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- **NEWS OF THE WEEK**

Random Sample
Noted

>Stanford University in Palo Alto, California, will begin a new **Ph.D. program in stem cell science** in 2012. Officials there say it will be the first such program in the nation, if not the world. Prospective students can apply this fall for three to six spots in the inaugural class.

Biomedical Research's Shaky Ladder

A new analysis puts in stark relief the widening imbalance between men and women biomedical researchers as they move up the career ladder. National Institutes of Health (NIH) staff members examined women's share in 2008 of 19 types of training grants and research awards arranged by career stage (see graph). Women held about half of the training grants. But they received only 27% of R01s, NIH's basic independent research grants, and only 17% of all P30s, which are large center grants.

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CREDIT: (GRAPH SOURCE) NIH, J. R. POHLHAUS *ET AL., ACADEMIC MEDICINE* **86** (ADVANCE EDITION, JUNE 2011)

The numbers are a snapshot of a single year and say nothing about the progression of a particular cohort. The data come from a paper published online 20 April in *Academic Medicine* that also explores success rates for men and women. For the most part, they are the same. But experienced male scientists submit more R01 applications, and they are more successful at renewing these grants than women.

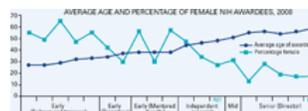**http://scim.ag/_grants**

A Tree Expert in Your Back Pocket

As spring unfolds and leaves unfurl, it's time to take the iPhone for a walk in the woods. Just as there are mobile applications for identifying constellations, there's now Leafsnap, a free electronic field guide to trees. Point and shoot at a leaf, and the iPhone—and soon the iPad and phones running Android—will compare the image to a central database of 8000 leaves, providing the closest matches using face recognition software. The answer comes with facts about the species as well as pictures of the leaf, flower, bark, and fruit. The application also sends the image, identity, and location to another database that scientists can use to track how the numbers and ranges of trees are changing through time.

Leafsnap currently includes 191 tree species in Washington, D.C., and New York City. By the year's end, the app's 50-plus creators from Columbia University; the University of Maryland, College Park; and the Smithsonian Institution expect to have the 250 species needed to identify trees throughout the northeastern United States. Covering the continental United States needs more funding and 2 to 3 years to complete.

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CREDIT: COLUMBIA UNIVERSITY,

By the Numbers

2511 — Artifacts, including prototype helmets from NASA's early shuttle research, in Syracuse University's Plastics Collection, most of which is now perusable at http://plastics.syr.edu.

>1000 — Entries submitted to the European Commission's contest to name its next science and technology funding program. The current program, called Framework 7, ends in 2013. The contest closes 10 May. **http://scim.ag/name-game**

UNIVERSITY OF MARYLAND, AND SMITHSONIAN INSTITUTION

88% — Percentage of respondents to the U.K.'s Public Attitudes to Science 2011 survey who agreed that "scientists make a valuable contribution to society." Fifty-four percent, however, agreed that "rules will not stop scientists doing what they want behind closed doors." **http://scim.ag/_attitudes**

Young, But How Innocent?

Decked with colorful poster boards and potted lima bean plants, school science fairs are a rite of passage for budding researchers. But a new survey by two Kentucky teenagers suggests the events might also be cradles of scientific misconduct.

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CREDIT: NEWSCOM

Michael Moorin and Tyler Smith, both 17, of duPont Manual High School in Louisville found that more than half of science fair competitors at their school cheated. The results have propelled the pair to next week's Intel International Science and Engineering Fair in Los Angeles.

One hundred students—about one-third of the participants in Manual's science fair—answered Moorin and Smith's anonymous online questionnaire. Sixty percent admitted to some form of scientific misconduct. Most had falsified data (55% of respondents), while others had changed hypotheses to fit results or had lied on fair entry forms. Fifteen percent of respondents acknowledged doing all three, and seven students admitted to cheating on Intel competition projects.

With nearly $4 million in awards at stake, Intel fair entries are rigorously scrutinized, says Michele Glidden, director of science education programs for the Society for Science & the Public in Washington, D.C., which oversees the Intel competitions. Still, she called the survey results "disturbing."

Moorin and Smith's findings have prompted Manual to add an ethics component to courses next year. But Bruce Shore, an education researcher at McGill University in Montreal, Canada, who has published his own paper on science fair cheating, says what students really need is more instruction on how to conduct the projects. "High-performing students cheat less," Shore says. "Part of the reason is they've learned to learn."