RANDOM SAMPLES

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Controversial Academic Gets the Axe

Edinburgh University has fired psychologist Christopher Brand for "gross misconduct" on the grounds that his defense of Nobelist Carlton Gajdusek, convicted last year of pedophilia, appeared to condone pedophilia. Brand, a 27-year tenured professor, claims the university was looking for an excuse to toss him overboard because of his unpopular views on race and IQ.

The clamorous professor became a source of discomfort to the university last year with public comments that racial differences in IQ are partly genetic (*Science*, 3 May 1996, p. 644). Then, in October he wrote in a personal online newsletter that pedophilia is not always harmful to young males. That statement prompted the university to suspend him.

On 8 August a three-person tribunal recommended Brand be dismissed for his "disgraceful" remarks. Academic freedom, it said, "does not give license" to ignore "the sensitivity of the issue" or "the implications of controversial statements." Brand is appealing the decision. "My fault merely has been to have spoken the truth about intelligence, race differences, sex differences, and pedophilia," he says.

Few U.K. colleagues are rushing to Brand's defense. The Scottish branch of the Association of University Teachers issued a statement that those with "unpopular opinions" have to be careful of "crossing the line into conduct of a disgraceful nature." But in the United States and Canada, scholars are troubled by the decision. "Outrageous," says psychologist John Furedy of the University of Toronto, head of Canada's Society for Academic Freedom and Scholarship. Northwestern University psychologist and sex researcher Michael Bailey says "I can't imagine" a U.S. university acting as Edinburgh did.

FRANCESCO RUGGERI/THE IMAGE BANK

Whey to go. Skimming ricotta.

Healing in Milk

A group of Australian scientists are hoping to turn a by-product of cheese-making into a treatment for a multibillion-dollar health problem.

Chronic wounds—especially ulcerations from conditions such as diabetes and hypertension—are big problems in countries with aging populations. Scientists have tested a number of different growth factors, bioengineered from animal or bacterial tissues, in search of agents that promote wound healing. Now, a group at the Cooperative Research Centre for Tissue Growth and Repair in Adelaide, Australia, think they may have found one—an extract from whey, the by-product of cheese-making (*Science*, 27 June, p. 1966). Project director David Belford says the stuff, called "mitogenic bovine whey extract," is "the only substance of its kind," because it is "a naturally-derived cocktail of growth factors." It's better than any single bioengineered growth factor at spurring cell growth in test tubes, he says. It sped up healing when applied to incisions made in rats and pigs. Clinical trials are to begin in October.

Surgeon Martin Robson of the Veterans Administration Medical Center in Bay Pines, Florida, past president of the Wound Healing Society, says there are no really effective treatments for problems such as foot ulcerations from diabetes. So if the whey extract pans out, it could grab a big chunk of a market worth $11 billion a year in the United States alone.

Pay Before You Go

China, in a fresh attempt at stemming its brain drain, is requiring scientists and scholars seeking to spend a year abroad on government scholarships to pony up a sizable sum that will be returned—with interest—only if they do, too.

The new scheme started as a pilot program in 1995 and has now been officially implemented, according to the State Education Commission. Scholars who want to go abroad as visiting professors or researchers have to post bonds of up to 30,000 yuan (about $3500) for a year of study abroad, and more for longer periods. China will subsidize about 3400 next year, three-quarters of them in engineering, science, medicine, or agriculture, according to Li Zhimin of the Chinese Embassy's office of student affairs in Washington, D.C.

Li says posting bond doesn't impose unreasonable financial burdens—even though China's annual per capita income is less than $600—because most applicants have employers willing to put up the money. He says the measure is aimed especially at scholars going to the United States, Canada, Australia, and New Zealand, which are soaking up Chinese with immigration policies more lenient than those in Europe or Asia.

China already requires students planning graduate study abroad either to wait 5 years or to pay hefty fees to compensate for their past education. This group, who are subsidized by host institutions, outnumber government-sponsored scholars by 10 to 3, says Li.

None of these measures addresses the real problem, observes one U.S. academic with long-time Chinese ties, which is that the government "has not yet recognized it needs to pay its scientists commensurate with their worth in the eyes of the rest of the world."

Seeing the Atoms' Green Glare

Physicists have for the first time excited an atom in such a way as to produce visible light—a soft green glow—from its nucleus.

Atoms routinely emit photons of visible light, but they come from electrons jumping between energy levels around the nucleus. Energy levels in the nucleus also vary, but the differences between an excited and an unexcited state in a nucleus—measured in thousands or millions of electron volts (eV)—are thousands of times greater than the variations in electron energy levels. So when an excited nucleus relaxes into its normal state, it usually emits invisible, high-energy gamma radiation.

Thorium-229 is an exception. With that element, which has an asymmetric football-shaped nucleus, one of the nucleus' excited states is a mere 3.5 eV higher than the ground state. That gap is so small that when the nucleus relaxes, it emits a low-energy ultraviolet photon. That fluke has dramatic consequences, report physicists George Irwin of Idaho State University in Pocatello, and Kinney Kim of North Carolina Central University in Durham in the 11 August *Physical Review Letters*.

Ordinarily, the photon coming from a nucleus excited by gamma rays is so energetic that it kicks an electron right out of the atom. But the scientists found that when they excited thorium nuclei, the energy is low enough that the photon emitted merely "causes the excitation of outer electrons," says Irwin. That excitation emerges as green light.

If verified, says Richard Helmer, a physicist at Idaho National Engineering and Environmental Laboratory in Idaho Falls, the phenomenon could open up "an interesting new energy region to study the interactions between the nucleus and the [electrons of the] atom."