

areas beyond their technology and business horizon. That's a fact, and we should not judge them for it."

Toni Feder

news notes

Federal support down for academic R&D.

Federal funding in fiscal year 2007 for research performed by universities failed to keep pace with inflation for an unprecedented second year in a row, according to NSF. Although federal support for academic research climbed 1.1%, to \$30.4 billion, those expenditures declined by 1.6% after taking inflation into account. That followed the modest 0.2% erosion that occurred from FY 2005 to FY 2006. Federal agencies provide more than 60% of all research support at universities, and last year was the first since NSF began keeping track in 1972 that federal support fell in constant dollars for two years running. The retreat came despite President Bush's 2006 American Competitiveness Initiative, which pledged to double federal spending for basic research in the physical sciences over 10 years.

By contrast, in FY 2007 support for academic research from all nonfederal sources leapt nearly 8%, or 5% after inflation, reaching \$19 billion. Funding provided by universities themselves climbed 6.6%, to \$9.7 billion, while state and local government sponsorship grew 6.1%, to \$3.1 billion. Industry support surged 11.2%, to \$2.7 billion, reversing three consecutive years of decline. Funding from all other sources, including nonprofit and nongovernmental organizations, rose 10%, to \$3.5 billion.

Biomedical research, which received \$25.7 billion from all sources, accounted for more than half of the total research conducted at US universities. Funding for physical sciences research totaled \$3.8 billion, and for engineering research, \$7.5 billion. A recent NSF report with those and related statistics is available online at <http://www.nsf.gov/statistics/infbrief/nsf08320>. **DK**

Bignami booted. After just 15 months as head of the Italian Space Agency (ASI; see PHYSICS TODAY, May 2007, page 28), astrophysicist Giovanni Bignami was sacked in August by the new government of Silvio Berlusconi.

Bignami was selected with the help of a search committee made up of senior scientists—a first for Italy—and his removal suggests that research is not a priority for this government, says Isabella Gioia, an astronomer at Italy's In-

stitute for Radio Astronomy in Bologna. Scientists "are afraid that scientific research, which is already in a very bad situation, will be even more seriously threatened," she adds.

Such fears are not helped by the choice of Bignami's replacement, Enrico Saggese, head of space activities for Finmeccanica, a state company that receives ASI money, who will hold the reins for a year. "It's a humongous conflict of interest," Gioia says. Adds Bignami, "All this does not bode well for science in space. The interests of the Italian state company lie more in doing applications and military missions."

As of press time, the leaders of other science-related organizations had not been ousted, and astronomers guess that ASI was targeted because of its big budget.

For his part, Bignami says he "will fight this one out to the end." He is appealing his firing. **TF**

Chicago science donation. A \$20 million gift will go toward new buildings and programs in the physical sciences at the University of Chicago. The money comes from futures trader William Eckhardt, who earned his master's degree in mathematics at Chicago in 1970.

It's the largest gift in the history of the physical sciences division, says the division's dean, Robert Fefferman. "It

will allow us to do things we wouldn't have been able to dream about."

To start with, a building that Enrico Fermi worked in is to be renovated. In honor of the gift, it will be renamed the Eckhardt Research Institutes. The building is to be part of a new center for physical and computational sciences.

"The university is launching a very ambitious program in some traditional and some new areas," Fefferman says. "We are interested in investing in modern computation and its integration around campus—linking modern chemistry and biology, computation and genetics, figuring out what dark energy and dark matter are. . . . There are all kinds of things that are highly multidisciplinary that are very exciting, many of which will be helped directly by [Eckhardt's] generosity." **TF** ■

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web watch

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<http://fold.it>

Predicting a protein's shape from its sequence of amino acids is one of the toughest and most important problems in science. Most attempts to solve it involve a combina-

tion of physical insight and computational brute force. The online game **Foldit** introduces another element: human intuition. The game challenges players to solve protein-folding problems and collects the results. Any shortcuts the players divine could end up in new, faster protein-folding algorithms.

<http://nuclearinfo.net>

Should Australia build nuclear power stations to meet its growing demand for energy? To help answer that question, a group of physicists at the University of Melbourne has created **nuclearinfo.net**. Without taking sides, the website aims to ensure that Australians and anyone else understand the risks and benefits of both using and not using nuclear power.

<http://www.youtube.com/AIPJournalChaos>

Every year the American Physical Society's topical group on statistical and nonlinear physics holds a contest to find the best images of convection, chaotic oscillators, and other nonlinear phenomena. The winning entries form **The Gallery of Nonlinear Images**, which appears in a special issue of the journal *Chaos*. Now you can also watch the entries on YouTube.

