003.

Related Web Site: <http://www.cropsci.uiuc.edu>

Job Contact Email: cphilli1@uiuc.edu

PERMANENT GOVERNMENT**Licensing Officer****University of California, Office of the
President, Office of Technology Transfer,
Oakland****(Received 10/10)****Position:** Licensing Officer. Job Number: 1811-02

Responsibilities: University of California plant breeders are constantly developing new crop and horticultural varieties. The UC Office of Technology Transfer helps to bring the benefits of these inventions to the agricultural community and the public through its licensing program. This Licensing Officer position is a challenging blend of agricultural science, business, and law. The Licensing Officer is responsible for evaluating, marketing, and obtaining patent protection for new plant cultivars, and will negotiate and administer contracts with the University's business partners. Extensive interaction is required with researchers, breeders, patent attorneys, nurseries, growers, and foreign business partners.

Qualifications: Candidate must have strong interpersonal, organizational, and communication skills. A bachelor's degree or its equivalent is required. Preferred candidate has an advanced degree in the agricultural sciences or plant biology. Candidates with a JD or MBA and knowledge of the agricultural business are also encouraged to apply. Experience in interpreting, negotiating, and drafting license agreements is desirable. Salary is approximately \$73,800, commensurate with qualifications. **Closing Date:** Review of resumes will begin immediately and continue until the position is filled.

Application Instructions: To apply: Visit <http://jobs.ucop.edu> and find job number 1811-02 under the "management" category for a full job description and application information.

Related Web Site: <http://jobs.ucop.edu>

RESEARCH/TECHNICAL (NON-PH.D.)**Research Assistant—Plant Molecular Biology
Hawaii Agriculture Research Center, Aiea
(Received 09/05)**

The Hawaii Agriculture Research Center invites applicants for a full-time Research Assistant position to work on tropical plant genomics.

Responsibilities: The person filling this position will conduct genetic mapping of tropical crop plants and isolate genes from cDNA libraries. Duties will also include: participation in the evaluation and analysis of techniques and procedures, assisting in the development of new techniques and procedures, and operation of IBM and Macintosh computers in the laboratory for data analysis and preparing reports. Other duties related to this field may be required as needed.

Qualifications: Minimum Qualifications: B.S. in Plant Sciences, Genetics, Molecular Biology, or related field. Knowledge of the principles of experimental molecular biology. Some knowledge of the methods, materials, procedures and techniques used in research or experimental laboratory work. Ability to understand and follow complex oral and written instructions and to work independently. Ability to prepare written reports of test results and analyses. Ability to participate in the evaluation and analysis of existing techniques and procedures and to assist in devising new techniques and procedures. Ability to observe, analyze, and report objectively the results of research experimentation. Ability to interact effectively with researchers at all professional levels. Desirable Qualifications: M.S. in Plant Sciences, Genetics, or Molecular Biology with experience on cloning systems and/or physical mapping techniques. Ability to finalize results into publishable tables and figures. Salary will be based on qualification and experiences. Equal Opportunity Employer.

Application Instructions: Submit a letter of application, resume, and the names of three references with telephone numbers and email addresses to Dr. Zhiyong Liu preferably through email at zliu@harc-hspa.com or mail to HARC, 99-193 Aiea Heights Drive, Suite 300, Aiea, HI 96701-3911.

Related Web Site: <http://www.hawaiiag.org/harc/harcjb14.htm>

Job Contact Email: zliu@harc-hspa.com

Research Assistant**Boyce Thompson Institute, Ithaca, New York
(Received 09/11)**

This position is available immediately and involves supporting a research program that is investigating the molecular basis immunity and disease susceptibility in plants. Responsibilities

include: 1) Oversee organization and operation of a molecular biology/genomics laboratory (20-30%); and 2) Assist Postdoctoral Associates with their research projects (70-80%). This assistance will involve plant-pathogen assays in the lab and greenhouse, molecular biology and biochemical analyses of plant responses to pathogens, and some computer work directed at mining plant and pathogen gene databases.

Qualifications: BS or MS in molecular biology, biochemistry, genetics, plant pathology, or related field. Skills required: Successful work requires technical skill to perform many laboratory procedures, planning and preparation for complicated procedures, ability to troubleshoot when things go wrong, meticulous attention to detail, and careful record keeping. Knowledge of molecular biology procedures such as cloning, hybridization, RNA and genomic DNA isolation, gel electrophoresis, protein isolation, Western blotting. Some prior lab experience is required. Must be reliable, have independent judgment, have initiative, and enjoy working with people in a scientific setting. Salary depends on experience and qualifications.

Application Instructions: To apply, send a cover letter and resume including three references to Gregory Martin at: The Boyce Thompson Institute, Tower Road, Ithaca NY 14853. For more information about the Boyce Thompson Institute and Gregory Martin's research program see: <http://bti.cornell.edu/> and <http://ppathw3.cals.cornell.edu/ppath/FacultyInfo/Martin.html>. For information about the BTI Center for Gene Expression Profiling see: <http://bti.cornell.edu/CGEP/CGEP.html>. EEO/M/F/D/V.

Related Web Site: <http://ppathw3.cals.cornell.edu/ppath/FacultyInfo/Martin.html>

Job Contact Email: gmb7@cornell.edu

Assistant Scientist

Department of Botany, Iowa State University, Ames

(Received 09/20)

A grant-funded assistant scientist position is available for a plant molecular biologist with research experience in the genetics and biochemistry of lipid biosynthesis to work in my laboratory at Iowa State University. The research involves the production and analysis of Arabidopsis plants with altered capacity for producing acetyl CoA. The successful applicant will have a M.S. or Ph.D. in plant molecular biology or a closely related field and at least two years of research experience after the terminal degree studying molecular aspects of lipid biosynthesis in Arabidopsis. Specific experience in the formulation of binary vectors, the production and analysis of transgenic plants, screening for Arabidopsis T-DNA mutants and biochemical and genetic analysis

of transgenic plants should be documented. Successful candidates should demonstrate strong written and oral communication skills.

Application Instructions: Send a CV and three reference letters to Dr. David J. Oliver, Department of Botany, 353 Bessey Hall, Iowa State University, Ames, IA 50011

Senior Research Assistant

The Samuel Roberts Noble Foundation, Inc. Ardmore, Oklahoma

(Received 09/25)

A senior research assistant position is available to join the Grass Breeding program. Duties include planting and maintaining plots, collecting and managing data, overseeing seed production and storage, and assisting in developing and conducting research projects supporting the Grass Breeding program. An M.S. degree in an appropriate area of agronomy or plant science is required. Experience in plant breeding or forage research is a plus. Good organizational skills are essential. Salary is commensurate with experience. Application and job description available from our website, www.noble.org.

Application Instructions: To apply, send a letter of application, detailed resume, and arrange for three letters of reference to be sent to The Samuel Roberts Noble Foundation, Inc., Human Resources Department, Position Number FB-SO71-25, P.O. Box 2180, Ardmore, OK 73402. Email: NFHR@noble.org. Website: <http://www.noble.org/>.

Related Web Site: <http://www.noble.org>

Job Contact Email: jenance@noble.org

Plant Transformation Specialist

Maxygen, Inc., Redwood City, California

(Received 10/03)

Will create stable experimental transgenic lines of tobacco and tissue culture cells; assist in the development of novel crop transformation protocols; assist in the development of cell, tissue, and whole plant based HTP methodology for analysis of gene variants in higher plants; help maintain plant growth facilities; and assist in the implementation of a LIMS based plant tracking system. Qualifications: BS/MS degree in life sciences and at least 2 years plant tissue culture experience required. Industry, system development and molecular biology experience preferred. Must be creative, detail-oriented and have excellent verbal and written communication skills.

Application Instructions: Email resumes, referencing Job #AG-265, to jobs@maxygen.com or mail to Maxygen, Inc., Human Resources, Job #AG-265, 515 Galveston Drive, Redwood City, CA 94063.

Related Web Site: <http://www.maxygen.com>

Job Contact Email: rose.sturgess@maxygen.com

Research Laboratory Manager

Ohio University, Athens

(Received 10/14)

Needed: a highly motivated and talented person to fill a position for a laboratory manager in an active research laboratory. This person will participate in genetic and molecular studies of genes involved in the signal transduction phase of the plant gravitropic response. Duties will include general laboratory management and independent research. Research activities will include, but are not limited to, gene isolation and characterization, vector construction, plant transformation, and molecular and physiological analysis of mutant and transgenic plants. A successful candidate should be able to work independently to implement and troubleshoot techniques and experiments. Requirements of the position include: a B.Sc. degree in biology or a related field or equivalent education and experience; management or supervisory experience, experience in cell and molecular biology or physiology, and a knowledge of general laboratory equipment; knowledge of genetics, gene mapping, and PCR are desirable. The ability to work with and supervise others is essential. Computer skills and capability to troubleshoot software/hardware problems is a plus. Salary \$25-30,000/yr + benefits, commensurate with experience. Position will start in January of 2003. Applications will be accepted until Dec. 1, 2002. Ohio University is an Equal Opportunity/Affirmative Action Employer, committed to an aggressive program of affirmative action.

Application Instructions: To apply send a resume, statement of research experience and contact information for three references to Dr. Sarah Wyatt, Department of Environmental and Plant Biology, Ohio University, Athens, OH 45701.

Job Contact Email: wyatts@ohio.edu

Manager, Conservation Programs

Center for Plant Conservation

Missouri Botanical Garden, St. Louis

(Received 10/22)

Manages the Center for Plant Conservation's national rare plant conservation program and technical assistance program in St. Louis. Develops workshops and symposia, manages the database, and coordinates implementation of the priority regions program. Coordinates the process of developing and disseminating technical policies, standards and protocols for CPC's network of 33 institutions. Develops/administers an internal review process for institutions to examine their programs. Assists institutions in evaluating the quality and genetic adequacy of their endangered plant collection. Writes and manages grants, supervises support staff, and participates in conservation program planning and advocacy.

Requires a Master's degree with extensive experience; a Ph.D. in botany/ecology with experience in plant conservation implementation strongly preferred. Three years experience in implementing plant conservation activities or plant conservation management and/or research required. Experience in working with federal and state agencies and NGOs desired. Excellent oral and written communication skills, strong computer and database management skills and willingness to travel essential. Benefits include medical, dental and life insurance, retirement program, and a 403(b) with generous match. Apply to the Center for Plant Conservation, c/o Missouri Botanical Garden, Human Resource Management, Attn: MCP, 2345 Tower Grove Ave., St. Louis, MO 63110 or to jobs@mobot.org. Visit www.mobot.org/CPC/. Position open until filled. Equal Opportunity Employer

POSTDOCTORAL

Postdoctoral Research Associate Oklahoma State University, Stillwater (Received 08/30)

A postdoctoral research associate position is available immediately in the Botany Department, Oklahoma State University, Stillwater. The position is funded by NSF for three years to analyze the function of vacuolar potassium channels in the model plant *Arabidopsis thaliana*. The overall project will consist of a combination of reverse genetic, biophysical, and physiological approaches, and will offer opportunities for training in electrophysiology (patch-clamp). Application deadline is September 30 or until the position is filled. The successful applicant will have a Ph.D. in Plant Cell or Molecular Biology.

Application Instructions: Interested applicants please send a cover letter describing research interests/experience, current CV, a list of publications, and names and e-mail addresses of three references to Gerald Schoenknecht, Department of Botany, Oklahoma State University, Stillwater, OK 74078, e-mail: schoenk@okstate.edu, (<http://www.okstate.edu/artsci/botany/schoenk/>). Oklahoma State University is an Equal Opportunity/Affirmative Action employer committed to multicultural diversity. Women and minorities are encouraged to apply.

Related Web Site: <http://www.okstate.edu/artsci/botany/schoenk/>

Job Contact Email: schoenk@okstate.edu

Research Associate University of Wisconsin–Madison (Received 08/30)

Antifungal Gene Expression. Position involves studying patterns of gene expression and signaling during fungal pathogenesis in barley and/or developing strategies to express a particular thionin antifungal protein gene in transgenic barley. Associate will join a group studying cereal gene expression and transformation with the goal of producing cereals resistant to *Fusarium graminearum* and other pathogens.

Application Instructions: Letters of reference will be sought later. E-mail or mail letter of application and curriculum vitae to: Dr. Heidi F. Kaeppler Agronomy Department, University of Wisconsin, 371 Moore Hall, 1575 Linden Dr., Madison, WI 53706-1590

Job Contact Email: hfkaeppl@facstaff.wisc.edu

Postdoctoral Position Washington State University, Pullman (Received 09/03)

A postdoctoral position is available immediately for an NSF-funded project to investigate the signal transduction pathways that regulate pollen–pistil interactions in plant reproduction. The research project will focus on two proteins that are highly expressed during pollen tube growth. CROx is a Ca²⁺-dependent calmodulin-binding protein and SHY is an LRR protein that binds to the extracellular domain of a pollen receptor protein kinase. The research involves gene expression techniques, yeast two-hybrid analysis of protein-protein interactions, generation and analysis of transgenic plants, protein purification and expression, and immunological detection using fluorescent/confocal and electron microscopy. Applicant should have Ph.D. with a strong background in molecular biology and biochemistry. A highly motivated individual who is willing to undertake scientific challenges is desired. Applicant should have good scientific writing skills and be able to work independently. Interaction with graduate students is encouraged. Salary commensurate with experience.

Application Instructions: Please submit curriculum vitae and contact information for three references to: Dr. Loverine P. Taylor, School of Molecular Biosciences, 511 Abelson Hall, Washington State University, Pullman WA 99164-4234; e-mail ltaylor@wsu.edu or telephone (509) 335-3612. Web site http://molecular.biosciences.wsu.edu/faculty/smb_faculty.htm. WSU is an EO/AA educator and employer. Interviews begin immediately and continue until position is filled.

Related Web Site: http://molecular.biosciences.wsu.edu/faculty/smb_faculty.htm

Job Contact Email: ltaylor@wsu.edu

Cell Biology, Biochemistry Postdoctoral Fellow University of Georgia, Athens (Received 09/09)

A postdoctoral position is available immediately for a funded project to investigate the cellular roles of a novel gene family that encode for enzymes involved in synthesis of nucleotide-sugar required for synthesis of glycoproteins, polysaccharides, and modification of hormones and secondary metabolites. The research involves gene expression techniques, analysis of protein-protein interactions, generation and analysis of transgenic plants, protein purification and expression, and immunological detection using fluorescent/confocal and electron microscopy. Candidates must hold a Ph.D. in molecular biology or biochemistry with an excellent publication record and strong credentials in modern molecular genetics and enzymology/biochemistry. A highly motivated individual who can work independently and is willing to undertake scientific challenges is desired.

Application Instructions: Applicants should send (e-mail) a letter of interest, curriculum vitae, selected reprints, and names, addresses, telephone numbers and e-mail addresses of at least three professional references to Dr. Maor Bar-Peled, Complex Carbohydrate Research Center and Department of Plant Biology, University of Georgia, 220 Riverbend Road, Athens, GA 30602-4712, (or e-mail to: peled@ccrc.uga.edu). Interviews begin immediately and continue until position is filled. UGA is an EO/AA employer.

Job Contact Email: peled@ccrc.uga.edu

Host Transcriptional Regulation Related to Potyvirus Infection Institut National de la Recherche Agronomique France (Received 09/10)

Host transcriptional regulation related to potyvirus infection: comparison between tomato and *Arabidopsis thaliana*. Gene expression changes in both tomato and *Arabidopsis* under Tobacco etch potyvirus infection will be compared using cDNA-AFLP and DNA micro-arrays. The genes identified will be further mapped on the tomato genome in order to evaluate their co-segregation with the numerous resistance factors already mapped on the genomes of Solanaceae (major genes and QTLs). More details on <http://www.bordeaux.inra.fr/ipv>.

Application Instructions: Candidates should have a strong background in plant molecular biology, including a doctorate thesis. Eligibility: Nationality restrictions apply, as detailed on our web site. Available: November 1, 2002 for a duration of 12 months (renewable). Salary: 1830 per month (sponsored by the French Ministry of Research). Location: Genetic and

Plant Breeding Station at INRA-Avignon and Plant-Virus Interactions at IBVM, INRA-Bordeaux (both in the South of France, close to the sea and various mountains). The candidate will collaborate with two teams (about 20 persons) working on common and complementary projects to study plant-virus interactions. Application: Please submit (1) a letter of application summarizing research experience and interests, (2) a curriculum vitae and (3) the names, addresses, telephone numbers and e-mail addresses of two references to: Frédéric Revers, GDPP, IBVM, INRA Bordeaux, BP 81, 33883 Villenave d'Ornon Cedex, France; e-mail: revers@bordeaux.inra.fr Carole Caranta, INRA-UGAFL, Domaine St Maurice, BP 94, 84143 MONTFAVET Cedex, France; e-mail: carole.caranta@avignon.inra.fr

Related Web Site: <http://www.bordeaux.inra.fr/ipv>

Job Contact Email: carole.caranta@avignon.inra.fr

Postdoctoral Position

Rutgers University, New Brunswick, New Jersey (Received 09/10)

A post-doctoral associate position is available immediately in cranberry stress physiology. Potential areas of study include effect of drought stress on processes such as water relations, gas exchange, chlorophyll fluorescence, rooting characteristics, and on crop impacts including fruit quality and productivity. This is a temporary position of 100% research up to two years, subject to annual reappointment. A Ph.D. in woody plant physiology, Horticulture, Plant Science, or related field is required. Experience with LICor 6400 and root imaging system desirable.

Application Instructions: Department of Plant Biology and Pathology, Rutgers University, New Brunswick, NJ 08901.

Related Web Site: <http://www.rutgers.edu>

Job Contact Email: huang@aesop.rutgers.edu

Ion Channel Molecular Biologist

University of Cambridge, United Kingdom (Received 09/12)

A molecular biologist is wanted who is interested in working in a fairly large group on ion channels and salinity tolerance. The project forms part of a European consortium whose aim is to characterize novel ion channels in Arabidopsis. Further details of the programme can be found both at my own website (www.plantsci.cam.ac.uk/Tester/Home.html) and on the EU's Cordis website, at http://improving.cordis.lu/rtn/show-NET.cfm?obj_id=NW_VAC-00000000000E085 The position is EU-funded, so has various restrictions. The only people eligible to be employed are: EU nationals who

have not lived in the UK for the past two years; or non-EU nationals, if they have lived in the EU for at least the past five years (and not in the UK for the past two years). It involves collaboration with and travel to several other groups elsewhere in Europe, and requires an experienced molecular biologist.

Application Instructions: Applicants must have a PhD; salaries will be on the research associate scale. Applications, including a CV and names of three referees should be sent to mat10@cam.ac.uk.

Related Web Site: <http://www.cam.ac.uk/Tester/Home.html>

Job Contact Email: mat10@cam.ac.uk

Postdoctoral Scholar

University of Louisville, Louisville, Kentucky (Received 09/15)

One or two postdoctoral positions are available immediately in the Environmental Biochemistry laboratory of the Department of Chemistry, Univ. of Louisville to conduct research on two related projects funded by DOE and DOD. The projects involve investigating the chemical and biochemical mechanism of the effects of soil humic substances and other biogenic metal ion ligands on metal ion bioavailability to plants and transport in the rhizosphere. Experience with HPLC, GC-MS, NMR, gel electrophoresis, XRF, ICP-MS, extraction techniques, geochemical modeling, and plant growth is desired. For more information, please contact Dr. Teresa Fan (teresa.fan@louisville.edu or 502-852-6448).

Application Instructions: Please send CV and at least three names of references via e-mail (teresa.fan@louisville.edu) or regular mail to Dr. Teresa Fan, Dept. of Chemistry, 2320 S. Brook St., Univ. of Louisville, Louisville, KY 40208.

Job Contact Email: teresa.fan@louisville.edu

Molecular Biologist

USDA/ARS, St. Louis, Missouri (Received 09/17)

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Plant Genetics Research Unit, Soybean Seed Composition Project, located at the Donald Danforth Plant Science Center (DDPSC), St. Louis, MO, is seeking two temporary, full-time, postdoctoral associates, level GS-0401-11 or 12 (salary range \$45,427–\$70,776 per annum). The DDPSC is a newly established plant biology research center that offers a dynamic setting for multidisciplinary and innovative research. The incumbent will participate in a project focused on the improvement of soybean seed quality. The objectives of the first position are to examine the regulation and function of the immunodominant seed allergen and participate in a broader multi-institutional project on analysis and elimination of

allergenicity of seed proteins. The second position is directed at examining the control of seed protein expression, especially as collateral gene expression in transgenic soybean seeds. This laboratory and the DDPSC are equipped for state-of-the-art multidisciplinary approaches. Both projects will make use of soybean transformation facilities and/or transient expression analysis. United States citizenship is required. Qualifications: A recent Ph.D. in plant molecular biology, biochemistry, or related biological science is required. Skills in molecular biology are required and skills in biochemistry, cell biology and use of immunological probes are highly desired. Experience in plant transformation and tissue culture is also desired. USDA/ARS is an equal opportunity provider and employer.

Application Instructions: For information on the research program and/or position, contact Dr. Eliot Herman, 314-587-1292, fax 314-587-1392, e-mail eherman@danforthcenter.org. Applications in response to this advertisement must be postmarked by October 7, 2002, and sent to Dr. Eliot Herman, Plant Genetics Research Unit, USDA/ARS, Donald Danforth Plant Science Unit, 975 N. Warson Rd., St. Louis, MO 63132.

Job Contact Email: eherman@danforthcenter.org

**Postdoctoral Research Associate
University of Florida, Lake Alfred
(Received 09/17)**

Postdoctoral Research Associate—Water and Soil. A position is available immediately to help develop best management practices for citrus irrigation. Ph.D. required in soils, crop science, agricultural engineering, or plant physiology. Research will include studies on irrigation management, soil water measurement, effective rainfall, reclaimed water, and ET of citrus trees. Evaluate different soil water measuring devices and take field measurements of tree and soil water stress. Computer and spreadsheet experience is necessary. Opportunity to work in one of the largest reclaimed water projects in U.S. where reclaimed water is a growing resource. Salary will be commensurate with experience.

Application Instructions: Send resume and names of three references to Dr. Larry Parsons, Citrus Research & Education Center, Univ. of Florida, Lake Alfred, FL 33850; 863-956-1151; lrp@lal.ufl.edu. The CREC is located between Tampa and Orlando and is close to urban cultural and tourist attractions. The position will remain open until filled.

Job Contact Email: lrp@lal.ufl.edu

**Postdoctoral Position in Plant Development
INRA Montpellier, France
(Received 09/18)**

A postdoctoral position is available for a funded project to investigate the genetic and molecular controls of leaf development. The research will identify genes involved in leaf development (leaf shape, duration of expansion, leaf expansion rate). Candidates should have experience in plant development. A PhD in agronomy, plant ecophysiology or plant physiology is recommended. The postdoctoral fellow will have to analyze leaf development and its response to environmental conditions in *Arabidopsis thaliana*. This will be done on plants with contrasted leaf morphology (wild type and mutants). Leaf growth defects will be identified in different mutants (initiation rate, leaf expansion rate, duration of expansion, leaf shape, cell number) and finally, the expression of genes involved in the different phases of leaf development will be analyzed (this part of the work will be done in collaboration with a group in Belgium, Gent). Techniques: microscopy, image analysis, micrometeorology measurements, confocal microscopy, basic molecular techniques. Current research in our group focus on leaf development and its response to environmental conditions (*Plant Physiology* 1998, **116**: 991–1001; *Plant Cell and Environment* 1998, **21**: 695–703; *Plant Molecular Biology* 2000, **43**: 555–567; *Plant Physiology* 2000, **124**: 1393–1412).

Application Instructions: Applicants must be below 35 and from an European country (or associated state). French people are not eligible. Send your CV to Christine Granier, INRA LEPSE, 2 Place Viala 34060, Montpellier, France or e-mail granier@ensam.inra.fr.

Job Contact Email: granier@ensam.inra.fr

**Postdoctoral Associate in Functional Genomics
Cornell University, Ithaca, New York
(Received 09/18)**

Leaf senescence is an integral part of leaf development that limits crop yield and shelf life. Our objective is to unveil the molecular regulatory mechanisms underlying leaf senescence, and based on the molecular findings, to genetically manipulate it for agricultural improvement. As part of our effort to approach this goal, we have established an *Arabidopsis* leaf senescence-specific dbEST. A postdoctoral associate is invited to join us immediately to systematically analyze the function of the ESTs using RNAi and other molecular genetic approaches. Applicants must have received their PhD degree in biochemistry, genetics, or molecular plant physiology and must have a solid background and extensive working experience in molecular biology. Experience with *Arabidopsis* is desirable but not required.

Application Instructions: Please email or fax (607-255-0599) your application letter with CV (including names, phone numbers and email addresses of at least three references) to Dr. Susheng Gan, Cornell Genomics Initiative and Department of Horticulture, 134A Plant Science, Cornell University, Ithaca, NY 14853.

Related Web Site: <http://www.genomics.cornell.edu>; <http://www.hort.cornell.edu>

Job Contact Email: sg288@cornell.edu

**Postdoctoral Fellow
Oklahoma State University, Stillwater
(Received 09/18)**

A position as Postdoctoral Fellow is available from September 2002 until at least March 31, 2005 to study the structure of cell wall pectins using cell wall degrading enzymes, NMR, and mass spectroscopy. See Zhan, D., Janssen, P. and Mort, A. J. (1998) *Carbohydr. Res.* 308: 373–380, and Fu, J., Prade, R. and Mort, A. J. (2001) *Carbohydr. Res.* 330: 73–78 for recent examples of our work.

Application Instructions: Please send applications to Dr. Andrew Mort, Department of Biochemistry and Molecular Biology, 246 NRC, Oklahoma State University, Stillwater OK 74078-3035, or by email to amort@biochem.okstate.edu. The position is available September 1, 2002; review of applications will begin 9/01/02 and continue until a suitable candidate is identified. OSU is an AA/EEO Employer committed to Multicultural Diversity.

Job Contact Email: amort@biochem.okstate.edu

**Postdoctoral Research Associate in Transporter
Functional Genomics
University of Minnesota, St. Paul
(Received 09/23)**

Two postdoctoral positions are available immediately to study *Arabidopsis* proton-coupled transporters important for sodium and calcium transport, ion homeostasis and resistance to salt stress. Interest and experience in molecular biology, biochemistry, cell biology, and plant physiology are needed. Positions are renewable for up to three years pending satisfactory progress. The primary goals of the project are to determine transport function, cellular and subcellular localization and physiological function of several families of cation antiporters. Approaches will include complementation of yeast transport mutants, analysis of *Arabidopsis* insertional mutants and transgenic approaches to study regulation and expression. Funding from the NSF 2010 project is in collaboration with the labs of Drs. Heven Sze (University of Maryland) and Kendal Hirschi (Baylor College of Medicine); more information is available at the project website:

<http://www.cbs.umn.edu/2010>. There will be opportunities to travel to the collaborating labs for training. Salary is commensurate with experience and includes benefits. The University of Minnesota is an equal opportunity educator and employer.

Application Instructions: Submit a CV including publications and contact information for two references by email (jward@tc.umn.edu) or regular mail to: Dr. John Ward, 220 Bioscience Ctr., 1445 Gortner Ave., St. Paul, MN 55108.

Related Web Site: <http://www.cbs.umn.edu/labs/jward/>

Job Contact Email: jward@tc.umn.edu

**Postdoctoral Associate
University of Tennessee, Knoxville
(Received 09/30)**

Two postdoctoral associates are needed to join Neal Stewart's lab at the University of Tennessee in Knoxville. Research includes, but is not limited to, inducible gene expression in transgenic plants in response to plant pathogens, xenobiotics such as explosives, and metals, such as aluminum and lead. We are especially looking for individuals with strong experience in molecular biology, inducible promoters, and transgenic plants. Successful candidates will enjoy comradery of diverse scientists studying a wide variety of problems (<http://ppls.ag.utk.edu/stewart.htm>). The Stewart lab will be moving to a new state-of-the-art plant biotechnology building in 2003. Knoxville has many cultural and outdoor recreational opportunities. Hiring will begin when successful candidates are identified but no later than the end of 2002.

Application Instructions: Please send an email intent letter and CV along with any relevant pdf files of pertinent reprints to nealstewart@utk.edu. The University of Tennessee is an equal opportunity employer.

Related Web Site: <http://ppls.ag.utk.edu/stewart.htm>

Job Contact Email: nealstewart@utk.edu

**Postdoctoral Research Associate in Plant
Electrophysiology
Laboratoire d'électrophysiologie des mem-
branes, EA 3514, Université Paris 7
(Received 09/30)**

Postdoctoral positions available November 1, 2002 (Laboratoire d'électrophysiologie des membranes, EA 3514, Université Paris 7), to study the signaling pathways of substitutes of brassinosteroids (24-epibrassinolide, 28-homobrassinolide, 28-homocastasterone) in *A. thaliana* suspension cells. Salary: 1830 euros/month during 1 year. Nationality: To the exclusion of the Union European. Country of the OCDE (USA, Australia, Canada, Switzer-

land), Russia, India, China, Brazil, Argentina, Chile. The candidate must be less than 35 years old. The applicant will have to determine the impact of brassinosteroids on the activities ion transport systems of *A. thaliana* plasma membrane. Different natural and synthetic analogs will be tested and their effects will be compared to determine the most biologically active configuration of this plant hormone. A comparison with electrical ABA effects on *A. thaliana* will be made. The experimental: (i) The applicant will have to participate to the maintaining of the *Arabidopsis thaliana* cell suspension we use in the lab: a wild type line and a 35S::aequorin transformed line. (2) Single electrode voltage clamp will be used by the applicant to measure variations of plasma membrane potential and to determine the activities of K⁺ and anion channels in response to the different brassinosteroids. Proton flux measurement will give information about the activity of H⁺-ATPase. (3) Variations in cytoplasm calcium concentration will be analyzed by a chemiluminescent approach in of 35S::aequorin transformed line. Information on the laboratory is to be found on the web site (www.ccr.jussieu.fr/lem).

Application Instructions: Submit a CV including publications and contact information for two references by email.

Related Web Site: <http://www.ccr.jussieu.fr/lem>

Job Contact Email: jprona@ccr.jussieu.fr

Postdoctoral Position in Rice Kinase Genomics
University of Florida, Gainesville
(Received 10/01)

One postdoctoral position, supported by NSF Plant Genome program, is available to study 275 rice kinases. This position is renewable for up to four years pending satisfactory progress.

Application Instructions: Applicants for the position should have extensive experience in yeast two-hybrid analysis. Applicants should submit a letter of application, curriculum vitae, and contact information for references to: Dr. Wen-Yuan Song, Department of Plant Pathology, University of Florida, PO Box 110680, Gainesville, FL 32611.

Job Contact Email: wsong@mail.ifas.ufl.edu

Postdoctoral Positions in Rice Kinase Genomics
University of Florida, Gainesville
(Received 10/01)

One postdoctoral position, supported by NSF Plant Genome program, is available to study 275 rice kinases. This position is renewable for up to four years pending satisfactory progress.

Application Instructions: Applicants should have extensive experiences in rice transformation.

Job Contact Email: wsong@gnv.ifas.ufl.edu

Postdoctoral Position Plant Functional Genomics

University of Toronto, Canada
(Received 10/01)

A postdoctoral position is available in *Arabidopsis* functional genomics at the Department of Botany, University of Toronto. The project involves the identification of auxin signal transduction genes in plant embryo and vascular development. Review of applications will begin by October 2002. A strong background in molecular biology, genetics and transcript profiling is highly desirable.

Application Instructions: Please send a curriculum vitae, publication list and three letters of reference to Dr. Thomas Berleth, Dept. of Botany, Univ. of Toronto, 25 Willcocks Street, Toronto M5S 3B2, Canada; email: berleth@botany.utoronto.caberleth@botany.utoronto.ca

Related Web Site: <http://www.botany.utoronto.ca/index.stm>

Job Contact Email: berleth@botany.utoronto.ca

Postdoctoral Associate
Michigan State University, East Lansing
(Received 10/02)

A postdoctoral position is available to work on plant cell wall biosynthesis in the DOE-Plant Research Lab at Michigan State University. The overall goal is to identify genes and enzymes that synthesize, regulate, and process hemicelluloses in dicots and cereals. The research will involve establishing biochemical assays, proteomics, and molecular genetics to identify Golgi membrane enzymes that catalyze hemicellulose biosynthesis. This research is part of an NSF plant genomics project that includes an active multi-investigator cell wall group within the PRL. Facilities include state-of-the-art mass spectrometric equipment for proteomics. The position is available immediately and is initially for one year with the possibility of renewal.

Application Instructions: Contact: Jonathan Walton, DOE-PRL, Michigan State University, E. Lansing MI 48824. Telephone 517-353-4885; email: walton@msu.edu. MSU is an affirmative-action, equal-opportunity employer.

Related Web Site: <http://www.prl.msu.edu/walton/>

Job Contact Email: walton@msu.edu

Postdoctoral Research Associate
Michigan State University, East Lansing
(Received 10/09)

We are seeking two highly motivated postdoctoral researchers to work on NSF and USDA funded projects on plant metabolic engineering. One project is on the analysis of non-photosynthetic one-carbon metabolism in *Arabidopsis* and

is part of a collaborative project with Andrew Hanson (U. Florida). The other project is on oil metabolism in *Brassica napus* and is part of a collaborative project with John Ohlrogge (Michigan State U.). Candidates with a keen interest in studying metabolism using modern analytical biochemistry methods are encouraged to apply. The successful candidates will have published in international peer reviewed journals and will have experience in one or more of the following: NMR, mass spectrometry, metabolic flux analysis, studying primary metabolism in plants (especially *Arabidopsis* or *Brassica napus*), Non-photosynthetic one carbon metabolism, plant lipid metabolism.

Application Instructions: Please send enquiries and applications by email. Applications should include: letter of interest, curriculum vitae, publication list, names addresses of three referees.

Related Web Site: <http://www.plantbiology.msu.edu/ShacharHill.shtml>

Job Contact Email: yairhill@msu.edu

Research Associate
Rutgers University, New Brunswick
(Received 10/09)

A 12-month non-tenure track, grant-funded position with annual evaluation is available subject to University approval to identify natural products of fungal endophyte-infected turfgrasses that may be involved in insect, disease, and environmental stress resistance. Candidates should have a Ph.D. in natural product chemistry and completed at least three years relevant postdoctoral research. Experience isolating and culturing microorganisms associated with plants is required. Experience with insect bioassays is desirable. Salary is approximately \$36,000/year, renewable contingent upon availability of funds. Applications will be accepted until a suitable candidate is found.

Application Instructions: Please send curriculum vitae and the names of three references by email.

Job Contact Email: slycan@aesop.rutgers.edu

Postdoctoral Research and Teaching Associate
Gettysburg College, Department of Biology, Gettysburg, Pennsylvania
(Received 10/10)

For those who enjoy working with undergraduates, and who wish to groom themselves for a career that combines research with undergraduate teaching: an opening is immediately available for a postdoctoral scientist to work with Dr. Steven James at Gettysburg College (see description below). An NSF-funded postdoctoral position is available immediately to study cell cycle control in the filamentous

fungus *Aspergillus nidulans*. We are investigating the Dbf4-dependent kinase (DDK) and DDK-interacting proteins, with the goal of understanding (1) their roles in DNA synthesis and checkpoint control, and (2) how modulation of their expression/function may facilitate developmental changes leading to asexual sporulation. The successful applicant will have completed a PhD in molecular biology, cell biology, or a related field with experience in protein biochemistry, cloning, and genomics. Experience with filamentous fungi, yeast, or other microorganisms is highly desirable. The Associate will play a lead role in project design and execution, in student training/mentoring, in the writing of publications, and in presentations at professional conferences. Opportunity to co-author grant proposals, portions of which may be transferred to the first tenure-track position, is anticipated. The position will provide an ideal opportunity for a person committed to excellence in teaching who wishes to prepare for a career as a faculty member at a predominantly undergraduate institution (PUI), or smaller PhD department. As part of a well-rounded pre-faculty training experience, the Associate will have the opportunity to teach in departmental courses during each year of the appointment, and to develop a course in their own specialty, if desired. Project Description: The Associate will participate in an NSF-funded project to investigate the control of DNA synthesis by Dbf4-dependent kinase. In eukaryotes, Dbf4-dependent kinase (DDK) triggers DNA synthesis at origins of replication by phosphorylating at least one component of the pre-replicative complex, Mcm2p. This in turn leads to activation of the replicative DNA helicase and the subsequent unwinding of DNA and establishment of the replication fork. In the filamentous fungus *Aspergillus nidulans*, DDK is composed of a regulatory subunit, nimODbf4, and a catalytic kinase subunit, cdc7asp. The substrate of nimOp-cdc7p kinase is encoded by nimQMcm2. A temperature sensitive mutation in the nimO gene (nimO18) blocks DNA synthesis and causes a checkpoint defect leading to aberrant mitosis in the absence of DNA replication. These phenotypes are copied by a nimO deletion (James et al., 1999). Mutations in two additional genes, snoA and snoB (suppressor-of-nimO), partially alleviate the heat sensitivity and checkpoint defect of the nimO18 mutation. snoA suppressors act indirectly by stabilizing nimO18p or by elevating nimO18p levels, whereas snoB suppression may occur through direct association with nimO18p (James et al., unpublished). The NSF project is devoted to isolating the snoA and snoB genes, and to defining molecular mechanisms by which snoAp and snoBp influence nimOp to control the onset of DNA synthesis. Also, we will investigate the potential role of these genes to stimulate the increased cell cycling that occurs during asexual differen-

tiation to form conidia. Epitope-tagged nimO and cdc7asp alleles will be used to examine suppressor effects on nimOp cell cycle dynamics, including turnover, phosphorylation, localization, and changes in expression or function during asexual differentiation. Development of a nimOp-cdc7p kinase assay, using the tagged alleles and Mcm2pnmQ as a substrate, will permit more detailed functional analyses of the *Aspergillus* DDK and suppressors. James, S.W., K.A. Bullock*, S.E. Gyax*, B.A. Kraynack*, J. A. MacLeod*, R.A. Matura*, K.K. McNeal*, K.A. Prasauckas*, P.C. Scacheri*, H.L. Shenefiel*, H.M. Tobin*, and S.D. Wade*. 1999. nimO, an *Aspergillus* gene related to budding yeast Dbf4, is required for DNA synthesis and mitotic checkpoint control. *Journal of Cell Science* **112**: 1313–1324. *Facilities and Surroundings*: Gettysburg College is a highly competitive national liberal arts college with over 2400 undergraduates. Gettysburg College is among the top baccalaureate institutions in preparing students for a PhD in the life sciences. The Biology Department offers a diverse curriculum taught by 10 full-time faculty. Students may earn a B.A. or B.S. in Biology, or a B.S. in Biochemistry and Molecular Biology. A new 80,000 square foot science complex, completed August of 2002, houses the PI laboratory and radioisotope laboratory (with Packard Tri-Carb 2200 LSC, fully equipped for in vivo labeling and nucleic acid and protein electrophoresis/blotting; licensed for 3H, 32P, 33P, and 35S). Other supporting facilities include electron microscope laboratory (Zeiss 109 TEM and new JEOL 5200 SEM), cold rooms, darkroom/photolab, and media preparation lab. The Biology Department has excellent instrumentation for cell and molecular biology research including ultracentrifuges (Beckman TL-100 and new XL-100K), superspeed centrifuge (IEC B-22M), microplate spectrophotometer (Spectramax 250), fluorescence microscope (Nikon Optiphot), Bio-Rad Versa Doc 3000 photodocumentation and image analysis system, lyophilizer (Labconco Freezone 6 liter), and the PI maintains a fully equipped molecular genetics laboratory with high-end computers and bioinformatic software. Gettysburg, Pennsylvania is a community of 10,000 in a pastoral setting that hosts over 1 million visitors per year to the adjacent Gettysburg National Military Park. Gettysburg is located 30 miles from the National Cancer Institute in Frederick, MD and 70 miles from Baltimore, MD and Washington, D.C. The cost of living in Gettysburg is modest and the quality of life is high. This institution and community are excellent places to develop a PUI faculty career. *Application Instructions*: Applications will be reviewed until the position is filled. Please send curriculum vitae, a description of research and teaching interests and qualifications, a list of undergraduate and graduate coursework, and

the telephone numbers and e-mail addresses of three references to: Dr. Steven W. James, Department of Biology, Gettysburg College, 300 N. Washington Street, Gettysburg, PA 17325. These can be sent as e-mail attachments if convenient (e-mail: sjames@gettysburg.edu). A more detailed project description and additional information about this position can be found below this message, and at <http://www.gettysburg.edu/~sjames/postdoc.html>. Gettysburg College is committed to creating a more diverse campus environment. As part of that process, the College gives strong consideration to candidates from historically underrepresented groups. The position offers a competitive salary and excellent benefits package.

Related Web Site: <http://www.gettysburg.edu/~sjames/postdoc.html>

Job Contact Email: sjames@gettysburg.edu

Postdoctoral Fellow/Staff Scientist
The Institute for Genomic Research (TIGR),
Rockville, Maryland
(Received 10/15)

This position will work closely with the gene index team and microarray group to provide analysis of EST and microarray data for the Potato Functional Genomics project. Designs biological experiments and prepares reports summarizing projects. Records and prepares the results for publication and utilization by others and assists in writing scientific papers. Other duties may include the supervision of Research Associates I, II's and III's and Bioinformatics Analysts.

Application Instructions: TIGR offers a stimulating research environment, and a competitive compensation and benefits package. Ideal candidates will be highly motivated individuals who enjoy being part of an innovative scientific team. To apply for this position, send cover letter and resume to: The Institute for Genomic Research, Human Resources Department/RBPD174LO, 9712 Medical Center Drive, Rockville, MD 20850. Fax: 301-838-0208; email: careers@tigr.org. TIGR is an Equal Opportunity Employer and encourages qualified women and minority candidates to apply.

Related Web Site: <http://www.tigr.org>

Job Contact Email: careers@tigr.org

Postdoctoral Associate
Purdue University, West Lafayette, Indiana
(Received 10/15)

Two postdoctoral positions are available immediately to study WRKY DNA-binding transcription factors in Arabidopsis and rice. WRKY transcription factors are found only in plants and are encoded by large gene families

with more than 70 members in Arabidopsis and rice. The primary goal of the projects is to analyze the structures, expression and, most importantly, biological functions of the gene families in the two model plants. A major focus will be placed on their roles in the regulation of plant defense responses to microbial pathogens. Interest and experience in molecular biology, biochemistry, and plant biology/pathology are needed.

Application Instructions: Please send curriculum vitae, publication list and three letters of reference to Dr. Zhixiang Chen, Department of Botany and Plant Pathology, Purdue University, West Lafayette, IN 47907-1155. Purdue University is an equal opportunity/affirmative action educator and employer.

Related Web Site: <http://www.btny.purdue.edu/Faculty/Chen/>

Job Contact Email: zhixiang@purdue.edu

**Postdoctoral Fellow
University of Saskatchewan
Saskatoon, Canada
(Received 10/15)**

A postdoctoral position is available immediately to study DNA repair and genome instability using Arabidopsis as a model organism. This initiative is in collaboration with Dr. H. Wang, a plant biochemist in the Department of Biochemistry, to investigate plant genes involved in DNA repair and cell cycle regulation, and to examine transgenic plants altered in the activity and expression of these genes. The promise of this research is that plant is more tolerant to genome instability than animals, whereas knockout animals with DNA repair genes often result in embryonic lethality. This research project will combine knowledge and experience learned in model yeast and plant and aims at high-quality publications. It will also allow the trainee to develop independent research interests in the area.

Application Instructions: Please send CV and names of three references with contact information to: Wei Xiao, Ph.D., Professor, Department of Microbiology and Immunology, University of Saskatchewan, 107 Wiggins Road, Saskatoon, SK, S7N 5E5 Canada. Tel: 306-966-4308; Fax: 306-966-4311.

Related Web Site: <http://www.usask.ca/medicine/microbio/xiaow/>

Job Contact Email: wei.xiao@usask.ca

**Postdoctoral Research Associate
University of California, Davis
(Received 10/16)**

We are seeking a highly motivated and competent postdoctoral researcher to study the function and regulation of Aux/IAA proteins in Arabidopsis. Aux/IAA proteins are a class of short-lived nuclear transcription factors induced by auxin. Current research centers on posttranslational modification of Aux/IAA proteins by phytochrome-mediated phosphorylation and its biological significance. The successful candidate will have a strong background in protein biochemistry and molecular genetics and will have substantially contributed to peer-reviewed publications in international journals.

Application Instructions: A Ph.D. degree and a proven record of productivity is required. Please send applications by email to Dr. Steffen Abel (sabel@ucdavis.edu). Applications must include: Letter of interest, CV, list of publications, and the contact information of three references.

Related Web Site: <http://veghome.ucdavis.edu/faculty/abel/lab/homepage.html>

Job Contact Email: sabel@ucdavis.edu

**Postdoctoral Fellow/Research Fellow
Research School of Biological Sciences,
Australian National University, Canberra
(Received 10/17)**

Prof. John Andrews is seeking to appoint up to four Postdoctoral Fellows/Research Fellows to join a team to work on Australian Research Council-funded Discovery and Linkage projects in collaboration with Prof. GD Farquhar, Dr. J Gready, Prof. G Otting and Rio Tinto. Research will focus on the key photosynthetic CO₂-fixing enzyme Rubisco. The Andrews laboratory takes a multi-pronged integrated approach to understanding the mechanism and regulation of Rubisco, the expression of its genes and the assembly of their products, in fine detail and manipulating them in plants with a long-term goal of improving the efficiency of photosynthesis and growth of crop plants. Specific topics will be offered in the areas of: 1) Folding and assembly of Rubiscos in plastids (2PDF/RFs). 2) Analysis of the mechanisms of photosynthesis using isotope discrimination techniques. (PDF) This work will be in collaboration with Prof. Graham Farquhar, Dr. Hilary Stuart-Williams and Dr. Heather Kane. 3) Biochemical studies of the catalytic mechanism of Rubisco (PDF). This is a Linkage project in collaboration with Dr. Jill Gready (JCSMR, ANU), Prof. Gottfried Otting (RSC, ANU) and the Rio Tinto Company. The PDF/RF positions require experience in either biochemistry or molecular biology, and an awareness of plant physiology.

Application Instructions: PDF/RF—Three-year fixed-term. Successful applicants may take up the positions after 1 January 2003. Candidates

completing a PhD before June 2003 are encouraged to apply. One PDF/RF is Linkage funded and must be taken up before March 2003. Applications, quoting Ref. No RSBS 1305, may be directed to Prof. John Andrews, Molecular, Plant Physiology Group Research, School of Biological Sciences, PO Box 475, Canberra ACT 2601 Australia.

Related Web Site: <http://www.rsbs.anu.edu.au>

Job Contact Email: John.Andrews@anu.edu.au

**Postdoctoral Position—Iron deficiency
Umeå University, Sweden
(Received 10/25)**

A postdoctoral position is currently available to conduct research in the area of iron deficiency in the model plant cell system, *Chlamydomonas reinhardtii*. The project the successful applicant will take part in is focused on identifying how a photosynthetic organism adapts to iron deficient conditions. This is done at the molecular level by identifying iron regulatory promoter elements in genes regulated by iron, and at the cellular level through a proteomics project that will identify changes in the proteome during adaptation to iron deficiency. The term of the appointment will be for one year with the possibility of renewal for an additional 1-2 years. Review of applications will begin immediately and continue until the position is filled.

Application Instructions: Applicants are requested to submit a CV, description of research interests, and names, telephone numbers and e-mail addresses of two references by email or fax to Mats Eriksson, Umeå Plant Science Center, Department of Plant Physiology, Umeå University, S-901 87 Umeå, Sweden; telephone: +46-90-7866918, fax: +46-90-7866676.

Job Contact Email:

Mats.Eriksson@plantphys.umu.se

**FELLOWSHIP/GRADUATE
ASSISTANTSHIP ETC.**

**Graduate Research Assistantship
Texas Tech University, Lubbock
(Received 09/10)**

A graduate research assistantship is available immediately to perform physiological and molecular analyses of transgenic cotton plants with altered carbohydrate partitioning. The project would provide opportunities to interact with molecular biologists, plant geneticists, and cotton physiologists involved in controlled environment and field studies. The competitive stipend would be available at either the M.S. or the Ph.D. level. Due to the need to fill the position by Jan. 1, all applicants must currently

be citizens or permanent residents of the U.S.

Application Instructions: Applicants should send their curriculum vitae, a statement of prior research experience and future goals, official transcripts, and the names, addresses, and phone numbers of three references to A. Scott Holaday, Dept. of Biological Sciences, Texas Tech University, Lubbock, TX 79409-3131. For further information, contact Candace Haigler (candace.haigler@ttu.edu) (806-742-2707) or Scott Holaday (bdash@ttacs.ttu.edu) (806-742-2657).

Job Contact Email: bdash@ttacs.ttu.edu

Graduate Predoctoral Fellowships in Plant Biology

The City University of New York
(Received 09/12)

Graduate fellowships are available for students applying to the Plant Sciences PhD Subprogram of the Biology PhD Program of the City University of New York. The Plant Sciences PhD program is a long-standing joint program between CUNY and the New York Botanical Garden. Research areas include: biotechnology and metabolic engineering of plant biosynthetic pathways, natural product biochemistry, medicinal plants and economic botany, signal transduction in plants, plant-microbial interactions, in vitro production of plant natural products, plant development, ecology, biodiversity and systematics. See the program web site for further information and application materials (<http://a32.lehman.cuny.edu/PlantPhD>). Deadline for application to the doctoral program is Feb. 1, 2002. Applications will be reviewed on a rolling basis. For additional information, contact Dr. Eleanore Wurtzel, Chair, Plant Sciences PhD Program, Department of Biological Sciences, Lehman College, CUNY, 250 Bedford Park Blvd. West, Bronx, New York 10468; phone: 718-960-8643, fax: 718-960-7348, email: etwlc@cunyvm.cuny.edu

Application Instructions: See the program web site for further information and application materials (<http://a32.lehman.cuny.edu/PlantPhD>). Deadline for application to the doctoral program is Feb. 1, 2002. Applications will be reviewed on a rolling basis. On application form indicate at least one potential faculty mentor from the program listing at the web site.

Related Web Site: <http://a32.lehman.cuny.edu/PlantPhD>

Job Contact Email: etwlc@cunyvm.cuny.edu

Research Assistantship in Plant Metabolic Engineering

The City University of New York
(Received 09/12)

Research Assistantships are available for predoctoral research in plant metabolic engineering. The nutritionally important endosperm tissue of maize and wheat has a low carotenoid content and rice endosperm does not contain any provitamin A carotenoids. Worldwide Vitamin A deficiency is linked to diets deficient in pro-vitamin A carotenoids. Our present goal is to understand, at the molecular and biochemical level, how plants regulate the biosynthesis and accumulation of provitamin A carotenoids in the seed endosperm tissue. Using comparative genomics, combined with gene expression studies, we are trying to identify those factors that contribute to endosperm accumulation of carotenoids. This research will lead to better strategies for enhancing provitamin A carotenoid accumulation in endosperm tissue as well as improved understanding needed to manipulate related biosynthetic pathways. This project is funded in part by the National Institutes of Health.

Application Instructions: Candidates must be US Citizens or permanent residents with prior research experience in molecular biology. Send CV, GRE scores, and publication list to Dr. Eleanore Wurtzel, Chair, Plant Sciences PhD Program, Department of Biological Sciences, Lehman College, CUNY, 250 Bedford Park Blvd. West, Bronx, New York 10468; etwlc@cunyvm.cuny.edu. Prospective fellows must apply and be accepted to the CUNY Biology PhD Program. Applications are at <http://a32.lehman.cuny.edu/PlantPhD>

Related Web Site: <http://a32.lehman.cuny.edu/webwurtzel/wurtzelhomepage/wurtzel.html>

Job Contact Email: etwlc@cunyvm.cuny.edu

Graduate Assistantship University of Memphis, Tennessee (Received 09/20)

Graduate Assistantships are available to qualified Ph.D. applicants to pursue graduate training in plant eco-physiology and/or wetland ecology beginning Fall Semester 2003. For further information check our website (<http://WWW.people.memphis.edu/~biology>). If interested, contact Dr. S. R. Pezeshki (pezeshki@memphis.edu).

Application Instructions: Please contact Dr. S. R. Pezeshki (pezeshki@memphis.edu) for additional details.

Related Web Site: <http://www.people.memphis.edu/~biology>

Job Contact Email: pezeshki@memphis.edu

Graduate Assistantships Kansas State University, Dept. of Biochemistry Manhattan (Received 09/24)

Graduate research assistantships are available for studies leading to PhD in the Department of Biochemistry, Kansas State University. Research will be in the area of signal transduction, focusing on phospholipase-mediated signaling and characterization of molecular targets of lipid messengers. The student will use integrated approaches of molecular biology, biochemistry, structural biology, metabolomics, and functional genomics to understand the network of signaling processes that regulate plant functions. The assistantship carries an annual stipend of \$15,000-18,000. Students with an M.S. or B.S. in biochemistry, molecular biology, plant physiology, or related fields are encouraged to apply.

Application Instructions: Interested applicants should send curriculum vitae to Prof. Xuemin Wang, Dept. of Biochemistry, Kansas State University, Manhattan, KS 66506; email: wangs@ksu.edu; telephone: (785) 532-6422; fax: (785) 532-7278; website: <http://www.ksu.edu/bchem/fac/xw/>, and also refer to <http://www.ksu.edu/grad/> for the application material required for the graduate study at Kansas State University. Kansas State University is an equal opportunity employer.

Related Web Site: <http://www.ksu.edu/bchem/fac/xw>

Job Contact Email: wangs@ksu.edu

INTERNSHIP

Summer Teaching Opportunity Johns Hopkins University/Center for Talented Youth (Received 10/16)

The Johns Hopkins University/Center for Talented Youth encourages outstanding science teachers to apply to teach above grade level courses such as Fast-Paced H.S. Physics, Chemistry, and Biology, as well as Flight Science and various Engineering courses. CTY offers intensive three-week summer residential academic programs to gifted and talented students in 5th to 10th grades. Instructors are assigned a Teaching Assistant, 15-18 exceptional students, and a comfortable supplies budget. Dates for 2003 sessions are June 29-July 18 and July 20-August 8. Recruitment opens January 29, 2003 and continues until all positions have been filled.

Application Instructions: Call (410) 516-0053 or visit www.cty.jhu.edu/employment for more information and an application.

Related Web Site: <http://www.cty.jhu.edu>

Job Contact Email: ctysummer@jhu.edu

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Norwegian Star 7-night Hawaiian Islands Cruise Itinerary

Ship’s Registry: Bahamas

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Sun.	1	Honolulu, Oahu		8:00 pm
Mon.	2	Hilo or Kona, Hawaii	7:00 am	2:00 pm
Tues.	3	Relaxing day at sea		
Wed.	4	Fanning Island, Kiribati	9:00 am	3:00 pm
Thur.	5	Relaxing day at sea		
Fri.	6	Kahului or Lahaina, Maui	1:00 pm	10:00 pm
Sat.	7	Nawiliwili, Kauai	8:00 am	4:00 pm
Sun.	8	Honolulu, Oahu	7:00 am	



Plant Biology 2003 Hawaii Cruise Registration Form

(fax or mail for convenient registration or register online at www.aspb.org/meetings/pb-2003/cruise.cfm)

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✱ **Cruise choice: July 20-27, 2003** [] **or** **August 3-10, 2003** []

✱ **Cabin category preference: 1st choice** _____ **2nd choice** _____

✱ **Payment by check or credit card made payable to Islands in the Sun Cruises & Tours, Inc.**

✱ **For best cabin selection a deposit of US \$250 per person is required as soon as possible.**

✱ **Final payment is due by May 1, 2003.**

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Card Number _____ Exp. Date _____ Signature _____

Category	Cabin/Location	Regular Brochure Rate (US \$)	Special Group Rate* (US \$)
K	Inside, Deck 4	1,872	1,172
F	Oceanview, Deck 4	2,228	1,438
BD	Balcony, Deck 8	2,403	1,633

*Rates are per person based on 2 people sharing a cabin, and include cruise fare, all port charges and taxes, access to Plant Biology 2003 education presentations on Aug. 3-10 cruise, and \$100 tax-deductible donation to ASPB Education Foundation. **Rates are subject to change and availability.** Information and rates for single supplement and 3rd and 4th persons in a cabin available upon request. Other cabin categories may also be available. Optional cancellation insurance is available and very highly recommended.

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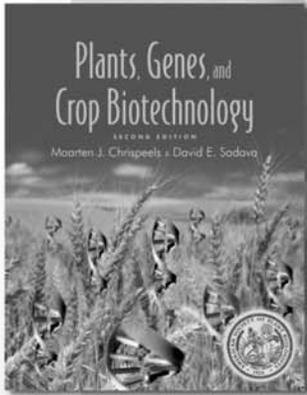
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