ASPB News



THE NEWSLETTER OF THE AMERICAN SOCIETY OF PLANT BIOLOGISTS

Volume 35, Number 6 November/December 2008

Inside This Issue

New Officers/Committees Assume Posts

Call for 2009 ASPB Award Nominations

Women's Young Investigator Travel Awards

Plant Biology 2009 Highlights

Call for Abstracts: Plant Biology 2009

Call for Applications: SURF

President's Letter

ASPB Members and the U.S. President-Elect

"Science offers a largely unexplored hinterland for the pioneer who has the tools for his [or her] task. The rewards of such exploration both for the Nation and the individual are great. Scientific progress is one essential key to our security as a nation, to our better health, to more jobs, to a higher standard of living, and to our cultural progress."

—Letter from Vannevar Bush, director of the Office of Scientific Research and Development, to President Franklin D. Roosevelt, July 1945



Sally Assmann

On September 25, 2008, 76 scientific Nobel laureates published an open letter to the American people in which they stated their support for Senator Barack Obama for the Presidency of the United States. In their letter, these eminent scientists wrote, "The country urgently needs a visionary leader who can ensure the future of our traditional strengths in science and technology and who can harness those strengths to address many of our greatest problems:

energy, disease, climate change, security, and eco-

nomic competitiveness."

On November 4, 2008, the American populace spoke, electing Senator Barack Obama as the future President of the United States by an estimated popular margin of approximately 6% (the largest margin in 20 years) and a margin in the Electoral College of 365 to 162 votes as of this writing. The election was ground-breaking for many reasons, including the first election of an African American president and a resurgence of activism and voter participation by young Americans.

Without diminishing these truly historic dimensions, in the smaller realm of our own profession, members of ASPB, both in the United States and abroad, may now be wondering what an Obama administration will hold for science in general and plant biology in particular. While it is impossible to predict the future, we may turn for clues to previous statements and actions from Senator Obama and his campaign. Senator Obama currently

serves on the Senate Foreign Relations Committee; the Senate Committee of Veterans' Affairs; the Senate Committee on Health, Education, Labor, and Pensions; and the Senate Committee on Homeland Security and Governmental Affairs. He is thus not a member of the Appropriations Committee and its subcommittees that recommend spending bills for science, but Brian Hyps, ASPB director of public affairs, notes that Senator Obama "has been supportive of funding for science." Another hopeful note for the future is that Senator Obama assembled an impressive slate of prominent scientists to serve as scientific advisers during the course of his campaign. Notably, ASPB and U.S. National Academy of Sciences member Dr. Sharon Long, a biology professor and former dean at Stanford University, served as one of the members of this select team.

Senator Obama (as well as Senator John McCain, the Republican candidate), actively participated in ScienceDebate2008 (www.ScienceDebate2008.com), in which the candidates answered 14 questions con-



The ASPB News is delivered 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 Executive Committee & Staff

CONTENTS

President's Letter

2008-2009 Committees

Call for 2009 ASPB Award Nominations

6 Announcing the Women's Young Investigator Travel Awards

Plant Biology 2009 Highlights

8 Call for Abstracts: Plant Biology 2009

Women in Plant Biology

Membership Corner

15 SURF Call for 2009 Applications

Public Affairs

23 ASPB Education Forum

26 Obituary

Deadline for March/April 2009 ASPB News: February 5, 2008

President	Sarah M. Assmann	814-863-9579
President-Elect	Tuan-hua David Ho	314-935-4632
Immediate Past President	C. Robertson McClung	603-646-3940
Secretary	Danny Schnell	413-545-4024
Treasurer	Mark R. Brodl	210-999-7246
Chair, Board of Trustees	Dan Bush	970-491-2442
Chair, Publications Committee	Sally Mackenzie	402-472-6997
Chair, Women in Plant Biology Committee	Judy Brusslan	562-985-8133
Chair, Minority Affairs Committee	MariaElena B. Zavala	818-677-3342
Chair, Education Committee	Jane Ellis	864-833-8416
Chair, International Committee	Leon V. Kochian	607-255-2454
Chair, Membership Committee	Mel Oliver	573-882-9645
Chair, Committee on Public Affairs	Gary Stacey	573-884-4752
Elected Members	Steven Huber	217-265-0909
	Alan Jones	919-962-6932
	Katherine W. Osteryoung	517-355-4685
Sectional Representatives		
Midwestern	John Kiss	513-529-5428
Northeastern	Lawrence Smart	315-470-6737
Southern	Timothy D. Sherman	251-460-7529
Mid-Atlantic	Robert Donaldson	202-994-6094
Western	Anireddy S. N. Reddy	970-491-5773

Executive director

Executive and governance affairs manager

Assoc. director of finance & administration
Accounts receivable specialist
Junior accountant

Director of meetings, marketing, & membership Manager of marketing and web services Membership and marketing research assistant

Subscriptions manager Subscriptions assistant

Director of public affairs

Education foundation assistant

Director of publications Publications assistant

Managing editor

Science writer, Plant Physiology Production manager, Plant Physiology Manuscript manager, Plant Physiology News and reviews editor, The Plant Cell

Production manager, *The Plant Cell* Manuscript manager, *The Plant Cell*

Crispin Taylor, ext. 115 Donna Gordon, ext. 131 Kim Kimnach, ext. 140 Stephanie Liu-Kuan, ext. 143 Jotee Pundu, ext. 144 Jean Rosenberg, ext. 110 Wendy Sahli, ext. 123 Shoshana Kronfeld, ext. 122 Suzanne Cholwek, ext. 141 Linda Palmer, ext. 142 Brian M. Hyps, ext. 114 Katie Engen, ext. 116 Nancy A. Winchester, ext. 117 Diane McCauley, ext. 133 John Long, ext. 119 Peter Minorsky, 845-878-4570 Jon Munn, ext. 130 Leslie (Ash) Csikos, ext. 125 Nancy Eckardt, 970-495-9918 Susan Entwistle, ext. 118

Annette Kessler, ext. 120

ctaylor@aspb.org dgordon@aspb.org kkimnach@aspb.org sliu@aspb.org jotee@aspb.org jean@aspb.org wendys@aspb.org shoshana@aspb.org scholwek@aspb.org lpalmer@aspb.org bhyps@aspb.org katie@aspb.org nancyw@aspb.org diane@aspb.org jlong@aspb.org peminorsky@aspb.ora imunn@aspb.ora lcsikos@aspb.org neckardt@aspb.org susan@aspb.org

akessler@aspb.org

ASPB News

Headquarters Office 15501 Monona Drive Rockville, MD 20855-2768 USA Phone: 301-251-0560 Fax: 301-279-2996 ASPB News is distributed to all ASPB members and is published six times annually, in odd-numbered months. It is edited and prepared by ASPB staff from material provided by ASPB members and other interested parties.

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; 301-296-0904.

© 2008 American Society of Plant Biologists

September 10th - December 15th 5ALE

Free Shipping** and Reduced Prices:

IPTG: **

\$22/ 5 g (12481C5-ASPB) \$159/ 50 g (12481C50-ASPB) \$99/ 25 g (12481C25-ASPB) \$309/ 100 g (12481C100-ASPB)

Luciferin (Potassium or Sodium salt):

\$69/ 100 mg (LUCK or LUCNA-100-ASPB) \$169/ 300 mg (LUCK or LUCNA-300-ASPB) \$249/ 500 mg (LUCK or LUCNA-500-ASPB) \$399/ g (LUCK or LUCNA-1G-ASPB)



X-Gluc: **

\$39/ 100 mg (G1281C-ASPB) \$419/ 3 g (G1281C3-ASPB) \$149/ g (G1281C1-ASPB) \$529/ 4 g (G1281C4-ASPB) \$292/ 2 g (G1281C2-ASPB) \$619/ 5 g (G1281C5-ASPB)

Featured Products with Great Prices:

DTT:

\$35/ 10 g (DTT10-ASPB) \$86/ 50 g (DTT50-ASPB) \$45/ 20 g (DTT20-ASPB) \$139/ 100 g (DTT100-ASPB)

PMSF: ***

\$85/5 g (P4170-5-ASPB) \$341/250 g (P4170-250-ASPB)

\$192/100 g (P4170-100-ASPB)

X-Alpha-Gal *Reduced Price*: \$69/ 250 mg (XA250-ASPB) \$199/ g (XA1-ASPB)

\$129/500 mg (XA500-ASPB)

X-Gal *Reduced Price*: \$35/ g (X4281C-ASPB) \$140/ 10 g (X4281C10-ASPB)

**nominal shipping charge for 5 g IPTG and 100 mg X-Gluc





350 NEW

Searchable Products Now On Website! www.goldbio.com®

Antibiotics with Reduced Prices:

Ampicillin:

\$34/5 g (A0104-5-ASPB) \$90/25 g (A0104-25-ASPB)

\$50/10 g (A0104-10-ASPB)

Bialaphos:

\$199/ 100 mg (B0178-100-ASPB) \$897/ 500 mg (B0178-500-ASPB) \$472/ 250 mg (B0178-250-ASPB)

Carbenicillin:

\$50/5 q (C0109-5-ASPB) \$169/25 q (C0109-25-ASPB)

Kanamycin:

\$29/ g (K0126-1-ASPB) \$76/ 10 g (K0126-10-ASPB) \$52/ 5 g (K0126-5-ASPB) \$99/ 25 g (K0126-25-ASPB)

Spectinomycin:

\$53/5 g (\$0188-5-ASPB) \$99/25 g (\$0188-25-ASPB)

Ticarcillin/Clavulanate:

\$32/2 g (T0190-2-ASPB) \$331/25 g (T0190-25-ASPB)

Additional Chemicals & Antibiotics with Great Prices:

AEBSF: ***

\$123/ g (A5440-1-ASPB) \$337/ 5 g (A5440-5-ASPB)

Cefotaxime:

\$45/ g (C0111-1-ASPB) \$429/ 25 g (C0111-25-ASPB)

\$92/5 g (C0111-5-ASPB)

Chloramphenicol:

\$66/ 25 g (C0113-25-ASPB) \$106/ 100 g (C0113-100-ASPB)

Coelenterazine:

\$74/ mg (CZ1-ASPB) \$213/ 10 mg (CZ10-ASPB)

MUG:

\$30/200 mg (MUG200-ASPB) \$99/ g (MUG1-ASPB)

NBT:

\$78/ g (NBT1-ASPB) \$213/ 5 g (NBT5-ASPB) \$134/ 2.5 g (NBT2.5-ASPB) \$695/ 25 g (NBT25-ASPB)

Phosphinothricin:

\$125/250 mg (P0159-250-ASPB) \$379/ g (P0159-1-ASPB)

Rifampicin:

\$51/ g (R0146-1-ASPB) \$335/ 25 g (R0146-25-ASPB)

\$117/5 g (R0146-5-ASPB)

Streptomycin:

\$56/50 q (S0148-50-ASPB) \$71/100 q (S0148-100-ASPB)

TCEP:

\$15/ g (TCEP1-ASPB) \$199/ 25 g (TCEP25-ASPB) \$29/ 2 g (TCEP2-ASPB) \$378/ 50 g (TCEP50-ASPB) \$59/ 5 g (TCEP5-ASPB) \$749/ 100 g (TCEP100-ASPB)

Tetracycline:

\$55/ 25 g (T0150-25-ASPB) \$89/ 100 g (T0150-100-ASPB)

***hazardous fees apply

(800) 248.7609

10748 Indian Head Industrial Blvd. • St. Louis, MO 63132 F: (314) 890.0503 • contactgoldbio86@goldbio.com • www.goldbio.com®

ASPB Officers Assume Posts for 2008–2009

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

Board of Trustees

Daniel R. Bush (09), *chair* Mark R. Brodl (09), *treasurer* Edgar P. Spalding (10) Mary L. Tierney (11)

Committee on Public Affairs

Gary Stacey (09), chair
C. Robertson McClung (09),
immediate past president
Richard T. Sayre (12)
Robert L. Last (09)
Martha C. Hawes (10)
Pamela Ronald (10)
David E. Salt (11)
James N. Siedow (11)
Patrick S. Schnable (12)

Constitution & Bylaws Committee

Douglas D. Randall (09), *chair* Alice C. Harmon (10) Tobias Isaac Baskin (11)

Education Committee

Jane P. Ellis (09), *chair* Jeffrey S. Coker (09) Lawrence R. Griffing (09), *adjunct member* John C. Cushman (11) Erin Dolan (11) Chad V. Jordan (11) Mary E. Williams (11), adjunct member

International Affairs Committee

Leon V. Kochian (11), chair Susan McCouch (09) Eduardo Blumwald (10) Patricia Leon (10) Jurandir Magalhaes (10) Sam Gudu (11) Matt Hudson (11)

Membership Committee

Mel Oliver (09), chair
Carl J. Bernacchi (09)
Jeremy E. Coate (09)
Colleen Doherty (09)
David P. Horvath (09)
Lawrence B. Smart (09)
Robert P. Donaldson (10)
John Z. Kiss (10)
Anireddy S. N. Reddy (10)
Timothy D. Sherman (11)

Minority Affairs Committee MariaElena B. Zavala (10), *chair*

Anthony DePass (09), adjunct member Gregory Goins (09) Linda Different Cloud Jones (09), adjunct member Adán Colon-Carmona (10) John J. Harada (10) Eleanore Wurtzel (10)

Michele B. Garrett (11) Nominating Committee

Tuan-hua David Ho (11), chair, president-elect Sarah M. (Sally) Assmann (10), president

C. Robertson McClung (09), immediate past president

Program Committee

Danny J. Schnell (09), chair/secretary
Tuan-hua David Ho (09), president-elect
Nicholas C. Carpita (09), past secretary
Judy Callis (10)
Janet Braam (11)
Georg Jander (11)
Todd C. Mockler (12)

Publications Committee

Sally A. Mackenzie (09), *chair* Stephen P. Long (10) Caren Chang (11) Laurie G. Smith (11) Neil E. Olszewski (12)

Women in Plant Biology Committee

Judy A. Brusslan (09), chair Terrence Delaney (09) Marta Laskowski (09) Elizabeth Pilon-Smits (09) John Z. Kiss (10) Yuh-Ru Lee (11)

EXECUTIVE COMMITTEE

Sarah M. (Sally) Assmann (10), president
Tuan-hua David Ho (11), president-elect
C. Robertson McClung (09), immediate past president
Danny J. Schnell (09), secretary
Mark R. Brodl (09), treasurer

Elected Members

Steven C. Huber (09) Alan M. Jones (10) Katherine W. Osteryoung (11)

Sectional Representatives

Robert P. Donaldson (10),

Mid-Atlantic

John Z. Kiss (10), Midwestern

Lawrence B. Smart (09),

Northeastern

Timothy D. Sherman (11),

Southern

Anireddy S. N. Reddy (10),

Western

2008–2009 Awards Committees

Following is a list of the membership of the ASPB awards committees for 2008–2009 as announced by President Sally Assmann. Members serve for three award cycles unless otherwise noted.

ASPB-Pioneer Hi-Bred International Graduate Student Prize

Roger P. Hangarter (09), chair Patricia S. Springer (09), acting chair A. Mark Cigan (09) Julia Frugoli (09) Robert E. Sharp (09)

Adolph E. Gude, Jr. Award

Julian I. Schroeder (10), chair Winslow R. Briggs (10), past winner Patrick Masson (13) Barbara J. Baker (16)

Charles Albert Shull Award

Steven C. Huber (09), *chair* Sheng Luan (09), *past winner* Richard D. Vierstra (10) Karen S. Schumaker (11) David B. Stern (11)

Charles F. Kettering Award

Robert E. Blankenship (10), past winner Neil R. Baker (10) Elisabeth Gantt (10) Keith Alan Mott (10)

Charles Reid Barnes Life Membership Award

Russell L. Jones (10), *chair* Tsuneyoshi Kuroiwa (09), *past winner* Mark Estelle (10) Kathleen J. Newton (11) Raoul Ranjeva (11)

Corresponding Membership Awards Committee

Gloria K. Muday (11), *chair* Chentao Lin (09) Gayle Lamppa (10) Patrick Masson (11) Bo Liu (12)

Dennis R. Hoagland Award

Jan E. Leach (12), *chair* Dennis Gonsalves (09), *past winner* C. Robin Buell (15) Kendal D. Hirschi (15) Elizabeth E. Hood (15)

Early Career Award

Alice Y. Cheung (09), chair Ping He (09), past winner Tai Ping Sun (10) Ned Friedman (11) Michael G. Palmgren (11)

Excellence in Teaching Award

Sabine J. Rundle (09), chair Roger P. Hangarter (10), past winner Amy M. Clore (13) Sharman D. O'Neill (13) T. Kaye Peterman (13)

Fellow of ASPB Award

Roger P. Hangarter (09), chair Wendy Boss (12), acting chair Ann M. Hirsch (09), past winner Donald R. Ort (10) Heven Sze (11)

Lawrence Bogorad Award for Excellence in Plant Biology Research

Steven C. Huber (10), past winner Marinus Pilon (10) Elizabeth A. Ainsworth (12)

Martin Gibbs Medal

Richard B. Meagher (09), chair Richard Jorgensen (09), past winner John A. Browse (11) Sally A. Mackenzie (11) Neelima Sinha (13)

Stephen Hales Prize

George E. Schaller (09), chair Peter H. Quail (09), past winner Dawn S. Luthe (09) Simon Gilroy (10) Pamela Ronald (10)

Call for 2009 ASPB Award Nominations

Your Chance to Honor a Fellow Plant Scientist!

The 2009 Call for ASPB Award Nominations will be sent to all members on January 2, 2009. Nominations are due by **Friday**, **February 27**, 2009.

ASPB encourages you to participate in our 2009 Awards Program by nominating deserving individuals. Please watch for the "Call for Nominations" in early January in your mailbox and on ASPB's website (http://www.aspb.org/awards/nominate.cfm). In the meantime, please visit ASPB's awards pages (beginning with http://www.aspb.org/awards/) so that you may see who among your colleagues has received these awards in the past—and determine who else may be deserving in the future.

Nominations are submitted electronically as a single pdf file at http://www.aspb.org/awards/nominate.cfm.

The names of the award recipients will be announced on or about March 29, 2009, via e-mail broadcast to ASPB members. These awards, which recognize the major scientific contributions of recipients, will be presented during Plant Biology 2009 in Honolulu, Hawaii. Please make plans to attend the President's Opening Address and Awards Ceremony on July 18, 2009, at 1 p.m. Most of the awards are monetary and, with the exception of the Fellow of ASPB Award, winners also will be reimbursed up to \$1,000 for travel expenses to Honolulu.

Awards to Be Given in 2009

ASPB-Pioneer Hi-Bred International Graduate Student Prize

The ASPB–Pioneer Hi-Bred International Graduate Student Prize, made possible by the generosity of Pioneer Hi-Bred International (http://www.pioneer.com), recognizes and encourages innovative graduate research and innovation in areas of plant biology that relate to important commodity crops. Three \$5,000 prizes will be given annually from 2006 through 2009, with an additional \$1,000 awarded for prize recipients attending the ASPB annual meeting in the year of their

award. Each nominee must attend a U.S.-accredited college or university and must demonstrate interest in the study of plant biology or a related discipline. Nominees must be PhD candidates, have successfully passed their preliminary examinations, demonstrate an excellent academic record, and be a member of ASPB. An individual may receive this prize only once.

Charles Albert Shull Award

Created in 1971 to honor the Society's founding father and the first editor-in-chief of *Plant Physiology*, the Charles Albert Shull Award is designed to recognize young researchers. It is a monetary award made annually and is given for outstanding investigations in the field of plant biology by a scientist who is under 45 years of age on January 1 of the year of presentation, or who is fewer than 10 years from the granting of the doctoral degree. The 2009 recipient is invited to address the Society at the 2010 annual meeting.

Charles Reid Barnes Life Membership

The Charles Reid Barnes Life Membership is ASPB's oldest award, established in 1925 at the first annual meeting of the Society through the generosity of Dr. Charles A. Shull. It honors Dr. Charles Reid Barnes, the first professor of plant physiology at the University of Chicago. It is an annual award for meritorious work in plant biology that provides a life membership in the Society to an individual who is at least 60 years old. Membership is not a requirement for the award, and, if appropriate, every fifth award should be made to an outstanding plant biologist from outside the United States.

Corresponding Membership

The Corresponding Membership honor, initially given in 1932, provides life membership and Society publications to distinguished plant biologists from outside the United States. The honor is conferred by election on the annual ballot. The committee selects no more than three candidates, and these are placed on the ballot for approval of

the corresponding membership by majority vote. The president notifies successful candidates of their election. Election of a corresponding member is to be considered each year and held if warranted, provided the election will not increase the proportion of corresponding members beyond 2% of the dues-paying membership.

Early Career Award

The Early Career Award was instituted by the Society's executive committee in 2005 to recognize outstanding research by scientists at the beginning of their career. This is a monetary award made annually for exceptionally creative, independent contributions by a member of the Society who, on January 1 of the year of the presentation, is not more than five years post-PhD.

Fellow of ASPB Award

Established in 2007, the Fellow of ASPB Award may be granted to current members in recognition of direct service to the Society and distinguished and long-term contributions to plant biology. Areas of contribution may include education, mentoring, outreach, research, and professional and public service. Examples of relevant Society service include, but are not restricted to, service on editorial boards of ASPB journals and active involvement in ASPB meetings. Current members of ASPB who have contributed to the Society for at least 10 years are eligible for nomination. Recipients of the Fellow of ASPB honor, which may be granted to no more than 0.2% of the current membership each year, receive a certificate of distinction and a lapel pin.

Stephen Hales Prize

This award honors the Reverend Stephen Hales for his pioneering work in plant biology published in his 1727 book *Vegetable Staticks*. It is a monetary award established in 1927 for a scientist, whether or not a member of the Society, who has served the science of plant biology in some noteworthy manner. The award is made annually. The recipi-

Announcing the Women's Young Investigator Travel Awards

The Women in Plant Biology Committee (WIPB) is pleased to announce the Women's Young Investigator Travel Awards, a new award program for young investigators in academia, government, and industry. An independent investigator's first five years can be particularly challenging, and many forgo attending scientific meetings as demands on them for excellence in research, teaching, and administration increase. However, during these early years, meeting attendance is especially critical, both for maintaining currency and for networking.

Although career pressures apply to both male and female young investigators, the percentage of women ASPB members drops as rank increases. Indeed, in June 2008, women constituted 47% of graduate student members, 38% of postdocs, and only 28% of regular members. To demonstrate that ASPB values and encourages young women investigators, five \$1,000 travel grants will be awarded to help defray costs of attending the Plant Biology 2009 meeting in Hawaii.

Applications will be due on February 13, 2009 (the first abstract deadline) and will include a research abstract, a two-page biosketch (NSF format), and a personal statement that describes professional obligations and alternate sources of travel funds. More information and links to application forms will be available soon on the Plant Biology 2009 website at http://www.aspb.org/pb-2009/.

WIPB will review applications on the basis of quality of science and need. The committee encourages applications from women investigators at research- and teaching-intensive institutions, as well as those in government labs and industry. Individuals who are within the first five years as an independent investigator are eligible for the Women's Young Investigator Travel Awards.

CALL FOR APPLICATIONS

ASPB Travel Grant Program

for Plant Biology 2009 in Honolulu, Hawaii

Travel grant applications are now being accepted.

The submission deadline is **January 2, 2009**

All applications must be submitted electronically at www.aspb.org/meetings/ pb-2009/travelawards/

Recipients will be notified by February 2, 2009.



Media, Made Easy

COMBIJET plate pourer combine stirring, sterilization and pouring into one, precisely controlled process. After adding the desired amount of dehydrated media and water, the MediaPrep will engage a magnetic stirrer and sterilize for a user-defined temperature and time.

The Systec MediaPrep can be directly connected

The Systec MediaPrep and to the COMBIJET plate pourer, to eliminate the risk of secondary contamination during dispensing. The COMBI-JET is designed to pour directly into any depth plate, or into tubes. An optional inkjet printer is available for labeling or barcoding directly on the sides of dishes.

PLATES.

PARTNERING SOCIETIES

The American Society of Plant Biologists is delighted to partner with the following organizations, whose members are invited to register at **ASPB** member rates:

Australian Society of Plant Scientists

Botanical Society of Korea

Canadian Society of Plant Physiologists

Chinese Society of Plant Physiologists

Japanese Society of Plant Physiologists

New Zealand Society of Plant Biology

For more details and to register online visit

www.aspb.org/pb-2009/



Plant Biology 2009 Save the Date!

July 18-22, 2009

Hawaii Convention Center, Honolulu

Joint Annual Meetings of the American Society of Plant Biologists and the Phycological Society of America

HIGHLIGHTS

Six major symposia will be held in 2009:

ASPB-CSPP Joint Symposium

Crop Functional Genomics Jeffrey Bennetzen, University of Georgia, and Xioaya Chen, Shanghai Institute of Plant Physiology

ASPB-PSA Joint Symposium

Genomics Approaches for Systematics, Energy Metabolism, and Acclimation in Algae Sabeeha Merchant, UCLA, and Alison Sherwood, University of Hawaii

President's Symposium

Sarah M. Assmann, Pennsylvania State University

Darwin's Legacy: Evolution and Plant Biology

Barbara Schaal, Washington University

Illuminating Plant Photomorphogenesis Richard Vierstra, University of Wisconsin

Plant Natural Products—Chemical Evolution in Time and Space

Robert Last, Michigan State University

KEY DATES

Registration and abstract submission open: December 1, 2008

Early Bird registration fees (until April 24, 2009)

Member \$325

Nonmember \$495

Postdoc \$245

Nonmember Postdoc \$365

Graduate Student \$150

Nonmember Graduate Student \$245

Undergraduate Student \$50

Call for Abstracts

Plant Biology 2009

July 18-22, 2009

Hawaii Convention Center, Honolulu

This abstract submission is for both ASPB posters/minisymposia consideration and the Phycological Society of America (PSA) posters/talk consideration. Individuals may submit to only one of the categories listed to the right. Please indicate during submission if you wish to be considered for a talk. PSA talk categories are only for PSA talks, just as ASPB minicategories are only for consideration for ASPB minisymposia.

The Plant Biology format will include six major symposia and up to 28 minisymposia based primarily on the abstracts submitted under the topic categories listed to the right. The Program Committee determines the titles and contents of the minisymposia after reviewing the submitted abstracts. Poster presentations are also expected for those abstracts selected for presentation in minisymposia. Suggestions for minisymposia topics are welcomed and should be sent to Wendy Sahli, wendys@aspb.org, or Plant Biology Abstracts, 15501 Monona Drive, Rockville, MD 20855 USA.

In addition to the scientific abstract submission, a field entitled "Broader Impacts" will invite participants to describe novel education outreach activities. This submission (600-character limit) will serve as the basis for selection for a special Education and Outreach minisymposium.

Submission Deadlines

- Abstracts must be submitted via the web at www.aspb.org/abstract, not before December 1, 2008.
- To be considered for inclusion in an ASPB minisymposium or PSA talk, submit abstract by February 13, 2009.
- For inclusion in the Program Book, submit by April 24, 2009.
- * The online submission form provides an author the opportunity to request that an abstract be presented only by poster.

Instructions for submitting your abstract will be available online at www.aspb.org/abstract/. It is critical that you read and follow these instructions carefully. If you have any questions, contact Wendy Sahli at wendys@aspb.org or 301-251-0560, ext. 123.

Guidelines

- A member of ASPB, PSA, or a partnering society may submit or sponsor only ONE abstract.
- A nonrefundable \$50 fee will be required for each abstract and can be credited to the registration fee.
- Registration is required by the last day of preregistration, April 24, 2009. Otherwise, your abstract
 will be deleted from the online listing and no poster space will be reserved.
- The body of your abstract cannot exceed 1,800 characters (including spaces).
- DO NOT include any graphics or tabular material in the body of your abstract.
- Follow the online instructions for inserting special characters and superscripts or subscripts.
- Proofread your abstract, double-checking any special characters.
- · Select a topic category from the list to the right.
- Press the "Submit" button. Acknowledgment will be sent by e-mail.
- If you wish your abstract to be considered for a minisymposium or talk, please indicate so on the online form.

The abstracts and program details will be available for viewing and searching online in April 2009. The website will make it possible for you to prepare and print out a personal itinerary to guide you at the meeting.

PSA Poster/Talk Categories

Algal Biotechnology

Algal Cellular and Molecular Biology

Algal Ecology and Population Biology

Algal Phylogenetics and Taxonomy Algal Physiology and Biochemistry

ASPB Poster/Mini Categories

Abiotic Stress

Agriculture & Crop Breeding

Bioenergy Crops & Biofuels

Cell Cycle & Division

Cell Walls

Cell-to-Cell & Long-Distance Signaling

Cellular Growth

Cellular Imaging Technologies

Chromatin

Climate Change Biology

Comparative Genomics

Cytoskeleton Structure & Dynamics

DNA Replication, Recombination, & Repair

Dormancy

Ecophysiology

Education & Outreach

Embryogenesis

Emerging Technologies

Emerging Model Systems
Environmental Physiology

Epigenetic

Evolution of Development & Physiology

Gene Regulation Mechanisms

Genome Evolution

Heavy Metals & Phytoremediation

Herbicide Physiology Hormone Biology

Intracellular Signaling

Linide

Medicinal Plant Biology

Membrane Biology & Transport

Metabolic Engineering

Mineral Nutrition

Modeling & Computational Biology

Organelle Biology

Organismal Evolution

Photoreceptors, Light Signaling, & Photomorphogenesis

Photosynthesis & Respiration

Plant Biotechnology & Risk Assessment

Plant-Herbivore Interactions

Plant-Pathogen Interactions

Plant-Symbiont Interactions

Plant Systems Biology

Pollen Biology

Primary Metabolism

Protein Modification & Turnover

Protein Targeting & Vesicular Trafficking

Quantitative Traits

Reactive Oxygen & Nitric Oxide & Redox Regulation

Reproductive Development

Rhizosphere

Rhythms

Root Biology

Secondary Metabolism & Natural Products

Seed Biology

Small Regulatory RNAs

Translational Research, from Bench to Field

Tropical Plant Biology

Tropisms

Vascular Biology

Vegetative Development

Water Relations

President's Letter continued from page 1

cerning science and technology. I was impressed with the level of detail that the Obama team provided in its answers. I'd like to share just a few of these with you.

A reply to a question concerning genetics research includes the following viewpoint regarding plant genetics: "New knowledge about genes is already transforming medicine and agriculture....Advances in the genetic engineering of plants have provided enormous benefits to American farmers. I believe that we can continue to modify plants safely with new genetic methods, abetted by stringent tests for environmental and health effects and by stronger regulatory oversight guided by the best available scientific advice." In a related document at http://www.barackobama.com/pdf/issues/ FactSheetScience.pdf, the Obama campaign provided a few more details. "As President, Barack Obama will call for increased attention to the basic science that underlies crop and forest productivity, livestock health, and ecosystem stability. Basic research is needed to understand how agricultural systems will respond to changes in climate, the introduction of pests and disease, and bioterrorist incidents....Obama will also support expanding research to help address the challenges faced by farmers in developing countries, such as developing drought-resistant crops and affordable seed and fertilizer technology."

Concerning support for innovation in science and technology, Obama made the following promise: "My administration will increase funding for basic research in physical and life sciences, mathematics, and engineering at a rate that would double basic research budgets over the next decade. We will increase research grants for early-career researchers to keep young scientists entering these fields. We will increase support for high-risk, high-payoff research portfolios at our scientific agencies." Senator Obama also pledges to triple the number of U.S. National Science Foundation graduate fellowships and increase support for research on energy and climate change, among other topics.

In a pointed statement regarding scientific integrity, Senator Obama explains that he supports "the basic principle that government

decisions should be based on the best-available, scientifically-valid evidence and not on the ideological predispositions of...political appointees." Obama promises to strengthen the President's Council of Advisors on Science and Technology (PCAST) through the appointment of independent experts.

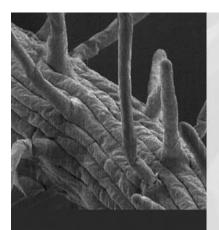
We can now hope that these campaign promises will turn into political realities. However, I found the most auspicious statement from the Obama campaign regarding science to be the following: "Federally supported basic research, aimed at understanding many features of nature—from the size of the universe to subatomic particles, from the chemical reactions that support a living cell to interactions that sustain ecosystemshas been an essential feature of American life for over fifty years. While the outcomes of specific projects are never predictable, basic research has been a reliable source of new knowledge that has fueled important developments" [italics added]. The italicized phrase suggests to me that Obama and his team grasp the essence of scientific research: that it is not about past facts, but about future discoveries. This is a hopeful sign that the next four years will create a climate in which U.S. science can flourish.

Yet it is not enough simply to feel sanguine about the chances for improved federal support and understanding of science in the post-Bush era. In fact, in an editorial in the September 26 issue of *Science*, John Porter, a former U.S. congressman who chaired the appropriations subcommittee that funds the National Institutes of Health, argues that scientists can and should act to substantively influence science policy. Porter writes, "If all you do is vote, you're definitely not doing enough. Get off your chair, do something outside your comfort zone, and make a difference for science."

Porter urges scientists to consider running for office themselves. While this may be just a bit too far outside the comfort zone for most of us (serving as president of ASPB is quite daunting enough for me!), there are other ways to contribute. Porter suggests that scientists offer to serve on (or create) scientific advisory committees for state elected officials, keeping in mind that many state officials later serve at the federal level. Send-

ing press releases on your research discoveries to representatives, or participating in public outreach/information activities through ASPB's Committee on Public Affairs are just two examples of mechanisms by which we can inform government of the valuable contributions that plant biology is making. Inviting local representatives to visit your lab is another mechanism, and one that can have a twofold benefit: first, in allowing government officials to see their tax dollars at work in research and education, and second, in capitalizing on the energy and engagement of the "GenY" members of your research group to further the outreach process. In other words, while only a very few of us may have the opportunity to catch the ear of the president (or his equivalent in other countries), this does not mean that ASPB members are without the wherewithal to create and influence science policy.

At this point, I imagine that many of you who are reading this article and are already working incredibly hard in research, teaching, K-12 outreach, university service, and related missions may be thinking that adding yet another task to your day by working in the realm of public policy would constitute the proverbial straw that broke the camel's back. However, let me point out that this may not be the case, at least for those of us who have, or are applying for, funding from the U.S. National Science Foundation (NSF). All grants submitted to the NSF are evaluated not only on their scientific content, but also on the criterion of Broader Impacts, which includes "efforts devoted to broadening participation in science." Among the examples provided by NSF in the document "Merit Review Broader Impacts Criterion: Representative Activities" (http://www.nsf.gov/pubs/ gpg/broaderimpacts.pdf), two of the listed activities caught my eye in the course of writing this article: "Present research and education results in formats useful to policymakers, members of Congress, industry, and broad audiences" and "Provide information for policy formulation by Federal, State, or local agencies." In short, the next time you are drafting an NSF proposal, think about pursuing an activity that could inform public officials regarding science issues!



AAAS/ASPB 2009 Mass Media Science & Engineering Fellows Program

Are you interested in science writing?

Do you want to help people understand complex scientific issues?

Apply for the AAAS/ASPB Mass Media Science & Engineering Fellows Program and learn how to increase public understanding of science and technology. Fellows in the 10-week 2009 summer program will work as reporters, researchers, and production assistants in mass media organizations nationwide. Deadline: January 15, 2009.

Former host sites include:

Chicago Tribune

The Los Angeles Times

Newsweek

National Public Radio

Popular Science



Advancing the Science of Plant Biology AD



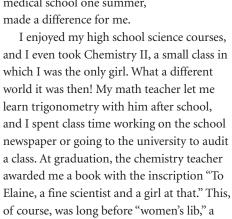
Visit http://www.aaas.org/
programs/education/
MassMedia/index.shtml
for more details and to
download an application
brochure, or call
202-326-6441
for more information.

A Winding Road to a Happy Academic Career

by Elaine Tobin

Professor, Department of Molecular, Cell, and Developmental Biology, University of California, Los Angeles; etobin@ucla.edu

Growing up in Louisville, Ky., during the 1950s, there were no role models for me to become a scientist. My parents had come of age during the Depression and went to work right after high school, although one aunt did go to university. However, a few good teachers and our family doctor, who arranged for me to volunteer in a lab at the medical school one summer,



time when girls went to college to "get" a husband if they hadn't managed to find

someone to marry after high school.

My high school counselor (the "girls' counselor") thought that given my wonderful standardized test scores, maybe I could aspire to go to the University of Kentucky. However, through a friend of the family, I knew about Oberlin College, where he had gone. And because a substitute math teacher once brought her Radcliffe alumni magazine to class for me, I knew about Radcliffe (then considered to be the "girls' Harvard"). In any case, I won scholarships and was thus able to go to college at Oberlin, which I chose after visiting both Oberlin and Radcliffe. I remember thinking that I wasn't yet sophisticated enough for Radcliffe.

Oberlin was a good choice. The college's motto is "Learning and Labor," and the professors were dedicated, exciting, and chal-



Elaine Tobin

lenging teachers. I was not the only female chemistry major at Oberlin; there was one other, but there were still no examples of women in academic chemistry.

I greatly enjoyed biology courses and thought that I would go to medical school with the aim of discovering a cure for cancer. (Yes, I was really that naive!) One of the

enjoyable biology courses was taught by Tom Scott, who had been one of Winslow Briggs's first graduate students and who got me excited about the recently discovered plant photoreceptor phytochrome. Imagine: You could use light to cause a chemical change in a molecule that then affected so many processes in the plant. When I asked Professor Scott to write me a letter of recommendation for medical school, he said "No! You mustn't go to medical school, because that will ruin you for research. You have to go to graduate school."

When I arrived at Stanford, I discovered that the faculty in the biochemistry department, who gave marvelous lectures in the biochemistry course, thought that they were too good to waste their time on female graduate students. (I kid you not—they thought they should be training Nobel Prize winners, and women "obviously" couldn't achieve at that level!)

However, luckily for me, I took a plant physiology course with Winslow Briggs and worked one quarter in his lab. In him, I found a mentor who was interested in the science for itself and who was doing fascinating science. Moreover, he didn't think that being female disqualified one from doing science. In fact, he made me feel that the experiments I was doing were important! So when he moved to Harvard the next year, I followed him with enthusiasm.

Winslow continued to be supportive of me throughout my graduate career. During the first year at Harvard, I met and married a man who was just finishing his PhD and wanted to do a year of postdoctoral work at the Weizmann Institute in Israel. Winslow managed to find a fellowship for me to spend a year there.

Israel at the time was quite different from the United States in that it was normal for women to be scientists. Seeing for the first time not only female scientists, but female scientists having babies and returning to work, made a difference in my view of my own possibilities. And before I completed my PhD, I had my first child.

After a brief postdoc at Brandeis and the birth of our second son, we managed to secure two positions at the University of California Los Angeles, in the biology department. My offer was managed as an affirmative action appointment, which meant that initially I wasn't treated in quite the same way as my husband in terms of resources made available to me. There was no lab for me when I arrived, but sitting at a graduate student's desk that I could use while the student was off doing fieldwork, I wrote my first grant proposal to NIH.

The suggestion to approach NIH for funding came the previous year during a dinner with Lawrence Bogorad and a seminar speaker he was hosting. Laurie told me when we were walking back from dinner that NIH was willing to fund basic plant research and that I should apply for a grant. NIH funded my first proposal (and has funded work in my lab continuously ever since), and because NIH grants are generally larger than those from NSF, Laurie's advice has made a great difference in my career.

With funding in hand, I appealed to the head of the "space committee," whose response was, "Identify space for yourself,



Membership Corner

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 ASPB Membership at info@aspb.org.



Name: Kristine Hill Title: Postdoctoral Research Associate Place of Work or School: Dartmouth College Research Area: Cytokinin Signaling

Member since: 2006

1. Why has being a member of ASPB been important to you?

Posting my CV on the ASPB website and networking at the 2007 meeting in Chicago were instrumental to my finding the right postdoctoral position, and an ASPB travel grant enabled me to attend the aforementioned meeting. It was my time as an undergraduate researcher that really got me hooked on science, so I like that the ASPB is a big advocate of undergraduate research. I believe that being connected to the larger plant biology community is important when it comes to nurturing students, fostering collaborations, or considering career directions.

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

No one person. I had been meaning to join since I started grad school. I just never got around to it until I was ready to graduate.

3. What would you tell colleagues to encourage them to join?

If they expressed an interest, I would certainly recommend they join.

4. Have you enhanced your career using ASPB job postings or through networking at an ASPB function?

I had been browsing through the Job Bank years before I was ready to graduate to get a feel as to the sort of positions that were out there. I posted my CV on the ASPB site at the beginning of my job search and was pleasantly surprised when several employers contacted me. The ASPB meeting in Chicago enabled me to meet with a number of potential employers, including my current one.

5. Have you had any success at finding candidates as a result of a job posting at the meeting or via our online Job Bank?

When I head my own research group, I will definitely take advantage of meetings to meet up with potential candidates.

6. Do you read print journals? If so, where do you usually read them? Rarely; if I want a hard copy of an article, I will print it off the web. Mostly I read and take notes from electronic copies.

7. What do you think is the next "big thing" in plant biology?

I would love to figure that one out before setting up my own research program!

8. What person, living or deceased, do you most admire?

Jane Goodall, because she defied convention when she traveled to Africa as a young woman and when she gave names to the chimps she was studying, and because her achievements, energy, and optimism are inspirational.

9. What are you reading these days?

You mean other than science papers? I am a big fan of Terry Pratchett, so it's a good bet I have one of his novels on hand. Currently, I have just started reading Dian Fossey's *Gorillas in the Mist*, and I am working my way through several textbooks about medieval Europe.

10. What are your hobbies?

I study religions, old and new. I am fascinated with gods, especially those of the ancient Egyptians, and I am attempting to learn to decipher hieroglyphics. As an untalented artist, I create my own renditions of Egypt's ancient mythologies, which incorporate my endeavors to learn some of the hieroglyphics. I write a lot, too, mostly philosophy, and make sporadic attempts to master Latin or Spanish.

11. What is your most treasured possession? I adore our cats, but really they own us. I do treasure a cardigan that my grandmother made for me.

12. What do you still have left to learn?

When I was 15 years old, I was convinced I knew everything there was to know. I have since learned that with learning comes an increased awareness of one's own ignorance. On a more pragmatic note, I would really like to nail a second language.



Membership Corner

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 ASPB Membership at info@aspb.org.



Name: Sandro Jube Title: M.Sc. Place of Work or School: University of Hawaii at Manoa Research Area: Plant Genetic Engineering

Member since: 2004

1. Why has being a member of ASPB been important to you?

Being a member of ASPB has been extremely important for a variety of reasons. First and foremost, ASPB is the leading society in the field of plant biology. Through my membership in ASPB, I was able to attend and participate in meetings where I had the chance to learn about new research ideas in my area and also was able to interact with other scientists from all over the world. This is especially important for me, since I am conducting research in Hawaii, which is a geographically isolated place. In research, the exchange of ideas is of utmost importance, and ASPB offers a venue for this exchange to take place.

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

Yes, my primary investigator and mentor, Dr. Dulal Borthakur, stressed early on in my research career the importance and benefits of belonging to a professional society such as ASPB.

3. What would you tell colleagues to encourage them to join?

I would say that if you plan to succeed in the field of plant research, be it in academia or in the private sector, you would be doing a huge disfavor to yourself and your career by not joining ASPB. With the array of resources available through a full membership in the Society, such as access to various publications and access to job offers online, the membership fee that we pay to become a member is well worth the money.

4. Have you enhanced your career using ASPB job postings or through networking at an ASPB function?

By attending the annual ASPB meetings, I enhanced myself as a researcher through interaction with other researchers and by watching the presentations and seminars. Now that I am nearing completion of my PhD work, I will most certainly start looking for available jobs and postdoc positions at the Job Bank on the ASPB website.

5. Do you read print journals? If so, where do you usually read them? Yes, I do read print journals. I read them mostly at home at night, after work.

6. What do you think is the next "big thing" in plant biology?

Since my interest lies in plant genetic engineering and the expression of important compounds in plants, I believe that the next "big thing" in plant biology will be the renewed interest in pharming, mainly due to enhanced expression of exogenous proteins in plants, using a transformation method called "magnifection." Also, accelerated research on the use of plants as efficient biofuels will be the next "big thing" in plant biology for many decades to come.

7. What person, living or deceased, do you most admire?

In my personal life, I admire most my mother, who instilled in me the value

of education and inspired me to want to become an educator and mentor as she was. On the professional level, I greatly admire the work of Dr. Ingo Potrykus and Dr. Charles Arntzen, not only for their fantastic careers, but also for their strong desire to benefit others with their research.

8. What are you reading these days?

The books I have been reading lately are *Worth the Fighting For: A Memoir*, by John McCain, and *Dreams from My Father: A Story of Race and Inheritance*, by Barack Obama. I chose books written by both presidential candidates in an effort to understand better the men behind the politicians. I think it is essential to be well informed in order to make a good decision. Both books are actually surprisingly good reads.

9. What are your hobbies?

My favorite thing to do is to spend time with my wife and my unborn, 24-week-old son and to have breakfast with them on Sunday mornings, as well to read the newspaper at a local coffee shop. I also like to ride motorcycles, play the acoustic guitar, and donate my spare time to the Institute for Human Services, which is a charitable organization that provides shelter and meals to homeless people in Hawaii.

10. What is your most treasured possession?

My most treasured material possession is my motorcycle, which is the best (and most affordable) mode of transportation in the always-sunny Hawaii. But without a doubt, my family is my most treasured possession.

11. What do you still have left to learn?

That is a difficult question to answer, since I think I am still at the early stages of my career and I have so much

President's Letter continued from page 9

In addition, NSF itself highlights activities by its awardees to inform the public and elected officials about developments in science and their positive consequences for the public good. For example, Dr. Gerry Berkowitz, a faculty member at the University of Connecticut and an NSF program director in physiological and structural systems, recently wrote to me that he is working with the NSF Office of Legislative and Public Affairs (OLPA) to develop public presentations on two research projects by ASPB members: Dr. Curt Hannah's research (at the University of Florida) on ADP glucose pyrophosphorylase in corn and Dr. Clint Chapple's work on lignin biosynthesis (at Purdue University).

Finally, while I realize that the content of this article has been most directly relevant to U.S. members of ASPB, as biologists we know that the community of science is truly international. I expect that most of you have regular communications, if not collaborations, with scientists around the world. The perspective that science is a truly global endeavor and that plant science has much to offer in meeting global challenges, such as energy and climate change is a perspective that ASPB hopes to develop and foster. Accordingly, the Executive Committee of ASPB recently voted unanimously to organize and support a "global summit" of the leaders of plant biology societies worldwide. The summit will be held in Honolulu, Hawaii, in July 2009, immediately prior to the ASPB annual meeting. In this summit we will undoubtedly learn much about how ASPB international members and international plant science societies are informing science policy in their own countries and how we all may work together to better achieve this goal.

> Sally Assmann sma3@psu.edu November 10, 2008

Acknowledgments

I am very grateful to Sharon Long, Gerry Berkowitz, Mel Oliver, Crispin Taylor, Brian Hyps, and Sarah Nilson for their input and suggestions on this article.

Call for Award Nominations continued from page 5

ent of the 2009 award is invited to address the Society on a subject in plant biology at the 2010 annual meeting in Montreal.

The Martin Gibbs Medal

This monetary award, initiated in 1993, honors Martin Gibbs for his outstanding service to the Society as editor-in-chief of *Plant Physiology* from 1963 to 1992. This award is to be given biennially to an individual who has pioneered advances that have served to establish new directions of investigation in the plant sciences. The 2009 recipient will receive the medal and will be invited to convene a Martin Gibbs Symposium at the 2010 annual meeting in Montreal.

The Dennis R. Hoagland Award

This monetary award, established by the Society in 1985 with funds provided by the Monsanto Agricultural Products Company, honors Dr. Dennis R. Hoagland, recipient of the first Hales award, for his outstanding contributions and leadership in plant mineral nutrition. The award, to be made not more frequently than triennially, is for outstanding plant research in support of agriculture.

Please contact Donna Gordon with any awards questions or comments, 301-251-0560, ext. 131, or e-mail dgordon@aspb.org.

Thank you for participating in our 2009 awards program!

10

WIPB continued from page 11

and we will approve it." I was very lucky to be helped during my first year by the kindness of Karl Hamner, who was about to retire and who even used some of his last grant money to hire a technician for me. So I was able to move into his laboratory, just below that of Sam Wildman, who also treated me as a scientist from the very beginning.

Despite the problems of establishing child care, teaching a large class for the first time, and getting my research off the ground during the first year, I was doing exactly what I wanted to do and was thrilled to be able to do it. The fact that throughout my career I have had wonderful postdocs and students, as well as continuous grant support from NIH, meant that I have been able to enjoy research and, I hope, make lasting contributions. I can't imagine a better way to have spent my life!

Membership Corner continued from page 13

more to learn. It would probably be easier to answer what I do know rather than what I don't. Probably, one important thing that I still need to learn is how to be a more effective communicator. My goals are to become a teacher and a mentor, and communication is a very important skill. In fact, I think that scientists in

general need to become better communicators in order to educate the public about the potential benefits and impacts of their research. In my opinion, the widespread anti-genetically modified organism sentiment in the general population is a perfect example of our poor ability, as scientists, to communicate in a manner that is well understood by the public and the decision makers.



ASPB Summer Undergraduate Research Fellowships (SURF)

The 2009 SURF Application Process will open on December 12, 2008.

SURF fellowships are designed to assist promising undergraduate students in conducting meaningful research in plant biology early in their college careers. Ideally, students should conduct their SURF-funded research the summer following their second year. Exceptionally well-prepared first-year students and third-year students who provide evidence of a strong commitment to plant biology will also be considered. Students must work with a mentor who is an ASPB member. All students (including any following nontraditional calendars or in the Southern Hemisphere) will complete their SURF research for presentation at Plant Biology 2010, held July 30–August 5, 2010, in Montréal, Canada.

Funding

Each fellowship provides a \$3,000 student stipend, \$500 for mentor's lab supplies, a one-year student membership in ASPB, and a \$500 travel allowance to attend the ASPB national meeting. The student must be a coauthor of an abstract registered at the conference to qualify for the travel money. Students traveling overseas or who have very limited travel resources may contact Katie Engen (katie@aspb.org) to initiate a case for additional travel funds.

Eligible Students

Application is open to all undergraduate students who are enrolled full-time and seeking a degree. International students or students following nontraditional academic calendars will have the opportunity to define their status on the application. Applicants must propose a research project to be pursued in the laboratory of a faculty mentor. Applicants may not receive other direct financial support for their research (institutional stipend, Sigma Xi Grants-in-Aid of Research, Council on Undergraduate Research Fellowship, etc.).

Selection Criteria

Competitive student applicants should have high academic achievement, strong motivation for research, skills for conducting the research, and career objectives relevant to the aims of the fellowship program.

Faculty Mentors

Students cannot apply without first securing a mentor. A mentor must be a member of ASPB and have an ongoing research program. Mentors should demonstrate a commitment to undergraduate education and research and be conducting a research program that is of high scientific merit. Mentors will actively guide the student's proposal writing and so must be secured at the onset of the project.

Need a Mentor?

Students without plant biology faculty at their home institution may apply to SURF by collaborating with a mentor at another institution. Such students are encouraged to seek a mentor by checking ASPB's Diversity Bank at http://www.aspb.org/DiversityBank/ or reviewing the list of institutions with plant biology programs at http://www.aspb.org/resourcelinks/scripts/cats2.cfm?cat=34. Further assistance for finding a mentor can be initiated by contacting Katie Engen. Contact Katie (katie@aspb.org) very early in the process (prior to writing the proposal). A mentor cannot be found at the deadline.

Proposal Evaluation

The proposed SURF project should clearly support and enhance the goals of the mentor's ongoing research program, be appropriately targeted for undergraduate work, and guarantee the student regular access to appropriate research facilities. Preference is given to proposals that demonstrate the mentor's close supervision along with the institution's financial commitment to the work.

ASPB supports undergraduates at all types of institutions. Therefore, the proposals are grouped according to the applicant's institution type within the Carnegie classification scheme. Group A is for research and doctoral universities. Group B is for all other colleges and universities. The number of proposals awarded funding in each group will be weighted according to the number of proposals received. The Carnegie Foundation has updated its system to include more classification factors. Applicants who cannot designate Group A or B can find their school's category at http://www.carnegiefoundation.org/classifications/index.asp?key=807 or select a category from the list of institutional descriptions at http://www.carnegiefoundation.org/classifications/sub.asp?key=786.

Applications

Students and their mentors can apply online at www.aspb.org/education/summerundergrad.cfm.

SURF 2009 applications will be accepted December 12, 2008–February 27, 2009.

Questions?

Contact Katie Engen at katie@aspb.org, 301-251-0560, ext. 116. W



- Faster 400 MHz processor
- New OPEN 6 Software
- Removable data storage with Compact Flash memory slot
- Ethernet connection for drag-drop file transfer from instrument to computer
- Internet connection enables remote diagnosis by LI-COR staff
- On-board creation of Excel data files
- Bar code reader support for rapid entry of coded data

The LI-6400 platform is a proven performer and is the most cited photosynthesis instrument in scientific literature. Now the **LI-6400***XT* offers additional flexibility for both research and teaching applications.

The expansion slot can be used to insert CF cards.



or to connect to your Local Area Network (LAN).

All of this and more is available with the LI-6400XT. For more information go to www.licor.com/6400XT.



Biosciences

800-447-3576

LI-6400 is covered by patents pending. © 2008 LI-COR Biosciences

Democrats Capture White House, Build on Majorities in House and Senate

For the second consecutive election, Democrats built on their majorities in the House and Senate. Combine these significant majorities with the election of Senator Barack Obama (D-Ill.) as our next president, and it is apparent that Democrats will take the lead in shaping legislative policies in Washington for at least the next two years.

The only major campaign objective still outside the Democrats' grasp (as of

November 7 counts of election results) was the ambitious quest for a super majority in the Senate of 60 or more Democrats. A super majority can quash a minority party filibuster, which can bring Senate legislative proceedings to a halt, making it an effective tool when the minority has at least 41 senators. As of December 1, Democrats con-



Barack Obama

trolled 58 of the Senate's 100 seats, falling short of a super majority. Democrats would need to run the table on the two remaining contested seats to attain the super majority.

In the House, Democrats gained at least 19 seats, including the seats of several veteran Republican incumbents and open seats formerly held by Republicans. Voters polled on what influenced their votes cited the slumping

economy, fueled by the crisis in financial credit markets, as the dominant issue. With a Republican in the White House, many voters attributed blame for the faltering economy to Republicans.

Political parties don't often score such gains in the House and Senate in two consecutive elections. Some observers said that the challenge to Democrats will come more from intraparty differences than from the minority party. House Majority Whip James Clyburn (D-S.C.) said that intraparty feuds are a natural outcome of successful elections.

Although Republicans will be in a smaller minority in both the House and Senate next Congress, the Committee on Appropriations has traditionally been bipartisan in shaping spending bills for science and other areas. ASPB members represented by senators and representatives from either party will need to continue to urge their support for science in the next Congress.

On the campaign trail, Senator Obama frequently cited support for alternative energy, including biofuels. Democrat priorities in Congress are expected to include support for energy alternatives (which is receiving bipartisan support), comprehensive health care, and an end to the war in Iraq.

Nine ASPB Member Pls Win Grant Awards from NSF Plant Genome Research Program

NSF has announced 20 new awards from the 2008 Plant Genome Research Program in this, the 11th year of the program. The following ASPB member principal investigators have received awards:

Phil Benfey

Duke University Genome-Wide Analysis of Root Traits \$4.3 million

Clay Carter

University of Minnesota–Duluth Functional Genomics of Nectar Production in *Brassicaceae* \$1.33 million

Grant Cramer

University of Nevada–Reno RCN: An International Research and Educational Collaboration for Grape Functional Genomics \$509,000

David Gang

University of Arizona Rhizomics—Comparative Functional Genomic and Proteomic Analysis of Rhizome \$4.33 million

David Hannapel

Iowa State University Transferring Research from a Model System to Uncover the Network That Regulates Long-Distance Signaling in Potato \$2.75 million

Daniel Kliebenstein

University of California, Davis The Generation of Complex Epistasis by Metabolic Networks \$1.31 million

Sally Mackenzie

University of Nebraska, Lincoln An Integrative Study of Plant Mitochondrial Biology \$1.42 million

ASPB Member Hake and Colleagues Discover Low-Lignin, High-Biomass Gene in Corngrass

Discovery Could Lead to Superior Energy Crops

ASPB member Sarah Hake, director of the Agricultural Research Service (ARS)/University of California–Berkeley Plant Gene Expression Center in Albany, and her colleagues have discovered and cloned a gene in Corngrass that controls production of lignin and biomass.

The gene carries the instructions that the plant uses to form a microRNA. In turn, this microRNA likely controls at least seven genes, Hake and colleagues discovered. Those seven or so genes make Corngrass different from conventional corn in terms of biomass, lignin levels, and other features needed to create standout biofuel crops.

Hake conducted the research with George Chuck, a plant molecular geneticist with the Plant Gene Expression Center; Koy Saetuern, formerly at the center; and A. Mark Cigan of Pioneer Hi-Bred International, Johnston, Iowa. Corngrass—a somewhat grassier-looking version of your typical towering cornstalk—may hold a key to fast, cheap, ecofriendly ways to squeeze more cellulosic ethanol from corn and other bioenergy crops.

Corngrass is the same species—*Zea mays*—as the corn grown on millions of acres of U.S. farmland. A healthy, naturally occurring mutant of those familiar plants, Corngrass has several traits that might be suitable for moving into other plants to make them superior biofuel crops.

Scientists are interested, for example, in the ability of Corngrass to create more biomass—plant material that can be converted into biofuels—than conventional corn plants. Corngrass does that by forming significantly more branches, or shoots, called "tillers." They grow from the base of the stalk and make their own roots, known as "prop roots."

Corngrass has less lignin in its tender, youthful leaves than conventional corn



George Chuck and Sarah Hake, plant molecular geneticists at the Plant Gene Expression Center, Albany, Calif., see sustainable fuel production deriving from genes of Corngrass. They are holding a root-covered stem that has been propagated in the pot to the left.

plants have in their tougher foliage. That's a plus for Corngrass, because lignin presents a stumbling block to producing cellulosic ethanol efficiently. Lignin doesn't yield easily to the deconstruction tactics typically used to convert plants into the fermentable sugars from which ethanol is produced. "Corngrass retains its juvenile features longer—including the tenderness of its leaves," Chuck said. The research findings were published in a 2007 issue of *Nature Genetics*.

Now, Chuck and Hake are taking an even closer look at the microRNA and the genes it influences. They're doing that with funding from ARS, UC–Berkeley, and a new grant from the U.S. Department of Energy. Among their collaborators is Christian M. Tobias, a plant molecular biologist with ARS's Western Regional Research Center in Albany, Calif. Tobias plans to shuttle the Corngrass microRNA into switchgrass and then determine whether that move boosts switchgrass's value as a bioenergy source.

See http://www.ars.usda.gov/is/AR/archive/nov08/corngrass1108.htm for the story as it appeared in the Nov./Dec. 2008 issue of *Agricultural Research*.

Improved Crop Genomics Tools Among Key Agricultural Technologies for Africa and Asia

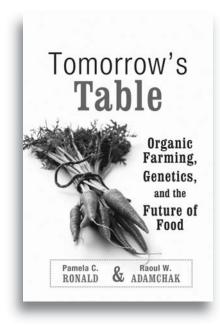
Late in September, the National Research Council's Board on Agriculture and Natural Resources (BANR) issued a report entitled "Emerging Technologies to Benefit Farmers in Sub-Saharan Africa and South Asia" (see http://dels.nas.edu/ag_technologies/index.shtml). The report, which was commissioned by the Bill and Melinda Gates Foundation, was the subject of a discussion by several of its authors and other discussants during a public presentation at the National Academy of Sciences in Washington, D.C., on September 29, 2008.

Brian Larkins, a fellow of ASPB, former ASPB president, and former editor-in-chief of *The Plant Cell*, chaired the committee of experts that wrote the report (http://dels.nas.edu/ag_technologies/background.shtml#

roster). This committee included a number of other prominent plant biologists, as well experts in soils, hydrology, climatology, and animal husbandry. Larkins also chaired the public meeting, along with Nina Fedoroff, science and technology adviser to the U.S. secretary of state, who moderated the discussion.

As described in detail in the report (and as summarized at http://dels.nas.edu/ag_technologies/technologies.shtml), those technologies deemed to have the greatest potential impact fall into the general areas of managing the natural resource base for agriculture, particularly soil and water; improving the genetic profile of crops and livestock; reducing the adverse impacts of weeds, pests, and diseases; improving weather forecasting; and providing inexpensive renewable energy for farmers.

These technologies may seem somewhat impersonal. But the discussion made clear that many of those involved in writing and commissioning the BANR report recognize the vital importance of taking a broad, integrated approach, as well as the enormous value of robust connections among the various stakeholders who are invested in improving agricultural productivity in sub-Saharan Africa and South Asia—all the way from the scientists carrying out basic research on site-specific gene integration to the farmers and aid workers on the ground in the targeted areas.



The following article is reprinted by permission from Nature Publishing Group: Nature Biotechnology, Volume 26, 1084 (October 2008).

A Timely Marriage

Tomorrow's Table: Organic Farming, Genetics, and the Future of Food

by Pamela C. Ronald and Raoul W. Adamcha Reviewed by David McElroy

Having spent most of the past 25 years working in agricultural biotechnology, I cringe each time I find myself trapped in some inextricable situation where a complete stranger asks me what I do for a living. I know that an honest answer to a seemingly innocent question inevitably brings forth an uninvited litany of urban myths, unsubstantiated opinions, technological misconceptions and other half-baked nonsense best left to the pages of *The National Enquirer*. What's worse, the inquisitive stranger will usually expect me to defend my career choice. I can

tell you from painful experience that "It pays well," is never a well-received justification.

Once, while having breakfast in Des Moines, Iowa, in the mid-1990s, I tried to head off the issue by telling my waitress that I was a plant breeder—assuming that someone from the Midwest would know what a plant breeder does, and that my answer would discourage further comment. No such luck: the waitress put down her pot of coffee, set down the Marlboro that until then I assumed was superglued to the lower left corner of her

Tomorrow's Table continued from page 19

mouth, looked me straight in the eye and informed me that if I asked for her opinion plant breeding was simply, "Half genetics...and half heredity!" She then menacingly challenged me to tell her something different. But now comes a book that sets out to provide the general reader with a fair and balanced account of what folks in my line of business actually do, set within the intriguing framework of a discussion between married practitioners around the benefits and issues associated with two supposedly antagonistic trends in modern farming: transgenics and organics.

The authors of Tomorrow's Table: Organic Farming, Genetics, and the Future of Food are Pam Ronald, a University of California, Davis, geneticist, who has spent her professional career dissecting disease resistance and flooding tolerance in rice (disclaimer: I've known Ronald for over 20 years including, while at a previous employer, helping to spin out her venture from UC-Davis back when she was a budding tenurepreneur—an academic who mitigates the employment risk of starting a new company by not giving up their tenured faculty position—and more recently as a scientific advisory board member at Targeted Growth); and Raoul Adamchak, an organic farmer for over 25 years, manager of the certified organic farm on the UC-Davis campus and an inspector and past president of California Certified Organic Farmers, and Ronald's husband. The book successfully integrates the knowledge and insights of a practicing plant geneticist and the practical training of a long-time organic farmer to consider a range of arguments both for and against organic farming and genetic engineering in a manner that is conversational and informative, rather than confrontational or overly biased. Ronald and Adamchak suggest that both approaches to modern farming will contribute significantly towards the sustainable production of food in the future, and argue that the continuing sustainability and productivity in agriculture will benefit from the integration of the most useful aspects of transgenic crops, such as the reduction in the need for crop protection chemicals, the potential reduced water and nitrogen fertilizer requirements of next-generation agronomic trait products, with the more productive of organic farming practices, including a heightened awareness of environmental stewardship issues and a focus, whether real or perceived, on food quality.

Who could argue with this well-reasoned position? Well, as most readers of this publication are aware, some consumers, especially those living in Europe, take exception to transgenic agriculture, viewing genetically modified (GM) crops as unnatural, potentially unsafe to eat, environmentally disruptive or aiding the corporatization of global agricul-

ture. However, I have not had one single European visitor show up at my home with their luggage packed full of enough non-GM foods to support them through their lengthy stay in the United States. On the contrary, they consistently display no hesitation about benefiting from the ample supply of GM-derived foods in my kitchen, all prepared with lavish helpings of GM canola oil, presumably so they can generate the energy needed to stuff their bulging suitcases full of affordable GM cotton goods for the trip back home.

Tomorrow's Table is not just another biology textbook posing as a general reader in a shallow attempt to garner extravagant royalty payments for their academic authors, but one of the best, most balanced accounts of transgenic agriculture that I have read. It will appeal to laypeople, seasoned practitioners and anyone who cares about the future of sustainable farming. It also includes an intimate look into the private lives of the authors, their family and friends—and furthermore, it's also a cookbook! Chapters are generously peppered with details of the elaborate meals the couple assemble on a nightly basis. All of this makes for an even more interesting read. My only regret is that this kind of book wasn't available when I was having breakfast back at Denny's in Des Moines, but the good news is that going forward I'll be providing my European visitors with a copy of Tomorrow's Table for their flights home.

General Jones Links Next Generation of Biofuels to National Security

General Jim Jones, U.S. Marine Corps (retired), who now runs the U.S. Chamber of Commerce's Institute for 21st Century Energy and has recently been nominated by President-elect Obama to be his National Security Adviser, said that the United States needs to accelerate the next generation of biofuels to contribute to national security. He also called

for an acceleration of technologies like plug-in hybrids and for the expansion of mass transit.

"Nations like Venezuela and Iran can use oil and gas as political and economic weapons by manipulating the marketplace," Jones said. "Half of our trade deficit goes toward buying oil from abroad, and some of that money ends up in the hands of terrorists."

Jones pointed out that during the first oil crisis in 1973, the U.S. imported 40% of its oil. Today, we import 60%.

"We're like someone who won't go to the dentist until he feels pain," Jones said.

Jones was supreme allied commander of NATO. His comments were published in a *Parade* magazine article on August 24, 2008.

Weatherwax Appointed Director for DOE Biological Systems Science Division

Sharlene Weatherwax has been selected as division director for Biological Systems Science (BSSD), Office of Biological and Environmental Research (BER) of the Department of Energy effective November 9. In announcing the selection, BER Associate Director Dr. Anna Palmisano said she is "confident that Sharlene will provide outstanding leadership to the division during a critical time in BER history. Sharlene will bring her in-depth knowledge of plants and microbes, as well as her trademark energy and enthusiasm, to this new role."

"Sharlene has a wonderful background for her new position," Dr. Palmisano said. "Since joining BER in March 2005, she has served as a program manager in BSSD with responsibilities for managing components of the Genomics: GTL program dealing with plant and microbial biology, and more recently, the Bioenergy Research Centers. She was an organizer for the joint Office of Science/Office of Energy Efficiency and Renewable Energy Research research agenda laid out in *Breaking the Biological Barriers to Cellulosic Ethanol* and has participated in a number of interagency initiatives. Prior to joining BER, she was a program manager for the Energy Biosciences program in the Office of Basic Energy Sciences.

Weatherwax earned her BS in Biochemistry from the University of California, Los Angeles, and her PhD in biochemistry on microbial genetics and enzymology from the University of California at Berkeley in 1989. Her work as an NSF postdoctoral fellow in

plant biology and subsequently as an independent researcher included the study of light- and hormone-regulated plant gene expression.

ASPB President Sally Assmann commented, "Sharlene continues to play an integral role in BER's acclaimed research efforts that will lead to sustainable, home-produced biofuels, including fuels derived from plant biomass—a hugely abundant and renewable source. Sharlene blends her talents as an accomplished scientist and superb administrator to the great benefit of science and the nation. We're all lucky to have her serving as director for the DOE Biological Systems Science Division."

ASPB Members Win Grant Awards continued from page 17

Paula McSteen

Pennsylvania State University Genetic and Genomic Approaches to Understanding the Role of Auxin in Shoot Development \$4.75 million

Steven Whitham

Iowa State University
High-Throughput Functional Analysis of
Soybean Defense Pathways by Virus-Induced
Gene Silencing
\$2.11 million

"Plant biologists continue to make significant conceptual and theoretical advances in our understanding of basic biological processes using plants," said James Collins, NSF assistant director for biological sciences. "It is clear that 21st-century biology has become increasingly quantitative and interdisciplinary. The latest projects funded through the Plant Genome Research Program reflect this shift and will integrate innovative, cutting-edge research with the training of the next generation of plant scientists at both research universities and small teaching colleges and universities."

ASPB has led support in the science community for the Plant Genome Research Program since before it was first enacted in 1997. Senator Kit Bond (R-Mo.) has championed the program since its inception, together with Senator Barbara Mikulski (D-Md.).

For the NSF news release on the 2008 awards, please visit http://www.nsf.gov/news/news_summ.jsp?cntn_id=112545&govDel =USNSF_51.

The complete list of Plant Genome Research Program principal investigator 2008 awardees is at http://www.nsf.gov/bio/ pubs/awards/pgr.htm#Awards2008.

Important Dates in 2009

January 2

2009 call for ASPB award and Executive Committee nominations

January 2

Travel Grant Application deadline

February 6

Mid-Atlantic Section Meeting, University of Maryland, College Park

http://www.aspb.org/sections/washington/meetings.cfm

February 13

Abstracts (minisymposia) deadline for Plant Biology 2009

February 27

Award and Executive Committee nominations deadline

February 27

Deadline for ASPB Summer Undergraduate Research Fellowship (SURF) applications

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

February 28-March 2

Southern Section Annual Meeting, Doubletree Guest Suites, Austin, Texas

March 21-22

Midwestern Section Meeting, Wildlife Prairie State Park, Peoria, Illinois

April 24

Early-bird registration cutoff for Plant Biology 2009

April 24

Abstract deadline for Plant Biology 2009 program book

May 1-2

Northeast Section Annual Meeting, SUNY, Plattsburg

May 29

Executive Committee election closes

June 5

Preregistration cutoff for Plant Biology 2009

July 15-16

International Plant Science Society Summit, Honolulu, Hawaii http://www.aspb.org/meetings/2009

July 18-22

Plant Biology 2009, Honolulu, Hawaii http://www.aspb.org/meetings/pb-2009

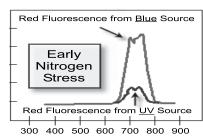
September (date to be determined)

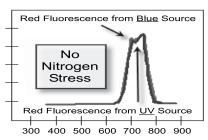
Mid-Atlantic Section Crab Feast, ASPB Headquarters Rockville, Maryland

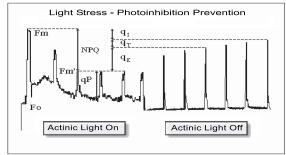
OS5p

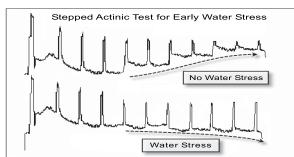
Better Stress Testing













8 Winn Ave. Hudson, NH 03051 USA Tel: (603) 883-4400 Fax: (603) 883-4410 Web: www.optisci.com Email:sales@optisci.com



Don't forget to check out our world leading CCM-200, Chlorophyll Content Meter for quick in-situ measurements.



"Worth His Salt," Says Science

As part of its highly competitive 2008 Science and Engineering Visualization Challenge, *Science* has awarded its Interactive Media award to the Genomics Digital Lab (GDL), a gaming module on plant cells cocreated by ASPB member David Salt (Purdue University). Full details of the competition are available at http://www.nsf.gov/newsspecial_reports/scivis/index.jsp?id=win2008.

Salt collaborated with Tommy Sors (Purdue University) and Jeremy Friedberg (Spongelab) to develop the GDL as part of a larger Genomics Explorer museum exhibit. Cofunded through the 2005 ASPB Education Foundation Grant Awards Program (GAP) and NSF, Salt's interactive, walk-through plant cell exhibit has been displayed at various venues with great success. (Full acknowledgment of the GDL designers can be viewed at http://www.sciencemag.org/cgi/content/full/sci;321/5897/1768/DC2#genomics.) It is only fitting that *Science* has now recognized that the GDL is a valuable resource in and of itself.

Salt reported, "We used a third of our GAP award to subcontract Spongelab (then known as vive Technologies) to program the GDL based on a design from Tommy Sors. The agreement between Spongelab and Purdue was that Purdue could use the original GDL free for educational purposes and that Spongelab could develop it further for commercial use. I am happy to say that we have deployed the original GDL in our exhibit to great success and also that Spongelab has gone on to develop the concept further and has started to distribute it to a broader community commercially."

Although it was the current Spongelab version of the GDL that caught the eye of the 2008 Visualization Challenge reviewers, both game sets are engaging and informative. Sors explained, "Game players are submerged deep within a living plant cell to experience the astonishing complexity and beauty of life's most fundamental processes. By testing



a virtual plant's survival using different light, gas, and water conditions, the GDL player gets to live through and delight in the molecular changes that occur in the chloroplast, mitochondrion, and nucleus under the different environmental situations he or she has selected. The concept is simple and very effective in that a felt or sensed experience is more memorable than any factual knowledge gained from passively reading or memorizing a textbook."

Want to play the GDL? Free downloads are available at www.aspb.org/education. ASPB will distribute the original Genomics Digital Lab modules for free when used for educational purposes through the Society's website. The option of paying for Spongelab's more advanced versions is also available via links at http://www.genomicsdigitallab.com/gdl/default.cfm.



One of many dynamic images from the digital plant game module at http://www.genomicsdigitallab.com/gdl/default.cfm?thePage=about.

Future ASPB Meetings Plant Biology 2009 Honolulu, Hawaii July 18-22, 2009 Plant Biology 2010 Montreal, Canada July 30-August 5, 2010 Joint Annual Meeting of the American Society of Plant Biologists and the Canadian Society of Plant Physiologists/Société Canadienne de Physiologie Végétale For more information go to http://www.aspb.org/meetings/

Education Forum

Barbeque, Blues, and the ASPB Booth at NABT in Memphis!

Once again this year, ASPB exhibited at the National Association of Biology Teachers Professional Development Conference. The conference was held in Memphis, Tenn., October 15-18. Biology educators from around the country met to discuss the latest pedagogy and try out the newest lab techniques. They attended symposia on evolution, climate change, pandemic influenza, and others. Of course, most everyone also managed to enjoy some classic Memphis barbeque and blues



Teachers at NABT learn how labs with simple materials can teach significant plant biology principles.

Amid all this activity, our ASPB booth was an instant classic! Every booth visitor—including teachers, other exhibitors, and even conference staff members—wanted to make the Lilliputian garden necklaces. Many classroom educators gathered up our handouts, bookmarks, and materials for their students. Other group leaders had plans to use these same materials in afterschool programs, scout meetings, and family events.

Many booth visitors commented that the ASPB exhibit had the most useful materials. They appreciated that so much of what the Society offers could be used immediately in their classrooms. Booth workers Jan Haldeman (Erskine College), graduate student Anna Stevenson (Oklahoma State University), ASPB Education Committee member Jeffrey Coker (Elon University), and ASPB Education Committee Chair Jane Ellis (Presbyterian College) were constantly busy showing how to do bioassays, handing out corn and radish seeds for these experiments, helping booth visitors put together 5× hand lenses, and making the necklaces. Many of these activities and handouts can be found at http://

www.aspb.org/education/NEWK12.CFM, including a new handout on the plants found in candy bars and the 12 Principles of Plant Biology in both Spanish and Chinese.

Also during this conference, the first six labs of the 12-part project Inquiry-Based Activities to Accompany the 12 Principles of Plant Biology were presented in a workshop. This project, sponsored by the ASPB Education Foundation's Grant Awards Program, was developed by Jeffrey Coker, Mary Williams (Harvey Mudd College), and Jane Ellis. During the workshop, Coker and Ellis introduced teachers to specific methods for helping students explore six of the 12 key plant biology principles developed by ASPB. Ellis reported, "We were excited to see so many teachers wanting to use the hands-on, inquiry-based plant labs in their classrooms."

Join the fun! Be a booth volunteer at our next event: AAAS Family Science Days in Chicago in February 2009 (see http://www.aaas.org/meetings/2009/program/fsd/). Contact Katie Engen (301-251-0560, ext. 116 or katie@aspb.org) to learn how you can help share plant science with a very eager audience of young scientists and their families.

MONTREAL PHOTO COURTESY OF © AVENTURE STUD

Before the midterm exam, give back to

the class, in random order (to give students

anonymity), the same stack of 3×5 cards

from Teaching Tip 1. Ask the students to write down three things they like and dislike

about the course on the back of the card:

Teaching Tips for Higher Education

The ASPB Education Committee will offer an occasional series of articles providing teaching tips for university or college instructors. These simple ideas can help you create a motivating classroom atmosphere for your students. Not only will this enhance your teaching and improve their learning, but it just may cause a few of your students to say, "Hey, this plant science class is pretty cool—I can see myself majoring in this!"

Teaching Tip 1: "Getting to Know You"

For most faculty or teaching assistants, each semester brings a new set of students to class and a new set of challenges. Personalize even large classes by learning the names and interests of each student. Learning outcomes can be enhanced if you show students that you are directly interested in their academic success and progress. Forging this connection early on helps each student feel recognized as an individual and can also improve retention and attendance.

During the first day of class, have each student fill out a 3 × 5 card with the following information:

You can request a picture if you wish, but career goals expresses individual attention. Asking for the student's interests in specific

content to ensure that you meet student expectations about the course during the semester.

Finally, ask students for the professional courtesy of informing you ahead of time if they have to miss class (e.g., illness, death in the family). Express to the students the

importance of attending each and every class so that they not only get their money's worth for ever-increasing tuition and fees, but also won't miss any of the cool plant biology info you have to share.

this is usually not necessary unless the class is very large. Asking about the student's specific topics can help you customize the course

> List three things you like about the course: List three things you **dislike** about the course:

Name:	Career goal?
E-mail address:	
Campus address:	
Department:	Why are you taking this course?
Adviser (graduate students):	wily are you taking this course:
Optional: Picture of student	Specific topics you would like to learn about this semester:

Collect the cards at the end of the first class, and use them to take attendance during the first few weeks of class. Taking attendance using the cards will help you associate names with faces and communicates that you care about each individual student and that it is important to be in class.

Teaching Tip 2: Midterm Feedback from Students

Collecting feedback from students halfway through the semester is easy, yet critically important in prompting students to consider the impact of the course on them and to provide input on how you are doing as an instructor. Collecting

feedback tells your students that you care about their opinion and allows you the opportunity to make corrections in teaching style, course content, format, and workload before the final student evaluations come due at the end of the semester.

Review the responses after class. During the next class session, go over the responses with the entire class. Reassure students that you do not know who made which suggestions and that the responses will remain anonymous. Discussing the students' lists will often elicit additional likes and dislikes from the group and reinforce which ones are most important to the students.

Many academic institutions evaluate faculty teaching quality and effectiveness solely on the basis of student evaluations. If this is the case at your institution, taking the time to solicit your students' input before the midterm exam can mean the difference between a poor evaluation and an excellent evaluation. Of at least equal importance, this exercise focuses you and your students on the progress they are making in your course.

Anthony G. San Pietro

ASPB member Anthony San Pietro died on Saturday, September 13. He had been a professor at Indiana University since 1968, where he settled after work at the Kettering Research Institute and the Johns Hopkins University.

Tony arrived at IU to chair the Department of Plant Sciences; he directed its activities and development until it became part of the newly formed Department of Biology in 1977. As a biochemist who nevertheless appreciated the contributions of taxonomists and evolutionists, he played an important role in moving what was a relatively classical department in the direction of modern plant biology.

In addition to serving as department chairman, he established and maintained an active laboratory for investigating the mechanisms of the light-dependent reactions of photosynthesis. During the course of his career, he published over 160 papers on the mechanism of hydrogen-transfer reactions, photosynthetic electron transport and photophosphorylation, the chemistry of pyridine nucleotide coenzymes, biological solar energy conversion, and the use of biosaline environment and resources for chemical and fuel production. His outstanding research achievements attracted postdoctoral fellows and visiting scientists from all over the



Anthony San Pietro. PHOTO COURTESY OF THE INDIANA UNIVERSITY ARCHIVES.

world. Graduate students and postdocs from his lab went on to develop productive, visible careers as faculty members at such places as Duke University, the University of Michigan, and the University of Tokyo.

In 1980, Tony was appointed science adviser to the Office of the President of IU. From that vantage point he was able to put his connections with Washington and East Asia to good use, coordinating national efforts to bring Indiana and East Asian scientists together for fruitful meetings and research collaboration. As science adviser, he provided important insights and expertise to the president regarding the strengths and needs of the scientific enterprise within the IU system.

Throughout his career, Tony tirelessly promoted many avenues of scholarly communication. His editorship of the photosynthetic volumes of *Methods in Enzymology*, his part in organizing several meetings here and abroad, and his advisory role with international programs of the National Science Foundation will long be remembered by his fellow scientists. These accomplishments have placed the name of Indiana University prominently on the international map.

In 1975, Indiana University honored Tony by appointing him distinguished professor of plant biochemistry. He was recognized at the national level for his outstanding scientific achievements by being elected to the U.S. National Academy of Sciences in 1983. He was married for 50 years to the late Alice San Pietro.

Contributed by Professor Jeffrey D. Palmer Indiana University

NOTICE

George Rédei died November 10, 2008, in Nashville, Tenn. A tribute by Csaba Koncz and a personal remembrance by Chris and Shauna Somerville will appear in the January/February issue of the *ASPB News*. Memorials may be made to the George Rédei Plant Growth Facility in Life Sciences Center Fund, 401 Reynolds Alumni Center, Columbia, MO 65211, or to Alive Hospice Inc., 1718 Patterson St., Nashville, TN 37203.

<u>UNITED STΔTES</u> Statement of POSTΔL SERVICE ⊗ (All Periodicals Pu	O۱ bli	wne cat	ers ion	hip ıs E), Ex	Ma ce	na pt l	gei Re	me qu	nt, and Circulation ester Publications)
. Publication Title	2. P	ublica	ation I	Numb	er					3. Filing Date
	Г.	_	-	_		_	_			1

Publication Title	Publication Number							3. Filing Date				
ASPB News	1	5	3	5	-	5	4	8	9	10/27/08		
4. Issue Frequency	5. N	5. Number of Issues Published Annually				ed A	lly	6. Annual Subscription Price				
bi-monthly	6								\$30			
7. Complete Mailing Address of Known Office of Publication (Not printer) (Street	eet, city, county, state, and ZIP+4®)									Contact Person		
American Sociey of Plant Biologists 15501 Monona Drive, Rockville, MD 20855-2678	Telephone (Include							Nancy Winchester Telephone (Include area code) 301-251-0560 x117				

8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not printer)

same as above

Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do not leave blank)
 Publisher (Name and complete mailing address)

Crispin Taylor, ASPB

Editor (Name and complete mailing address)

Nancy Winchester, ASPB

Managing Editor (Name and complete mailing address)

n/a

10. Owner (Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total annound of stock. If not owned by a corporation, give the each individual owner. If the publication is published by a nongrid rogaritation, give it is mare and addresses a level as those of each individual owner. If the publication is published by a nongrid rogaritation, give its name and addresses. If we have a made addresses a level.

Full Name	Complete Mailing Address
American Society of Plant Biologists	15501 Monona Drive, Rockville, MD 2085
 Known Bondholders, Mortgagees, and Other Securi 	the Holdom Owning or
Holding 1 Percent or More of Total Amount of Bonds Other Securities. If none, check box	s, Mortgages, or
Holding 1 Percent or More of Total Amount of Bonds Other Securities. If none, check box	s, Mortgages, or
Holding 1 Percent or More of Total Amount of Bonds Other Securities. If none, check box	s, Mortgages, or ■ Mone
Holding 1 Percent or More of Total Amount of Bonds Other Securities. If none, check box	s, Mortgages, or ■ Mone
Holding 1 Percent or More of Total Amount of Bonds Other Securities. If none, check box	s, Mortgages, or ■ Mone
Holding 1 Percent or More of Total Amount of Bonds	s, Mortgages, or ■ Mone

13 Publication Title

2. Tax Status (For completion by nonprofit organizations authorized to mail at nonprofit rates) (Check one)
The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes:

(ii) Has Not Changed During Preceding 12 Months (Publisher must submit explanation of change with this statement)
PS Form 3526, September 2007 (Page 1 of 3 (Instructions Page 3)) PSN 7530-01-000-9931 PRIVACY NOTICE: See our privacy policy on www.usps.com

14 Jesus Date for Circulation Data Below

13. Publication Title American Society of Plant Biologists			14. Issue Date for Circulation Data Below								
		ociety of Plant Biologists	September/October 2008								
15. Extent and	l Nati	ure of Circulation	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issu Published Nearest to Filing Date							
a. Total Numbe	r of C	Copies (Net press run)	4373	4692							
	(1)	Mailed Outside-County Paid Subscriptions Stated on PS Form 3541(Include paid distribution above nomi- nal rate, advertiser's proof copies, and exchange copies)	2556	2718							
b. Paid Circulation (By Mail and	(2)	Mailed In-County Paid Subscriptions Stated on PS Form 3541 (Include paid distribution above nominal rate, advertiser's proof copies, and exchange copies)	n/a	n/a							
and Cutside Cutside the Mail) Paid Distribution Outside the Mails Including Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid Distribution Outside USPS®	1763	1924									
	(4)	Paid Distribution by Other Classes of Mail Through the USPS (e.g. First-Class Mail®)	n/a	n/a							
c. Total Paid Di	stribu	ution (Sum of 15b (1), (2), (3), and (4))	4319	4642							
	(1)	Free or Nominal Rate Outside-County Copies included on PS Form 3541	n/a	n/a							
d. Free or Nominal Rate Distribution	(2)	Free or Nominal Rate In-County Copies Included on PS Form 3541	n/a	n/a							
(By Mail and Outside the Mail)	(3)	Free or Nominal Rate Copies Mailed at Other Classes Through the USPS (e.g. First-Class Mail)	10	12							
	(4)	Free or Nominal Rate Distribution Outside the Mail (Carriers or other means)	4	0							
e. Total Free o	or No	minal Rate Distribution (Sum of 15d (1), (2), (3) and (4))	14	12							
. Total Distrib	oution	n (Sum of 15c and 15e)	4333	4654							
Copies not	Distr	ibuted (See Instructions to Publishers #4 (page #3))	40	38							
n. Total (Sum	of 15	if and g)	4373	4692							
	d by	15f times 100)	99%	99%							
	ublic	atement of Ownership ation is a general publication, publication of this statement is req Nov/Dec 2008 issue of this publication.	uired. Will be printed	Publication not required.							
-		itle of Editor, Publisher, Business Manager, or Owner		Date							
Man	ey	A . Srunchester compation furnished on this form is true and complete. I understan	d that	October 27, 2008							

ASPB Headquarters

Telephone Extensions and E-Mail Directory

For your convenience, keep this listing of extension numbers and e-mail addresses handy when you contact ASPB headquarters so that you can reach the person best able to assist you. Our office telephone number is 301-251-0560	Crispin Taylor / ext. 115 ctaylor@aspb.org	Donna Gordon / ext. 131 dgordon@aspb.org	Jean Rosenberg / ext. 110 jean@aspb.org	Kim Kimnach / ext. 140 kkimnach@aspb.org	Jotee Pundu / ext. 144 jotee@aspb.org	Stephanie Liu-Kuan / ext. 143 sliu@aspb.org	Suzanne Cholwek / ext. 141 scholwek@aspb.org	Brian Hyps / ext. 114 bhyps@aspb.org	Nancy Winchester / ext. 117 nancyw@aspb.org	John Long / ext. 119 jlong@aspb.org	Annette Kessler / ext. 120 akessler@aspb.org	Leslie (Ash) Csikos / ext. 125 lcsikos@aspb.org	Wendy Sahli / ext. 123 wendys@aspb.org
Missing journal issues													
Subscriptions, institutional and individual													
Plant Physiology (except missing issues)													
Disposition of a manuscript													
All other questions													
The Plant Cell (except missing issues)													
Disposition of a manuscript											•		
All other questions										•			
ASPB News													
Advertising													
Plant Physiology													
The Plant Cell										•			
ASPB News													
Membership													
Accounts payable													
Accounts receivable						•							
Accounts payable/receivable problems													
ASPB meetings			•										
Public affairs/government relations													
Education													
Society governance	•												
ASPB Education Foundation								•					
International issues	•												
Awards		•											
Biochemistry & Molecular Biology of Plants													
Website													
Online orders													



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

PERIODICALS POSTAGE PAID AT ROCKVILLE MD AND ADDITIONAL MAILING OFFICES

