

ASPB News



THE NEWSLETTER OF THE AMERICAN SOCIETY OF PLANT BIOLOGISTS

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President's Letter

The Year Ahead



Since succeeding Dan Bush as the Society's president, I have been working on my ASPB "to do" list. I thought I'd take this opportunity to share some of my major "to do" items with you and to solicit your help in ensuring that ASPB is the first

place people turn to for all things *plant biology*.

First on the list is hiring a new executive director. John Lisack, who ably served as executive director for the past five years, is now CEO of the American Association of Pharmaceutical Scientists. We are working with Margot Lansing of Lansing & Associates to identify an individual who will provide vision and leadership for our Society, as well as supervision and fiduciary oversight for the Society's staff of 22 and budget of over \$5.4 million. We also hope to find someone who will have the energy and foresight to lead ASPB into new activities while helping to provide a stable financial base. In the interim, the highly skilled team of professionals who staff our headquarters operation are ensuring that ASPB continues to serve our membership, our readers, and the public.

Second on the list is to continue to position the Education Foundation to maximize its impact. The ASPB Education Foundation was established in 1995 to increase the public's knowledge about the role of plants in all areas of life. In the broadest sense, the goal is to have ASPB and its Foundation serve as the leading source for information and expertise in plant

biology. The Foundation is intended to complement the work of the Society by helping to raise funds and to develop programs. Its mission is to

- promote a broad understanding of the importance of plant science in providing an ongoing supply of affordable, high-quality food, fiber, and renewable resources
- provide education on the importance of plants to agriculture, medicine, environment and environmental cleanup, cosmetics, clothing, building, and more
- make available accurate information on the latest developments regarding genetically modified crops and biotechnology
- improve the range of knowledge of school children by increasing the focus on plant science in the K-12 curriculum by developing curriculum materials, teacher development, and hands-on learning materials
- encourage young scientists to pursue careers in the growing field of plant biology
- increase plant science activities in science museums and discovery centers by developing programs, exhibits, background information, and links to scientists.

Yes, the Public Affairs Committee and the Education Committee also address some of these goals, and there has been some confusion in the past over the Foundation's role. However, I think we can all agree

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The *ASPB News* is now available online as well as in print. Members will be alerted by e-mail when a new issue is posted. The *ASPB News* welcomes member feedback. Contact the editor at nancyw@aspb.org.

ASPB Officers & Staff

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Deadline for March/April 2004
ASPB News: February 5, 2004

NOTICE: The *ASPB News* no longer carries job ads or meeting announcements. Job ads appear online at www.aspb.org/jobbank. The list is updated every Friday. Meeting notices can be posted at www.aspb.org/meetings.

President	Mary Lou Guerinot	603-646-2527
President-Elect	Roger Hangarter	812-855-5456
Immediate Past President	Daniel R. Bush	970-491-2442
Secretary	Edgar Spalding	608-265-5294
Treasurer	Mark R. Brodl	210-999-7246
Chair, Board of Trustees	Louis Sherman	765-494-8106
Chair, Publications Committee	C. Robertson McClung	603-646-3940
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Minority Affairs Committee	Regina McClinton	616-331-2470
Education Committee	Lawrence Griffing	979-845-6493
Elected Members	Nick Carpita	765-494-4653
	Adrienne E. Clarke	+61-38-344-5043
	Linda Walling	909-787-4687
Sectional Representatives		
Midwestern	Steven Rodermel	515-294-8890
Northeastern	Rakesh Minocha	603 868 7622
Southern	Mel Oliver	806-723-5225
Mid-Atlantic	Jonathan Monroe	540-568-6649
Western	Dina Mandoli	206-543-4335

Executive director	vacant	
Executive assistant	Donna Gordon, ext. 131	dgordon@aspb.org
Director of finance and administration	Susan K. Rosenberry, ext. 111	chambers@aspb.org
Accounting manager	Kim Snell, ext. 141	ksnell@aspb.org
Network administrator	Burton Nicodemus, ext. 146	burton@aspb.org
Webmaster	Wendy Sahli, ext. 123	wendys@aspb.org
Membership and marketing manager	Kelley Noone, ext. 142	knoone@aspb.org
Subscription and fulfillment assistant	Suzanne Moore Cholwek, ext. 141	smoore@aspb.org
Accounts receivable specialist	Stephanie Liu-Kuan, ext. 143	sliu@aspb.org
Accounts payable specialist	Stefanie Shamer, ext. 144	shamer@aspb.org
Administrative assistant	Carolyn Freed, ext. 122	cfreed@aspb.org
Director of public affairs	Brian M. Hyps, ext. 114	bhyps@aspb.org
Education Foundation director	Robin Lempert, ext. 110	rlempert@aspb.org
Education Foundation assistant	Paula Brooks, ext. 116	paula@aspb.org
Director of publications	Nancy A. Winchester, ext. 117	nancyw@aspb.org
Publications assistant	Diane McCauley, ext. 133	diane@aspb.org
Managing editor, <i>Plant Physiology</i>	George Kendall, ext. 118	gkendall@aspb.org
Science writer, <i>Plant Physiology</i>	Peter Minorsky, 914-437-7438	peminorsky@aspb.org
Production manager, <i>Plant Physiology</i>	Lisa Pergolizzi, ext. 130	lisa@aspb.org
Manuscript manager, <i>Plant Physiology</i>	Leslie Csikos, ext. 125	lcsikos@aspb.org
Managing editor, <i>The Plant Cell</i>	Beth Staehle, ext. 121	beths@aspb.org
News and reviews editor, <i>The Plant Cell</i>	Nancy Eckardt, 970-495-9918	neckardt@aspb.org
Production manager, <i>The Plant Cell</i>	John Long, ext. 119	jlong@aspb.org
Manuscript manager, <i>The Plant Cell</i>	Annette Kessler, ext. 120	akessler@aspb.org

ASPB News

Headquarters Office
15501 Monona Drive
Rockville, MD 20855-2768 USA
Phone: 301-251-0560
Fax: 301-279-2996

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Copy deadline is the 5th day of the preceding even-numbered month (for example, December 5 for January/February publication). Submit copy by e-mail whenever possible; submit all other copy by mail, **not by fax**.

Contact: Nancy A. Winchester, Editor, *ASPB News*, 15501 Monona Drive, Rockville, MD 20855-2768 USA; nancyw@aspb.org; 301-251-0560, ext. 117.

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that there is plenty of work to do, and the Foundation offers an opportunity to tackle significant projects that are beyond the scope of other ASPB committees.

The Foundation board is currently without a chair, as Dan Cosgrove has had to step down, and the search is on for a new chair. Our hope is that the new chair will continue to shape an agenda that not only captures everyone's imagination but also sparks successful fundraising efforts that the whole Society can enthusiastically embrace. One important change initiated for the coming year is that the Foundation will have a modest budget to fund education projects. A call for proposals will come out in the spring.

We really appreciate all the energy that Robin Lempert, the current director, has put into researching K–12 educational initiatives this past year, as well as her other efforts on behalf of the Foundation. Stay tuned for more discussion of the Foundation in the upcoming year.

Third on the list is working to ensure that ASPB is a welcoming place for all plant biologists. How can we reach out to other plant-based societies? Should we think about hosting more joint meetings and/or more satellite meetings? This past October we held a new meeting on Plant Genetics, and the feedback has been very positive. We welcome suggestions from you, the members, about other areas of plant biology that are currently underserved. 

Mary Lou Guerinot
Dartmouth College
guerinot@dartmouth.edu

ASPB PLANT GENETICS 2003 Mechanisms of Genetic Variation

ASPB's first specialty meeting, Plant Genetics 2003: Mechanisms of Genetic Variation, was recently concluded and was deemed a success by the attendees and organizers. The conference was held on October 22–26, 2003, at the Snowbird Resort & Conference Center near Salt Lake City, Utah. The meeting had over 200 attendees, and the key topic areas were Genomes I—Natural variation and natural processes of evolution; Genomes II—Speciation and crop domestication;

Evolutionary dynamics of genetic loci; Genetics of chromosomal inheritance; Chromatin, imprinting, and epigenetic mechanisms; RNA and protein movement; and Plant form and function. Chair Venkatesan Sundaresan and vice chair Rich Jorgenson were extremely pleased with the breadth of science presented at the meeting and the high caliber of the attendees. More details about the meeting will appear in the January/February 2004 edition of the *ASPB News*. 



Attendees actively participated in afternoon poster sessions during the Plant Genetics 2003 meeting.



Mealtimes at Snowbird allowed the participants to enjoy good food, discuss science, and view spectacular scenery.

ASPB Officers Assume Posts for 2003–2004

New ASPB officers and committee members assumed their responsibilities October 1.

Publications Committee

C. Robertson McClung (07), *chair*
Doug Cook (04)
Sarah Assmann (05)
Robert Fischer (06)
Sarah Hake (08)

Program Committee

Edgar Spalding (06), *chair*
Roger Hangarter (04),
president-elect
Richard Amasino (04)
Stephen Long (05)
Julia Bailey-Serres (06)
Alan Jones (07)
Barbara Kunkel (07)

Nominating Committee

Roger Hangarter (06), *chair*,
president-elect
Mary Lou Guerinot (05), *president*
Dan Bush (04), *immediate past*
president

Education Committee

Larry Griffing (05), *chair*
Sheila Blackman (05)
Mary Williams (06)

Richard Cyr (07)
David Salt (07)
Dina Mandoli, *adjunct member*
Jeffrey Coker, *adjunct member*
Carol Reiss, *adjunct member*

Constitution & Bylaws Committee

Joe Chappell (06), *chair*
Jan Zeevaert (04)
Douglas Randall (05)

Women in Plant Biology Committee

Mary Tierney (04), *chair*
Kan Wang (04)
Laura Olsen (05)
Patricia Bedinger (06)
Daniel Schachtman (06)
Elsbeth Walker (06)

Committee on Public Affairs

Thomas Sharkey (04), *chair*
Jim Siedow (04)
Barry Palevitz (04)
Daphne Preuss (05)
Stephen Howell (06)
Pam Ronald (06)
Karen Schumaker (06)
Roger Innes (07)
Dan Bush, *ex officio*

Membership Committee

Dina Mandoli (04), *chair*
Jon Monroe (04)
Steve Rodermel (04)
Carl Bernacchi (05)
David Christopher (06)
Mel Oliver (05)
Rakesh Minocha (6)

Minority Affairs Committee

Regina McClinton (05), *chair*
Peter Hepler (04)
William Gordon (04)
Buddy Orozco (05)
Anthony DePasse (06)
Elena Zavala (06)

Board of Trustees

Lou Sherman (04), *chair*
Mark Brodl (06), *treasurer*
Elizabeth Hood (05)
Rebecca Boston (06)

International Committee

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

EXECUTIVE COMMITTEE

Mary Lou Guerinot (05), *president*
Roger Hangarter (06), *president-elect*
Dan Bush (04), *immediate past*
president
Edgar Spalding (06), *secretary*
Mark Brodl (06), *treasurer*
Lou Sherman (04)
Mary Tierney (04)
Larry Griffing (05)
Regina McClinton (05)
C. Robertson McClung (07)

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Adrienne Clarke (04)
Nicholas Carpita (05)
Linda Walling (06)

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Jon Monroe (04), *Mid-Atlantic*
Mel Oliver (05), *Southern*
Dina Mandoli (04), *Western*
Steve Rodermel (04), *Midwestern*
Rakesh Minocha (07), *Northeastern*

2003–2004 Awards Committees

Following is a list of the membership of the ASPB awards committees for 2003–2004, as of December 17, as announced by President Mary Lou Guerinot. Members serve for three award cycles unless otherwise noted.

Corresponding Membership

(four-year terms)
David Ho (04), *chair*
Mike Jackson (05)
Ray Zielinski (06)

Charles Reid Barnes Life Membership

Harry Yamamoto (04), *past winner*
Douglas Randall (04)
Tom Buckhout (05)
Jill Deikman (05)

Stephen Hales Prize

Joanne Chory (04), *chair*
Elisabeth Gantt (04), *past winner*
Gary Gardner (04)
Maarten Chrispeels (06)

Charles F. Kettering

Archie Portis (04)
Christine Foyer (04)
Gayle Lamppa (06)
Gerry Edwards (08)

Charles Albert Shull

Sarah Hake (05), *chair*
John Mullet (04)
Jeffrey Dangl (05)
Jian-Kang Zhu (05), *past winner*
Steve Huber (07)

Martin Gibbs Medal

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

Adolph E. Gude, Jr. Award

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

Dennis R. Hoagland Award

Peggy Lemaux (06), *past winner*
Thomas Sharkey (05)
Don McCarty (06)
Niels Nielsen (06)

Excellence in Teaching Award

Anita Klein (06), *chair*
Donna Fernandez (06)
Deborah Canington (06)
Jon Monroe (04), *past winner*
Sabine Rundle (09)

CALL FOR ABSTRACTS

PLANT BIOLOGY 2004

The annual meeting of the American Society of Plant Biologists

Saturday, July 24, to Wednesday, July 28

Disney's Coronado Springs Resort & Convention Center, near Orlando, Florida, USA

Deadline: Monday, March 1, 2004

Do not submit abstracts before February 2, 2004.

The program format for the 2004 annual meeting will include five major symposia and a number of minisymposia selected primarily from the submitted poster abstracts and poster presentations. All posters will be on display for four days. **Authors should submit their abstracts in one of the 47 poster categories listed on the reverse side of this call for abstracts. The Program Committee will also use these abstracts as a basis for composing the minisymposia.** 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 2004, 15501 Monona Drive, Rockville, MD 20855 USA.

Abstracts to Be Submitted and Viewed Electronically for Plant Biology 2004

<http://www.aspb.org/abstract>

For Plant Biology 2004, abstracts should be submitted via the web, and the annual abstract supplement will be available for viewing and searching online beginning in April 2004. We will also publish a printed version of the abstract supplement in 2004 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 precisely plan your schedule 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 of abstracts is Monday, March 1, 2004. Abstracts may not be submitted before Monday, February 2, 2004.

This system will work best for members who have access to the 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 instructions for submitting your abstract electronically. For this electronic submission project to work effectively, it is critical that you read and follow these instructions carefully when you send your abstract for Plant Biology 2004. 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 2, 2004.
- Be sure to submit by Monday, March 1, 2004.
- Do not use fax or mail.
- A \$50 fee will be required for each abstract (can be credited to registration fee or refunded if you cancel by May 17, 2004).

FOLLOW THE INSTRUCTIONS EXACTLY.

Call for Abstracts—Plant Biology 2004
2004 ASPB Annual Meeting
Near Orlando, Florida, USA, Saturday, July 24, to Wednesday, July 28

HOW TO SUBMIT AN ABSTRACT TO PLANT BIOLOGY 2004

Submitting Abstracts Via the 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 U.S. \$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 May 17, 2004.
3. A member may request that an abstract also be considered for a selected minisymposium category (optional).
4. Deadline for receipt is Monday, March 1, 2004. DO NOT USE FAX OR MAIL.
5. DO NOT include any graphics or tabular material in the body of your abstract.
6. Access <http://www.aspb.org/abstract/>. You must have a forms-capable browser (for example, Netscape or MS Internet Explorer, version 5.0 or higher).
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 2004 will include poster presentations, 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. If you wish to have your abstract considered for a minisymposium presentation, please select that option on the form. If your abstract is chosen for a minisymposium presentation, you will be contacted before April 1, 2004.

POSTER PRESENTATION REPORT CATEGORIES

Ecophysiology	Signaling, long distance
Global change	Hormone synthesis & metabolism
Integrative plant physiology	Plant insect–nematode interactions
Heavy metals & phytoremediation	Plant–pathogen interactions
Oxidative stress	Plant–symbiont interactions
Salinity	Cell walls
Temperature responses	Organelle biogenesis
Water relations	Protein targeting & vesicular trafficking
Membrane transport	Cell division
Mineral nutrition	Cytoskeleton structure & dynamics
Respiratory pathways	Root biology
Photosynthesis (light)	Seed biology
Photosynthesis (carbon)	Regulation of gene expression
Redox regulation	Protein modification
Enzymology	Protein turnover
Secondary metabolism	Evolution of developmental & physiological mechanisms
Metabolic engineering	Epigenetics & gene silencing
Lipids & related molecules	Genome evolution
Vegetative development	Bioinformatics
Reproductive development	Genomic & proteomic resources
Rhythms	Emerging technologies
Photomorphogenesis	Biotech risk assessment
Tropisms	Education & outreach
Signaling, cell-to-cell	

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

DEADLINE FOR SUBMISSION: MONDAY, MARCH 1, 2004. DO NOT SUBMIT BEFORE FEBRUARY 2, 2004.



CALL FOR 2004 APPLICATIONS

ASPB Summer Undergraduate Research Fellowships

About the SURF 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 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 the ASPB national meeting the following summer, July 16–20, 2005, at the Washington State Convention & Trade Center in Seattle. Funding is available to attend the meeting through ASPB Travel Grants (although this may not cover all expenses). Through this opportunity to pursue research during the summer and then present findings at a national meeting, ASPB hopes to encourage students to pursue advanced degrees and careers in plant biology.

Funding

Each fellowship provides the following:

- \$3,000 student stipend
- \$500 for supplies
- one-year student membership in ASPB (April 2004 to August 2005)
- a travel allowance to attend the ASPB national meeting. (A \$500 travel grant has been set aside for each recipient to offset travel expenses. 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

Open to students from both within and outside the United States.

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

- strong motivation for research
- career objectives relevant to the aims of the fellowship program
- academic achievement
- 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

The application must be submitted online. The form can be downloaded through the ASPB web site at <http://www.aspb.org/education/summerundergrad.cfm>

Deadline

Tuesday, February 3, 2004

Postmark date for mailed transcript(s). Note: Transcript may be sent electronically (see below).

Midnight upload to ASPB web site at

<http://www.aspb.org/education/summerundergrad.cfm>

Application and attached files of

Letter of recommendation

Transcripts (that can be sent electronically)

Supporting documents.

In the past three years, ASPB has funded eight SURF students per year. Recipients are notified by e-mail, and contracts are sent by mail. Announcements are posted on the ASPB web site. The 2004 recipients are expected to be announced by the end of April.

Questions

Contact Paula Brooks at paula@aspb.org.



Hangarter Teams with Arizona Artist to Produce *sLow Life*

sLow Life, the culmination of a collaboration between ASPB member Roger Hangarter (Indiana University, Bloomington) and Arizona-based artist Dennis DeHart, opened at the SoFA Gallery in Bloomington, Indiana, on Friday, October 24. The multimedia installation ran through November 21 and included video, live plants, photographic prints, and interactive environments. It explored time and the existence of plant life in relation to human life. "I hope we are able to convey that plants are complex living beings and not inanimate objects," Hangarter said.



Roger Hangarter

The team hopes that viewers used this exhibit to better determine their own space in the world. "I would like the viewer to find intrigue, mystery, and maybe even a bit of awe while also perhaps having an opportunity to reflect and ponder one's own relationship to the natural world and the everyday," DeHart explained.

With overlapping artistic interests ranging from light and movement to medium and material, the team created an exhibit that accurately and effectively combined science and art. Hangarter and DeHart were introduced to one another when DeHart was a visiting assistant professor at Indiana University during 2002–2003.

Hangarter earned his doctorate in plant physiology from Michigan State University in 1981. His current work is focused on plant response to environmental stimuli. Specifically, his research is investi-

gating plant life's adaptive ability to respond to different light conditions during physiological and developmental changes.

DeHart earned his MFA in photography from the University of New Mexico in 2002. His résumé includes several solo exhibitions, including *Collect* at Southern Illinois University at Carbondale; *Untitled* at Occasions by Design Gallery in Scottsdale, Arizona; and *Carbon*, Mariposa Gallery in Albuquerque, New Mexico.

For further information, contact Roseanne Hennessey at the SoFA Gallery at 812-855-8490, or send e-mail to rohennes@indiana.edu. And visit the SoFA web site at <http://sofa.fa.indiana.edu/>.



Photos provided by School of Fine Arts Gallery, Indiana University



Printed on the sleeve:



- 1—\$32 each
- 2—\$30 each
- 3—\$28 each
- 4 or more—\$26 each

YOU COULD WIN A FREE REGISTRATION TO PB2004... JUST BUY A PB2003 "ALOHA" SHIRT TODAY!

Get a great souvenir of ASPB history and future collector's item! These shirts commemorate Plant Biology 2003, ASPB's annual meeting in Honolulu. And when you make your purchase, you'll automatically be entered in a drawing to win a free registration to PB2004 in Orlando, Florida!

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https://www.aspb.org/SECURE_FORMS/PB03SHIRT.CFM

Minority Affairs Committee PB2003 Luncheon Features Machi Dilworth

Dr. Machi F. Dilworth was the invited speaker at the Minority Affairs Committee (MAC) Luncheon held during Plant Biology 2003, ASPB's annual meeting. Machi is the director of the Division of Biological Infrastructure at the National Science Foundation (NSF). Originally from Japan, she received her B.A. in biology from the International Christian University in Tokyo. She



Machi F. Dilworth

came to the United States in 1967 with a Fulbright Fellowship to pursue graduate work and received her Ph.D. in plant biochemistry and physiology from the University of California, Los Angeles, under the guidance of Bernie Phinney. Since 1979, she has worked as a grants administrator with the Department of Agriculture and the NSF. She has received numerous awards for her work in grants administration and for her promotion of research in plant biology. For a more detailed biography, see www.aspb.org/committees/minorityaffairs/dilworthbio.cfm.

During her talk at the MAC luncheon, Machi reviewed federal funding for academic research in general and for plant biology in particular. NSF provides the majority of funds for competitive research grants to support basic research in plant biology; significant funding also comes from the National Institutes of Health, the Department of Agriculture, the Department of Energy and, to a smaller extent, from NASA. Machi discussed some of the key developments in plant biology research funding over the past 30 years, from the founding of the DOE–Michigan State University Plant Research Lab in 1965 to the National Plant Genome Initiative in 1998. She presented several suggestions for increasing funding to plant biology in the future, recommending that plant biologists from different disciplines work

together at all levels; that plant biology be kept at the forefront of biology; and that we nurture a new generation of plant biologists that are “fearless and know no boundaries.”

Regarding that next generation of plant biologists, Machi presented an interesting graph displaying the changing demographics of the 18- to 24-year-old segment of the U.S. population. Although

minorities were about 25% of the 18- to 24-year-old population in 1980, the percentage of minorities has steadily increased over the years and is estimated to reach about 45% in 2025. If we are to maintain or increase the number of scientists in the United States, these minorities should provide a large part of the next generation of scientists. While it is encouraging that the enrollment rate into higher education of African American high school graduates has increased since 1975, it is troubling that the enrollment rate of Hispanic graduates has slightly decreased.

NSF is committed to increasing the participation of underrepresented and underserved groups in science. Machi noted that an “underrepresented group” depends on the context of the situation. For example, women or Asian Americans could make up underrepresented groups in certain categories, such as full professor positions in a department or high-ranking administrative positions within a university. The term “underserved group” encompasses students and faculty at minority-serving colleges, universities, and community colleges who are not necessarily minorities themselves.

At NSF, broadening participation is considered an integral component of the “Broader Impacts” review criterion. Increased participation of underrepresented groups is a major

performance assessment factor at all levels. Specific programs have been designed to increase participation of underrepresented groups (see the URLs cited below). Grant holders should also be aware that opportunities exist for supplemental funding to increase participation of underrepresented minorities.

For increasing the participation of underrepresented groups in plant biology research, both recruitment and retention were discussed. Recruitment can be enhanced by providing exciting research opportunities. Also, it is especially important to have personal contact with the candidates. At NSF and elsewhere, there are existing programs and funding opportunities available for recruitment, and one can always pool resources and opportunities with colleagues to maximize the potential for change. In addition to recruitment, some effort on retention must also be made. Consideration should be given to mentoring, cultural sensitivity, and providing participants with a sense of belonging. Machi indicated that there is no magic formula for success and that we should be realistic about what can be accomplished. However, if we sincerely value diversity and make a commitment to change, we will help create an even more vibrant and inclusive plant biology research community in the future.

Useful sites to visit for more information include the following: <http://www.ehr.nsf.gov/EHR/HRD/exlinks.asp#nsf>, an NSF site with external links to resources for diversifying science, math, engineering, and technology, and <http://goblin1.zooll.iastate.edu/cgi-bin/pgrop.cgi>, PGROP—Plant Genomics Research Outreach Portal, a centralized clearinghouse of Plant Genome “outreach” programs and activities. 🌱

Emil M. Orozco

DuPont Agricultural & Nutrition
emil.m.orozco@cgr.dupont.com



American Society of Plant Biologists

CALL FOR APPLICATIONS

Executive Director

The American Society of Plant Biologists seeks applications and nominations for the position of Executive Director.

The American Society of Plant Biologists is a 501(c)(3) not-for-profit scientific organization located in Rockville, Maryland, with 6,000 plant scientists from around the world composing its membership. Founded in 1924, the Society provides a forum for molecular and cellular biology as well as plant science. It publishes the highly cited and respected journals *Plant Physiology* and *The Plant Cell* (for further information, see www.aspb.org).

Reporting to the Executive Committee, the Executive Director will provide vision and leadership to a dynamic society, as well as supervision and fiduciary oversight for the Society's staff of 22, a budget over \$5.4 million, and daily operations. The Executive Director assists the elected leadership and Executive Committee in establishing initiatives for the Society and in overseeing their implementation. She or he will have the energy and foresight to lead the Society into new activities while providing a stable financial base. Departments directly supervised by the Executive Director include publications, finance and administration, public affairs, and the Education Foundation.

Candidates should have 5 or more years of progressive experience in the management of a scientific association, business, government, or university organization. Experience working with a Board preferred. Fundraising experience is highly desirable. Strong written, oral, organizational, and interpersonal skills required. An advanced degree in the sciences and/or substantial experience in a scientific society or science publishing preferred.

Please forward résumé and three names of references electronically by word attachment to edsearch@aspb.org. Letter should be addressed to Daniel Bush, Chair, Search Committee, ASPB.

The Committee will begin the review of applications in early December and continue until the position is filled. For further information, contact Margot Lansing at Lansing & Associates, 781-237-1754 or lansing@lansingassociates.com.

ASPB is an Equal Opportunity Employer.

Arabidopsis Meeting Returns to Madison

This year's Arabidopsis meeting returned to Madison, Wisconsin, June 20–24, and the 850 participants were greeted with an array of subjects ranging from familiar topics such as root and shoot development, flowering, fertilization, and embryogenesis, to evolution, ecological genetics, genomes, and proteomics. Other topics included post-transcriptional and chromatin regulation, cell biology, metabolic regulation, growth factor signaling, responses to the environment, and advances in chromosome research. Some new strategies and techniques were presented, with significant focus on the use of small RNAs. There were several workshops at the meeting, all with the goal of coordinating efforts in establishing research directives or development and use of reference databases. Specifically, these included a workshop on the 26S proteasome, AtGenExpress, and TAIR (The Arabidopsis Information Resource). The keynote address, presented by Michael Snyder (Yale), was titled "Global Analysis of Genomes and Proteomes: Lessons from Yeast and Humans." A special lecture by Elliot Meyerowitz (Cal Tech) at the end of the meeting reiterated this theme, presenting the plant context in a talk entitled "A Future for Arabidopsis Research: omics, onics, etics, atics, and Plant Development." It all was accompanied by clear skies and fair winds, suggesting smooth sailing ahead for these researchers!

Perhaps the presentations on the small RNAs and applications were this meeting's most memorable aspects. These small RNAs include both micro RNAs (miRNAs) and short interfering RNAs (siRNAs) and are being identified as having a role in regulating development by modifying gene expression resulting in changes in chromatin structure, methylation, and post-transcriptional regulation. The miRNAs are a relatively large class of genes that are approximately 22 nucleotides long and known to target mRNAs involved in post-transcriptional regulation. The siRNAs are generated from long double-stranded RNA and are also specifically associated with gene silencing. Jim Carrington's lab at Oregon State University introduced the session and reported on several members of the DICER-LIKE family and their role in complexes that function as negative regulators of target miRNAs. This seminar was followed by a presentation by Steve



ASPB booth at June Arabidopsis meeting.

Jacobsen (UCLA) with specific identification of two methyltransferases and an unknown protein that regulate gene methylation and silencing. David Bartel's lab (Whitehead Institute, MIT) also discussed miRNAs regulated through the DICER system and proposed a negative feedback system. Antonius Matzke's lab (Institute of Molecular Biology, Austrian Academy of Sciences) discussed the development of a two-component transgenic system designed specifically to study this RNA-directed DNA methylation. Using this approach, they were able to identify three genes: RTS1, a histone deacetylase; RTS2, a methyltransferase; and RTS3. Also particularly inspirational was the number of labs successfully applying this knowledge and new RNA strategies to study gene function.

Several sessions were held on different aspects of cell biology, and many outstanding images were projected using GFP markers of different cellular components. The new knowledge of the genome and available knockouts from ABRC has contributed to numerous research programs, as was evident in many of these talks. Janet Braum (Rice University) and David Jackson (Cold Spring Harbor) co-chaired a session focusing on intercellular signaling, plasmodesmatal connections, and the composition of the cell wall. Braum's lab

discussed work on the touch (TCH) and xyloglucan endoglucosylases (XTHs), and Jackson's lab presented data on trafficking of the knotted homeobox gene in maize through the plasmodesmata. Using GFP-KN1 fusion proteins, Jackson's lab was able to demonstrate that this trafficking is directional and that the homeodomain is essential to the trafficking.

Another area that has received more attention recently is function of telomerases and regulation of genes associated with the centromere. Dorothy Shippen from Texas A&M University introduced one of the sessions with new insights on telomerase function. Specifically, her lab has looked at telomere extension, end-to-end fusion, and telomere shortening. They are using mutants to study these regulatory mechanisms. Also at Texas A&M, screens of activation tagged lines for ectopic telomerase activity were reported by Thomas McKnight's lab, which was able to identify a mutant that was independent of changes in the cell cycle. The focus shifted from the ends of the chromosome to the centromere with a presentation by Kevin Keith in Daphne Preuss's lab at the University of Chicago. Keith presented the unique attributes of Arabidopsis: mutant collections, mapped centromeres, and sequence information. The lab has focused on identifying key centromere signatures such as the

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The ASPB News welcomes member commentary. Publication is at the discretion of the editor, and articles may be edited for length. The views expressed are those of the authors and do not necessarily reflect ASPB's position. Responses are welcome; send them to the editor at nancyw@aspb.org. Because the newsletter is an ASPB member publication, at least one author must be an ASPB member for an article to be eligible for publication.

The United States Should Begin a Phased Deregulation of Biotech Crops

During the past two decades, the international scientific community, the biotechnology industry, and the regulatory agencies in many countries have accumulated and critically evaluated a wealth of information about the production and uses of biotech crops/products. This includes the commercial planting of biotech crops since 1996 on more than 700 million acres in several countries in different climatic zones and the consumption of biotech foods by more than a billion humans and hundreds of millions of farm animals. Yet, in spite of rigorous examination of all the available information, there is not a single instance in which biotech crops and foods have been shown to cause illness in humans or animals or damage to the environment. The reasons for this are obvious: The science behind biotech crops is sound, precise, and predictable, and biotech crops are among the most exhaustively tested, characterized, and regulated plants in history.

In spite of such an unblemished and exemplary safety record, a small but well-organized, well-financed, and vocal anti-biotechnology lobby has continued to allege that biotech crops are unsafe for humans and a danger to the environment and to demand a moratorium or outright ban on their planting and use. The rhetoric of the anti-biotechnology groups is alarming, confusing, and frightening to the public. Their arguments are devoid of any substance, and they have never provided any credible scientific evidence, nor presented any convincing arguments, to support their unfounded allegations. By misrepresenting facts and by “crying wolf” too often, they have not only lost their credibility but also the right to be taken seriously. This indictment of the anti-biotechnology lobby may appear harsh, but it is entirely deserved.

Indeed, over the years it has become abundantly clear that the opposition to biotech crops has nothing to do with science. Rather, it is greatly influenced by political and ideological agendas and a visceral opposition to globalization in general and American companies and technology in particular. The European Union appears to be hiding behind the fig leaf of public opinion, which has been highly tainted by the politically motivated anti-biotechnology activists, to deflect charges of protectionism and the appeasement of environmental political groups that hold the balance of power in several of the member states.

Any further delay in combining the power of biotechnology with the traditional and time-tested methods of plant breeding is unwise and will seriously endanger future food security, political and economic stability, and the environment. Having considered all the technologies known to us today, and the various arguments of the anti-biotechnology lobby, I remain more convinced than ever that plant biotechnology is still the best hope not only for meeting the food needs of the ever-growing world population but also for conserving our precious but fast-dwindling land and water resources and for preventing or even reversing environmental degradation. Food production will have to be tripled to meet the demands of the 10 billion to 12 billion expected inhabitants of Earth by 2050, including more than 2 billion people in China and India whose dietary requirements are changing dramatically as a result of their improved buying power.

The international agricultural community faces this challenge at a time when the population is growing faster than increases in food productivity, when the quality and quantity

of fresh water supplies are declining, when there is less land per capita available for food production, when more than 42% of crop productivity is lost owing to various biotic/abiotic factors, and when the widespread and heavy use of agro-chemicals is causing significant soil and water pollution and hazards to human health. The increasing demand for food, therefore, will have to be met primarily by increasing productivity on land already under cultivation, with less water and fewer chemicals and under worsening environmental conditions. It is of utmost importance, therefore, that biotech crops be integrated into the international agricultural system without further delay.

Biotech crops are already helping to increase productivity while conserving valuable natural resources, reducing the use of harmful agro-chemicals and incidents of pesticide poisoning/pollution, producing more healthful and nutritious foods, and promoting economic development. In consideration of these facts and based on the vast amount of evidence collected and experience gained from their extended production and consumption, numerous learned professional societies/academies/commissions, governments, regulatory authorities, various organs of the United Nations, and others have deemed biotech crops to be as safe as, if not safer, than traditional crops.

What then is the rationale and purpose of continuing to impose expensive, time-consuming, and unnecessary regulations on the production and use of biotech crops, other than to delay their integration into the international agricultural system and to make them more expensive? The elaborate regulations developed in the 1980s to oversee the development and use of biotech crops have served

a very useful purpose by demonstrating safety, wholesomeness, and many other benefits of these crops. Twenty years ago, the United States set the precedent by developing these regulations. Now, as the world leader in plant biotechnology, it should lead again by phasing out these redundant regulations in an organized and responsible way.

Regulatory decisions should be made in an open and transparent manner, but they must be based on science rather than emotions and perceived risks. I propose that the United States gradually relax and eventually suspend the regulation of biotech crops. A beginning should be made by removing all restrictions on the cultivation and use of biotech crops that have fulfilled all regulatory requirements and that have been cultivated and/or used for five years without any evidence of ill effects on humans, animals, and the environment. These include herbicide-resistant soybean and canola, insect-resistant maize and cotton, and virus-resistant squash and papaya. New biotech crops with similar genes should not be required to meet the regulatory requirements for more than two years, unless there are clear signs of risks. Crops with genes that have not been previously tested under field conditions should be monitored for two to five years and then released for unrestricted cultivation unless proven to be harmful. Crops engineered for the production of drugs and vaccines should be physically isolated from all other crops to prevent accidental pollination of non-biotech crops.

Like all other food products, let the future of biotech crops be determined by the farmer, the consumer, and the marketplace.

Indra K. Vasil

University of Florida
Department of Horticultural Sciences
ikv@mail.ifas.ufl.edu

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ability to form dicentric centromeres and mini-chromosomes. Steve Henikoff's lab at the Fred Hutchinson Cancer Center followed with evidence that a centromeric-specific histone gene CENH3 is required for normal division.

The practical applications of much of the research on Arabidopsis were highly apparent in the session on metabolic regulation chaired by Brenda Winkel of Virginia Tech. The presentations included Winkel's three-dimensional model of flavenoid metabolism, Peter Geigenberger's lab's (Max Planck Institute) insights to starch synthesis, Lynette Dirk's (University of Kentucky) studies on germination and deformylase, John Ohlrogge's lab's (Michigan State University) revelations on growth and altered lipid metabolism, and Elizabeth Pilon-Smit's (Colorado State University) phytoremediation-related work. The Pilon-Smit lab presented work on NifS-like proteins and their role in catalyzing elemental sulfur and selenium, demonstrating that selenocysteine lyase (SL transgenics) had increased tolerance to selenium.

The third day of the meeting returned to many of the most familiar topics of growth and development, with sessions on responses to

biotic and abiotic environmental factors and on cell signaling and hormones. These are areas that have benefited greatly during the past decade from research on Arabidopsis, and we will continue to see progress in these fields. Although there were 14 independent sessions during the meeting, many were overlapping. Particularly impressive were the number of talks on gene evolution and the theories of gene expansion.

These are just a few of the highlights from the many presentations offered. Our apologies to the presenters of those talks that we're unable to cover in this short space. For those readers who would like additional information, visit <http://www.union.wisc.edu/conferenceservices/arabidopsis/index.html>. And thanks to all those in Madison and elsewhere who helped us fill in the gaps in our own notes! We must confess that there was one afternoon when several of us skipped out to go sailing on Lake Mendota, only to be rescued by Alan ("Tugboat") Jones of UNC.

**Sara E. Patterson
Ayala Most**

University of Wisconsin-Madison
Department of Horticulture

Robinson's Journal Contribution Seeds Misericordia Reading Room Collection

USDA-ARS plant physiologist and ASPB member Dr. J. Michael Robinson (right) donated 33 years of *Plant Physiology* and nine years of the *The Plant Cell* to Dr. Cosima B. Wiese (left) this past September. Wiese, also an ASPB member, is an assistant professor at the Department of Biology, College Misericordia, Dallas, Pennsylvania. Assisting with the transfer is Wiese's husband, Manuel Ospina-Giraldo (center), a plant molecular biologist at USDA-ARS, Beltsville, Maryland. Wiese, a plant physiologist and plant pathologist, is developing a library reading

room at the Biology Department at College Misericordia. The journals will be placed in the library for use by faculty members and students. Dr. Wiese is developing a new plant science/plant physiology course for the Biology Department.



Welcome Newest Members!

The Membership Committee is pleased to welcome the following individuals as first-time members of ASPB. Please e-mail Kelley Noone at knnoone@aspb.org if your name was left out or if you have any questions.

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J Mitchell McGrath
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Kenneth McNeil
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Lorena Mejia

Kalpalatha Melmaiee
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Iruete Meskiene
Blake C. Meyers
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Barry J. Micallef
Magalhaes A. Miguel
Antoaneta B. Mihaylova-Kroumova
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Loretta Mikitzel
Rene Mikkelsen
Krystyna Mikos
A. Harvey Millar
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Rachel Miller
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Aarendra Narayan Misra
Meena Misra
Mautusi Mitra
Akio Miyao
Saori Miyazaki
Sizolwenkosi Mlotshwa
Keithanne Mockaitis
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Rachael M. Morgan-Kiss
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Robert C. Morrow
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Umesh K. Reddy
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Dawn Reinhold
Debra Reiss-Bubenheim
Hong Ren
Jenny Renaut
Homero Reyes de La Cruz
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Andres Rodriguez
Jaime E. Rodriguez
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Anja Schmidt
Mark R. Schmitt
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Andrea Schubert
Carolyn J. Schultz
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William R. Underwood
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Lisa A. Walters
Robin G. Walters
Douglas J. Walton
Haiyang Wang
Haiyin Wang
Hua Wang
Huachun Wang
Jun Wang
Jun-Hui Wang
Lili Wang

Xi-Qing Wang
Xiaoqiang Wang
Xun Wang
Yan Wang
Yingjun Wang
Yongzeng Wang
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Petra Zimmermann
Ellen Zuther
John C. Zwonitzer

Ethics in Publishing: ASPB Policies and Procedures for Handling Allegations of Author Misconduct

Of the many activities of the Society, possibly the most visible is the publication of our two journals, The Plant Cell and Plant Physiology. With the publication of these two journals comes the responsibility to ensure that the highest ethical standards are maintained at all stages of the research and publication processes. The subject of ethics is both relevant and interesting. Most of us have well-formed ethical opinions, especially about scientific practice. We all know that fabricating data is wrong. But how do we evaluate the more complex issues associated with authorship? Courtesy authorships afforded to the head of the department are not unheard of, yet most acknowledge this to be inappropriate. But other questions are much less clear. Does a timely question posed in a lab meeting that leads to a breakthrough constitute a contribution that merits inclusion as an author? Should the undergraduate who counted the samples, yet did not contribute to the experimental design or to the detailed interpretation of the work, be included as an author? After all, what better way to encourage students to continue in science than to give them a taste of the euphoria of seeing their name in print? Most universities are adding courses on scientific ethics to their curricula, recognizing the importance of laying a foundation that will allow one to pose and to answer the difficult ethical issues frequently encountered during research and publication. We are all aware of the pressures placed on the scientific community to generate a steady stream of timely publications that have high impact. We are all also sadly aware that this pressure can lead to an erosion of high ethical standards.

In an effort to emphasize the importance placed by ASPB on the maintenance of high ethical standards, as well as to codify how the Society should respond to allegations of ethical lapses, the Society has developed and adopted the following document, entitled Ethics in Publishing: ASPB Policies and Procedures for Handling Allegations of Author Misconduct.

A number of people contributed to this document. Staff collected statements from other scientific societies and prepared the initial draft for review by the Publications Committee. Becky Chasan, then chair of the Publications Committee, worked diligently to

refine the document for review by her colleagues on the committee. After a number of iterations that took place over more than a year, and that included input from the editors-in-chief of the two journals and the Office of Research Integrity (Office of Public Health and Science, U.S. Department of Health and Human Services), the committee approved the document and sent it to legal counsel for review. The document was then presented to the Executive Committee in

July 2003 during the Society's annual meeting in Honolulu, final comments were solicited from the editors and all Executive Committee members, changes were reviewed by legal counsel, and the final document was approved by the Executive Committee in October 2003.

Rob McClung

Publications Committee Chair
c.robertson.mcclung@dartmouth.edu

Ethics in Publishing: ASPB Policies and Procedures for Handling Allegations of Author Misconduct

The American Society of Plant Biologists expects members of the Society to maintain high ethical standards for scholarship. The Society's Statement of Conduct stipulates that "members shall demonstrate proper conduct in communicating scientific information in an open and timely manner." Editors, officers of the Society, and staff have a responsibility to the journals to ensure that allegations of scientific misconduct are properly investigated. *Ethics in Publishing: ASPB Policies and Procedures for Handling Allegations of Author Misconduct* has been developed to help editors, APSB officers, and staff members deal with ethical issues related to the Society's journals.

Expectations for Publishing in ASPB Journals

The American Society of Plant Biologists expects authors submitting to and publishing in its journals to adhere to ethical standards for scholarship and to ensure that the work they submit to or publish in the journals is free of scientific misconduct. Authors shall

- Take credit only for work that they have produced.
- Properly cite the work of others as well as their own related work. It is the responsibility of the authors, not the Society or the editors or reviewers, to ensure that relevant prior discoveries are appropriately acknowledged with the original citations in manuscripts submitted for publication.
- Submit only original work to the journals, no part of which has been previously published in print or online as, or is under consideration as, a peer-reviewed article in another journal, as a non-peer-

reviewed article (such as a review) in another journal, or as a book chapter.

- Determine whether the disclosure of content requires the prior consent of other parties and, if so, obtain that consent prior to submission.
- Maintain access to original research results; primary data should remain in the laboratory and should be preserved for a minimum of five years or for as long as there may be reasonable need to refer to them.

All authors of articles submitted for publication assume full responsibility, within the limits of their professional competence, for the accuracy of their paper.

Instances of possible scientific misconduct related to papers submitted to or published in the ASPB journals will be addressed by following the procedure outlined below.

Procedure for Addressing Allegations of Scientific Misconduct or Other Ethical Violations

Scientific misconduct in publishing includes but is not limited to

- *Fraud*: fabricating a report of research or suppressing or altering data
- *Duplicate publication*: publication of the same article first in an ASPB journal and subsequently in another journal or vice versa
- *Plagiarism*: taking material from another's work and submitting it as one's own
- *Self-plagiarism*: republishing one's own material that has previously been published elsewhere in the primary literature without citing the earlier publication.

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The Bioethics Imperative XIV

Ethics and the Literature: Citations II

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

*Scenario: Justa Learnin, a student writing her first manuscript, goes online to write about the diet of the red-horned worm. She downloads the data, plunks it into her computer, reads all the abstracts, and writes her manuscript, which states that “the red-horned worm does not eat acacia.” She and her mentor, Dr. Heresay, submit it to the prestigious Journal of Worms & Bugs. A month later, reviews arrive with scathing comments from the reviewers, who ask why there are no citations from before 1995, especially since evidence that the red-horned worm **does** eat acacia was described back in 1938. Justa and Dr. Heresay re-do their manuscript more carefully after discovering that the database Justa used covers articles only from 1995 forward. This time, using **printed** indexes, they discover a large body of information on the diet of the red-horned worm.*

In the last column, we dealt with an incomplete electronic literature search. Here, we are really dealing not only with the generation gap in technology but with three other issues as well: (1) understanding the coverage of a database, (2) correctly preparing references in the article(s) that one writes, and (3) reading entire articles rather than just blindly citing references that someone else has used. I have had many an undergraduate student exclaim, “What, they keep references in the library, the physical books?! You mean I have to walk up there, find it, and copy it?! How do I find a paper in that big building?!”

The Dewey Decimal System may well be foreign to this generation, just as reading a bibliography and verifying the older references through the paper trail is not intuitive. Younger students have grown up in the electronic age, and learning these skills may not have been part of their schooling. Here’s an analogy: My parents did not grow up with computers, and my generation did not grow up with the web. In this information age, that makes a difference

in how you think and problem-solve—in fact, in how you face the world. Mentors have two ethical responsibilities here: (1) to teach the youngsters these tricks of the trade and (2) to learn what their students can teach them about the new electronic world.

“How do you do a search for things that are just printed on paper?” is usually the next question. Students of the information age are used to searching electronically with keywords for just the nugget they need and usually don’t read much more than the abstract and bits of the introduction or discussion in the articles they cite. Sometimes the data they assumed to exist are not there once they really set out to find them. In my lab, we recently found that this game of citing non-existent data had created a dogma: Toxic compound “Y” is shuttled directly into the vacuole in plants. We did the actual experiment and found no Y in the vacuole but in other locations. When we traced all the leads back into the literature there was only supposition; the dogma was based on thin air and bad citation practices.

Beware, too, of simply citing references found in articles without actually obtaining the cited article and reading it to make certain it is appropriate and correct. At the very least, many such citations are incorrect, and you perpetuate the errors by citing them blindly.

It takes time and work to verify what you cite, to read what you cite, and to think critically about the data you cite in all your written work. Recently, D. Malakoff discussed the scientific misconduct of a principal investigator who misrepresented his own data in a grant application (*Science*, April 4, 2003, 300(5616): 40). The ethical consequences of not accurately citing the literature are manifold and all negative. The responsibility is clearly on our shoulders. ♣

Next: Ethics and the Literature: Citations III

Dina Mandoli

University of Washington, Seattle
mandoli@u.washington.edu

A New Section on the ASPB Web Site

In this new section, we will post stories from others that relate to a particular Bioethics Imperative column or topic in the hopes of engendering a dialogue among members and as a resource for mentors and students alike. Please e-mail me with your tales! Dina Mandoli at mandoli@u.washington.edu.

The Bioethics Imperative XIV: Ethics and the Literature: Citations II

“Once in the mid-1990s, when I was editing a medical journal, I was suspicious of a reference a doctor had used because it was from 1814. I doubted whether he had read it and wondered if it was a correct citation anyway. It was not. I used *Science Citation Index* to track it and found dozens of articles that cited the 1814 article, each with a slight variation on the article’s title and all with different pages listed for the beginning and end of the article. The journal was British and was not held by the National Library of Medicine. Eventually, with the help of Sarah N. Dippity, I discovered a set of the journal in question in the private office of a doctor on the East Coast. His widow answered the phone and told me she was 93 years old but just loved to go into her husband’s old office and help the researchers who were carrying on his work. She brought the volume in question to the phone and painstakingly read me the title of the article (different from every other instance of it that I had come across), the volume and issue numbers, and the inclusive page number. She also volunteered to read the article to me, since it was only one page long. Guess what? The article had absolutely *nothing* to do with the topic of the article that had been submitted to me for our journal. The author had seen the reference in a paper he’d read and cited it blindly.”

Submitted by Tamara Turner, librarian and editor, Seattle, September 2003



New Personal Member Page Is Ready!

We are pleased to announce a new upgrade to our ASPB web site! From now on, when you log in, you'll go right to your own personal home page! We are very excited by the new features and flexibility that the new site will provide, and we hope you will like the ease of signing in, the personal member page, and all the new tools available to you.

The reason for the site upgrade was partly to connect our web site directly to our IMIS membership database, making the member experience easier and more efficient, and to clarify the benefits of membership. Direct interaction with members allows the site to provide you with additional benefits. The IMIS database connection is a large upgrade because previously our administrative staff entered all membership data and orders manually. Members would have to wait up to 10 days for a change to take effect. With the new site, members can update their profile automatically.

When logging into the web site, you will now go right to a new personal member page. The new page includes everything from the home page plus special members-only tools, links, and personal information. You can set this page as your ASPB home page by selecting to save your password upon log in. Doing so will allow the site to remember who you are.

Features of the new personal member page include defined links to members-only areas; automatic member profile management; "communities," which feature discussion forums and document sharing; and additional vendor discounts. A new tool available to you is a "My Links Library." You can add links to sites you frequently visit to your own personal library online. Automatic renewal and other e-options are in development.

While the look and features of the site may be new, most of the content is still organized the same so that it will be familiar. Your password is the same as on the previous site. If this is your first log in, your password will be the e-mail address that we have for you in our database (if we don't have an e-mail address for you, your password will be your member ID twice). We recommend you reset your password after your first log in.

The screenshot shows the ASPB website interface. At the top, there is a navigation bar with links for CONTACT US, SITE MAP, SEARCH, PRIVACY POLICY, and ADVERTISE. The main content area is divided into several sections:

- Hot News:** Lists recent events such as the House/Senate Conference on funding for NSF Biological Sciences, Cartagen Molecular Systems providing special member discounts, and ASPB's holiday sale on Aloha shirts.
- Member Discounts:** A section for members to suggest vendors for discounts.
- Chemicals:** Lists Sigma-Aldrich as a vendor.
- Literature:** Lists various journals and publications like *Plant, Cell and Environment*, *The Plant Journal*, and *Signal Transduction Knowledge Environment*.
- Reagents:** Lists Cartagen Molecular Systems, Inc. as a vendor.
- Member News:** Includes news items like the President's Corner, Statement of Conduct, and EPA's approval of corn varieties resistant to corn borers.
- Plant Biotech News:** Lists news items such as the European Panel finding genetically modified corn safe and EPA's approval of corn varieties resistant to corn borers.
- Did you know?:** A tip about the MY LINKS library.

On the right side, there is a "MY ASPB PROFILE" section with user information and a "MEMBERSHIP ADMINISTRATION" section with links for RENEW, RESET PASSWORD, and MY TOOLS.

Web Security

Security is essential to our web site, and it was tested this past September. Our online payment process was temporarily closed over a week-end to investigate a possible hacker and protect our users' information. The hacker had not accessed our encrypted databases, and our users' information was safe. We were successful in blocking this individual. Our web site uses SSL encryption for the information passed through our forms when an online payment is received. If we store any information in our databases, it is also encrypted and the database is located offline where a hacker cannot access it. Our site's security measures protected our users. We appreciate everyone's patience during our down time and welcome any further questions about how we secure our site. Our privacy policy is online at <https://www.aspb.org/frontpage/privacy.cfm>.

Renew Online

Easily and quickly renew your membership and journal subscriptions this year at <http://www.aspb.org/renew/>. Pay online by credit card or check with our completely secured VeriSign payment process. You'll receive your receipt via e-mail within minutes and be done!

MAC Database

Did you know that the Minority Affairs Committee (MAC) is establishing a database of plant biologists who are also people of color, with the goal of providing a mechanism to advance and encourage minorities to pursue the plant sciences? If you are interested in being included in this database, fill out the brief questionnaire at <http://www.aspb.org/committees/minorityaffairs/researchersurvey.cfm>. This information will be compiled and accessible on the ASPB web site. Also, if you know of someone who should be included, please feel free to pass this web site address on to them.

Plant Biology 2004

Also on the web site is the latest information on Plant Biology 2004: <http://www.aspb.org/meetings/pb-2004/>. Start making your plans now to attend this very important meeting.

Feedback and suggestions for the site are always welcome. Send an e-mail to Wendy Sahli, webmaster@aspb.org.

Wendy Sahli
webmaster@aspb.org

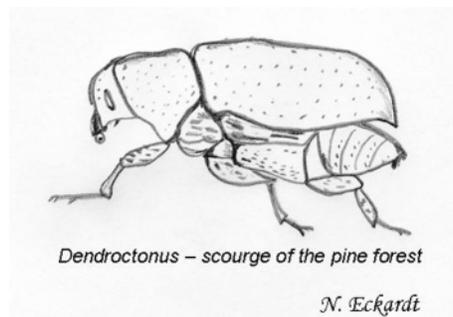


Introduction to Plant Pathology

My introduction to plant pathology occurred in dramatic fashion on a summer day in 1968. I was eight years old and standing on our neighbor's front porch, waiting for my friend Karen to come out and play. I was only vaguely aware of some workmen out on the street when I heard a thunderous crack and a shout and turned around just in time to see a huge elm on the boulevard across the street tip and fall—evidently the wrong way—directly toward me, flattening my neighbor's lamppost, crashing across the wide front lawn, and placing its uppermost branches within inches of my feet. The tree was one of countless elms in my hometown in Wisconsin to succumb to Dutch elm disease. Up until then, so many of the city's streets were lined with these majestic trees that it was known as "Elm Tree City"; after about 1970, not a single elm remained in my neighborhood. Even as a child, I mourned the loss of this life that was so much a part of the city.

In Pennsylvania, we learned to live with the ubiquitous gypsy moth. Gypsy moths are particularly fond of oaks, and as we lived in the middle of a dense oak forest, we were regularly crushing their horrid little bodies underfoot in summer. Although they cause a lot of damage, and a bad year for moths would leave large swaths of forest defoliated by mid-summer, oaks do not seem to be in danger of disappearing altogether (although species composition in the forests may change as highly moth-susceptible species are replaced by more tolerant ones). We kept the oaks in our yard healthy with regular pruning. Unfortunately, since we left we heard that the new owners chopped down most of them—along with my beautiful fern patch—in order to have sunshine and a lawn in the backyard. Sigh.

Of greater concern for tree lovers is the impending disappearance of flowering dogwood from eastern and midwestern forests due to the fungal blight dogwood anthracnose. The dogwood blight is similar to the disease that obliterated the American chestnut, which was a dominant tree in these same forests up until the early 1900s. It is predicted that the beloved flowering dogwood, which in addition to giv-



ing us a beautiful spring floral display provides a vital food source for forest birds such as the wood thrush, will largely disappear from eastern forests in the near future.

A growing concern here in the western United States is the scourge of pine bark beetles. Severe drought in many areas in recent years has contributed to an epidemic of the beetles (mainly *Ips* and *Dendroctonus* spp.), particularly in stands of ponderosa and piñon pine. Numerous pine and spruce forests in Rocky Mountain states such as Arizona and Colorado have sustained 80%–90% tree mortality, and the epidemic is expected to grow. Apparently not much can be done; thinning of forests to remove infested trees may offer protection in selected areas, but the beetles will simply move into new areas. Thinning, which has been on

the rise in mountain residential areas to protect homes from the increased threat of forest fires, can also exacerbate the problem because freshly cut wood is a preferred breeding ground for the beetles. The piñon pine is at particular risk because its exceptionally slow rate of reproduction may prevent establishment of new trees before the mature trees are eliminated by disease.

Some 35 years after witnessing the devastation of the elms in my hometown, young elms—of several disease-resistance species—can again be found along some city streets. Now I mourn the loss of other trees—the flowering dogwood and piñon pine—in other forests, and I hope that at least some stands will survive to repopulate future forests.

Nan Eckardt
neckardt@aspb.org

For the Future

Planting trees early in spring,
we make a place for birds to sing
in time to come. How do we know?
They are singing here now.
There is no other guarantee
that singing will ever be.

— Wendell Berry

From the Western Section Meeting

Below is the list of graduate student prize winners for oral presentations and posters. The cash award was \$250 per prize.

1st Place Oral Presentation

Lee Chae
Department of Plant and Microbial
Biology
University of California at Berkeley

2nd Place Oral Presentation

Bruno DeFilippi
Department of Pomology
University of California at Davis

1st Place Poster Presentation

Karen A. Kaczorowski
Department of Plant and Microbial
Biology
University of California at Berkeley

2nd Place Poster Presentation

Alonso Perez
Department of Pomology
University of California at Davis



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:
Subbaiah
Chalivendra
**Place of work
or school:**
Monsanto
Company
Research area:
Plant
biotechnology

Member since: 1993

1. Has being a member of ASPB helped you in your career? If so, how?

Surely, in several ways. ASPB membership, through the newsletter and annual meetings, has been a window to get to know other members more closely than just through their work. I also enjoy the immediate access to the most current literature (including papers in press) via the two top-notch plant biology journals that ASPB publishes.

2. Why has being a member of ASPB been important?

Membership gives you a sense of belonging, in addition to all the reasons mentioned above.

3. Was someone instrumental in getting you to join ASPB?

Yes, my postdoc supervisor, Marty Sachs, who is currently at the University of Illinois. I became interested in joining the Society when I started my

graduate research. However, I had to wait until I started my postdoc work to afford the dues.

4. What would you tell nonmembers to encourage them to join?

If you are a plant biologist, I do not think that it would be wise to miss the advantages of being a member of the ASPB community.

5. Have you gotten a job using ASPB job postings or through networking at the annual meeting?

Yes, I saw my current job posted on the ASPB web site.

6. Have you hired anyone as a result of a job posting at the meeting or on our online Job Bank?

No, I have not personally hired anyone, but our team did hire people that responded to our job posting on the online Job Bank.

7. Do you still read print journals?

No.

8. What do you think is the next “big thing” in plant biology?

I would not venture a guess on what will be the most fashionable. However, I would like to say what, in my opinion, is important: We still need to understand a lot about the fundamental life processes such as DNA replication, transcription, and translation in plants. We now have many powerful molecular and cell biology tools to do this,

beside tons of genomic information. In the same vein, we should also put to use these new resources to revisit important issues in the plant biology community. For example, we know quite a bit about the molecular ecology of light signaling (such as shade avoidance response and the like) but not as much about plant–water relationships.

9. What person, living or dead, do you most admire?

A number of them. However, I would put my science club teacher in India, Mr. C. P. Rao, on the top. He dedicated his life to inspiring many students like me.

10. What are you reading these days?

I read a few of the trade journals besides the technical ones.

11. What are your hobbies?

I like reading and watching movies.

12. What is your most treasured possession?

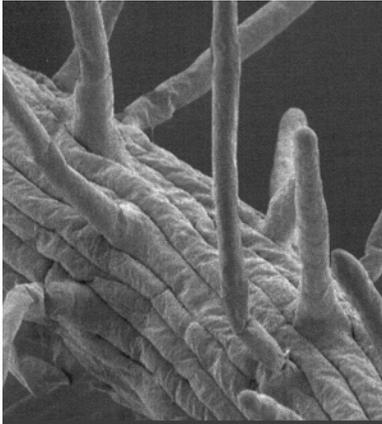
My kids (hope they are not reading this).

13. What do you still have left to learn?

A lot, both in my professional and personal lives. 

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 AAAS

ADVANCING SCIENCE, SERVING SOCIETY



USDA Undersecretary Jen and CSREES Chief Science Advisor Fenwick Endorse NRI Plant Research Programs

ASPB representatives met with Department of Agriculture Undersecretary for Research, Education, and Economics **Joseph Jen**; USDA–CSREES Chief Science Advisor **Brad Fenwick**; and USDA–CSREES officials **Michael Fitzner** and **Debora Hamernik** on September 29 in the undersecretary’s office to discuss plant research opportunities within the National Research Initiative (NRI) Competitive Grants Program.

Participants in the meeting also discussed the Plants and Pest Biology report for the stakeholders’ workshop coordinated by ASPB Public Affairs for USDA–CSREES November 14, at which Committee on Public Affairs chair **Thomas Sharkey** presented priority areas of research for ASPB.

The NRI is no longer organized around standing divisions, such as the former Animals Division or Plants Division. The reorganization and its potential effect on plant research programs were discussed during the July Committee on Public Affairs meeting held in Hawaii during Plant Biology 2003.

The meeting with the undersecretary and his colleagues was part of the follow-up activities discussed at the Committee on Public Affairs meeting attended by committee members and then-president **Daniel Bush** concerning the reorganization. Sharkey and Public Affairs director Brian Hyps attended the September 29 meeting with Jen, Fenwick, Fitzner, and Hamernik.

Sharkey asked at the meeting in the undersecretary’s office what the reorganization meant for plant research programs. Jen commented that there would be continued support for existing plant research programs supported by the NRI. Fenwick expressed agreement with



Joseph Jen



Thomas Sharkey

Jen on this. Jen is the highest-ranking research and education administration official within the USDA. As CSREES chief science advisor, Fenwick directly heads the NRI. (The title of the head of the NRI was formerly “chief scientist.”)

Fenwick added that all research grants supported will need to fit within six major issue areas. He said that there is room under these issue areas to address plant research and other areas. These issue areas were announced to stakeholders at the USDA–CSREES workshop held November 14 on Plants and Pest Biology. The six major issue areas that CSREES is considering for multiyear funding are agricultural and environmental quality; agricultural security;

genomics and food and fiber production; obesity, human nutrition, and food science; food safety; and rural and community development.

Sharkey had explained at the stakeholders’ workshop how plant research grants supported by the NRI are important elements of the new issue areas, especially genomics and food and fiber production; agricultural and environmental quality; and obesity, human nutrition, and food science.

During the meeting on September 29, Jen noted that he took the lead within the department in seeking large increases for the NRI. After Jen’s first budget request for the NRI, which was for fiscal year 2003, Congress came back with a \$46 million increase for the NRI, which represents a substantial increase of 38%. Sharkey expressed ASPB’s appreciation to Dr. Jen for his leadership in support of the NRI and acknowledged the key role of his work with the budget request. Sharkey also discussed some successful activities that ASPB conducted with Congress to support Jen with his request.

Sharkey noted that many members of the plant science community at various stages of their careers have grant awards from the NRI and that seeking support of Congress for the NRI is of the highest priority for ASPB.

Jen urged continued efforts by the science community on behalf of the NRI and encouraged seeking further support from other stakeholders.

Prior to the September 29 meeting with the undersecretary and chief science advisor, University of California, Davis, chancellor **Larry Vanderhoef** talked with Fenwick to discuss the need to support important research programs within the NRI. Vanderhoef, who attended the ASPB annual meeting in July, was aware of ASPB’s interest in the NRI research programs considered for the pending fiscal year 2004.

At the time of submission deadline for this issue of the *ASPB News*, the fiscal year 2004 request for applications (RFA) of the NRI had just been posted at http://www.reeusda.gov/1700/funding/04/rfa_nri_04.htm. The newly posted NRI RFA has both longstanding and new programs on plant research that ASPB has been supporting.

Among the NRI programs supporting plant research are Plant Biosecurity; Plants and Environmental Adaptation; Managed Ecosystems; Functional Genomics of Agriculturally Important Organisms (including plants); Biology of Plant–Microbe Associations; Plant Genome, Bioinformatics, and Genetic Resources; Genetic Processes and Mechanisms of Crop Plants; Applied Plant Genomics; Developmental Processes of Crop Plants; Biochemistry of Plants; and Plant Symbionts; and Biology of Weedy Invasive Plants.



Larry Vanderhoef

Plant Genome Research Gets \$100 Million Boost from NSF

31 New Projects on Cereals, Fruits, Legumes, Other Economically Key Plants

Building on advances in genetics technology and integrating a burgeoning collection of biological data, the National Science Foundation (NSF) announced on October 3rd 31 new grants in plant genome research, involving 48 different institutions and totaling about \$100 million.

NSF is an independent federal agency that supports fundamental research and education across all fields of science and engineering, with an annual budget that exceeds \$5 billion. Its plant genome program examines the structure and function of plant genes, particularly those important to agriculture, environmental concerns, energy, and health.

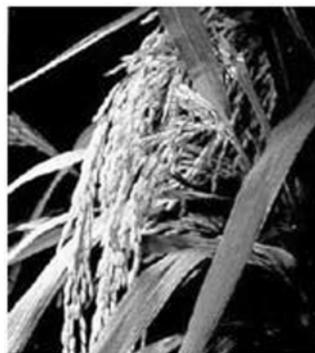
Individually, the two- to five-year projects, awarded to universities across the country, will receive funding ranging from \$600,000 to nearly \$11 million. Some will focus on the impact of specific genes in a single species. Others will compare the complete genetic sequences of related plants. (A complete list of the awards follows this story.)

According to **Mary Clutter**, assistant director of NSF's Directorate for Biological Sciences, this year's awards take advantage of the fruits

of earlier genome projects to extend existing areas of research and to break entirely new ground.

"In key ways, these projects will expand what we know about the biology of the plant kingdom, including plants that have a major impact upon the lives of people around the world," Clutter said. "In a relatively short time, genomics has created massive amounts of data and innovative, adaptable tools for biological research. These now make it possible for scientists, wherever they are, to approach important, challenging questions in new ways."

Among the new projects are six new plant genome "virtual centers," flexible collaborations of investigators at various institutions and with various areas of expertise, to focus on a particular research goal. One, for example, will develop a scientific-community resource for studying genome-wide gene expression in maize.



A panicle of rice. Several plant genome research efforts focus on rice. *Credit: Charles Harrington/Cornell University.*

According to Jane Silverthorne, who directs NSF's Plant Genome Research Program, "With these centers, there are no geographical or disciplinary boundaries. They foster interactions with other research efforts and, as with all of the plant genome projects, they freely share the outcomes of their studies."

Since the Plant Genome Research Program began in 1998, NSF has committed about \$375 million to the effort (including this year's new awards). Currently the program supports 120 projects. **Senator Christopher Bond** (R-MO) has championed support for plant genome research. He and **Senator Barbara Mikulski** (D-MD) and their colleagues in the Senate successfully sought \$90 million for the plant genome research program for fiscal year 2004. ASPB has been the most active science society in working with Congress in support of plant genome research. 🌱

Fiscal Year 2003 Awards, National Science Foundation, Plant Genome Research Program, Collaborative Research on Functional Genomics

Principal Investigator	Institution	Title	Total Award (\$)	Total Duration (yrs)
Bass, Henry 0321639	Florida State University	Cytogenic Map of Maize	\$1,548,982	4
Brendel, Volker 0321600	Iowa State University	Plant GDB—Plant Genome Database and Analysis Tools	\$978,683	2
Buell, C. Robin 0321538	The Institute for Genomic Research	An Annotation Resource for the Rice Genome	\$4,876,855	4
Burke, John 0332411	Vanderbilt University	YIA: Identifying the Targets of Selection During Sunflower Domestication	\$1,111,827	5
Chandler, Vicki 0321683	University of Arizona The Institute for Genomic Resources (sub)* University of Wisconsin (sub)*	Microarray Resources for Maize Research	\$3,658,458	3
Close, Timothy 0321756	University of California, Riverside	Coupling Expressed Sequences and Bacterial Artificial Chromosome Resources to Access the Barley Genome	\$2,433,127	4
Doebley, John 0321467	University of Wisconsin, Madison University of California, Irvine (sub)* North Carolina State University (sub)* Cornell University (sub)*	Molecular and Functional Diversity in the Maize Genome	\$10,261,784	5
Dooner, Hugo 0320683	Rutgers University University of California, Irvine (sub)*	A Comparative Genomics Investigation of Unprecedented Haplotype Variability in Maize	\$973,067	4
Dvorak, Jan 0321757	University of California, Davis	Haplotype Polymorphism in the Polyploid Wheats and Their Diploid Ancestors	\$5,615,748	3

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Public Affairs

Principal Investigator	Institution	Title	Total Award (\$)	Total Duration (yrs)
Freeling, Michael 0321726	University of California, Berkeley	Epigenetic Regulation of the Mutator System of Transposons	\$986,783	5
Henikoff, Steven 0321510	Fred Hutchinson Cancer Research Center University of Washington (sub)* Purdue University (sub)*	Targeting Induced Local Lesions in Genomes (TILLING) for Plant Functional Genomics	\$2,570,388	3
Innes, Roger 0321664	Indiana University, Bloomington (sub)* University of Minnesota (sub)* Cornell University (sub)* Virginia Tech (sub)* Oklahoma University (sub)*	Comparative Analysis of Legume Genome Evolution	\$2,581,746	3
Kianian, Shahrar 0321462	North Dakota State University Oregon State University (sub)* University of Arizona (sub)* Kansas State University (sub)* University of California, Davis (sub)*	Development of Diploid Wheat (Triticum Monococcum) Deletion Lines for Reverse Genetics	\$1,808,502	2
Klein, Patricia 0321578	Texas A&M University	Map-Based Dissection of Sorghum Drought Tolerance Gene Networks	\$1,964,299	4
Korban, Schuyler 0321701	University of Illinois, Urbana-Champaign Cornell University (sub)* Purdue University (sub)*	Apple Functional Genomics	\$1,659,708	2
Main, Doreen 0320544	Clemson University	The Prunus Genome Database: A Model for Rosaceae	\$646,677	3
McCombie, Richard 0321683	Cold Spring Harbor Laboratory University of Arizona (sub)*	Finishing the Rice Genome	\$4,202,800	3
Meyers, Blake 0321437	University of Delaware Ohio State University (sub)*	Deep Transcription Profiling of Rice Using Signature Sequencing	\$4,195,915	4
Nelson, Timothy 0325821	Yale University	Analysis of Rice Cellular Expression Profiles	\$4,492,329	4
Purugganan, Michael 0319553	North Carolina State University Cornell University (sub)*	Evolutionary Genomics of Rice	\$2,573,939	3
Ronald, Pamela 0313887	University of California, Davis The Institute for Genomic Research (sub)* Iowa State University (sub)*	A Rice Oligonucleotide Array	\$4,367,659	3
Scanlon, Michael 0321595	University of Georgia, Athens Truman State University (sub)* Iowa State University (sub)* Cold Spring Harbor Laboratory (sub)*	Functional Analyses of Gene Involved in Meristem Organization and Lead Initiation	\$3,939,129	4
Schnable, Patrick 0321711	Iowa State University Truman State University (sub)*	High-Density Genetic Map of Maize Transcripts	\$3,691,269	3
Sheridan, William 0321565	University of North Dakota	Global Analysis of the Maize Genome: Relating Genes and DNA Sequence to Chromosome Regions	\$600,000	3
Shintani, David 0321690	University of Nevada, Reno	The Functional Identification of Plant Rubber Biosynthetic Genes	\$1,992,203	4
Soderlund, Carol 0321724	University of Arizona University of Georgia (sub)* Purdue University (sub)*	Techniques for Efficient Finishing and Physical Linkage of Gene-Enriched Shotgun Sequences	\$1,414,729	2
Stein, Lincoln 0321666	Cold Spring Harbor Laboratory Cornell University (sub)* University of Missouri (sub)* Carnegie Institution of Washington (sub)*	The Plant Ontology Consortium	\$1,710,546	3
Thelen, Jay 0332418	University of Missouri, Columbia	YIA: Proteomics of Seed-Filling in Oil Seeds	\$1,074,667	5
Ware, Doreen 0333074	Cold Spring Harbor Laboratory	YIA: Genomics of Rice, Sorghum, and Maize	\$1,295,238	5
Wing, Rod 0321678	University of Arizona Cold Spring Harbor Laboratory (sub)* Purdue University (sub)*	Oryza Map Alignment Project	\$9,743,546	4
Young, Nevin 0321460	University of Minnesota University of Oklahoma (sub)* The Institute for Genomic Research (sub)*	Sequencing the Gene Space of the Model Legume, Medicago Truncatula	\$10,886,431	3

* sub = Subaward.

ASPB Commends Senator Bond for Leadership in Supporting Plant Genome Research

On September 12, ASPB president **Daniel Bush** and Committee on Public Affairs chair **Thomas Sharkey** sent a letter to **Senator Christopher Bond** (R-MO) commending him for championing plant genome research in the Senate. Bond and his colleagues successfully sought \$90 million for the Plant Genome Research Program sponsored by the National Science Foundation (NSF) in fiscal year 2004.



Senator Christopher Bond

The House recommendation was at \$75 million, the amount requested by the agency. ASPB worked with congressional offices to explain the need to support the Senate request for plant genome research. ASPB Campus Contacts asked their members of Congress to urge acceptance in the House/Senate Conference of the Senate recommendation for plant genome research. ASPB Public Affairs staff met in October with House Appropriations Committee majority staff to discuss the importance of accepting the plant genome research recommendation in the Senate.

In addition to supporting the Senate recommendation for plant genome research, ASPB also supported the higher overall recommendation for the NSF Directorate for Biological Sciences in the House bill.

Following are major portions of the September 12 letter from Bush and Sharkey to Senator Bond:

“Thank you for your outstanding leadership in supporting research on plant genomes and on the application of biotechnology to plants!

The recommendation of you and your colleagues for increased support for plant genome research will result in advances that will contribute to increased food crop production; development of safer and more nutritious foods; more cost-efficient renewable energy produc-

tion; discovery of lifesaving medicines; and a cleaner environment.

As noted in Senate Report 108-143, research on plant genomes will lead to the discovery in plants of key genes controlling metabolic pathways that lead to production of vitamins, essential amino acids, antioxidants, and accumulation of minerals essential for human nutrition.

The National Science Foundation (NSF) ‘2010 Project’ noted in the committee report will provide new tools for functional genomics research that will lead to more rapid advances in developing enhanced food crops.

Major row crops in the U.S. (including corn, wheat, and soybeans) yield less than 30 percent of their genetic potential on an annual basis. The majority of the losses are caused by environmental stresses. Drought and cold are the two most significant environmental stresses on crops, accounting for more than \$1 billion in crop losses per year and more than 50 percent of crop loss insurance claims. The enclosed poster/brochure on ‘Genomic Analysis of Freezing and Drought Tolerance in Higher Plants’ illustrates research sponsored by the NSF plant genome research program. Knowledge of stress response pathways gained from this research will be helpful in developing novel strategies for improved environmental stress tolerance in crops. This research, reported in the journal *Science*, was presented at the ASPB booth of a Coalition for National Science Funding Congressional Exhibition and Reception June 17. We appreciate that a member of your staff and several hundred others attended the exhibition.

Domestically grown renewable energy crops used to produce ethanol already provide many Mid-West American motorists a viable alternative to gasoline refined from imported

petroleum. The expansion occurring in the ethanol distribution system will bring this renewable fuel to more Americans. Genomic research will lead to enhanced varieties of energy crops making this renewable fuel source more cost competitive with imported petroleum products. Some observers cite existence of renewable fuels as a deterrent to dramatic price spikes for gasoline refined from imported petroleum.

Plant-produced high-value chemicals such as nylon, polyurethane, and other products will offer Americans higher quality products cost competitive with chemicals derived from petroleum. The worldwide market for plant oil is approximately \$45 billion. Plant genome research you have made possible is leading to more rapid advances in developing enhanced energy sources that are home grown.

As the champion of plant genome research and research on the applications of biotechnology, you make a tremendous contribution, Senator Bond, to providing all Americans with a cleaner environment. In 2001, plant biotechnology reduced pesticide use by 46 million pounds. A report by the National Center for Food & Agricultural Policy showed that plant biotechnology also improved farm income \$1.5 billion and produced an additional 4 billion pounds of food and fiber on the same acreage.

For most of the history of agriculture, producing higher yields required seeding more acres—thus plowing under many wild lands and other natural landscapes. Today, higher yields and more environmentally benign farming practices result from discoveries in plant science laboratories. Engineering enhanced plants naturally resistant to pests result in higher yields with less use of synthetic chemicals. This contributes to cleaner soil and water. Advocates of effective, science-based approaches to protecting the environment are fortunate to have your strong leadership in Congress.”

National Science Board Member Randall Welcomes Input from Plant Scientists

National Science Board (NSB) and ASPB member **Douglas Randall** fully recognizes the responsibilities of being part of the governing board of the National Science Foundation (NSF).

“Being appointed to the National Science Board, which is the Board of Directors of NSF, is an incredible honor and an incredible but humbling responsibility,” Randall commented. “I will

do all I can to build support for effective research and plant biology research in particular. **Senator Christopher Bond** (R-MO) was key to my nomination to this position and once again illustrates his profound interest both in plant biology and in NSF. Senator Bond believes very strongly in NSF and expects a responsible and independent board. The NSB members take this responsibility most seriously.

“I welcome comments and input from the plant biology community at any time. The NSB is very involved in strategy and policy of NSF, not in the day-to-day operations. A critical effort currently is drafting a report on how the NSB and NSF would utilize the new funds targeted at doubling the NSF budget by 2007. I am rapidly learning how important and essential the NSF is to the future of science and this country’s economic well-being,” Randall added.

The NSB is composed of 24 part-time members, appointed by the president and confirmed by the Senate. They are selected on the basis of their eminence in basic, medical, or social sciences; engineering; agriculture; education; research management; or public affairs. NSF Director **Rita Colwell** serves on the board, ex officio.

Randall joined the University of Missouri–Columbia (MU) faculty in the Agricultural



Douglas Randall

Chemistry Department in 1971 as a plant biochemist. He is currently professor of biochemistry.

Since joining the university, Randall’s research has focused on plant metabolism; signal transduction; regulation of plant enzymes; and understanding the metabolic interactions among photosynthesis, photorespiration, and respiration. His work on plant protein phosphorylation led to the founding of the nationwide Plant Protein Phosphorylation Working Group involving more than 45 research teams. His interactions and collaborations with plant biology colleagues at MU led to the establishment of the Interdisciplinary Plant Biochemistry and Physiology Group in 1981. Under his directorship and MU’s Food for 21st Century Program (made possible by then-governor Bond), this group has grown from nine to more than 40 research teams. Randall has also been active in helping develop the Life Sciences Center at MU and the Donald

Danforth Plant Sciences Center in St. Louis.

Danforth Plant Sciences Center in St. Louis.

Randall has served on the editorial boards of *Plant Physiology*, *Annual Reviews of Plant Physiology and Plant Molecular Biology*, *Protein Expression and Purification*, *Biochemical Archives*, and *Current Topics in Plant Biochemistry and Physiology*. He is a past officer and chair of the Board of Trustees of ASPB. Currently, he serves on the Science Liaison Committee for the Danforth Plant Science Center and continues efforts to facilitate interdisciplinary research and training.

Randall has received various awards and honors including MU’s Wm. H. Byler Distinguished Professor Award, a Faculty/Alumni Award from MU, South Dakota State University’s Distinguished Alumni Award, Michigan State Biochemistry Department’s Alumni Award, and MU’s Gold Chalk Teaching Award. He has served on the NSB since last year with an ASPB member colleague, **Nina Fedoroff**, of Pennsylvania State University. (Fedoroff has served on the NSB since 2000. She is Willaman Professor of Life Sciences at Penn State; director, Life Sciences Consortium; and director, Biotechnology Institute.)

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Liu Explains New Applications for Plant Biotechnology to FDA Officials

ASPB Member **Zhongchi Liu** of the University of Maryland gave a seminar presentation on new plant molecular techniques and their applications to biotechnology to the U.S. Food and Drug Administration (FDA) Office of Food Additive Safety on September 25.



Zhongchi Liu

Liu began her PowerPoint presentation with an overview of plant transformation and then addressed the following major topics:

- development of marker-free transgenic plants
- novel methods of altering plant genes, including discussion of TILLING (Targeting Induced Local Lesions in Genomes) and genoplasty

identification of tissue-specific promoters and their utility.

A plant transformation example that Liu discussed was the work of Dr. **Ingo Potrykus**, who inserted three genes into rice to make the plant produce beta-carotene. "It is estimated that 124 million children worldwide lack vitamin A, putting them at risk of permanent blindness and other serious ailments," Liu said.

Karin Ricker of FDA said Liu's talk was outstanding and generated a lot of questions and discussion. FDA had requested ASPB's assistance in learning more about this area. Liu agreed to make the presentation after being contacted by ASPB public affairs. ♣

Future ASPB Annual Meeting Sites

2004: Orlando, Florida

July 24–28

Disney's Coronado Springs Resort & Convention Center

2005: Seattle, Washington

July 16–20

Washington State Convention & Trade Center

For more information go to <http://www.aspb.org/meetings/>

Loren Rieseberg Named One of 24 MacArthur Fellows for 2003

ASPB member **Loren Rieseberg**, a botanist and the director of the Plant Sciences Program of Indiana University, Bloomington, was chosen to receive a \$500,000 grant from the MacArthur Foundation. In addition to being a Society member, Professor Rieseberg was recently a general session guest speaker at ASPB's conference "Plant Genetics 2003: Mechanisms of Genetic Variation," held October 22–26 at Snowbird Resort & Conference Center in Snowbird, Utah.

In a news release from the MacArthur Foundation (October 5, 2003), Rieseberg's scientific research was described as follows:

"Loren Rieseberg is a botanist who uses research on sunflowers to address the oldest and most vexing problem in evolutionary biology—how species originate. One longstanding debate is whether geographic isolation is required for speciation, and if not, how new species occupying a single territory ("sympatric")

can become both viable and reproductively isolated from parent species. Rieseberg was able to show that one sunflower species, *Helianthus anomalus*, results from an ancient natural hybridization of two other older species. Remarkably, Rieseberg has been able to replicate this hybridization under controlled conditions, in effect, reproductively reenacting the creation of a new species. These results suggest that some factor intrinsic to the chromosomal structure of the sunflower facilitates a recombination process, leading to viable, reproductively isolated sympatric species. His genetic mapping studies support this hypoth-



Loren pollinating a sunflower.

esis, and similar reports of others in different species indicate that hybridization-induced chromosomal rearrangement may be a widespread phenomenon. Throughout his work, Rieseberg applies a full range of theoretical and experimental approaches, from classical crossing experiments to contemporary molecular biologic techniques, to answer key questions of evolutionary genetics."

Rieseberg received a B.A. (1981) from Southern College, an M.S. (1984) from the University of Tennessee, and a Ph.D. (1987) from Washington State University. He was an

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assistant professor at Claremont Graduate School and a research scientist at the Rancho Santa Ana Botanic Garden in Claremont (1987–1993). He was appointed associate professor in the Department of Biology at Indiana University, Bloomington, in 1993. In 1996, he was named director of the Plant Sciences Program, and in 1997, he became the Class of '54 Professor in the Biology Department. He has published more than 150 articles in professional journals.

The 42-year-old professor was quoted in an *Indy-Star.com* article by Jon Murray: “Rieseberg, who grows sunflowers in his front yard and doodled one on a notepad during an interview with *The Indianapolis Star*, already has ideas of how to spend his grant. ‘I’m not too good at spending money on myself,’ he said. He would like to use it to buy new equipment and fund research projects he and his students have only thought about. And the money will help next year when he takes a sabbatical to write a textbook on how species form. Before receiving the MacArthur award, he was mired in grant applications. That’s no longer necessary. Now he just needs to talk to a tax attorney.”

As explained on the MacArthur Foundation web site, The John D. and Catherine T. MacArthur Foundation Fellows for 2003 each receive \$500,000 in “no strings attached” support over the next five years.

The MacArthur Fellows Program is designed to emphasize the importance of the creative individual in society. Fellows are selected for the originality and creativity of their work and the potential to do more in the future. Candidates are nominated, evaluated, and selected through a rigorous and confidential process. No one may apply for the awards, nor are any interviews conducted with nominees.

New recipients first learn of being named a MacArthur Fellow during a phone call from the Foundation. “The call comes out of the blue and can be life-changing,” said Jonathan F. Fanton, president of the MacArthur Foundation. “The fellowship offers highly creative people the gift of time and the unfettered opportunity to explore, create, and accomplish.”

The MacArthur Fellows Program places no restrictions on how recipients may use the \$500,000, and no reports are required. Rather, the stipend is an expression of confidence that the recipients know how to make best use of the fellowship’s resources and the visibility it can bring to advance their distinctive efforts. Just as there are no restrictions on how the fellows use their awards, there are no constraints on the kinds of creativity that are recognized.

“The annual announcement of the MacArthur Fellows is a special opportunity to

celebrate the creative individual in our midst,” said Fanton. “For over two decades, the MacArthur Fellows Program has been at the core of the foundation’s efforts to recognize and support individuals who inspire us. The new MacArthur Fellows illustrate the foundation’s conviction that talented individuals, free to follow their insights and instincts, will make a difference in shaping the future.” For further information on this program, see the web site at http://www.macfound.org/programs/fel/fel_overview.htm. 

ASPB Members Boost Vitamin E Content of Plants

ASPB member **Edgar Cahoon**, a molecular biologist with the ARS Plant Genetics Research Unit at the Donald Danforth Plant Science Center in St. Louis (formerly with Dupont), ASPB member **Sean Coughlan** of Agilent Technologies (formerly with Dupont), and **William Hitz** at Dupont–Pioneer Hi-Bred have isolated HGGT genes and overexpressed enzymes from the isolated genes to enhance the vitamin E content of plants.

Twenty-five percent of the U.S. population is deficient in vitamin E. Some studies have indicated that vitamin E is important for prenatal health and for reducing the risk of heart disease. Cahoon’s, Coughlan’s, and their colleagues’ research on identifying the genes responsible for the synthesis of tocotrienols, members of the vitamin E family, will open the door to boosting the level of vitamin E in food crops.

Cahoon, Coughlan, and their colleagues describe in the September issue of *Nature Biotechnology* the isolation of the HGGT genes, which encode enzymes that play a key role in tocotrienol synthesis. Overexpression of the barley enzyme in *Arabidopsis thaliana* en-



Edgar Cahoon



Sean Coughlan

hances total vitamin E content 10- to 15-fold. In corn seed, levels were increased by as much as six-fold. These research results demonstrate the feasibility of engineering increased vitamin E levels in plants using this enzyme.

The results of Cahoon, Coughlan, and their colleagues provide the first evidence for the synthesis of tocotrienols in plants through the HGGT-catalyzed pathway. The findings represent a breakthrough for boosting levels of certain tocotrienols, which are powerful antioxidants. Further research building on these findings may lead to production of plants containing dietary forms of vitamin E. Manipulation of these genes could also lead to plants that are more resistant to oxidative stress. 

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Stout Potatoes: Armed with a New Gene, Spuds Fend Off Blight

Sorcha McDonagh

It has been more than 150 years since the Irish potato famine, when the funguslike disease called blight annihilated the staple food for millions of people. But blight is still the most serious potato disease in Europe, the United States, and the rest of the world. Farmers spend billions of dollars annually on fungicides to keep blight at bay.

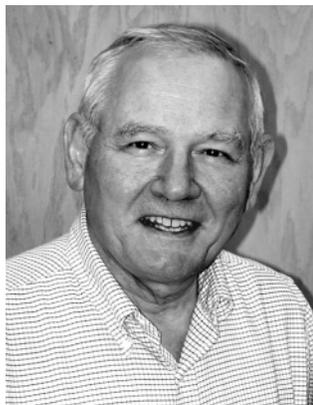
Now, genetic engineering may give potato crops built-in resistance to the pathogen. By placing a gene from a naturally blight-resistant wild potato into a farmed variety, researchers from the University of Wisconsin–Madison and the University of California, Davis, have made plants that are invulnerable to a range of blight strains.

The scientists suspected that a four-gene cluster in the wild potato species *Solanum bulbocastanum* was responsible for its resistance to blight. They cloned the genes and spliced one gene into each of four batches of potato plants. When they exposed these new cultivars to blight, one group stayed healthy, suggesting that

the gene it received was conferring resistance. The scientists named the gene *RB*, for resistance from *bulbocastanum*.

Lead researcher **John Helgeson** of Wisconsin says that *S. bulbocastanum* probably developed resistance to blight because it coevolved with the pathogen in Mexico, where blight is widely believed to have originated. Helgeson and his colleagues published their findings in the July 22 *Proceedings of the National Academy of Sciences*.

“If what they have shown in the greenhouse really happens in the field, this has major promise for creating resistance to blight,” comments **Autar Mattoo** of the U.S. Department of Agriculture’s vegetable laboratory in Beltsville, Maryland.



John Helgeson

Blight is caused by various strains of the funguslike organism *Phytophthora infestans*, which thrive under warm, moist conditions. All strains infect the potato plant’s foliage, scarring it with lesions and blocking photosynthesis.

Scientists have known about *S. bulbocastanum*’s resistance to blight since the 1950s. But of the scores of potato varieties bred around

the world for frying, baking, boiling, and chipping, none has been successfully crossed with *S. bulbocastanum*. Some of those varieties won’t interbreed with their wild cousin, while others lose their best culinary traits when crossed with wild potato plants. Helgeson and his team decided to bypass these difficulties using genetic engineering.

He says that the blight-resistant plant his group created could be ready for field-testing within about a year.

As a genetically modified food, however, the ultimate acceptance of the potatoes by the world community remains a big unknown. “That’s not a scientific question,” Helgeson notes.

The environmental benefits of the modified plant are compelling, he adds: “By transferring this gene from one potato to another, we can greatly reduce the reliance on pesticides.”

Helgeson and his colleagues now aim to unravel how the *RB* gene enables potatoes to stand up to blight. If the researchers succeed, they might even open a way to circumvent the row over genetically modified foods. It might be possible, Helgeson says, to design a new antiblight pesticide based on *S. bulbocastanum*’s natural defenses.



Both plants were inoculated with late blight. The plant on the right has the *RB* gene.



Lifeddu.org: New Nonprofit Organization That Develops Nonbiased Educational Materials for Biotechnology Education

We first learned of Lifeddu through the education posters at Plant Biology 2003 in Honolulu. Lifeddu sponsored eight students involved in one of its courses (“**Modern Techniques in Genetic Engineering**”) to present posters there. Lifeddu bills itself as an organization established for the creation, production, and distribution of educational materials on DNA, genetics, and modern biotechnology for middle school, high school, general undergraduate, and the public. The aforementioned course is designed to provide students an in-depth experience with a “real” biotechnological problem. It is an example of how cutting-edge laboratory research can be fused with educational objectives to create an exceptional learning experience for undergraduate or high school students.

In the laboratory component of the course, each student is given a unique gene construct to be introduced during the first semester into either rice or turfgrass cells to produce stably transformed embryogenic cells; in the second semester, plants are regenerated and characterized at the molecular level. Each student is required to summarize the work in terms of a poster for presentation at a large national or international conference. Gene constructs and projects are arranged as academic collaborations with various universities (e.g., Yale, Cornell, Washington, Salk).

The fact that 12 high school students participated in the entire sequence shoulder to shoulder with undergrads demonstrates that these sophisticated techniques and concepts can be successfully introduced at the high school level. The high school students made their own poster, and two of them presented the poster on behalf of their group at the ASPBE meeting in Hawaii.

Lifeddu continues to develop new courses along this same model. In particular, a new project-based course on vector construction and molecular cloning is being developed in which students will construct their own vectors for creating transgenic plants from the constructs supplied to them. These courses appear to be genuine productive collaborations between scientists (who gain an understanding of the results of expression of their construct in plants) and high school and undergraduate students (who gain real-world experience that results in training and publication of their work). Lifeddu is interested in contacting researchers who wish to collaborate in any way on developing these materials (e.g., by having their constructs analyzed in this setting).

Lifeddu also offers more “conventional” educational materials. One of its most popular offerings is the general biotechnology course entitled “**The Way We Work with Life.**” A survey of DNA and modern biotechnology for the general public, life science industry staff, high school teachers, and undergraduate students, the course aims to provide basic knowledge about DNA and gene expression; to present current applications in biotechnology and career opportunities in the growing fields that are related to biotechnology; and to examine issues and ethics concerning the future of biotechnology and our society. The course accomplishes these objectives through a modular approach. According to Dr. T. Page Owen (vice president of Undergraduate and General Education Development for Lifeddu), the course was very successful when it was presented at Connecticut College. The course was cosponsored by Pfizer and was open to undergraduates, high school teachers, and Pfizer

employees wishing to learn more about biotechnology.

Adopters of the course are supported by services that include PowerPoint lectures on specific topics to enhance teachers’ background knowledge in the area and materials to aid in presentation of topics to their students (including CDs and suggested hands-on demonstrations).

In addition to support materials formally associated with “The Way We Work with Life,” Lifeddu is building a database of educational information and materials that teachers can use. This database, called **lifeddu db**, is a repository of slides, images, text, and web links to support education about biotechnology. This material is now available through subscriptions. Lifeddu also makes materials such as CD-ROMs, videos, written lesson plans, demonstrations, kits, and other materials to facilitate teaching and information transfer about DNA, genetics, and biotechnology.

Lifeddu supplies a variety of educational services that include consultation on designing curricula; educational materials; customized courses; information packages; in-house seminars; and workshops for specific academic, business, or government purposes. It also can deliver lectures and workshops (ranging from one-half day to a full week) on any desired aspect of biotechnology to science and non-science students at any level or background. These workshops have proven very useful for science and non-science staff in the biotechnology industry, and clients have included Pfizer, AMGEN, and various biotech investment firms.

For more information about Lifeddu, contact Albert Kausch at akausch@lifeddu.org.

The deadline for the 2004 Education Committee-sponsored Plant Biology Education Booth/Travel Award Competition is April 1, 2004. For more information see the September/October newsletter Education Forum at <http://www.aspb.org/newsletter/septoct03/27edform.cfm> and the ASPBE education site at <http://www.aspb.org/education/>.

NSF Film Distribution Widens K-12 Education Outreach Opportunities for Teachers, ASPB Members

In an ongoing K-12 education outreach effort, the National Science Foundation (NSF) and ASPB have once again joined forces to bring plant biology education information to teachers and students.



Arabidopsis plants in the flowering stage. Photo provided by ABRC, Randy Scholl, Ohio State University.



NSF recently distributed to educators the film *Breaking the Code: Sequencing the Arabidopsis Genome*.

With each film mailed, NSF is including a flyer explaining the *ASPB Scientist K-12 Education Outreach Volunteer* program. The flyer refers educators to the appropriate ASPB web page: www.aspb.org/education/outreach/.

The ASPB Education Committee set up the K-12 outreach program to provide plant scientists an effective way to volunteer as a resource for K-12 science schoolteachers and school children in their area. The goal of this program is to expose students and teachers to plant biology research from the scientist's perspective and to encourage students who may be interested in pursuing plant biology as a career. Volunteers are available as a resource to respond to plant science questions or requests from local schools. The potential requests may include giving a talk, developing a new lab experiment, acting as a mentor for a science teacher or student, or teaching a lab. Volunteers have been asked to speak at science nights, judge at science fairs, and talk at science teachers' workshops.

The NSF outreach effort has an equal aim of promoting plant biology education and research. The 11-minute film *Breaking the Code*, with its accompanying teacher's guide and poster, was designed primarily for use in grades 6-12. The film was produced in collaboration with the Arabidopsis Genome Initiative. This science unit is promoted to middle and high school science teachers throughout the United

States using direct mail, e-mail, and the NSF web site. The film is sent as a direct request by the teachers. NSF maintains a database of schools and limits distribution to one film for every 500 students. Since the program began in September 2001, the film has been placed in 4,328 schools, with 5,000 educators, and

has reached nearly 2.7 million students representing every state in America. Another 3,000 copies are expected to be in the hands of educators next year.

To track the reaction to the film, a survey is sent along with the film. Answers to the 2002 survey show that 61% of teachers who received the film had already used it and another 21% intended to use it the following year. Another 10% passed it on to another educator. The sharing average for the film was five times for teachers and eight times for media specialists. The grade-level use was mostly high school: 84% for grades 9 and 10 and 65% for grades 11 and 12 (some teachers used it in multiple grades). The subject-area use for the program was diverse: agriculture, 21%; environmental, 20%; science, 84%; social studies, 9%; technology, 12%; and "other," 15%.

Breaking the Code describes the *Arabidopsis Thaliana* Multinational Genome Research Project. This project is seeking solutions to the problems of food crop production such as crop production in climates that are not suitable for traditional crop growth. The video describes how

scientists from around the world are working on the project and why Arabidopsis serves as a model for higher order plants. ASPB members who are interviewed in the film include Chris Somerville, Carnegie Institution; Daphne Preuss, University of Chicago; Elliot Meyerowitz, California Institute of Technology; and Caroline Dean, John Innes Centre, Norwich, England. Also interviewed is Satoshi Tabata of the DNA Research Institute of Japan.

The film is distributed through Video Placement Worldwide (VPW), an international service company specializing in placing sponsored educational materials in the nation's classrooms. VPW offers educational materials free to qualified educators, librarians, media specialists, and youth leaders throughout the United States. ASPB members, as they generally fit under the educator category, may order a free copy by going to the web site at <http://www.vpw.com/educational/>. You will find *Breaking the Code* in the catalog. At the bottom of the page you will be asked to fill out a simple survey and to register.

Machi Dilworth, director of the NSF Biological Infrastructure Division, noted that NSF made the film available at the Arabidopsis conference and the ASPB meeting a couple of years ago. "We told everyone that they are free to

continued on page 32



ASPB member Chris Somerville, Carnegie Institution



ASPB member Daphne Preuss, University of Chicago

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make copies. So, you can let the ASPB members know that if any of their colleagues have a copy, they are free to duplicate.”

The film is available for viewing by computer at the following web site: http://www.nsf.gov/od/lpa/news/press/00/arabidopsis_t1.htm. For more information on the subject matter of the

film, Dilworth notes that “The best web site to learn everything there is to know about Arabidopsis is <http://www.arabidopsis.org/>.”

The ASPB Education Committee welcomes members to add their name to the K–12 Education Outreach list. You may do so online by visiting <http://www.aspb.org/education/outreach/>



ASPB member Elliot Meyerowitz, California Institute of Technology



ASPB member Caroline Dean of the John Innes Centre, Norwich, England

and clicking on “Be a Volunteer.” For questions concerning the K–12 Education Outreach program, contact Brian Hyps, ASPB public affairs director, at bhyps@aspb.org.

Photos of ASPB members provided by the National Science Foundation from the film *Breaking the Code*.

ASPB’s International Affairs Committee invites you to visit its web page at http://www.aspb.org/committees_societies/international.cfm for information and to see if you qualify for any need-based support:

- Need-Based Policy for journal subscriptions and the Textbook *Biochemistry & Molecular Biology of Plants*
- Policy for Support of Meetings, Workshops & Courses in Developing Countries

CALL FOR APPLICATIONS

ASPB Travel Award Program for Plant Biology 2004 in Florida

Applications for travel awards to Plant Biology 2004 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/awards/#travel>.

The Society has allotted \$35,000 for the continuation of the Travel Award Program. 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 an-

nual meeting attendees. Undergraduate students are strongly 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 2004 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 15, 2004. Those applicants selected to receive an award will be notified by April 26, and the money will be sent in advance of the meeting. The early-bird registration cutoff date is May 17, and housing reservations must be made no later than June 21, 2004.

Procedure for handling allegations of misconduct

- A. All allegations of scientific misconduct or ethical violation will be referred to the Executive Director of the Society. Persons making oral allegations will be advised by the Executive Director that no action will be taken by the Society unless the allegation is made in writing.
- B. The Executive Director will notify the President and the Editor-in-Chief of the complaint. The Executive Director, President, and Editors-in-Chief of both journals, the Chair of the Publications Committee, and *The Plant Cell* co-editor or *Plant Physiology* monitoring editor who handled the manuscript (hereafter known as the Review Committee) will review the allegations and determine whether further action is necessary.
- C. If further action is deemed necessary, the Executive Director shall notify the author in writing of the allegations. The author shall be given the opportunity to respond to the allegations in writing within 30 days.
- D. The Review Committee shall consider all relevant information, including any response received from the author, in making its findings.
- E. The Executive Director, President, and Editor-in-Chief, with consultation from the Review Committee, shall determine the appropriate course of action, which

can range from simply returning the manuscript to the author to prohibiting further publication. The Executive Director, after discussion with legal counsel, shall then determine if Executive Committee and/or legal review is necessary before the Society takes action. It is important to recognize that the Society's investigation shall focus on our concerns as a publisher and that the appropriate course of action shall not exceed the constraints of this interest. If deemed appropriate, the author's home institution may be notified. Notification of the home institution will be informational only, so that the home institution is free to consider an independent investigation.

- F. Once a decision is made, the author will be notified in writing of the decision and of any action that will be taken by the Society. In the event of an adverse decision, the author may appeal to the Executive Committee. Such an appeal must be filed within 14 days of receipt of the decision. The procedures for the appeal shall be determined by the Executive Committee.

All information relating to allegations and subsequent inquiries will be kept confidential by the Review Committee, any other Society members, and staff working on the matter and will not be disclosed to any third parties, unless considered necessary according to section E. All actions, including telephone calls, must

be documented for all situations, even those resolved immediately. Copies of correspondence should be sent to the Editor-in-Chief, the chair of the Publications Committee, and the Director of Publications. A summary of alleged scientific misconduct or ethical violations, but with no names and other identifiers, should be part of the journal staff report that is delivered to the Publications Committee and the Executive Committee. ♣

NEW "PARTNERS PROGRAM" MEANS DISCOUNTS FOR ASPB MEMBERS

As an added benefit of membership, the Society's new Partners Program allows ASPB members to receive discounts on products and services offered by an array of vendors.

Go to the ASPB members-only page at <http://www.aspb.org/membersonly.cfm> for discounts on products and services from

Kluwer
Sigma-Aldrich
Plant Physiology & The Plant Cell
Annual Reviews
Current Trends
The Plant Journal
Plant, Cell and Environment
STKE (Signal Transduction Knowledge Environment)
Comparative and Functional Genomics
Cartagen Molecular Systems, Inc.

Discounts with new companies every month!

We are adding vendors on a regular basis. If you have any suggestions for vendors you would like to see enrolled in this program, please e-mail Kelley Noone at knoone@aspb.org.

New Staff



George Kendall joined ASPB as managing editor of *Plant Physiology* in late August. George oversees the daily operation of the journal, including its peer review and print and online production processes.

He works closely with Natasha Raikhel, editor-in-chief; the *Plant Physiology* editorial board; and the journal's authors.

Previously, George was production manager at Lippincott Williams & Wilkins in Baltimore,

where he oversaw production and supervised staff responsible for the American Heart Association journals and other high-profile medical journals. He has also worked at the American Association for Clinical Chemistry on its self-published journal, *Clinical Chemistry*, and at Taylor & Francis, a commercial publisher now based in Philadelphia.

George has a master of arts degree in literary studies and teaches literature courses at the University of Maryland Baltimore County. Prior to his career in publishing, George was a professional musician and played French horn with the Cape Town Orchestra in Cape Town, South Africa.

George replaces Melissa Junior, who left the Society in July to join SPI Technologies. ♣

American Society of Plant Biologists

Membership Application & Subscription Form



By requesting the special membership price and signing this form, you agree to the following: In consideration of the low member subscription rates, I agree to retain my personal copies of *Plant Physiology* and *The Plant Cell* for at least three years from the date of issue, not depositing them in any library or institution before the end of this time.

In consideration of the added benefit of electronic access to *Plant Physiology* and *The Plant Cell*, which is included with the price of membership, I agree not to release my personal access code, assigned by ASPB, to any other party for the duration of my membership in ASPB.

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(If student member, please provide professor's affirmation)

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or fax this form to 301-279-2996

2004 Membership Dues

Member	\$ 105
Postdoctoral Associate	\$ 60
Student Member	\$ 40

2004 Subscription Fees (Circle your selection)

Publication	Member	Student/ Postdoctoral
		Member
<i>Plant Physiology</i>	\$175	\$130
<i>The Plant Cell</i>	\$150	\$105
Combined Subscription	\$275	\$210

Sectional Society Dues (Optional)

ASPB dues do not cover membership in a section. Sections have an educational and training mission, coordinate regional meetings, and elect a representative to the Executive Committee of ASPB. Please join your section.

	Regular	Student/ Postdoctoral
Midwest	\$3	\$1
Northeast	\$3	\$1
Southern	\$5	\$5
Mid-Atlantic	\$5	\$3
Western	\$5	\$3

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Nancy Winchester
 Date **10/31/03**

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- Our office telephone number is 301-251-0560

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Disposition of a manuscript														●	
All other questions											●				
<i>The Plant Cell</i> (except missing issues)															
Disposition of a manuscript													●		
All other questions									●						
ASPB News								●							
Advertising															
<i>Plant Physiology</i>												●			
<i>The Plant Cell</i>										●					
ASPB News								●							
Address changes				●											
Membership applications				●											
Membership problems				●											
Accounts payable		●													
Accounts receivable			●												
Accounts payable/receivable problems	●														
Annual meeting	●														
Public affairs/government relations							●								
Education							●								
Society governance	●														
ASPB Education Foundation						●									
International issues	●														
Awards	●														
<i>Biochemistry & Molecular Biology of Plants</i>								●							
Web site															●

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