

ASPB News



THE NEWSLETTER OF THE AMERICAN SOCIETY OF PLANT BIOLOGISTS

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President's Letter

Looking Forward

I would like to begin my term as president of ASPB by thanking the membership for the privilege of serving our Society. The year I spent as president-elect led me to a deeper appreciation of the strength and value of ASPB. We are fortunate to have a dedicated, energetic, and creative staff at our headquarters in Rockville, and a membership replete with individuals who are willing to devote much precious time and effort to keeping our Society thriving.

One of the things I did not fully appreciate until recently was the wide range of activities in which the Society is engaged. In addition to our traditional activities of publishing two of the leading journals in plant biology—*Plant Physiology* and *The Plant Cell*—and hosting the annual meeting, we have many projects under way in the areas of education, recruitment of minorities, and public affairs, to name a few. Some of the educational efforts of our members extend well beyond the classroom to engage the general public in the wonders of plants. For example, Roger Hangarter's *sLowlife* exhibit (<http://plantsinmotion.bio.indiana.edu/usbg/>), which is designed to increase awareness of something we take for granted—that plants can sense and respond to their environment—has been at the U.S. Botanic Garden and will be at the Chicago Botanic Garden and other venues as well. There are many more exciting projects in the pipeline designed to educate the public about our discipline that you will read about in future issues of this newsletter.



Rick Amasino

One new effort that I want to bring to the membership's attention is the ASPB Diversity Bank. I am sure we all agree that it is important to increase diversity among plant biologists. The ASPB Minority Affairs Committee established the Diversity Bank as a web-based resource to facilitate the connections that will expose students to plant research and to foster networking between faculty at minority and non-minority institutions (seminars, summer research opportunities, etc.). This effort is broader than recruiting minority students to plant biology. There is tremendous value in familiarizing students with science regardless of their ultimate career choice. Indeed, as a society we would greatly benefit from a better understanding of science among those who are not in scientific careers. I urge you to visit the site at <http://www.aspb.org/diversitybank>.

This year I look forward to working with the membership, staff, president-elect Rob McClung, and immediate past president Mike Thomashow to keep ASPB at the forefront of scientific societies. And last but not least, I want to thank Roger Hangarter personally and on behalf of ASPB, not only for his past three years of leadership as president-elect, president, and past president, but for the many other ASPB offices he has held, and for his current service on the Education Foundation and as chair of the ASPB–Pioneer Hi-Bred International Graduate Student Prize Committee. ♣

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

ASPB Officers & Staff

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Deadline for March/April 2007
ASPB News: February 5, 2007

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D-Luciferin (Potassium Salt or Sodium Salt)	LUCK or LUCNA-100-ASPb	100 mg	\$75.00
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	LUCK or LUCNA-500-ASPb	500 mg	\$270.00
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	G1281C1-ASPb	1 g	\$169.00
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	G1281C3-ASPb	3 g	\$428.00
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Bialaphos	B0904-25-ASPb	25 g	\$119.00
	B0178-100-ASPb	100 mg	\$199.00
	B0178-250-ASPb	250 mg	\$472.00
Carbenicillin	B0178-500-ASPb	500 mg	\$897.00
	C0109-1-ASPb	1 g	\$17.00
	C0109-5-ASPb	5 g	\$57.00
Cefotaxime	C0109-25-ASPb	25 g	\$219.00
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	C0111-5-ASPb	5 g	\$87.00
Chloramphenicol	C0111-25-ASPb	25 g	\$393.00
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Kanamycin	K0126-1-ASPb	1 g	\$8.00
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ASPB Officers Assume Posts for 2006–2007

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

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C. Robertson McClung (09)
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Nicholas C. Carpita (07),
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Karen E. Koch (08)
Steven C. Huber (09)

Sectional Representatives

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Allan Showalter, *Midwestern*
Lawrence B. Smart, *Northeastern*
Caryl A. Chan, *Southern*
Thea A. Wilkins, *Western*

2006–2007 Awards Committees

Following is a list of the membership of the ASPB awards committees for 2006–2007 as announced by President Richard Amasino. Members serve for three award cycles unless otherwise noted.

ASPB–Pioneer Hi-Bred International Graduate Student Prize

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

Adolph E. Gude, Jr. Award

Louise E. Anderson (08), *chair*
Lloyd T. Evans (07), *past winner*
Andrew D. Hanson (07)
Julian I. Schroeder (10)
Patrick Masson (13)

Charles Albert Shull Award

Steven C. Huber (07), *chair*
Xuemei Chen (07), *past winner*
William J. Lucas (07)
Natasha V. Raikhel (08)
Elizabeth Vierling (08)

Charles F. Kettering Award

Gerald E. Edwards (08), *chair*
Donald R. Ort (08), *past winner*
Neil R. Baker (10)
Elisabeth Gantt (10)
Keith Alan Mott (10)

Charles Reid Barnes Life Membership Award

Henry T. Nguyen (07), *chair*
Douglas Randall (07),
past winner
Kendal D. Hirschi (07)
Katherine W. Osteryoung (08)
Alison M. Smith (08)

Corresponding Membership Awards Committee

Christopher J. Staiger (08), *chair*
Judy Callis (07)
Heven Sze (07)
Chentao Lin (09)
Gayle Lamppa (10)

Dennis R. Hoagland Award

Dennis Gonsalves (09),
past winner
Jan E. Leach (12)

Early Career Award

Sabeeha S. Merchant (07), *chair*
Simon Chan (07), *past winner*
Gregg Alan Howe (08)
Harry J. Klee (08)
Alice Y. Cheung (09)

Excellence in Teaching Award

Sabine J. Rundle (09), *chair*
Susan R. Singer (07), *past winner*
Amy M. Clore (13)
Sharman D. O'Neill (13)
T. Kaye Peterman (13)

Fellow of ASPB Award

Nicolas C. Carpita, *chair*
Nina S. Allen
Daniel J. Cosgrove
Roger P. Hangarter
Donald R. Ort

Lawrence Bogorad Award for Excellence in Plant Biology Research

Daniel R. Bush (08), *chair*
Maureen R. Hanson (08),
past winner
Richard T. Sayre (08)
Marinus Pilon (10)
Elizabeth A. Ainsworth (12)

Martin Gibbs Medal

Richard B. Meagher (09), *chair*
Joseph R. Ecker (07),
past winner
K. G. Raghothama (07)
John A. Browse (11)
Sally A. Mackenzie (11)

Stephen Hales Prize

Mel Oliver (07), *chair*
Kenneth Keegstra (07),
past winner
Richard D. Vierstra (07)
Dawn S. Luthe (09)
George E. Schaller (09)

Call for 2007 ASPB Award Nominations

The 2007 Call for ASPB Award Nominations will be sent to all members on January 3, 2007. Nominations are due at ASPB headquarters by Thursday, February 15, 2007.

These awards, which recognize the major scientific contributions of the recipients, will be presented during the Plant Biology & Botany 2007 Joint Congress in Chicago, Illinois. Most of the awards are monetary, and, with the exception of the Fellows Award, winners also will be reimbursed up to \$1,000 for travel expenses to Chicago.

Awards to Be Given in 2007

Corresponding Membership

This 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 (3) candidates, and these are placed on the ballot for approval of 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 two (2) percent of the dues-paying membership.

Charles Reid Barnes Life Membership

This 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; it 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.

Stephen Hales Prize

This award honors the Reverend Stephen Hales for his pioneering work in plant biology published in his 1727 book *Vegetable Statics*. 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 recipient of the 2007 award is invited to address the Society on a subject in plant biology at the 2008 annual meeting.

Charles Albert Shull Award

Created in 1971 to honor the Society's founding father and the first editor-in-chief of *Plant Physiology*, this 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 40 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 2007 recipient is invited to address the Society at the 2008 annual meeting.

Martin Gibbs Medal

The Martin Gibbs Medal was instituted by the Society's executive committee in 1993 to honor Martin Gibbs, editor of *Plant Physiology* from 1963 to 1992. The Gibbs Medal is presented biennially to an individual who has pioneered advances that have served to establish new directions of investigation in the plant sciences. The 2007 winner will receive the medal and will be invited to convene a Martin Gibbs Medal Symposium at the 2008 annual meeting.

Adolph E. Gude, Jr. Award

This monetary award honors the Gude Family, who made possible the establishment of the Gude Plant Science Center. The award, established by the Society and first given in 1983, is made triennially to a scientist or lay person in recognition of outstanding service to the science of plant biology.

Excellence in Teaching Award

This award was initiated in 1988 to recognize outstanding teaching in plant biology. It is an award to be made not more than triennially in recognition of excellence in teaching, leadership in curricular development, or authorship of effective teaching materials in the science of plant biology.

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 careers. This award is a monetary award made annually for exceptionally creative, independent contributions by a member of the Society who is not more than five years post-Ph.D. on January 1 of the year of the presentation.

ASPB-Pioneer Hi-Bred International Graduate Student Prize

This award, 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. Each nominee must be a Ph.D. candidate—i.e., have successfully passed their preliminary examinations; must demonstrate an excellent academic record; and must be a member of ASPB. An individual may receive this prize only once.

Fellow of ASPB Award

The Fellow of ASPB Award will be given for the first time this year. (See article on page 15.) Established in 2007, the Fellow of ASPB Award may be granted in recognition of distinguished and long-term contributions to plant biology and service to the Society by current members in areas that include research, education, mentoring, outreach, and professional and public service. 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.

continued on page 9

Real-Time Plant Physiology: My View of What's in It for Authors, the Journal, and ASPB

“Open Access” ensures free access of journal articles to anyone with a web connection. Open Access (OA) promotes accessibility by removing financial barriers for all potential audiences. Beginning with the January 2007 issue, all papers in *Plant Physiology* corresponding by ASPB members will be published with full Open Access. This means that anyone with an Internet connection anywhere in the world will have instant, full access to your paper as soon as it is published, i.e., *Real-Time Plant Physiology*. This includes full access to the publish-ahead-of-print version (*Plant Physiology Preview*) as well as to the final, fully edited version, full access to supplemental data, and full access to all the advanced linking and tracking tools.

Real-Time Plant Physiology offers authors higher impact. OA offers authors a larger, global audience, not one that is dependent on subscriptions for access, resulting in greater visibility and ultimately greater impact of your work. There have been multiple studies correlating the number of times an article is accessed with the number of citations those articles receive (Brody et al., 2006; Eysenbach, 2006a). OA articles

are accessed more frequently than comparable non-OA articles, suggesting that they will be cited more frequently. A recent longitudinal bibliometric analysis of OA vs. non-OA papers published over a six-month period in *PNAS* (*Proceedings of the National Academy of Sciences*) supports this premise (Eysenbach, 2006a). Multivariate analysis was used to disentangle potentially confounding factors including subject area and citation history of lead authors, thereby overcoming uncertainties in early analyses (Harnad and Brody, 2004; Kurtz, 2004; Antelman, 2004; Wren, 2005) that also concluded higher impact of OA. Even in a journal widely available in research libraries, and one that publicly releases its full content after six months, OA articles were found to be twice as likely to be cited in the first four to 10 months compared to non-OA articles. A recent update to this study found that OA articles continued to be cited more frequently 17 to 20 months after publication, reaching a 47% difference in citations between OA and non-OA papers (Eysenbach, 2006b). That the rate of new citations is still greater for the OA cohort (Figure 1) is strong evidence that the

effect of OA is a true increase in citations. It is somewhat puzzling why this is so. While there is a cohort of readers that do not have subscription access and thus must wait until the journal releases content six months after publication (12 months in the case of *Plant Physiology*), I believe a stronger factor is the ease with which Open Access papers can be directly viewed from various sorts of web searches.

Plant Physiology has since December 2005 offered an author fee-based Open Access option similar to that of *PNAS*, resulting in about 10% of the articles that we are now publishing being Open Access.¹ Although it is still too early to have meaningful citation data for *Plant Physiology* OA articles, Figure 2 shows that on average OA articles in *Plant Physiology* have been accessed 31% more often than non-OA articles in the same issue, and there seems little doubt that this increase in “hits” will translate into an increase in citations.

Even with the benefit of increased impact, the cost of OA publication can be an obstacle for authors. Access to funds that can be used for publication charges including OA charges may be a reason that a lower proportion of European authors select OA: Research grants in many of these countries do not provide funds for these purposes (MacCallum and Parthasarathy, 2006). Of the top 10 plant research journals ranked by impact factor (*Journal Citation Reports*, 2005, Thompson Scientific, formerly Thompson ISI), eight are experimenting with OA options for authors (Table 1). To date, all have been based on the “author pay” model and range in price from \$400 to \$3,000 per article. With the exception of *Plant Physiology* and *The Plant Cell*, the other journals offering OA options are not solely published by a scientific society. *Molecular Plant Microbe Interactions*, the other fully society-published journal, does not currently have an OA option. Blackwell Pub-

PNAS: OA vs. non-OA Citations

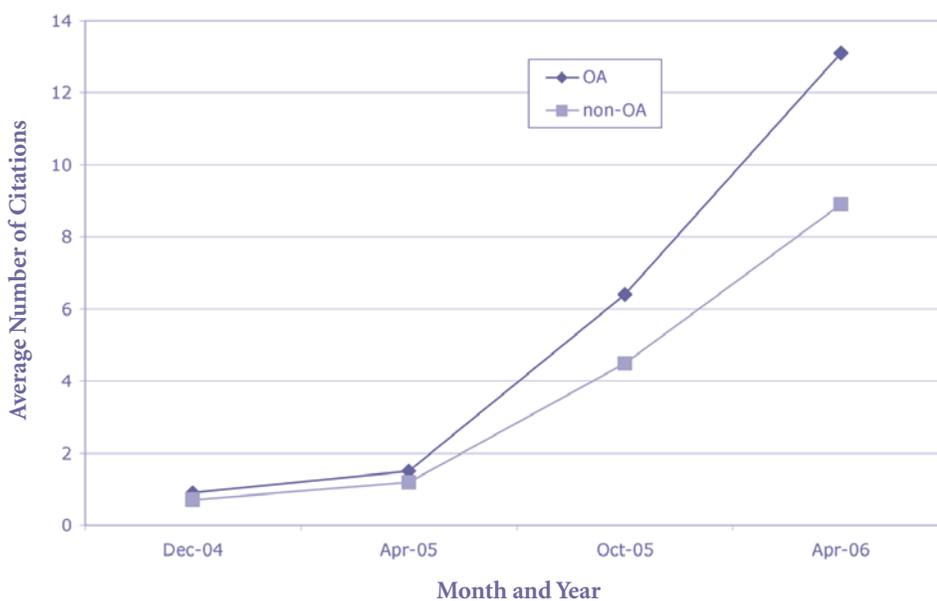


Figure 1. Comparison of mean number of citations of OA vs. non-OA research articles published in *PNAS* during June to December 2004. From Eysenbach (2006b).

¹ *The Plant Cell* also offers this option, with ~17% of authors choosing the author fee-based OA option.

Plant Phys: OA vs. non-OA Access

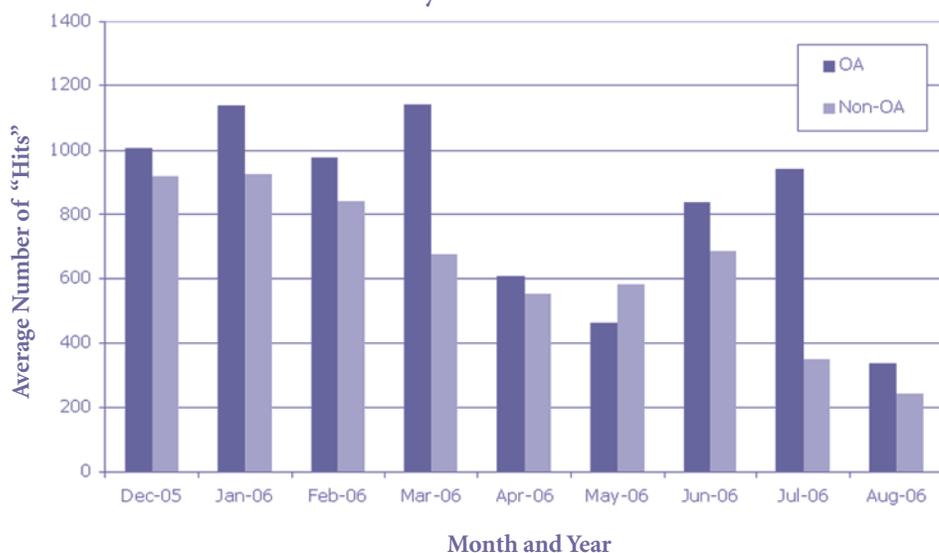


Figure 2. Cumulative full-text HTML and pdf access to OA and non-OA articles in *Plant Physiology*.

lishing and Oxford University Press offer OA for some but not all of the journals they publish. *Journal of Experimental Botany* received a substantial grant from the Joint Information Systems Committee (JISC) of the UK allowing for all papers with a UK author published in the trial to be freely available online without an author charge. The *Real-Time Plant Physiology* OA model makes OA accessible to more corresponding authors by only requiring membership in ASPB. Annual

membership in the American Society of Plant Biologists is \$115 for regular members (<http://www.aspb.org/membership/>) and considerably less for postdocs and students. If an author does not want to become an ASPB member, she/he still has the option of purchasing OA.

How does *Plant Physiology* benefit? In addition to helping attain the academic publishing aspiration of making new knowledge as widely available as possible, there is every

reason to believe that by driving higher impact and citation of the papers published in *Plant Physiology*, OA will in turn enhance the journal's impact and stature. Since more than 50% of the papers currently published in *Plant Physiology* are corresponded by ASPB members, over half the papers published in *Plant Physiology* during 2007 and beyond will be OA; I believe strongly that the journal will grow in impact and stature as a result. In line with ASPB's experience, a recent analysis by Oxford University Press on its OA experiment found that those issues of *Journal of Experimental Botany* published since the journal started offering OA were accessed more frequently, suggesting that "the presence of open access articles in a journal not only increases interest in those issues containing open access articles, but may also increase interest in other volumes" (Saxby, 2006). This observation lends further support that *Plant Physiology* will measurably benefit from this novel initiative. Because, with the exception of *The Plant Cell*, the other leading plant biology journals that offer OA are not published by a professional society, they will be unable to replicate a membership-based OA plan like *Real-Time Plant Physiology*, which I believe will translate into an improved competitive advantage for *Plant Physiology*.

continued on next page

Rank	Journal	Publisher	OA policy	OA price (US\$)	2005 Total Cites	2005 Impact Factor
1	Plant Cell	ASPB	Author pay	\$1,000 (\$500 if institution subscribes)	23,294	11.088
2	Plant J	Blackwell Publishing	Author pay	\$2,500	18,089	6.969
3	Plant Physiol	ASPB	Free or Author pay	Free if corresponding author is Society member; otherwise, \$1,000 (\$500 if institution subscribes)	39,766	6.114
4	New Phytol	Blackwell Publishing	Author pay	\$2,500	11,370	4.285
5	Plant Biotechnol J	Blackwell Publishing	Author pay	\$2,500	409	4.256
6	Mol Plant Microbe In	Amer Phytopathological Soc	No OA option	—	5,532	3.928
7	Plant Cell Environ	Blackwell Publishing	Author pay	\$2,500	7,341	3.601
8	J Exp Bot	Oxford University Press	Author pay	\$400*	10,171	3.336
9	Plant Mol Biol	Springer	Author pay	\$3,000	10,981	3.328
10	Mol Plant Pathol	Blackwell Publishing	No OA option	—	761	3.327

Table 1. Comparison of OA options among the top 10 research journals in plant science.

**Journal of Experimental Botany* received a substantial grant from the Joint Information Systems Committee (JISC) of the UK; thus all papers with a UK author published in the trial will be made freely available online without an author charge. This grant was extended to include 2006.

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Real-Time Plant Physiology is the first significant OA initiative among plant journals and provides the potential opportunity for considerable “splash value.” This groundbreaking move by *Plant Physiology* promises to promote both publication in *Plant Physiology* as well as membership in ASPB.

Indeed, our unique option has already been noted in a prominent blog on Open Access (Suber, 2006).

Looking toward the future of professional society publishing. Open Access publishing addresses the Society’s mission “to promote the growth and development of plant biology, to encourage and publish research in plant biology, and to promote the interests and growth of plant scientists in general.” Since no library can subscribe to all journals, OA benefits readers by providing immediate, barrier-free access to an article they otherwise might not have. Importantly, OA also provides much greater access to the non-research community, which includes policy makers, teachers, and the media. The membership-based OA model of *Real-Time Plant Physiology* adds a tangible additional incentive to become and remain an ASPB member. It can reasonably be expected to grow membership numbers and thereby develop membership fees as a more important Society revenue source. In his blog on Open Access News, Peter Suber gave “[k]udos to *Plant Physiology* (PP) and the ASPB for this innovation” and also praised the Society’s “elegant model” (Suber, 2006). However, as pointed out by Mike Thomashow in his President’s Letter in the *ASPB News* (Thomashow, 2006), institutional subscription/site license sales to the Society’s premier journals account for almost exactly half of ASPB income. ASPB relies on this significant revenue stream not only to publish its journals but also to help fund the many important things that the Society does to benefit the plant biology community. A valid worry may be that if *Plant Physiology*’s content were to become fully OA, why should a library, with an already limited budget, maintain a subscription? The overall plan implemented to make *Real-Time Plant Physiology* feasible relies on the fact that *Plant Physiology* and *The Plant Cell* have always been marketed to institutional libraries as a bundled pair. The

cost of the *Plant Physiology/The Plant Cell* bundle to institutions is very competitively priced compared to any other single top 10 plant journal. Thus, if the content of *Plant Physiology* were to become fully OA,² the subscription bundle would provide libraries and their patrons subscription access to *The Plant Cell* at the same or lower cost of the other top journals. Clearly, *Real-Time Plant Physiology* would not have been possible without the full endorsement and support of *The Plant Cell* Editor-in-Chief Rich Jorgensen.

The leadership, editors, and staff of ASPB began in earnest a year ago to look critically at the potential impact of Open Access and Internet access to research in general on the future of publishing by professional societies and the sustainability of current publishing and society business plans. It is important, perhaps even urgent, that we continue our investigation as the implementation of OA could be externally mandated. A bipartisan-supported Open Access bill (Federal Research Public Access Act of 2006; Cornyn and Lieberman, 2006) now pending in Congress stipulates that any research funded with federal tax money³ must be made available online free of charge within six months of its publication in a scholarly journal. While it seems unlikely that reducing the subscription protection of ASPB journals from the current 12 months to six months would have any large impact (many major journals already publicly release content after six months; e.g., *Development*, *Journal of Cell Biology*, *New England Journal of Medicine*, *PNAS*; <http://highwire.stanford.edu/lists/freart.dtl>), this legislation does reveal a clear mechanism by which full OA could be legislatively mandated in this country or elsewhere. I suspect that it is the possibility of this bill leading eventually to mandated immediate public release of federally funded research that has many publishers in opposition to the bill. However, many colleges and universities support Open Access and legislation that promotes it. In fact, while we are all members of ASPB and understand the reliance of the Society on institutional subscription/site license sales, we also have firsthand knowledge at our own institutions about the consequences of rapidly escalating costs of journal acquisition on our library’s holdings and on our campus’s budget. These are

among the factors that led over 125 provosts and presidents of universities and colleges to express support for the Federal Research Public Access Act (<http://www.arl.org/sparc/advocacy/frpaa/institutions.html>).

Scholarly academic publishing is clearly in a period of transition that is being driven by Open Access and the accessibility of information via the Internet. ASPB and other professional society publishers are confronted with a different set of issues than those that confront commercial publishers. Conventional wisdom posits that OA will shift a greater proportion of publication costs to authors (i.e., funding agencies, research agencies, and academic departments) and away from library acquisition budgets. While this almost certainly would be true and is the route being taken by current fully OA journals, institutional subscription/site license sales need not disappear in an OA environment. As noted in an article by Van Orsdel and Born (2005), no decrease in subscriptions has been reported by publishers of physics journals despite the popularity of the Open Access online repository arXiv (<http://arxiv.org/>), which has been functioning since 1999. Innovative ideas are emerging to add value to our institutional subscriptions and provide incentive for libraries to remain enrolled. My personal view is that ASPB journals would fare very well in a mandated fully OA environment because with the significant cost to authors there will be an even higher premium placed on the quality and stature of journal. However, a fully OA environment would not be business as usual for ASPB or other professional society publishers. The launch of *Real-Time Plant Physiology* speaks to the Society’s willingness to embrace the change and take a leadership role. The next several years promise to be an exciting time. Stay tuned! 🌱

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² Under the *Real-Time Plant Physiology* plan, it is unlikely that *Plant Physiology* will become completely OA.

³ Technically, the bill pertains to research funded by agencies that have expenditures in excess of \$100 million; this includes USDA, EPA, DOE, NSF, and NIH, among others.

Acknowledgment

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References

- Antelman, K.** (2004) Do open-access articles have a greater research impact? *Col Res Libr* **65**: 372–382.
- Brody, T., Harnad, S., Carr, L.** (2006) Earlier Web Usage Statistics as Predictors of Later Citation Impact. *J Am Assoc Inform Sci Technol (JASIST)* **57**: 1060–1072.
- Cornyn, J., Lieberman, J.** Federal Research Public Access Act of 2006 (S. 2695). <http://thomas.loc.gov/cgi-bin/query/z?c109:S.2695>.
- Eysenbach, G.** (2006a) Citation advantage for open access articles. *PLoS Biol* **4**: e157.
- Eysenbach, G.** (2006b) The Open Access Advantage. *J Med Internet Res* **8**:e8.
- Harnad, S., Brody, T.** (2004) Comparing the impact of open access (OA) vs. non-OA articles in the same journals. *D-Lib Magazine*, **10**: www.dlib.org/dlib/june04/harnad/06harnad.html.
- Kurtz, M.** (2004) Restrictive access policies cut readership of electronic research journal articles by a factor of two. <http://opcit.eprints.org/feb19oa/kurtz.pdf>.
- MacCallum, C. J., Parthasarathy, H.** (2006) Open Access Increases Citation Rate. *PLoS Biol* **4**: e176.
- Saxby, C.** (2006) NAR Author and Reader Survey. www.oxfordjournals.org/news/oa_report.pdf.
- Suber, P.** (2006) Open Access News: http://www.earlham.edu/~peters/fos/2006_09_03_fosblogarchive.html#115773365150912192.
- Thomashow, M. F.** (2006) ASPB in an Open Access World. *ASPB News* **33**: 1 <http://www.aspb.org/newsletter/julaug06/01pl0706.cfm>.
- Van Orsdel, L. C., Born, K.** (2005) Choosing Sides—Periodical Price Survey 2005. <http://libraryjournal.com/article/CA516819.html>.
- Wren, J. D.** (2005) Open access and openly accessible: A study of scientific publications shared via the Internet. *Br Med J* **330**:1128–1131.

ASPB Joins OARE to Expand Journal Outreach to Developing Nations

For the past several years, ASPB has been a participating publisher in AGORA, the Access to Global Online Research in Agriculture initiative of the United Nations Food and Agricultural Organization. More recently the Society joined HINARI, the Health InterNetwork Access to Research Initiative of the World Health Organization. For both AGORA and HINARI, institutions in the poorest nations as defined by the World Bank (domestic per capita income of less than \$1,000/year) may register to receive immediate free online access to both *Plant Physiology* and *The Plant Cell*.

The Society has now joined, with the “founding partner” designation bestowed upon early participants, the third and final program in this trilogy: OARE, which stands for Online Access to Research in the Environment. This new environmental portal, which launched October 30, 2006, is an international public–private consortium coordinated by the United Nations Environment Programme (UNEP), Yale University, and leading science and technology publishers. It enables developing countries to

gain free access to one of the world’s largest collections of environmental science literature. More than 1,000 scientific journal titles owned and published by over 200 prestigious publishing houses, scholarly societies, and scientific associations are now available in 70 low-income countries in Africa, Asia, Latin America, the Caribbean, and Eastern Europe. Another 36 countries will be added by 2008. Research is provided in a wide range of disciplines, including biotechnology, botany, climate change, ecology, energy, environmental chemistry, environmental economics, environmental engineering and planning, environmental law and policy, environmental toxicology and pollution, geography, geology, hydrology, meteorology, oceanography, urban planning, zoology, and many others.

For more information on OARE, visit <http://www.oaresciences.org/>.

OARE

Online Access to Research in the Environment

Award Nominations continued from page 5

ASPB encourages you to participate in our 2007 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 can be submitted electronically this year, so the process is now even faster and easier.

Postcards from Sarah

ASPB's 2005 AAAS Mass Media Fellow Sarah Nell Davidson is sending a series of "postcards" back to the ASPB News, as she spends the current academic year abroad doing research for her PhD thesis.

Greetings from
Udon Thani, Thailand

When Plants Stop Making Sense

At a small nursery in rural northeast Thailand, I am reminded of one of my all-time favorite research papers, which we read in David Dalton's Plant Molecular Biology journal club the fall semester of my senior year of college. It was the postdoctoral work of ASPB member Janet Braam when she was in Ronald Davis's lab at Stanford University, a 1990 *Cell* paper that first began to elucidate the function of *TCH* genes. I surmised that the water treatment had likely originally been a control, and Braam was probably stumped as to why everything she treated her plants with induced the expression of her favorite genes. Finally, she found an effective negative control. It was Figure 2, "Expression of *TCH* genes is induced by a wide variety of stimuli," that made the paper memorable, and it was the second to last sentence in the figure legend that prompted our professor to ask us to clarify something for him. It read: "Plants were exposed to Talking Heads music at approximately 60 decibels for 1 minute." ("What are Talking Heads?" he asked.)

There is little to nothing in the scientific literature to suggest that playing Talking Heads to plants would have any effect on plant gene expression, which is why I am a little dumbfounded as I stand here at the Udorn Sunshine Nursery gazing at a leguminous shrub, a secret hybridization formula of *Codariocalyx motorius*, also called *Desmodium gyrant* and, more commonly, the telegraph plant.

I remove my iPod from my backpack and attach a small microphone, which

doubles as a tinny speaker. I select a track of Maria Callas—an operatic performance of *Il Barbiere Di Siviglia* accompanied by plenty of strings—and max out the volume. The young leaves of the dancing plant begin to fulfill their promise, responding with a back-and-forth motion reminiscent of the ding-dong motions that mark passing seconds on a grandfather clock.

Orchid enthusiast and original proprietor of Udorn Sunshine Nursery Dr. Pradit Kampermpool first made the cross that brought one of Thailand's more moving plants into being about 40 years ago. Legend has it that the plant was used in ancient Thailand as a remedy against several diseases, perhaps due to its high antioxidant properties, which have since been studied by researchers at Thailand's Mahasarakham University. Over time the plant came to be seen as more of a weed, and it all but disappeared until Kampermpool went on jungle crusades through Laos and China's Yunnan province in search of it. He then resurrected the plant, bringing parents from locations around Southeast Asia together to manifest their dance in hybrid progeny once more. Kampermpool spent seven years of intense breeding for music responsiveness to arrive at the plant on display at the nursery today.

Kampermpool passed away last December, but his family members still look after the nursery, one of Udon Thani's more intriguing attractions. Kampermpool's son Praniparn, who once studied horticulture in Utah (despite having a difficult time with "all those Latin names"), emerges from the

family house adjacent to the nursery to answer some of my questions. According to Praniparn, their dancing plant is most active in the cool season, still one month away, and in the morning and evening. He also tells me that the plant responds better to "natural" music or whistling rather than tunes from electronic devices such as my iPod. The dancing plant is especially fond of sax and violins (the actual instruments, rather than the Talking Heads song by that name). Praniparn also says that the plant has become popular with patients with mental disorders and HIV, who claim that speaking to the plant and watching it move has a soothing effect.

Although plants that dance to music have yet to make their debut in plant physiology texts, the movements of *Desmodium* did not escape the keen eye of Darwin, who in 1837 wrote to Sir Joseph Hooker, "Now I want to tell you, for my own pleasure, about the movements of *Desmodium*.... The little leaflets never go to sleep, and this seems to me very odd; they are at their games of play as late as 11 o'clock at night and probably later." Darwin spent more than two decades researching the movements of plants and published a monograph titled *The Power of Movement in Plants* shortly before his death. In his studies of *Desmodium*, Darwin never mentioned playing music to the plant, but rather observed plant movements in response to small droplets of water placed on the surface of the plant. Darwin concluded that the plant's locomotive powers

**POSTCARDS
FROM
SARAH**

functioned to shake water off the leaves after heavy rainfall.

In the early 1970s, Dorothy Retallack performed a series of experiments at the Colorado Women's College on the effect of music on plants. Initial experiments involved playing continuous tones to some plants and intermittent tones to others. Interestingly, her results were consistent with experiments conducted by the Muzak corporation several years earlier. Her plants, like Muzak's factory workers, performed better when played to for several hours several times a day, as opposed to continuously. In subsequent experiments Retallack found that plants responded positively to easy listening music when compared to rock music and that her plants showed far more interest in music heavy on stringed instruments than the likes of Led Zeppelin or Jimi Hendrix.

Investigations on whether plants are conscious music critics or whether this is all bunk pseudoscience could make for some excellent Ig Nobel prize research in the plant sciences. In the meantime, you may want to think twice before you reach for the radio dial in the lab.

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AAAS/ASPB Mass Media Fellow Reeves Lives to Tell the Tale!



Robert Strasser and Essie Burnworth, members of the American Chestnut Foundation, explain to Kelly Reeves how they plan to pollinate a chestnut tree.

The day I had to record my first script, my editor jailed me in one of the closet-sized, absolutely freezing editing booths. Looking down at her pleasant face topped with tousled hair, I thought maybe I could just push past her and make a break for it. But she was a determined mentor. She was coaching me into “inhabiting my script,” but for an incredibly reserved person like me who studies fossil pollen, this was torture. I read my script over and over for her as energetically as I could. You can hear the result at <http://www.npr.org/about/nextgen/internedition/sum06/exclusives.html>. Frankly, I'm surprised no one falls asleep while I'm talking.

That radio piece I recorded came out of my 10-week summer internship at National Public Radio in Washington, DC. I had the chance to plunge into the world of science journalism as the ASPB-sponsored AAAS Mass Media Fellow. This summer there were 13 other fellows—all science, math, and engineering graduate students eager to communicate science to the public.

In June we met up in Washington, DC, to get a crash course in journalism. Before the fellowship most of us had some jour-

nalism experience. I did not, however, so I had to scribble pages of notes during our workshops on pitching stories, interviewing researchers, writing catchy ledes (the first paragraph of a story), and finding story ideas.

Immediately after our orientation, we dispersed to our assigned media sites. I didn't go far—NPR is about eight blocks from the AAAS building. The rest of the fellows went to sites as diverse as the *Los Angeles Times*, radio station KUNC-FM in Greeley, Colorado, *Scientific American* in New York, and the *St. Louis Post-Dispatch*. Our experiences were very different, but all of us had to figure out how to make science interesting to an average reader or listener.

For me, that meant learning how to tell an engaging story in four minutes or less.

The first time I attempted to write a radio spot, my editor told me, “You picked out the right information to include in the spot, but when would you ever say to a friend,” and then she read with a stuffy air the words I'd written: “Although it's still a contentious hypothesis....”

continued on next page

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I tried to explain that I really do sound that stilted when I talk with my friends. But then I started to realize that, lab meetings aside, I really don't. At some point during my fellowship, my writing started to be influenced by what I call the NPR mantra: "Tell it like you'd tell it to a friend."

That day in the editing booth, I found out that my editor didn't just mean that I had to write conversationally; I had to sound conversational too. After we finished practicing, the deadline for my piece was only seven hours away. I had one chance to record.

My piece wasn't for air, thankfully; it was part of NPR's Intern Edition program. Intern Edition is an in-house newsmagazine that the 50 or so NPR interns put together. I decided to pitch a piece on a grassroots sort of effort to breed a blight-resistant American chestnut.

One Thursday I escaped the city to western Maryland where I interviewed volunteers pollinating a tree in one of their many chestnut orchards. To get good quotes, I had to pretend like I knew nothing about tree biology. I discovered over the summer that going undercover liberated me to ask questions about anything unclear to me. As a graduate student, I would feel embarrassed to ask lots of basic questions, but as a journalist, that was my job!

After I collected my interviews, specific sounds, and ambience sounds (for which I stood in a field holding a microphone to the air for five minutes), I spent what seemed like several weeks writing a script. It was tricky. In radio stories you can't have too much "copy" (i.e., me talking). In print stories a reader can always skip the more boring sections and get to the interesting stuff. But in radio, everything has to capture the listener's ear. The venerable Susan Stamberg (who I didn't know at the time) advised me to mix in bits of sound that might not be particular-

ly relevant, like someone saying "Hand me a nail." I did that, and it really did make the story livelier.

Putting a radio piece together was more challenging than I ever would have expected. For that reason, most NPR interns don't get a piece on the air. My editor wanted to help me get tangible products out of my internship, however, so she encouraged me to write for NPR's website.

For my first web piece, I wrote about ASPB member John Kiss's experiment growing Arabidopsis on board the International Space Station. By taking away gravity, he can learn more about the mechanisms behind the photoreceptors involved in phototropism. Any plant biologist reading my previous sentence probably didn't even realize how jargon-filled it is. To write a story for the public, I couldn't use the words "mechanism," "photoreceptor," or "phototropism." Each time I wanted to use jargon, I had to stare at my computer and take deep breaths. Talking like a scientist is natural to me, and I didn't get used to writing without jargon until near the end of my internship.

I also wrote a couple of web sidebars for other reporters' stories. I loved writing these. I produced a published sidebar in about two days, while my thesis has taken a year-and-a-half so far for me to complete. And I what I really enjoyed about science journalism is that I covered such diverse topics as insects, Pluto, and alternative medicine within a two-week time span.

Perhaps the greatest value of spending time at NPR was seeing that these reporters whose work I really admire are just friendly laid-back people who sometimes make mistakes and who sometimes have to spend five hours in an editing booth getting edited. One day I was telling one of the science reporters how I spoke too slowly when I was recording my narration of my script. She told me not to feel bad; earlier that week some technical

writer in New York had emailed her, her editors, and the producer of the show that ran her story to let them know that he liked the content of her story, but her voice ruined it for him. He said she sounded like a 12-year old girl. How's that for peer review?

Over the 10 weeks, I attended a press conference on the hockey-stick climate curve, called a district attorney's office about a butterfly smuggling case, learned how radio reporters can record the people they call, saw Bruce Hornsby perform on *Talk of the Nation*, suffered through pages of NASA technical documents, figured out what "mixing a piece" means, biked through downtown DC, followed a reporter to a hotel room to interview a group of paleontologists, and watched how NPR coordinated its live coverage of the July 4th space shuttle launch. I shadowed reporters and found out how an idea for a story develops into a piece that airs on a show like *All Things Considered*.

Each day I got to learn about science, but I didn't have to do science. I wrote about everyone else's cool research, not my own. It was great. By August, I dreaded returning to the lab.

At our fellowship wrap-up in Washington, I found out that all the fellows felt the same way. We were all converted. No one planned on leaving graduate school, but all hoped to take up science writing again in the future.

For now, I've moved back to Laramie, Wyoming, where I'm writing my thesis. That is, I'm writing it when I'm not distracted by the trails behind my apartment that run up to the mountains. After I finish my master's work here, I plan to continue with a science writing career. The ASBP/AAAS Mass Media Fellowship has given me a jump-start. 🌿

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CALL FOR ABSTRACTS

Plant Biology & Botany

2007 JOINT CONGRESS INCLUDING:

**American Fern Society
American Society of Plant Biologists
American Society of Plant Taxonomists
Botanical Society of America**

**JULY 7 THROUGH JULY 11, 2007
HILTON CHICAGO, CHICAGO, ILLINOIS**

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 on 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 new field entitled "Broader Impacts" will invite participants to describe novel education and 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 January 2, 2007.
- To be considered for inclusion in a minisymposium, submit abstract by February 14, 2007.
- For inclusion in the Program Book, submit by April 4, 2007.

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 x123.

REMEMBER THE FOLLOWING GUIDELINES:

- A member may submit or sponsor only **ONE** abstract.
- Registration will be required by the last day of pre-registration of May 15, 2007, or your abstract will be pulled 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 super/subscripts.
- Proof your abstract, double-checking any special characters.
- Press the "Submit" button. Acknowledgment will be sent by email.
- Select a topic category from the list to the right.
- If you do not wish your abstract to be considered for oral presentation in a minisymposium, please indicate so on the online form.

The abstracts and program details will be available for viewing and searching online in April 2007. The website will make it possible for you to prepare and print out a personal itinerary to guide you at the meeting long before you arrive.

ABSTRACT TOPIC CATEGORIES

Environmental physiology
Global change
Bio-energy crops
Integrative plant physiology
Heavy metals and phytoremediation
Oxidative stress
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Photosynthesis (light)
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Plant-pest interactions
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Plant-symbiont interactions
Cell walls
Organelle biology
Metabolism
Secondary metabolism
Lipids
Protein targeting and vesicular trafficking
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Protein modification and turnover
Epigenetics
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Genome evolution
Modeling and computational biology
Large-scale technologies and resources
Metabolic engineering
Emerging technologies
Plant biotech and risk assessment

Annual Mid-Atlantic Section Crab Feast

The Mid-Atlantic Section held its annual crab feast at ASPB Headquarters in Rockville on September 29. Jim Tavares was honored by Mary Clutter, Sharlene Weatherwax, and others for his important contributions to plant biology.



The band Natural Selection has been playing great dance music at the annual crab feast for many years. **Above** (from left): Al Torzilli on guitar and vocals, joined by Paul Gardiner on bass.



Barbara and Gerry Deitzer



Al Torzilli



Sharlene Weatherwax and Jim Tavares



Left (from left): Beth Gantt, ASPB past president; Mary Clutter, former NSF assistant director heading the Directorate for Biological Sciences; and Machi Dilworth, NSF Biological Infrastructure Division director, enjoyed the festivities at the Mid-Atlantic Section's crab feast held at ASPB headquarters.

Below right: Beneath an autumn evening sky and framed by colorful leaves, an appreciation ceremony for Jim Tavares (second from left) was held in coordination with the ASPB Mid-Atlantic Section meeting. The program was coordinated by (from left) Beth Gantt, Sharlene Weatherwax, and Zhongchi Liu.



Above left: Jim Tavares (second from right) was honored September 29 by ASPB members, including colleagues who, like him, have managed the Department of Energy's Office of Basic Energy Sciences/Energy Biosciences program (from left): Bob Rabson, Greg Dilworth, and Sharlene Weatherwax. Sharlene is working with new basic plant and microbial research initiatives related to biofuels for the DOE Office of Biological and Environmental Research GTL program. Bob, Greg, and Jim are enjoying retirement.



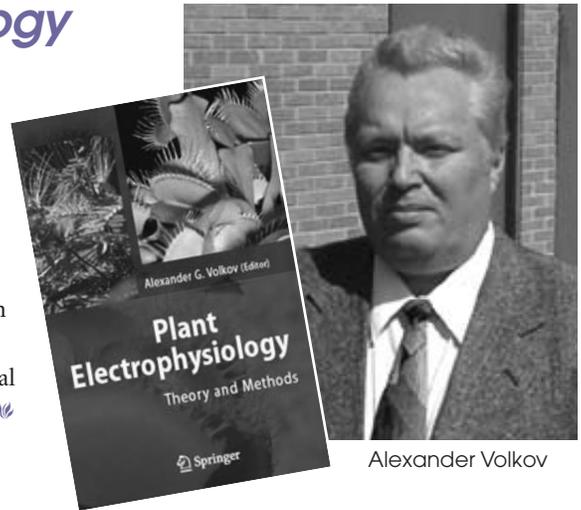


Volkov Editor of *Plant Electrophysiology*

ASPB member Alexander Volkov, professor of chemistry at Oakwood College in Alabama, is the editor of a new textbook that was released by Springer earlier this year. *Plant Electrophysiology* is a compilation of new findings by renowned experts in electrophysiology, bioelectrochemistry, biophysics, and plant electrochemistry. The book includes methods of electrophysiology as well as experimental results and theoretical interpretations.

Volkov is a leading authority in bioelectrochemistry and has published more than

200 papers and edited four books on the topic. Since 1999, he has been awarded nearly \$4.5 million from the National Science Foundation and the National Aeronautics and Space Administration for his research in plant electrophysiology, ultrafast signal transduction, and interfacial phenomena.



Alexander Volkov

Meyerowitz, Somerville Win International Research Prize

Elliot Meyerowitz of the California Institute of Technology was joined by Chris Somerville of Stanford University and the Carnegie Institution of Washington in sharing the \$800,000 prize from the International Balzan Foundation in Milan, Italy, for their work in

establishing *Arabidopsis* as a model organism. Research findings in *Arabidopsis*, a model plant with a simple genome, have contributed to significant advances in plant science.

Meyerowitz and Somerville, both members of the Society, are founding editors of

The Arabidopsis Book, a free access publication supported by ASPB. It can be accessed free by the public as a service of the Society at <http://www.aspb.org/publications/arabidopsis/>.

Fellow of ASPB Award

ASPB is pleased to announce the new Fellow of ASPB Award for current members in recognition of distinguished and long-term contributions to plant biology and service to the Society. As noted by Nick Carpita, secretary of ASPB, who first proposed the award to the Executive Committee: "Our Society offers several awards of distinction for research, but Fellow of ASPB offers the opportunity to recognize those individuals who, above and beyond their excellence in the laboratory and classroom, have made career-long contributions to development and vitality of our plant biology community."

The award was established by the Society's Executive Committee. The inaugural awards will be announced during the opening ceremony for the Plant Biology & Botany 2007 Joint Congress, which will be held July 7–11 in Chicago. Fellow recognition is based on contributions and life-long commitment in areas to include research, education, mentoring, outreach, and professional and public service. Current members of ASPB who have contributed to the Society for at least 10 years are eligible for nomination. Recipients of the award will receive a certificate of distinction. A charter class will be estab-

lished during the first two years of the award to reflect the many members who have provided decades of service to the Society. However, each subsequent year the honor will be granted to no more than 0.2% of the current membership. Information about the nomination procedures will be posted on the ASPB website on January 3, 2007, at <http://www.aspb.org/awards/nominate.cfm>, and nominations will be accepted until February 15, 2007.



The Bioethics Imperative XXVI

Faculty Effort Certifications in a Sea of Change: Unsettled Issues in Current Compliance Practices

(continued from the September/October 2006 issue of the ASPB News)

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

At the core of compliance is each individual faculty member’s obligation. In this column I present the final five of my eight “Catch-22s” of Effort Certification (EC) compliance. (The first three were presented in the September/October 2006 column; *ASPB News*, vol. 33, no. 5, p. 38.) You’ll see that I paint scenarios that end in confusion and that I provide no answers, as there seem to be none at present. Unfortunately for us all, you may find additional Catch-22s of your own. I will close the next and last article of this series on Faculty Effort Certifications with the summary from the University of Washington FCR Report to the Faculty Senate regarding Faculty Effort Certification.

4. What is considered “in” and what is considered “out” of faculty effort? ECs must account for all university-related efforts “including sponsored research [your work that is funded off grants], administration, instruction, unsponsored scholarly activities [the stuff you do but are not paid for; see #3 in my previous column], clinical activity and other activities.” (1) *Sponsored research* is work that is funded off your current grants. Okay, I think I can put outreach into either instruction or *sponsored research* on my NSF grant. I have no patients (or was that patience?!), so I can ignore *clinical activity*. I (and others) get really hung up on *unsponsored scholarly activities* and *other activities*. UW’s President Emmert recently mused aloud something to the effect that “if a faculty member has a dream about his or her research, does that count as university time?” What about show-ers?! More seriously stated, the new focus on A-21 forces us to draw borders between creative endeavors and just plain living. Does the university own us outright as this increased enforcement of A-21 implies?

5. Volunteering, donating time, and unfunded mandates are out. The new stricter enforcement of A-21 makes it illegal for you to either volunteer or donate time to the institution because your institution is not paying you for this time. So you cannot “volunteer” part of your salary to pay a postdoctoral fellow; however, you can pay for all out-of-pocket expenses yourself because federal rules do not apply to how you spend your own money. Better not buy beers for the lab on Friday evening or bring a cake to lab meeting with federal funds, no, no, no! Also your department chair cannot impose on faculty any unfunded mandate (ask you to work for free) by being on a committee, teaching a course, or perhaps even giving a department seminar. You must be compensated for these activities because they cannot be volunteered.

6. Who pays for proposal preparation? Writing a grant can be an *unsponsored scholarly activity*. Regular ladder faculty or research faculty can pay themselves with federal dollars while writing a “noncompeting” grant (for grants that are paid out in yearly increments), but they cannot write a new or competing grant on their current funding because the new grant is not yet funded; it is *unsponsored*. Your chair or dean *must* pay you for hours devoted to writing a new grant (and which stone does *that* money come from?!). Perhaps the chair and dean do not have funds (because they just hired a new faculty member, built a building, did repairs, paid the electric bill, etc.). Do you not write the grant and so let your funding collapse or risk going to jail for an EC violation? Banish the day when you have a good idea for a new proposal!

7. Who pays for curriculum development? See #6.

8. What does one do with departmental faculty meetings, faculty elections, faculty governance, and service to any professional society (e.g., my writing this column, shhh!) or to the federal government (e.g., reviewing grants or being on a panel)? Must all service be squirreled away into some category or another, or be counted in aggregate as some percentage of your EC? Service is a valuable part of any promotion package, but now all these activities that serve to unite us, to elevate and drive our specialties, that we use to reach consensus in our institutions and professions are on the EC time clock. This poses particular problems for research faculty because there are fewer categories in which to squirrel away these activities, and if they have 100 percent salary funded from research grants, they cannot do any of these things without being in direct and clear violation of A-21 (i.e., >100% effort). Do you forgo all such activities and work in a vacuum? How will we set scholarly and professional standards if we cannot talk to each other? Again, best to check with your institution on this point and the level of activity that your Faculty Effort Certification should reflect. 🌿

Next time: Faculty Effort Certifications: Conclusions

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I thank Brent Stewart (chair of the Faculty Council on Research, University of Washington) for permission to quote from the FCR report on FECs and two administrators at UW who provided detailed input and depth to the issues and who wish to remain anonymous.

Reference

1. University of Washington, FCR Report to the Faculty Senate regarding Faculty Effort Certification, January 19, 2006.



Returning to Research: Facing Graduate School After Five Years in the Workforce

1991: Armed with a bachelor's degree (with honors) in agricultural science, I headed out proudly into the workforce. Five years prior, our state Department of Agriculture had employed roughly half of each year's graduates. The previous year, they took around ten. In my year, none! The political climate had really dried up funding for graduate positions. I took a temporary job as a lab assistant for a graduate student in the department where I had studied. Then one day a fortuitous phone call came in to the head of department from someone looking for a fresh graduate for a six-week position (to use up some spare funding).

This job, described in greater and more social detail in a previous column in the March/April 2006 issue of the *ASPB News*, was with the Department of Agriculture as a cereal chemist on the pulse breeding program in Horsham, a country town that was a 3.5-hour drive from Melbourne. "Great," I thought, "here begins my brilliant career as a research scientist." I realized after just a few weeks that I was only slightly elevated beyond a lab assistant, pipetting out reagents and running gels for experiments that someone else had designed and would write up. In terms of publishing groundbreaking papers, I realized that, at best, I would end up in the acknowledgments section. I wanted to be the one designing those experiments!

It took a few more years in the workforce, hitting my head against the glass ceiling but having a fun social life nonetheless, before I decided that it was time to get serious about my career.

1995: I needed to do what plenty of friends had done immediately upon getting their bachelor's degree and start working on a PhD. I just needed to find a project that interested me and a supervisor I liked (and who would take me on).

Luckily, my job at that point was part-time, so I had two days each week to look around. I spent at least 12 months being told by potential supervisors that they were plan-

ning to offer their best graduate projects to the cream of last year's crop. It seemed that a fresh bachelor's degree (with honors) beat a five-year-old bachelor's degree (with honors) every time. Would I ever get my foot back in the door?

Then, gradually, I started to come across potential supervisors who said that they would *rather* have a "mature-age" student working with them. I knew (as they soon found out) that with five years' work experience under my belt that once I settled into the right project (elected by me, not just shunted onto me because I had good grades), I would devote everything to it! I kept knocking on doors. I am the proud owner of three consecutive years' worth of knock-back letters from the *Grains Research and Development Corporation*.

1996: A full 18 months after beginning my quest, I finally found a supervisor and a project that I liked, with funding for a graduate student attached. I announced to my parents and friends that I was returning to study.

Having five years of earnings in the bank made things easier. I could eat better, get the odd cab ride home after late nights, and not have to work at a check-out to earn spending money! There were many culture shocks, however. For example, what should I wear? "Undergraduate slob" wasn't going to cut it at 28, but "corporate office" is impractical in a lab. "Weekend casual"? I purchased a whole new graduate student wardrobe—using *Tori Spelling* from the TV show "Beverly Hills 90210" as my role model. This earned me more than a few odd glances, and pretty soon I found my own middle ground that I like to call "slightly-better-dressed-than-undergraduate-but-still-relaxed-neat-casual."

Next dilemma: Who are the office staff here for? In my previous job, I had free access to a full stationary cupboard, photocopier, fax machine, petty cash, staff Christmas parties, and fully funded work lunches. Back as a student, I couldn't work out why *all* students (even graduate) were considered pond slime,

not to be trusted with even a ream of blank A4 paper to reload the printer themselves, unable to send their own faxes or photocopy essential references without limit. No! We had to woo the secretaries and creep into their domain like eunuchs to beg to send a fax, to justify why we needed more paper for the printer, to ponder with them on who used up the last ream (given out "only last week"), and to adhere to our 100-page-per-month photocopy limit. Not easy in the beginning days of gathering literature from a wide range of sources!

1997: I applied for a few "top-up" scholarships throughout my PhD work, several of which I was told not to apply for "because they don't give them to the same person twice." Wrong! Some of the lesser-known funding pools available for mature-age-vegetarian-daughters-of-ex-servicemen-following-a-career-break (you get my drift) were still available to me, often because no one else had found the fund or applied for it.

Once my project was set up, I really did find that I was more settled and focused than the recent graduates around me. I *knew* why I was there: I was passionate about solving the problem I had been set, and I had other aspects of life (housing, car, adult wardrobe) more or less sorted out.

1999: Experiments winding up, I took a freelance job to earn some top-up funding as a copyeditor with a plant sciences journal. This job gradually took me to my dream job, which I still hold today—editor of *Functional Plant Biology* (again, see my previous column in the March/April issue of the *ASPB News*).

Fast forward to 2006: I still believe that returning to graduate school was the right career move *for me*, as it gained me entry into a job that to this day I love with a passion. I feel extremely lucky to wake up every morning ready to leap out of bed and tackle my inbox (even on a Monday!).

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Cowboy's Delight

I sat in the garden today and contemplated my continual battle against a seemingly impenetrable foe: clay. To be more precise, thick, compacted clay subsoil. And here's the real kicker: clay subsoil with poor drainage. The really nasty kind where, if you dig a hole two foot deep one evening (no mean feat in and of itself) and fill it with water, there will still be eight inches of standing water in it the next morning. After six years I have made some inroads—mainly where I have added copious quantities of topsoil to create nice loamy berms with reasonable drainage. One area remains what local garden guru Lauren Springer refers to as a “hellstrip”: for her a “strip between the sidewalk and the street... pounded to the consistency of baked brick by decades of errant foot traffic, graced by a fine mesh of weeds intertwined with cast-off cigarette butts, and often only appreciated by dogs with a mission.” She (of course!) has created stunning floral displays in such places. However, I suspect there is at least one key difference between my hellstrip and hers: hers has good drainage.

For years I have searched the local nurseries, books, and online catalogs, always to find those dreaded appended words: *Does well in any soil!* (Oops, provided it has good drainage!) I have tried a number of so-called clay-loving plants: poppy mallow, purple coneflower, Joe-pye weed, coreopsis, Johnson's blue geranium, and last but certainly not least, roses. Roses that supposedly grow best in “heavy clay soil.” Of course, this is ridiculous! Heavy clay soil that is amended with “lots of organic matter” is no longer “heavy clay soil” in my book. I have several



Cowboy's Delight (*Sphaeralcea coccinea*)

roses that are doing quite well; they are the ones located in two-foot berms of loamy top soil mixed with organic matter—safely away from the heavy clay. My Johnson's blue geraniums and Moonbeam coreopsis likewise are doing well...also in places I was able to amend and build up to temper the clay and improve the drainage. I have discovered that one of the best plants to grow in the low spots with their alternately too wet and baked dry rock-hard clay is spiderwort (*Tradescantia spp.*). But I need something taller for the fence row, which remains most problematic: It can't be built up because other areas must have somewhere to drain into; it collects too much water from the neighboring lawn (I am unable to set the controls on the neighbor's automatic sprinkler system), and at the same time the west-facing location takes a beating from the intense Colorado sun.

So I was cautiously optimistic to come across a new candidate for the truly heavy clay along my fence row: Munro's mallow, *Sphaeralcea munroana*. This is a taller (supposedly three to four feet tall), commercially available cousin to one of my favorite local wildflowers, *S. coccinea*, also known as “Cowboy's Delight.” I love to find the delicate orange blossoms amid the dusty trampled sage and barren brown hard-packed ground of the prairie dog villages in my neighborhood. *S. munroana* is listed as a deep-rooted wildflower native to the western United States, which is “not the least bit picky about its soil and thrives in heavy clay.” Well, we shall soon find out about that! My fence row will provide the ultimate test. Now, a few months later, a couple of the delicate new plantings have succumbed to the elements. Too much water? Too little water? There is an extraordinarily fine balance between these two that must be achieved to ensure success in the hellstrip. But (delight of delights) it appears to have been achieved in one spot: One little plant, which admittedly has not yet grown upwards very much (it is struggling mightily to put down roots), is still there, still green, and just the other day opened up a tiny flower bud to reveal the loveliest pale orange face. Mine may not equal the delight of a weary cowboy riding the dusty range to come upon such a sunny countenance as this, but it is surely the next best thing. 🌱

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ASPB members share a common goal of promoting the growth, development, and outreach of plant biology as a pure and applied science. This column features some of the dedicated and innovative members of ASPB who believe that membership in our Society is crucial to the future of plant biology. If you are interested in contributing to this feature, please contact ASPB Membership at info@aspb.org.



Name: Joohyun Lee
Title: Graduate Student/ASPB Ambassador
Place of Work or School: Department of Biological Sciences, Dartmouth College

Research Area: Plant nutrition and biotechnology

Member since: 2006

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

ASPB is a leading organization that publishes two of the three top plant journals—*The Plant Cell* and *Plant Physiology*. Therefore, being a member and participating in the organization shows my support for all that ASPB does. Although I have attended some small meetings and seminars before, the Plant Biology 2006 meeting in Boston was the largest meeting I had ever attended. Fortunately, I had the opportunity to serve as a graduate student ambassador of ASPB. When I was at the conference, I talked to many graduate students, including international students, shared my opinions about ASPB and plant biology, and made many new friends who I look forward to seeing at future ASPB meetings. It was a great experience for me.

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

My current adviser, Mary Lou Guerinot, recommended that I join ASPB. Thanks, Mary Lou!

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

There are a lot of graduate students in plant biology, but not many of them are members of ASPB, the largest and most

active professional society in this field. I would tell other graduate students that joining a professional society is important for our careers. First of all, we would all like to publish our papers in *The Plant Cell* and *Plant Physiology*, which are top plant journals from ASPB. Graduate students can also get discounts when they register for ASPB meetings. Moreover, there is an opportunity to serve as an ASPB ambassador. Personally, I did not realize how great an organization ASPB was before I joined it.

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

I am a graduate student, so I have not yet had a chance. However, I will try to use the job postings when I graduate, hopefully soon!

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

Not yet, since I am a graduate student! When I become a PI someday, I will absolutely use them.

6. Do you read print journals? If so, where do you usually read them?

I sometimes read print journals in the library when I cannot find a reference online.

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

Biofortification of crop plants is probably the next “big thing.” Biofortification is an approach to put more nutrients into crops themselves using various molecular techniques and breeding. Many people still suffer from malnutrition and lack of food. Research has been done to increase essential nutrients in crops, but there are not yet many examples where such an approach has been successfully used in the field.

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

I have many people I admire. I really admire the positive attitude of my parents and my parents-in-law, so they are great role models for me. I also admire Dr. Mary Lou Guerinot, my current adviser. I respect her scientific achievements and great multi-tasking skills. I also hold Dr. Youngsook Lee, my previous adviser at POSTECH in Korea, in high esteem, for her scientific enthusiasm and intelligence.

9. What are you reading these days?

I followed most of the tennis articles from the *New York Times* during the U.S. Open series because I wanted to read articles about my favorite player, Roger Federer. Whenever I watched him playing on TV, my attention was always drawn to the way his eyes blaze at the instant he hits the ball.

10. What are your hobbies?

I really love cooking. Interestingly, cooking is very similar to lab work, because the taste is determined by the concentration of ingredients and reaction time at specific temperatures. It is often necessary to try various recipes under multiple conditions to find the most delicious taste, just like lab experiments.

11. What is your most treasured possession?

Well, I am not sure what my most treasured possession is, but I value my wife, Jeeyon Jeong, the most in my life. She is also my colleague, a graduate student, and an ASPB member. I always appreciate her comments on my projects and look to her for guidance.

12. What do you still have left to learn?

As a scientist, I would like to learn more about bioethics. For leisure, mastering French or Italian cooking is my next challenge.





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: Scott Sattler
Title: Postdoctoral Research Associate
Place of Work or School: Michigan State University
Research Area: Plant Biochem-

istry and Genetics
Member since: 2002

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

ASPB provides me with a connection to the wider community of plant biologists.

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

My supervisor, Dean DellaPenna, suggested that I consider attending the Plant Biology meeting in 2002 and become a member of ASPB.

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

I would tell them that ASPB is an excellent society to join because it promotes the broad field of plant biology in many different ways. The Society publishes two top-notch journals, *The Plant Cell* and *Plant Physiology*, as well as a couple important books. It organizes annual international scientific meetings. It acts on behalf of plant scientists to lobby the government for plant biology funding. It promotes plant biology education. ASPB does a great job representing plant scientists and our interests.

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

No, not yet. I am currently looking for positions, and I have applied for posi-

tions I found out about from the ASPB Job Bank.

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

No, but I would certainly consider it in the future, as I set up my own lab.

6. Do you read print journals? If so, where do you usually read them?

No, I usually download the PDF files and print and read them at home.

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

Biofuels and stress tolerance are two areas that I think will probably be increasingly important in the future with global climate change.

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

Barbara McClintock, because she was a pioneer in genetics and she overcame so many obstacles during her career and accomplished so much.

9. What are you reading these days?

I read Al Franken’s book *The Truth* a couple months ago. He’s very funny, and we share something in common—we both grew up in Minnesota.

10. What are your hobbies?

Fishing and cross-country skiing. I also enjoy watching sports, especially football.

11. What is your most treasured possession?

My wristwatch, because it was a gift I received from my wife when we started dating. It has a lot of sentimental value for me and it’s a nice watch.

12. What do you still have left to learn?

A lot. There is so much out there to learn in terms of science and even more outside of science. One thing I want to learn is how to sail.

Future ASPB Meetings



2007: Chicago, Illinois
July 7–11
Hilton Chicago

ASPB will hold its 2007 annual meeting in conjunction with the Botanical Society of America (BSA), the American Bryological and Lichenological Society (ABLS), the American Fern Society (AFS), the American Society of Plant Taxonomists (ASPT), and the Phytochemical Society of North America (PSNA). Mark your calendars and look for more information soon.

Plant Biology 2008
Mérida, Mexico
June 27–July 2

Plant Biology 2009
Honolulu, Hawaii
July 18–22

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

CALL FOR 2007 APPLICATIONS

ASPB Summer Undergraduate Research Fellowship

About the SURF Program

The goal of the ASPB Summer Undergraduate Research Fellowship (SURF) program is to provide opportunities for students to pursue meaningful research in plant biology at their home institutions early in their college years. Ideally, students should be **sophomores** at the time of application and would conduct their research the following summer. Exceptionally well-prepared first-year students and juniors who provide evidence of a strong commitment to plant biology will also be considered. In addition to conducting the research, recipients will be expected to present their results at the ASPB national meeting the following summer, June 27–July 2, 2008, in Mérida, Mexico. Funding is available to attend the meeting through a special SURF Travel Grant (although this may not cover all expenses). ASPB hopes that the opportunity to pursue research during the summer and then present findings at a national meeting will encourage students to pursue advanced degrees and careers in plant biology.

Funding

Each fellowship provides the following:

- \$3,000 student stipend
- \$500 for supplies
- free student membership in ASPB (April 2007 to August 2008)
- a travel allowance to attend the ASPB national meeting. Up to a \$500 travel grant has been set aside for each recipient to offset travel expenses. The student must be a coauthor on an abstract to qualify for the travel grant. Students from overseas or who have very limited access to other resources for travel may make a case for additional travel funds. The student must pay registration and other required meeting fees.

Eligibility

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

Students must

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

Mentors must

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

Selection Criteria

Competitive student applicants should demonstrate

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

The faculty member sponsoring the project should demonstrate

- a commitment to undergraduate education and research

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

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

Proposal Evaluation

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

GROUP A	GROUP B
Research Universities I	Master's Universities and Colleges I
Research Universities II	Master's Universities and Colleges II
Doctoral Universities I	Baccalaureate Colleges I
Doctoral Universities II	Baccalaureate Colleges II
	Associate of Arts Colleges

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

To Apply

The application must be submitted online. The form can be downloaded through the ASPB website at www.aspb.org. Look on the **ASPB homepage** for the link to the **2007 SURF Application** or click on EDUCATION or AWARD for a link.

Deadline: March 1, 2007

- Postmark date for mailed transcript(s). Note: Transcripts may be sent electronically instead (see below).
- Midnight upload to ASPB designated website at <http://www.aspb.org/education/summerundergrad.cfm>.

Application and Attached Files of

- letter of recommendation
- transcripts (that can be sent electronically)
- supporting documents.

We are very pleased to report that with the success of the SURF Program, the ASPB Executive Committee has increased the number of awards from 10 to 15 for SURF 2007. Recipients of SURF awards are notified by e-mail, and contracts are sent by mail. Announcements are posted on the ASPB website. The 2007 recipients are expected to be announced on April 1, 2007.

Questions

Contact info@aspb.org



NSF Strategic Plan Sets Framework for Advances Across Science Disciplines

The National Science Foundation has released its September 2006 five-year plan “Investing in America’s Future.” The plan takes a focused approach to meeting the opportunities and challenges offered in the broad range of science and engineering disciplines.

“Working to broaden participation in science and engineering reinforces NSF’s mandate to fund the best ideas from the most capable researchers and educators, now and in the future,” the plan said.

The investment priorities section of the Strategic Plan is inclusive and balanced in its approach to the different science and engineering disciplines. The “Discovery” section of the priorities section states:

- Promote transformational, multidisciplinary research...emphasizing investigations that cross disciplinary boundaries

and require a systems approach to address complex problems at the frontiers of discovery.

- Investigate the human and social dimensions of new knowledge and technology.
- Further U.S. economic competitiveness.
- Foster research that improves our ability to live sustainably on Earth.
- Advance fundamental research in computational science and engineering and in fundamental applied and interdisciplinary mathematics and statistics.

ASPB and FASEB worked with a number of biological and social science societies in submitting comments to NSF on the priorities section of its draft strategic plan (see *ASPB News*, September/October 2006, p. 47). This July 17 comment letter coordinated by FASEB and ASPB and signed by 15 biological

and social science societies called for inclusive priorities in the strategic plan.

The draft strategic plan had set priorities particularly in the physical and engineering sciences. The 15 biological and social science societies’ letter called for changing the priority emphasis placed on physical and engineering sciences to one that improves the nation’s research capability in all fields of science, engineering, and mathematics.

The improved final version of the strategic plan produced in September appeared to be responsive to concerns expressed in the July 17 comment letter.

National Science Foundation Investing in America’s Future: Strategic Plan FY 2006–2011; http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf0648.

Accessible Treasure Trove of Plant Science Data Envisioned Through NSF Plant Science Cyberinfrastructure Collaborations

A large number of prospective principal investigators participated in the Plant Science Cyberinfrastructure Collaborative (PSCIC) meeting September 18 at NSF offices in Arlington and through a simultaneous webcast of the meeting. The archived webcast can be accessed at <http://www.tvworldwide.com/events/nsf/060918/>.

Chris Greer, PSCIC program director; Machi Dilworth, division director of the NSF Biological Infrastructure Division; and Joann Roskoski, executive officer of the NSF Directorate for Biological Sciences, addressed the attendees.

Greer cited three converging forces for progress that will help shape the PSCIC: plant science, computational and computer sciences and engineering, and cyberinfrastructure. He said the advances NSF is look-

ing for with PSCIC are revolutionary rather than evolutionary.

Greer noted that there will be one competitive grant awarded based on highest scientific merit that will be up to \$50 million for up to five years. There is also the potential for another five years for the program depending upon progress and availability of funds. Pre-proposals are due November 30, 2006. Invited full proposals will be due April 16, 2007. Anticipated site visits will be conducted in June 2007.

Roskoski commented that PSCIC is a model activity—there’s nothing like it right now. “If successful, there are reasons to think this might become a model for all biology. You are the groundbreakers. You are the frontiersmen and women....I am enthusiastic that so many of you are willing to take on

this groundbreaking adventure with us,” she commented.

Dilworth pointed out that the plant science community is prepared to take on this new activity. She noted that there is a need to manage the enormous amounts of plant genome data for the benefit of plant science and the broader science community.

Dilworth noted that there is a long history of plant biologists, physicists, chemists, and other scientists making breakthrough findings through their study of plants that benefit all biology and other science disciplines. Following are some examples she cited:

- In 1665, Robert Hooke, a physicist, made the first observation of a cell. He was studying cell walls of cork.
- In 1827, botanist Robert Brown discovered “Brownian movement,” a ground-

breaking finding in physics on the random movement of particles.

- In 1831, botanist Matthias Schleiden founded “cell theory,” one of the fundamental theories of biology.
- In 1866, Gregor Mendel established the laws of heredity using pea plants. Mendel was far ahead of his time, and the value of his discovery was not initially broadly recognized. In 1900, three botanists, Hugo DeVries, Carl Correns, and Eric von Tschermak, independently rediscovered Mendel’s work.

- In 1909, botanist Wilhelm Johannsen coined the word “gene” to describe the Mendelian units of heredity. Johannsen also made the distinction between phenotype and genotype.
- In 1944, maize geneticist Barbara McClintock discovered transposable elements (jumping genes). Some 40 years later, the highly significant nature of this finding was recognized with a Nobel Prize awarded to McClintock.

What will be the future groundbreaking discoveries on plants that will advance biolo-

gy, physics, chemistry, computer science, and other sciences and reap profound benefits for the public at large? Although the answer is not known, it is expected that the innovative data collection, access, synthesis, and analysis tools for plants that the PSCIC will offer to the science community will contribute to many of the great science discoveries of tomorrow. 

Walker Conducts Congressional Visits in Support of NSF

ASPB joined with other science societies September 13 in conducting constituent visits with congressional offices to advocate support for the National Science Foundation. Scientists urged enactment of the more than 7 percent increase for fiscal year 2007 recommended by the House and by the Senate Appropriations Committee. The Coalition for National Science Funding (CNSF), of which ASPB is a member, called for the Hill visits day.

ASPB member Professor John Walker of the University of Missouri participated in the visits with Senator Christopher (Kit) Bond (R-MO) and his staff, Congressman William Lacy Clay (D-MO) and his staff, staff of Senator Jim Talent (R-MO), and staff of Congressman Kenny Hulshof (R-MO). Walker was joined by ASPB staff and Professor Frank Yin of Washington University in these multidisciplinary team visits. Yin represented the American Institute for Medical and Biological Engineering and also the Biomedical Engineering Society. ASPB scheduled the meetings.

Walker thanked Senator Bond for his strong support of NSF and NSF plant genome research. Senator Bond first championed the NSF Plant Genome Research Program (PGRP) in 1997 and has lead support for the PGRP each following year. Walker



Congressman William Lacy Clay (D-MO) (second from right) voted for increased support for the National Science Foundation in fiscal year 2007 appropriations. Appreciation for Congressman Lacy’s continued strong support for NSF was expressed by (from left) Brian Hysps and Professor John Walker representing ASPB, and Professor Frank Yin representing AIMBE and BES.

also thanked legislative assistant Karla Klingner and Appropriations Committee staff Cheh Kim for their excellent work with the Senator in support of NSF.

In meetings with Congressman Clay and his staff, Michelle Mitchell, and with Congressman Hulshof’s staff, Aaron Smith, Walker thanked them for votes supporting House passage of FY 2007 appropriations legislation increasing funding for NSF. Walker thanked Senator Talent’s staff, Heath Hall, for the Senator’s continued support for NSF.



Senator Christopher Bond (R-MO) welcomed ASPB member Professor John Walker (second from right), Professor Frank Yin (left), and ASPB Public Affairs director Brian Hysps (right) at his office September 13.

Economics professor Scott Swinton of Michigan State University and ASPB staff also met with Congressman Mike Rogers (R-MI) and his staff to express appreciation for the congressman’s vote for House passage of increased NSF funding. ASPB scheduled this meeting in assisting with the CNSF Hill visits day, in which a number of association staff also worked with some nonmember scientists.

As a result of the president’s American Competitiveness Initiative (ACI) and support for his initiative in Congress, NSF is currently on track for the first year of a 10-year plan to double funding for NSF. 

President Bush Calls for Advances in Biofuels Research at Renewable Energy Conference

On October 12 at a renewable energy conference in St. Louis, titled “Advancing Renewable Energy: An American Rural Renaissance,” President Bush cited promising opportunities in biofuels research that will reduce the nation’s dependence on foreign oil. He cited the public need for research related to ethanol, cellulosic ethanol, and biodiesel.

The conference was sponsored by the U.S. Departments of Energy and Agriculture. The president recognized Department of Energy Secretary Sam Bodman and Department of Agriculture Secretary Mike Johanns for their participation in and sponsorship of the conference.

As he began his talk, the president noted that the subject of energy is dear to his heart because it is so closely linked to the health of the economy. He also cited the importance of increasing domestic production of biofuels and other domestic sources of energy to strengthen national security and protect the environment.

Parts of the president’s talk are included here:

“[There is a] technology that will enable us to help change our driving habits, and that’s ethanol. I like the idea of promoting a fuel that relies upon our farmers. I happen to believe a good farm economy is important to a good national economy, and I also know it makes sense to have our—(applause). Sounds like we might have some farmers here. (Laughter.)

“But I also know it makes sense to have our farmers growing the feedstock for new energy. The way I like to tell our citizens is that Johanns is going to come in some day and say, ‘Mr. President, corn is up, which means we’re less dependent on oil.’ And that’s good news for the country and good news for our economy.

“People are using ethanol. For those of you who are in the ethanol business, you’re

on the leading edge of change. It’s coming, and government can help. That’s why we enhanced and extended the 10-cent-per-gallon tax credit. We did that to stimulate production. We’ve extended a 51-cent-per-gallon tax credit for ethanol blenders. We provided a 30 percent tax credit for the installation of alternative fuel stations, up to \$30,000 a year.

“In other words, I believe and Congress agrees that the proper use of tax credits will help stimulate a new industry that will help our economy and help us when it comes to national security. You know, we’re now up to 5 billion gallons of ethanol sold this year. That’s up from 1.6 billion gallons in 2000.

Ethanol—there are now 100 ethanol refineries which are operating. It’s anticipated there are going to be 40 more next year. In other words, we’re just at the beginning stages of a new industry that is evolving. It’s one of the reasons I’m excited to be here. For those of you on the cutting edge, I want to thank you and just let you know we want you to succeed. It’s in our interests that you do succeed.

“Today there are 900 stations selling E85. For those of you who don’t know what that means, that’s 85 percent ethanol. A lot of Americans wonder whether or not this is feasible. A lot of folks aren’t exposed to ethanol yet. In the Midwest you are, you’ve got a lot of corn. And it makes a lot of sense to have these plants where the feedstocks are. But ethanol is coming, and it doesn’t require much money to convert a regular gasoline-driven car to a flex-fuel automobile. The technology is available. It takes about \$100-something to change a gasoline-only automobile to one that can use E85. And it works.

“And in my judgment, the thing that’s preventing ethanol from becoming more widespread across the country is the lack of other types of feedstocks that are required to make ethanol—sugar works, corn works—

and it seems like it makes sense to spend money—your money—on researching cellulosic ethanol, so that we could use wood chips, or switch grass, or other natural materials. (Applause.)

“And we’ve got an aggressive effort to research new raw materials to be used in ethanol. I was down in Alabama—I’m going to tell you an interesting story from when I was down there the other day. I talked to a fellow from Auburn, he’s a PhD—that just reminded me of the difference between a PhD and a C student; the C student is the president, and the PhD is the adviser. (Laughter and applause.)

“But he’s telling me how optimistic he is that someday we’re going to be able to take wood chips from those southern pine forests and convert that raw material into ethanol. He said it’s right around the corner as far as he’s concerned. It makes a lot of sense for the federal government to continue to invest taxpayers’ money, because the more different raw materials that are practical in use, the more ethanol production facilities will spread around the country. And the more spread around, the more production there is and the more likely it is that the entire industry will evolve quicker.

“So you’ve got a lot of plants here in the Midwest. The vision has got to be for these plants to be able to spread throughout the entire country. And when it does, ethanol will become a primary source for the fuel people use, which will help us meet our national security and economic concerns and objectives.

“The Department of Energy announced \$250 million in funding to establish and operate two new bioenergy research centers, all aimed at accelerating basic research into cellulosic ethanol and other biofuels. I suspect we’ve got some soybean growers here. I know you’ve got some in Missouri. (Applause.) I have been to a biodiesel plant

in Virginia. And it doesn't take much capital investment to refine biodiesel from soy, soybeans; it just doesn't. Biodiesel is coming. It makes a lot of sense for us to continue to invest in biodiesel technologies to make the production process even more efficient. I have seen biodiesel poured into a new truck, and watched that truck crank right up, and realized it emitted no emissions. I know, because I put a handkerchief over the stack. (Laughter.)

"These are exciting times, and people are beginning to take advantage of them. I told you I was down in Alabama. I went to the Hoover Police Department. They're using E85. Their people on the beat are filling up their cars with E85. I asked one of the policemen, 'Why do you use it?' He said, 'First of all, I like the fact that it keeps the environment clean'—that's a good reason. He said, 'By the way, when you fill it up with the 85 it gives you better get-up-and-go.' (Laughter.) In other words, it works. That's a good sign when police departments begin to use E85.

"I was over at a FedEx place, and they've got what they call the OptiFleet E700—it's a

new vehicle, aimed at reducing emissions by 96 percent. In other words, people are thinking differently now. There's a whole new industry beginning to evolve. Users are beginning to understand the benefits of using ethanol or biodiesel. These are exciting times.

"The federal government's job is to continue to research so that we provide our consumers, the American people, with more options. Oh, I'm sure there are some people out there saying, well, you know, he's just dreaming. Well, I'm just listening to the dreamers who happen to be good, smart, capable people who know what they're talking about," the president concluded.

The president cited opportunities in motor vehicle power train engineering, including hybrid and plug-in hybrid vehicles. He also called for advances in the areas of nuclear power, solar power, hydrogen power, and wind power.

With increased contacts the past one-and-a-half years, ASPB members have been very active in providing input to DOE and USDA officials on opportunities in cellulosic ethanol, ethanol, and biodiesel research, as well as biochemicals.

Two years ago, few people outside science and industry knew what cellulosic ethanol was. After the president called for cellulosic ethanol research in his State of the Union address earlier this year, a groundswell of support for and interest in research leading to increased, low-cost supplies of cellulosic ethanol arose in Congress, investment firms on Wall Street, and broader segments of the public.

Fundamental plant research will play a pivotal role in learning about aspects of plant cell walls, plant growth and development, plant abiotic and biotic stress, plant genomics, plant genetic mechanisms, plant biochemistry, photosynthesis, and other areas of plants that will turn more new and existing plants into energy crops. This will help turn more farm fields into bottomless supplies of clean, home-grown fuel alternatives to nonrenewable supplies of foreign oil.

The transcript and video of the president's talk at the Renewable Energy Conference can be found at <http://www.whitehouse.gov/news/releases/2006/10/20061012-4.html>. 🌿

USDA and DOE Make Available \$4 Million for Plant Feedstock Genomics Research

The U.S. Departments of Energy and Agriculture (DOE and USDA) announced October 12 that they are seeking competitive grant proposals for \$4 million in bio-based fuels research that will accelerate the development of alternative fuels. The departments issued a solicitation for research proposals for new plant feedstock genomics research projects. Raymond L. Orbach, DOE undersecretary for science, made the announcement at "Advancing Renewable Energy: An American Rural Renaissance," a conference jointly hosted by the two agencies in St. Louis.

"We are seeking to accelerate research breakthroughs that contribute toward making biofuels a cost-effective alternative to fos-

sil fuels, with a goal of replacing 30 percent of transportation fuels with biofuels by 2030. Close and effective cooperation on research between the Departments of Energy and Agriculture will be an important element for the success of this effort," Orbach said.

"This joint research initiative shows a commitment to acquiring new alternative energy resources and improving the efficiency with which biomass and plant feedstocks are used to produce renewable fuels such as ethanol," undersecretary of agriculture Tom Dorr said.

The new funding continues a commitment, begun in 2006, to conduct a fundamental research program in biomass

genomics to provide the scientific foundation to facilitate the use of woody plant tissue, specifically lignocellulosic materials, for bioenergy and biofuels. Developing lignocellulosic crops for energy fuels could use less-intensive production techniques and poorer quality land, thereby avoiding competition with food production on better quality land.

The program will take advantage of significant advances in breeding, molecular genetics, and genomic technologies and build upon the existing knowledge base of plant biology to enable researchers to confidently predict and manipulate plants' biological function for bioenergy resources.

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In 2006, DOE's Office of Biological and Environmental Research (OBER) and the USDA Cooperative State Research, Education, and Extension Service (CSREES) National Research Initiative began the joint competitive grants program. The program focused on fundamental research on plants

that will improve biomass characteristics and yield or that will facilitate lignocellulosic degradation. In August 2006, the agencies awarded nine research grants totaling \$5.7 million spanning three years.

Information about the joint research program, the current solicitation, and currently funded projects is available at <http://>

genomicsgtl.energy.gov/research/DOEUSDA/. The solicitation is posted on <http://www.grants.gov/>.

Private Industry Representatives Discuss Cellulosic Ethanol Plans, Challenges

Representatives of several private companies developing cellulosic ethanol technologies discussed some of their plans and challenges at a congressional briefing in the Longworth House Office Building Friday, September 22, sponsored by the Environmental and Energy Study Institute (EESI).

EESI noted that "as our country faces a future of growing oil imports and national security concerns, volatile oil and gas markets, climatic shifts, and potentially more challenges to our agricultural policies—cellulosic ethanol technologies are emerging as a part of the solution to all of these problems. But there are significant issues surrounding deployment of these technologies that need to be addressed." The names of presenters and links to their PowerPoint presentations follow:

- Maurice Hladik, Director of Marketing, Iogen Corp.
- John Doyle, Vice President, Operations, Celunol Corp.
- R. Klann, Chairman, President, CEO, BlueFire Ethanol, Inc.
- Thomas Murray, Managing Director and Co-Head, Loan & Debt Capital Markets, WestLB Securities, Inc.

<http://www.eesi.org/briefings/2006/Ag&Energy/9-22-06%20Cellulosic/9-22-06Cellulosic%20notice.htm>

This information on current private industry interests and capabilities with regard to cellulosic ethanol, which are still at the developmental stage, may be of interest to potential applicants for Department of Energy grants for establishment of GTL Bioenergy Research Centers. The Bioenergy Research Centers will develop novel biological solutions for the production of such fuels as cellulosic ethanol or other groundbreaking bioenergy research with the potential to revolutionize biology-based energy production. Current private industry cellulosic ethanol technologies are expected to be outpaced by technologies resulting from the DOE basic plant and microbial Bioenergy Research Centers initiative.

ASPB was a contributing sponsor to a congressional seminar May 8 in the U.S. Capitol Building presented for National C-FAR by ASPB member Ken Keegstra on "Turning Green into Yellow—Improving Plants for Use as Home Grown Biofuels." Keegstra explained to congressional staff and others in attendance exciting basic plant research opportunities that will lead to cost-effective production of cellulosic ethanol. Keegstra's PowerPoint presentation can be found on the ASPB website at http://www.aspb.org/downloads/C-FAR_May%208_handout.pdf.

An EESI representative who attended Keegstra's May 8 presentation after being notified by ASPB public affairs staff subsequently served as moderator of the cellulosic ethanol program held last week. Interest in Congress in cellulosic ethanol and research leading to its production appears to be increasing. ASPB initiated its campaign with Congress and the administration early last year to explain opportunities in basic plant and microbial research that will lead to cost-competitive cellulosic ethanol production.



Plants in Print

Well, it has fallen to me to write the Ed Forum for the *ASPB News*. So what to write about? I ask myself. What might readers of the Ed Forum find educational? How about recommending, with a short review, interesting books with a plant-centric focus? Sounds like a reasonable idea, and so that is what I intend to do.

The focus of this issue of “Plants in Print” is the book by Michael Pollan titled *The Botany of Desire: A Plant’s-Eye View of the World*, published by Random House.

From the opening remarks—“And what I found myself thinking about was this: What existential difference is there between the human being’s role in this (or any) garden and the bumblebee’s?”—you quickly realize that this book is going to take a somewhat different perspective on the relationship between us and plants. We are all well aware of the idea of coevolution, how the flower and the bee have stepped hand-in-hand through evolutionary history, each changing the other, optimizing the overall benefit to both. However, what we

generally do not think about in this type of coevolutionary framework is our relationship to the plants we cultivate. Sure, we readily understand that we selected the apple to taste good or the flower to look beautiful, but what we do not think about is how the plants have played upon our desires. As the author states, “We automatically think of domestication as something we do to other species, but it makes just as much sense to think of it as something certain plants and animals have done to us, a clever evolutionary strategy for advancing their own interests.” When talking about domestication the author politely points out, “What is much less obvious, at least to us, is that these plants have, at the same time, been going about the business of remaking us.”

The author clearly sets the stage for this interesting book in the first few pages: “[He] takes seriously the plant’s point of view.” To elaborate on this theme, the author has chosen the apple, the tulip, cannabis, and the potato. Though a rather unlikely collection

of domesticated plants, all have very interesting natural histories around which the author elegantly weaves his theme. Each plant is an allegory for the four desires Sweetness, Beauty, Intoxication, and Control. And each tale relates fascinating facts, such as Johnny Appleseed as the American Dionysus, or a virus as responsible for driving Tulipomania in 17th-century Holland, when a single bulb of the prized Semper Augustus tulip sold for the equivalent of an elegant house by the canal. The tales about each of the plants—apple, tulip, cannabis, and potato—are great fun, but when infused with the author’s central idea that domestication is a two-way street, the book becomes more than just another natural history text. What you end up with is a very thought-provoking read, humbling to those homocentric out there and uplifting for all us plant lovers. 🌱

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Katherine Krolkowski at her interactive display “How Gene Expression Molds Plant Development—A Hands-On Experience.”

The Education Booth

The Education Booth at this year’s Plant Biology meeting in Boston August 5–9 was busy almost constantly during exhibit hours. Education Exhibit Competition winners Katherine Krolkowski and Rajnish Khanna presented an interactive display titled “How Gene Expression Molds Plant Development—A Hands-On Experience.” This new exhibit was developed for a community center as part of a larger “Hands-On Biotechnology” program (see www.handsonbiotech.org) in Richmond, California. The other Education Exhibit winner, Judy Brusslan, presented a display titled “Hands-On Approaches to Learning for Elementary through Undergraduate Level Classes.” This exhibit shared Judy’s outreach experiences in working with third-graders and extended the lessons learned to teaching undergraduate classes

more effectively. In the third exhibit, Paul Williams engaged meeting attendees with experiments using his highly acclaimed Wisconsin Fast Plants (see www.fastplants.org). Fast Plants are widely used by students and teachers across the nation and have been used by several ASPB members as part of their outreach and “broader impact” efforts. Finally, Claire Hemingway talked to ASPB members about a new collaborative education project between the Botanic Society of America and ASPB called “Planting Science.” This ambitious project will link high school students and teachers who are performing plant experiments with plant scientists all around the country (see www.plantingscience.org).

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Educational Workshop: “Using Case Studies to Augment Science Teaching”

For this workshop, held during the Plant Biology 2006 meeting in Boston this past August, Susannah Gal talked briefly about her experience with cases and then had the “students” do a case. She picked Seeds of Dissension since it was related to plant biology. That took about 45 minutes. She then led a debriefing session on the case and spent time describing how she has used cases and

her experience and next showed some of the other cases and notes on the University of Buffalo website (see <http://ublib.buffalo.edu/libraries/projects/cases/case.html>). There were about 25 participants, and they all seemed to come away from the workshop energized and excited about using cases in their classes. Comments from the participants included, “This activity was more

engaging than sitting through a lecture—and a lot more fun.” “Great workshop! Good information to take back to the classroom.” “Very helpful. Thank you!” “Thanks—great ideas”!

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ASPB 2006 Grant Award Program Winners Focus on Mass Media and Minority Education



Beth Judy

Beth Judy

Flora Delaterre, Plant Detective. For 10 years, she’s traveled the world in search of the mysterious, and often disappearing, plants that have created some of the most effective medicines known today. Her motto: “Medicinal plants are everywhere and you’ve got to treat ’em right, ’cause some day, they might be treating you.”

The creation of a University of Montana professor and ASPB member and radio producer Beth Judy, “The Plant Detective” will now be aired across the country on National Public Radio. The ASPB Education Foundation has awarded Judy a 2006 Grant Awards Program (GAP) grant of \$14,250 to support this 90-second spot illuminating the benefits, risks, and efficacy of individual medicinal plants.

The show has run on Montana Public Radio for 10 years with overwhelming results, and in 2002 “The Plant Detective” was picked up by 25 affiliates from Alaska to Arkansas, reaching an estimated 708,000 listeners. With funds from ASPB, Judy and her colleagues are embarking on a three-year goal of adding 100 stations and more than 3 million listeners.

Each segment focuses on one plant, explaining how its chemical and biological functions provide remedies to specific ailments. The plant’s growing conditions, habitat, and cultural uses are often covered as well. Past examples include now extinct sylvan, used as birth control in Ancient Rome; foxglove, used to make cardiac drugs; and calabar bean compounds, used in modern anesthetics. Detective Delaterre also explores plants that hold promise of future cures. Judy believes that people will more readily understand the importance of plants when their health is directly involved.

CDs and accompanying print materials will be distributed at national broadcasting conferences and marketed directly to NPR affiliates. The program will also be available on the Internet.

Regina McClinton

In support of its mission to encourage minority students to pursue careers in plant science, ASPB’s Education Foundation has awarded Regina McClinton a GAP award worth \$14,250 to create an exhibit on George Washington Carver at Baltimore’s National Great Blacks in Wax Museum. McClinton is a



Regina McClinton



Steven Strauss



Daniel Scheirer



David Stern

biology professor at Grand Valley State University in Michigan.

Though remarkably accomplished, Carver is little known for his vast discoveries that encouraged sustainable agriculture and expanded economic opportunities for African Americans in the late 1800s. Understanding that cotton was depleting the soil of nitrogen, he promoted planting legumes. To create a market, he developed more than 300 uses for peanuts, as well as more than 100 products from other crops. Newly freed slaves could fulfill the demand for these goods through agriculture, often the only permissible job.

McClinton's exhibit will present Carver's life story, from his beginnings as a slave and orphan to receiving his PhD and becoming director of research and experimentation at Tuskegee Institute. It will highlight the importance of his work to agriculture, medicine, and society. Virtual tours and online education will also be available.

The Great Blacks in Wax Museum seeks to motivate youth to achieve and to dispel myths of racial inferiority by highlighting minority role models. It is planning a 120,000-square-foot expansion, and the Carver exhibit will be part of a new Gallery of Science and Technology.

Steven Strauss

Oregon State University Professor Steven Strauss believes that public controversy over the use and safety of bioengineered foods is unnecessarily exacerbated by limited, and perhaps misleading, information. In response, he has created the *Food for Thought* public lecture series, which the ASPB Educa-

tion Foundation is funding with a GAP award worth \$10,450.

The goal of the program is to present the average person with accurate and objective information on GMOs. To that end, renowned experts in the fields of science, philosophy, journalism, and ethics put into plain language facts about and issues surrounding the technology. Past topics have included the science and environmental impacts of genetically modified foods, crop domestication, and vaccine development from plants.

This program began in 2005 on the OSU campus and drew more than 150 people to each of the seven events. Eventually, two of the presentations were recorded and podcast, generating thousands of viewers. Strauss's grant will be used to tape and podcast 10 upcoming lectures over the next two years. The programs will be disseminated through listservs such as the K-16 educators, the National Science Teachers Association, the Society for Science College Teachers, and biotechnology-related lists.

Daniel Scheirer

Daniel Scheirer and his team at Northeastern University will be putting students from kindergarten to college behind the wheel of a fuel efficient car—virtually. This is just one of the interactive games they have created to provide hands-on learning about the development and uses of biofuels.

Renewable Biofuels: From Camarasaurus to Corn explains the process through which plants create energy; how the energy is transformed into biofuels; and how the technology fits into the greater scheme of politics,

business, and everyday life. ASPB has awarded Scheirer \$21,888 to develop and market the project on the Internet and CD.

Users learn to identify different fuels in addition to understanding the problems or risks associated with each. In another activity they are shown a step-by-step procedure through which plants are used to make biofuels. Afterward, they must recreate the process by choosing icons on the screen and placing them in order. The end result shows the carbon cycle from corn seed to eventual release of carbon dioxide. The program uses simple and more technical scientific language to accommodate any teaching level.

A novel approach to understanding fuel economy allows participants to choose from a variety of cars and fuels to meet criteria put forth by the activity. Guidelines may ask users to find the combination that allows for the greatest distance on a single tank of gasoline or to choose the most environmentally friendly combination. Students also analyze and interpret the data.

David Stern

Next time you're listening to National Public Radio, keep your ear tuned for "MicrobeWorld," a 90-second spot illuminating the benefits of plant-related microbes. ASPB has awarded David Stern, president of the Boyce Thompson Institute (BTI) at Cornell, a GAP award worth \$9,975 to develop stories for the announcement.

"MicrobeWorld" sponsors are acknowledged on air, and in three years BTI has gained widespread name recognition from the broadcasts. Stern's grant will be used to produce nine stories credited to ASPB in 2007. Eighty public radio stations broadcast the spot nationwide. Given this distribution and the frequency of announcements, Stern estimates that ASPB will be identified at least 680 times next year.

Additionally, the programs are free to download off the "MicrobeWorld" website or are available as a podcast through iTunes. Nearly 1,000 people subscribe to the podcast, and the site records close to 100 downloads each day.

Organ Donor Gift of Lifetime for ASPB Member Slovin's Son

ASPB member Janet Slovin's son, David, was diagnosed with end-stage renal failure last winter. This meant that he had to be on dialysis until he could get a kidney transplant. An organ donor named Kim, formerly unknown to the Slovin family, with two healthy kidneys and a big heart, responded to an adoption agency newsletter story about David that was sent to her by an acquaintance.

On August 28, Kim underwent surgery to give one of her kidneys to David. "Kim gave us the gift of a lifetime. Needless to say, there are not enough words or ways for us to thank her. One way we hope to tell her how much her gift means is to help publicize the great need for organ donors.

Please, if you have not done so, be sure to check off to be an organ donor on your driver's license and be sure to discuss your wishes with family," Janet said.

Kim sent Janet the following information in an email:

"As I looked into the details of becoming a kidney donor, I learned a lot:

- Nearly 400,000 Americans are being treated for kidney failure, or end-stage renal disease.
- Kidney disease is the ninth leading cause of death in the United States.
- In 2004, about 4,000 kidney patients died awaiting a transplant.
- Currently there are more than 67,000 patients on the wait list for a kidney

transplant.

- The number of children waiting for a kidney transplant is approaching 1,000." Kim's expenses were paid by the National Kidney Foundation, so another way the Slovin Family showed its appreciation was by participating in a Kidney Walk on October 14. Kidney Walks are designed to help people understand the need for early detection of kidney disease and to raise funds for research and help for patients and their families. Kim and her family also participated in the walk. Donations can be made through the following website: <http://www.firstgiving.com/kimberlyblanchard>.



CALL FOR PAPERS

Plant Physiology Focus Issue on Legume Biology

Deadline for Submissions: February 1, 2007

To submit an article, please go to <http://submit.plantphysiol.org>.

Plant Physiology is pleased to announce a Focus Issue on Legume Biology to be published in June 2007. The issue will be edited by Carroll Vance and Mark O'Brian. Submissions in all topics of legume biology are welcome, including genomics, model legumes, interactions with microorganisms, nutrient acquisition and metabolism, regulation, signaling, and development.

Authors interested in contributing should indicate this in the cover letter when submitting papers online at <http://submit.plantphysiol.org/>. Please select "Legumes (June, 2007)" from the Focus Issue list in the online submission system. Articles published within two years before and after the Focus Issue will be considered for inclusion in an online Focus Collection of articles relevant to the focus topic.

Please contact Carroll Vance (vance004@tc.umn.edu) or Mark O'Brian (mrobrian@buffalo.edu) for additional information.





Hans János Kende

Hans János Kende, a university distinguished professor emeritus in the Department of Energy Plant Research Laboratory (PRL) and the Department of Plant Biology at Michigan State University, East Lansing, died September 26, 2006, at the age of 69. Hans was widely known for his work on the biosynthesis and mode of action of plant hormones. In addition to being an excellent plant scientist, Hans had a strong sense of community and was a vigorous promoter of plant biology at Michigan State as well as at national and international levels. He was recognized worldwide as an elder statesman in plant science.

János was born in Székesfehérvár, Hungary, in 1937. A happy, comfortable life was interrupted in 1941, when his father was sent to forced labor camp as part of the Hungarian army, where he died in February 1943. In 1944, after Germany invaded Hungary, János and his mother were evicted from their home and sent to a ghetto, then to the local brick factory to await deportation. When the train of boxcars arrived, 30 people, including János, his mother, and a few relatives, were called forward from the group of nearly 3,000 people. This fortunate group of 30 was taken to Budapest instead of Auschwitz, where the other people were immediately exterminated. In Budapest, János and his mother became part of a group that was to be sent to a neutral country as a “good will” gesture by the Germans to support the rescue negotiations of Rezso Kasztner and Joel Brandt with Adolf Eichmann. The group, however, was first taken to Bergen-Belsen, where János and his mother were kept for over six months until their rescue from almost certain death (due to starvation and disease). They were finally transported to Switzerland at the end of December 1944, where János was given the name “Hans.” His ordeal was not over, for after a few days, the children were separated from their mothers and sent to children’s homes. This painful



separation lasted almost three years for Hans, until his mother remarried and he could join her in Zurich. Although he had taught himself to read and write in Hungary, he had little formal education. One source of delight for Hans was learning the *Odyssey* by heart from a scholar at the children’s home. In

Zurich, Hans was enrolled in fourth grade and quickly made up for the slow start in his formal education, becoming the first student of that elementary school to pass the entrance exam to the Gymnasium.

When he was 16, Hans met Gabriele Guggenheim, who was to become his lifelong partner. They married in 1960 and, over 40 years later, Hans related that not a day had gone by that he wasn’t happy since they had gotten together.

Hans chose his field of study with care, as he did so many things in his life. When Hans and Gaby decided to live on an Israeli kibbutz after their marriage, Hans contacted the kibbutz and asked what skills were needed. The answer: agriculture and dietetics. Hans put aside his interest in becoming a brain surgeon (a decision he never regretted) and delved into plant science, while Gaby studied dietetics. In fact, they never made it to that kibbutz, which, fortuitously for the field of plant science, had changed the direction of this gifted scientist.

Hans earned his PhD in 1960 from the University of Zürich. His research focused on the biosynthesis of trigonellin in the coffee plant. His first postdoctoral work was with A. S. Holt at the National Research Council in Ottawa, Canada, where he studied chlorophylls in green photosynthetic bacteria. It was not until he moved to Caltech in 1961 as a postdoctoral research associate with Anton Lang that he started to work in the area of plant growth and development, the area in which he would make many major contributions.

Hans made his first major discovery while working at Caltech with gibberellins. In the

1950s, a group of chemicals known as growth retardants had been described; these chemicals caused dwarfing in plants, but their mechanism of action was unknown at that time. Hans tested the hypothesis that these chemicals inhibited gibberellin biosynthesis. Gibberellins in green plants were still poorly understood, so Hans chose to study the fungus *Fusarium moniliforme*, which produces copious amounts of gibberellin. His results demonstrated that growth retardants block gibberellin biosynthesis in the fungus, and later work showed that this is also the mode of action of the growth retardants AMO-1618 and CCC in green plants. This example illustrates Hans’s approach to research throughout his career: He always asked specific, important questions and then selected the most suitable biological system in which to look for an answer.

During his two years (1963–1965) at the Negev Institute for Arid Zone Research, Hans focused on the role of cytokinin in senescence. He and collaborators showed that cytokinin is produced in the roots and transported to leaves, where it prevents leaf senescence. Thus, cytokinin could be assigned the role of Chibnall’s hypothetical root factor. After joining the PRL in 1965, Hans continued his studies on the role of cytokinin in delaying senescence. During a sabbatical leave in Switzerland, he initiated work on the rapid senescence of morning glory flowers. This work resulted in a series of publications on the role of ethylene in the fading of flowers. It was established that ethylene regulates senescence by positive feedback, as evident from the observation that brief exposure to exogenous ethylene strongly induces endogenous ethylene production. Ethylene is derived from methionine, and shortly after the discovery, by Shang Fa Yang’s lab, that the immediate precursor of ethylene is 1-aminocyclopropane-1-carboxylic acid (ACC), the Kende lab quickly developed a chemical assay for ACC. This assay became widely used around the world.

Hans’s group was the first to purify ACC synthase from tomato fruit tissue and to

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generate monoclonal antibodies specific for ACC synthase. Wound-induced ACC synthase proved to be synthesized *de novo* and to be the rate-controlling enzyme for ethylene synthesis. When molecular biology techniques came on the scene, Hans's lab quickly adopted them to isolate a cDNA clone encoding ACC synthase. They then used this clone to demonstrate that ACC synthase is encoded by a small gene family whose members are differentially expressed during wounding. Hans and his colleagues continually adapted their approaches as new techniques became available; his work on ethylene shows a remarkable transition from physiological to biochemical to molecular approaches.

As a postdoc, Hans had found that dark-grown dwarf peas were much more responsive to applied gibberellin than light-grown seedlings. This kindled Hans's lifelong interest in plant hormone receptors. During his early years at the PRL, he synthesized cytokinin and gibberellin of high specific activities, but failed to detect specific binding by classical biochemical methods. Much later, Hans saw the possibility that hormone receptors might be found in *Arabidopsis* by isolation of hormone-insensitive mutants. In collaboration with Chris Somerville's lab, a screen for ethylene response mutants was designed. The picture of the ethylene-insensitive *etr* mutant seedling towering above a canopy of dwarfed seedlings, whose growth is suppressed by ethylene, is a classic one that has been widely reproduced. This work led in turn to isolation of the *ETR* gene (in Elliot Meyerowitz's lab). Subsequent work demonstrated that the *ETR* gene encodes an ethylene receptor, the first plant hormone receptor to be identified.

Hans's lab initiated pioneering work with the semi-aquatic plant deepwater rice, in which ethylene has a growth-promoting effect—quite the reverse of its effect in terrestrial plants, where it inhibits growth. Hans's group unraveled the chain of events that leads from submergence to accelerated growth. Three hormones—ethylene, abscisic

acid, and gibberellin—participate in response to changes in the internal gas composition. Low oxygen tension promotes ethylene synthesis, which reduces the level of abscisic acid and stimulates synthesis of gibberellin, the immediate growth-promoting hormone. Elongation of internodes is based on increased cell division in the intercalary meristem and subsequent elongation of these newly formed cells. Cell expansion is made possible by relaxation of the cell wall, and this cell-wall loosening is at least partially mediated by expansins. Further evidence in support of the role of expansins in growth and development was obtained with transgenic plants over-expressing *EXPANSIN* genes. Such transgenic plants grew taller, whereas antisense plants were shorter than control plants. Another important finding in the work with deepwater rice was made by Hans's graduate student Ilya Raskin, who showed in elegant experiments that aeration of partially submerged leaves takes place by mass flow through air layers along the leaves. Until this seminal work, aeration had been thought to occur through internal air spaces.

Hans received numerous honors for his outstanding contributions to science, including election to the German Academy of Natural Sciences, Leopoldina (1985), Fellow of the American Association for the Advancement of Science (1990), and the U.S. National Academy of Sciences (1992). He was awarded a university distinguished professorship at Michigan State University (1990) and the Stephen Hales Prize from the American Society of Plant Physiologists (1998).

Hans was a dedicated advocate for plant biology. For example, when in 1998 the Nobel Prize for Physiology or Medicine was awarded for “nitric oxide as a signalling molecule in the cardiovascular system,” representing a new principle—signaling by a gaseous molecule—Hans was quick to point out in a letter to *Science* that plant biologists had discovered ethylene as a gaseous signaling molecule much earlier.

Hans served the plant sciences, and science in general, in many different ways: as a member of grant review panels and journal

editorial boards and on many committees for the National Academy of Sciences and the National Research Council. He served ASPB in many different capacities. He was an effective member of the Board of Trustees during the critical period when the Society was in transition from a semi-volunteer to a professional organization. He also chaired the Membership Committee of the Society, and his work led to a significant increase in membership. He further promoted the plant sciences during the early 1990s when funding was dismal: He took the initiative in organizing groups of plant biologists to meet in Washington, DC, with congressional delegations to request increased funding for agencies that supported plant biology.

Hans is survived by his wife Gaby, sons Benny (Pamela) and Michael (Caroline), daughter Judi (Rael Mazansky), and seven grandchildren. Hans was a kind and giving person with high professional standards and a keen sense of humor. Few of his colleagues would be unable to recall an occasion that was made memorable by Hans's sparkling wit. He was always generous in giving credit to his associates. His altruism in helping and promoting others, especially younger colleagues, is legendary.

More than anything, Hans enjoyed spending time with his family. He and Gaby often traveled to Switzerland, their “other home,” for hiking or skiing in the Alps and for visiting friends and family. A passionate fan of classical music, he often scheduled his vacations to take greatest advantage of Europe's summer music festivals. Hans put much effort into taking care of his health, taking care of his family, and planning for a full and active retirement. It is unfortunate that he wasn't given more time to enjoy it. He is greatly missed by his family, friends, and colleagues, but his legacy lives on through his published work and through the careers of the associates and students he mentored. 🌿

**Karen Bird
Jan Zeevaert**

Michigan State University

The account of Hans's early life was provided by Gaby Kende.

Jack Hanson

John “Jack” Hanson was born on March 24, 1918, in Denver, Colorado, the son of Bernard Hanson and Emily Vogt Hanson. He grew up in rural Colorado and married Rebecca Hanson (her maiden name) on January 30, 1943. They had three daughters—Emily, Betsy, and Lois—and seven grandchildren.



Dr. Hanson served in the Army from 1940 to 1945, stationed in Tunisia, Italy, from 1943 to 1944. After WWII, he received his bachelor's degree from the University of Colorado and his master's and doctorate degrees in plant physiology from Washington State University. He was the first member of his family to graduate from college. In 1953, he began what was to be a 32-year career as a faculty member at the University of Illinois. He was employed first by the Agronomy Department, where he achieved the rank of full pro-

fessor. From 1967 until his retirement in 1985, he served as head of the Department of Botany. His scientific papers were frequently published in professional journals, and he successfully mentored graduate students from all over the world.

Jack Hanson was a Fulbright Scholar at the Waite Institute, Adelaide, Australia; took study leaves in England and at the University of California at Davis; and served as president and interim executive director of the American Society of Plant Physiologists. He also researched and wrote the first comprehensive history of the society, titled *History of the American Society of Plant Physiologists*, published in 1989.

He was known as a talented singer and songwriter, often entertaining friends and family with his renditions of traditional cowboy songs. For special occasions, he often composed what he called “ditties.” Two of these, “Animals Talk” and “There’s a Mouse

in Our House,” he published as children’s books. He was an avid gardener, reader, and clock collector. He and his wife traveled all over the world, attending elderhostels and visiting friends and family. He was a member of the Community United Church of Christ for 53 years.

Memorial contributions may be made to the Community United Church of Christ, Champaign, or to the John B. Hanson Scholarship Fund, a need-based scholarship for University of Illinois undergraduates from rural backgrounds studying the plant sciences, c/o U of I Foundation, 1305 W. Green St., Urbana, IL 61801.

submitted by Lois Hanson

Colleagues of Professor Hanson’s are preparing a tribute to him for the January/February 2007 issue of the ASPB News. Mrs. Hanson welcomes messages from her husband’s former students. She can be reached at 101 W. Windsor, Apt. 2106, Urbana, IL 61802; jbhanson@uiuc.edu.

Helen A. Norman

Dr. Helen A. Norman, a former plant physiologist with the Agricultural Research Service of the U.S. Department of Agriculture, died at her residence in Beltsville, Maryland, on September 7, 2006, after a long bout with cancer.



Helen was born in Liverpool, England, on December 6, 1957. She received her B.Sc. with first class honors in botany and biochemistry at the University College of Wales, Aberystwyth, Wales, in 1979. She did her doctoral work with Professors Michael Black and John Chapman at Queen Elizabeth College, University of Lon-

don, and received a PhD in biochemistry and plant physiology in 1982. The title of her dissertation was “Investigations on the Mechanisms of Control of Sensitivity of Developing Wheat Aleurone Cells to Gibberellin.” She was a member of both ASPB and the Society for Experimental Biology.

Helen began her work in the United States in 1983 as a postdoctoral fellow in the laboratory of Dr. Guy Thompson, Jr., in the Department of Botany, University of Texas at Austin, and remained there from 1982 to 1985. Dr. Tom Mabry, who headed the department at the time, was instrumental in securing her a green card. Her research with Thompson culminated in the publication of eight scientific papers. In 1985 she accepted a postdoc-

toral position in the Weed Science Laboratory of the Agricultural Research Service, U.S. Department of Agriculture, Beltsville, working with Dr. Judy St. John. During the next several years she made great strides in developing improved analytical techniques for separating and quantifying molecular species of fatty acids and plant lipids.

Helen Norman had a distinguished scientific career at USDA, with major effort focused on the role of lipid metabolism in chilling injury. She obtained U.S. citizenship on October 30, 1992, and was given a career-conditional appointment with the Agricultural Research Service shortly thereafter. During her career with USDA, she collaborated with a large number of colleagues at Beltsville and other institutions. She and her coworkers conducted comprehensive studies on a wide

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range of subjects. I had the good fortune of working with Helen on a number of studies on changes in membrane lipids and fatty acids in response to UV-B radiation exposure and water stress, and during temperature preconditioning against SO₂ exposure.

In June 1998, Helen had to relinquish her appointment with USDA and retire on medical disability because of cancer. Despite repeated bouts of cancer, and follow-up chemotherapy and radiation treatment, she never lost her enthusiastic spirit or keen interest in science. During the past four years, she served as associate director of research for the American Institute for Cancer Research, reviewing grant proposals and handling a myriad of other assignments. She will be sorely missed by her family, friends, and colleagues.

Surviving Helen are her mother, Marjorie Norman, of Oxfordshire, U.K.; her brother Peter of Oxfordshire; her brother Stephen of Coventry, U.K.; her sister June Norman Ellory of Sydney, Australia; and several nieces and nephews. A memorial service was held at St. Joseph's Catholic Church in Beltsville on September 26, 2006. A subsequent service was held in the United Kingdom for family members.



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CALL FOR APPLICATIONS

ASPB Travel Grant Program for Plant Biology & Botany 2007 Joint Congress in Chicago

ASPB is now accepting applications for travel grants to Plant Biology & Botany Joint Congress 2007. The application form appears on the facing page of this issue of the *ASPB News* and will be posted on the ASPB website at <http://www.aspb.org>.

The Society has allotted \$35,000 to be given out in allotments of \$500 for the continuation of the Travel Grant Program. The goals of the program are to increase attendance of young scientists at the annual meeting by providing travel funds for those in financial need and to increase diversity among the annual meeting attendees. Undergraduate students are strongly encouraged to apply, as are graduate students, postdocs, and faculty beginning their careers in plant science.

It is required that applicants submit an abstract of research to be presented at the meeting; they will also be asked to write a paragraph expressing why attending Plant Biology & Botany Joint Congress 2007 would enhance their career. Two letters of recommendation are required as well.

Selection criteria will be based first on the science and the quality of the abstract, second on the statement about how attending the meeting will have an impact on the applicant's career, third on the strength of the recommendations, and fourth on ethnic diversity. Applications must be received at ASPB headquarters by February 15, 2007. Those applicants selected to receive a grant will be notified by March 5, and the money will be sent in advance of the meeting. The early-bird registration cutoff date is March 15.

Please note:

- All Travel Grant awardees will receive the early-bird registration rate.
- Grant checks **will not be issued until the awardee has registered for the meeting.**
- Should unforeseen events prevent an awardee from attending the meeting, the awardee must notify Donna Gordon (dgordon@aspb.org) immediately and return the award so that another applicant can use the award to attend the meeting.



Important Dates in 2007

January 3

2007 call for ASPB award and officer nominations

February 2

Abstracts (minisymposia) deadline for Plant Biology & Botany 2007

February 2-3

Western Section Annual Meeting, UC Davis campus
<http://www.aspb.org/sections/western/07meeting.cfm>

February 15

Award and officer nominations deadline

February 23

Mid-Atlantic Section Meeting, University of Maryland College Park
<http://www.aspb.org/sections/washington/meetings.cfm>

February 24

Executive Committee Meeting, ASPB Headquarters Rockville, Maryland

March 3-5

Southern Section Annual Meeting, Mobile, Alabama
<http://www.ss-aspb.org/meetings07.html>

March 15

Early-bird registration cutoff for Plant Biology & Botany 2007

April 4

Abstract deadline for Plant Biology & Botany 2007 program book

May 15

Pre-registration cutoff for Plant Biology & Botany 2007

May 18

Officer election closes

June 1-2

Northeast Section Annual Meeting, SUNY Syracuse, New York

July 6 & 10

Executive Committee Meeting, Chicago, Illinois

July 7-11

Plant Biology & Botany 2007 Joint Congress Chicago, Illinois
<http://www.aspb.org/meetings/pb-2007/index.cfm>

September (date to be determined)

Mid-Atlantic Section Crab Feast, ASPB Headquarters, Rockville, Maryland
<http://www.aspb.org/sections/washington/meetings.cfm>

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