

IN brief

SBIR grants wax

Awards under the Small Business Innovation Research (SBIR) program have just been given a boost. As of March 30, the cap for SBIR phase I awards has risen from \$100,000 to \$150,000, and for phase II awards from \$750,000 to \$1,000,000. The increases are intended to take account of inflation since 1992 when the threshold amounts were last set by Congress. "This will have an important positive impact at a critical [juncture] in the aftermath of the nation's great recession," says Simcha Jong, university lecturer in management science and innovation at University College London. Jong says that, historically, the SBIR program helped forge links between university science and industry and, at this pivotal time, could help kick-start the US job engine. The Senate has passed a bill to extend the SBIR and related Small Business Technology Transfer through July 31 (*Nat. Biotechnol.* **27**, 1065–1066, 2009). Even more generous than SBIR grants are the new Small Business Helping Investigators to Fuel the Translation of Scientific Discoveries (SHIFT) awards launched on March 5 by the US Department of Health and Human Services. These awards, aimed at fostering translational research, offer companies up to \$2.65 million over five years. "The main point is to encourage current academic researchers to apply, and use it to move to biotech," says Jiwu Wang, president and CEO of Allele, a San Diego-based company that has taken products to market with SBIR support. "It is a great idea." *Emma Dorey*

Relief over stem cell lines

The US National Institutes of Health (NIH) announced the addition of 13 lines to its Stem Cell Registry. The news was cheered by the research community, as the two most widely studied lines—H7 (WA07) and H9 (WA09) owned by the WiCell Research Institute of Madison—were included in the batch approved by NIH director Francis Collins. The total number of NIH-approved human embryonic cell lines in the registry, and thus eligible for federal funding, has risen to 64 as of April 29. These recent approvals ease frustrations among scientists who watched President Obama's March 9, 2009 Executive Order—welcomed at the time and intended to remove barriers for such research—later backfire when NIH insisted that cell lines used during the George W. Bush presidency be reevaluated under revised ethical guidelines that NIH began following in July 2009 (*Nat. Biotechnol.* **27**, 681, 2009). Playing down the vociferous complaints since then, Collins says the approvals this April should enable researchers to "continue their studies without interruption, and we can all be assured that valuable work will not be lost." Even though Collins seems to discount projects that were disrupted during that interval, NIH-supported human embryonic stem cells research now is poised to get back on track. The H7, H9 and other recent approvals are indeed a "huge relief," says bioethicist Christopher Scott, who directs the Program on Stem Cells and Society at Stanford University. *Jeffrey L. Fox*

Table 1 Selected crops in development tolerant to two or more herbicides

Company (location)	Crop	Herbicides tolerated
Bayer CropScience (Monheim am Rhein, Germany)	Soybean	HPPD inhibitors, glufosinate, glyphosate
	Cotton	Glufosinate, glyphosate
Dow Agrosciences	Corn	Phenoxy auxins (e.g., 2,4-D), aryloxyphenoxypropionate ACCase inhibitors (e.g., quizalofop-p-ethyl), glyphosate
	Cotton, soybean	2,4-D, glyphosate
	Corn, cotton	Dicamba, glufosinate, glyphosate
Monsanto	Soybean	Dicamba, glyphosate
	Corn	Dicamba, glufosinate, glyphosate
Pioneer Hi-Bred (Johnston, Iowa)	Corn, soybean	ALS inhibitors, glyphosate
Syngenta (Basel)	Soybean	HPPD inhibitors (e.g., mesotrione), glufosinate, glyphosate

HPPD, hydroxyphenylpyruvate dioxygenase; 2,4-D, 2,4-dichlorophenoxyacetic acid; ACCase, acetyl coenzyme A carboxylase; ALS, acetolactate synthase.

Despite the recent efforts by companies and continued efforts by university scientists, the message to 'diversify' doesn't always stick with growers. According to the NAS report, growers are reluctant to stop using glyphosate even when facing signs of resistance in their fields. "For controlling problematic weeds, [growers] prefer increasing the magnitude and frequency of glyphosate applications, using other herbicides in addition to glyphosate, or increasing their use of tillage," the authors of the report wrote. A 2009 survey sponsored by Monsanto found that >75% of farmers were aware of the potential for weeds to develop resistance to glyphosate. But less than half of those farmers said they believed that rotating crops and alternating herbicides would be effective practices for minimizing weed resistance.

Growers can't be legally forced to reduce their glyphosate use. Unlike pesticide use, herbicide use is not regulated by the US federal government. Regulations wouldn't be practical anyway, says Owen. "It can't be done in a way that would keep resistance from evolving," he says. "The impossible part would be enforcing the regulations."

Weed scientists say they hope that the NAS report will at least raise awareness among the general public about the weed resistance problem. The 253-page report also emphasized that insect-resistant crops help farmers reduce pesticide use, and found that overall, "planting of [genetically engineered; GE] crops has largely resulted in less adverse or equivalent effects on the farm environment compared with the conventional non-GE systems that GE crops replaced."

Emily Waltz Nashville, Tennessee

BIO's beastly bugs

When was the last time someone called *E. coli* cute? Many did at this year's Biotechnology Industry Organization (BIO) Annual Meeting in Chicago where conference goers were treated to a collection of giant fuzzy microbes courtesy of biomanufacturers SynCo Bio Partners. MRSA or HIV anyone?



IN their words



"Science is not a 100-yard dash. It is a marathon—a marathon run by a relay team that includes researchers, patients, industry experts, lawmakers and the public." While testifying to a congressional subcommittee NIH Director Francis Collins

stresses the long timelines involved in translating \$32.2 billion of proposed funding into products. (*GenomeWeb News*, 28 April 2010)

"We've been selling it since 1998, probably 200 million pounds from Honolulu, and not a single bad case of anything going wrong." Papaya farmer Ken Kamiya makes the case for transgenic papaya recently approved in Japan, where a single papaya can fetch \$10. (*Honolulu Advertiser*, April 25 2010)

"The worst case of corporate bullying I've ever seen." Attorney Ray Chester on Botox producer Allergan's (Irvine, CA) campaign to recover \$460,000 in legal costs from Dee Spears, who unsuccessfully sued the drugmaker over the death of her 7-year old daughter with cerebral palsy who had received the treatment. (*Orange County Register*, 20 April)