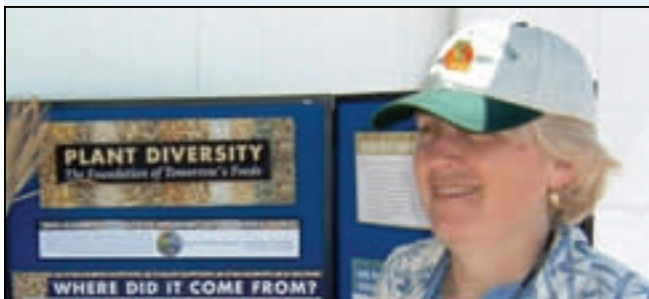


ASPB's Education Foundation awards grants to ASPB members for projects that support education and outreach activities which advance plant biology.

The **2007 Grant Awards Program** winners' projects provide exciting, hands-on learning experiences that promote knowledge of key plant science concepts to students, teachers, & plant enthusiasts in a wide variety of educational settings.

More is Better



Peggy Lemaux of the UC-Berkeley Department of Plant Microbial Biology and her team are expanding their ongoing project to educate the public about developing robust crops that deliver safe food. Their new, hands-on *GENE-ie Juice Bar* allows users to explore the DNA protocol. GAP funds will purchase tools, related handouts, and shipping costs to send the bar to users everywhere. Lemaux's new craft activity leads children to make tube

necklaces filled with different colored seeds. Necklaces will inspire interest in seed varieties and serve as take-home reminders of the existing *Tic Tac Grow* game's lessons about plants. Lemaux's resources help other plant biologists to connect with the general public. Since 2005 these materials have been sent to nearly 100 organizations and have reached an audience ranging from Hawaii to Africa. Materials will visit 24 venues in 2006-2007. Lemaux also creates additional outreach materials for RiceCAP and BarleyCAP. A UC undergraduate student will use these materials in outreach settings, thus expanding this teaching modality to the next generation of plant scientists.



Hi-Tech @ Va Tech



Erin Dolan, Assistant Professor of Biochemistry and Outreach Director of Tech's Fralin Biotechnology Center along with the Partnership for Research & Education in Plants Coordinator, David Lally, use GAP funding to connect high school classrooms to 'real' scientists. Dolan and Lilly have a series of four interactive, video-integrated, web-based flash animation modules on plant genetics. Each module includes video discussions with a research scientist, images and animations that elucidate the science, and related lessons developed by science educators. The first module's release, scheduled for December 2007, will reach 2,000 students across the country. Modules 2-4 will go live between May and December 2008. Dolan states that these modules will, "highlight concepts in plant science in a dynamic, approachable way that is available to anyone with web access." The modules' content coordinates with ASPB initiatives and high school biology curriculum. The modules teach plant biology, genetics and scientific inquiry via functional genomics, differential regulation of gene expression, genome evolution and adaptation, plant-environment interactions, and plant-pathogen interactions.

12 Principles + 3 Minds = 1 Great Idea!

ASPB promotes 12 Principles of Plant Biology as guidelines to ensure that students gain a thorough understanding of plant biology. Jeffrey Coker, Assistant Professor Elon University Department Of Biology; Jane Ellis, Associate Professor Of Biology Presbyterian College; and Mary Williams, Associate Professor Harvey Mudd College Biology Department will use their 2007 GAP award to create and disseminate inquiry-based activities that exemplify each of the 12 principles.



Jeffrey Coker



Jane Ellis



Mary Williams

The project has five phases: activity selection; adaptation to meet middle school needs; creation of teacher and student guides; field testing with assessment; and dissemination. Jeffrey Coker states, “We envision our project as a resource for the ASPB. The hands-on activities will be available for use in a variety of settings, including ASPB Education Booths, teacher workshops, outreach activities, and middle school and high school classrooms.” Finally, Coker, Ellis and Williams will present to the Council of State Science Supervisors at the National Science Teachers Association conference with the goal of disseminating the project through this influential network of science education outreach.



Collaboration in California

Dr. Elliot Meyerowitz, Professor of Biology at the California Institute of Technology, has coordinated with The Huntington Library in Pasadena, CA to create a teacher-training program using plants as model systems to address state biology standards in the Pasadena Unified School District (PUSD). Meyerowitz’s 2007 GAP award will allow him to reach every PUSD high school biology teacher. Teachers will attend six workshops throughout the school year in the state-of-the-art laboratory spaces at the Huntington’s new Botanical Center. The GAP award also will fund the necessary plant science materials for over 1,800 students in the first year. The workshops will show how to align plant model knowledge and related lab skills with the school district’s guidelines and textbooks. Topics will include: scientific literacy, cellular biology, genetics, evolution, physiology and ecology. The increase in teachers’ content