

Arthur F. Hebard and his colleagues at AT&T Bell Laboratories in Murray Hill, New Jersey, have found that when they deposit buckyballs as powders and thin films, riddle them with potassium ions, and then chill them to 18 K and 16 K, respectively, the electrical resistance of the resulting "fullerene" materials starts plunging. Cooled to 5 K, the researchers found, the films and powders shed all resistance to carrying electrical current.

Though these temperatures are frigid compared to those required by the high temperature superconductors that have created a stir recently, the buckyballs newly discovered talent puts a wouldn't-you-know-it smile on many scientists' faces. The AT&T team reported this latest item on the fullerene résumé last week at a meeting of the American Chemical Society in Atlanta and in a paper in *Nature*.

Testy Fellows

Several studies have shown that violent criminals tend to produce excess testosterone—but so do their sometime defenders. Maybe the stars of "L.A. Law" won't be surprised, but a new study from Georgia State University has found that male trial lawyers, too, produce more than their fair share of the hormone. The study's author, psychologist James Dabbs, concludes that the aggressive tendencies of both groups may be linked to the male hormone.

Dabbs measured testosterone in the saliva of 60 lawyers and found the trial lawyers harbored more of the hormone than the presumably less combative non-trial variety. Dabbs also compared males in different professions and found that actors, as well as trial lawyers, came out on top. (Which is why you might want to be cautious around those guys on the "L.A. Law" set.)

"The connection may be in the bluffing and showing off," says Dabbs, recalling earlier work suggesting that the hormone influences various kinds of forward, aggressive, and even anti-

social behavior. Ministers, he says, came out at the bottom.

Of course, women produce less testosterone than male ministers, but even so, violent female criminals have more of it than your average woman. So Dabbs plans to check testosterone in women lawyers next.

Asked if there are any grander issues underlying these findings, Dabbs says that genetics plays the biggest part in determining who has higher testosterone levels, though environmental factors can alter hormone levels. In a fight, for instance, the winner often will emerge brimming with extra male hormone, while the loser comes out somewhat drained. But lawyers, he says, tend to come into their courtroom battles already charged up with testosterone. Dabbs doesn't mind using the link between high testosterone and antisocial behavior to take a jab at the much-maligned profession. "Trial lawyers are essentially taking behavior that is antisocial and making a good living at it."

How about scientists? Dabbs hasn't rated them. Like "Saturday Night Live's" Church lady, some lawyers might say: "Isn't that conveeeenient?"

No Free Lunch

All those "subliminal" self-help tapes found in bookstores—

Lonely Ph.D. Seeks Like

Want to meet a special someone who can intelligently discuss ultraviolet spectroscopy, polymer chemistry, or perhaps the latest on the T-cells of transgenic mice? Pick up a copy of *Technology Review*, the MIT magazine, at your local college bookstore and head for the advertisements in the back. In the April issue is one from Science Connection Inc., in Youngstown, New York. What SCI promotes is not the latest National Science Foundation software package for digital collaborations but rather a singles network "for people interested in science or nature."

The idea was so hot that the editors of *Chemical and Engineering News* invited Science Connection president Anne Lambert to explain her firm's service in their 8 April issue. For an annual fee of \$80 (\$95 for Canadians), your average (or above average) researcher will get "miniprofiles" of other science and natural history buffs. "Surprising as it may seem," she says, "there are many unattached adults who are interested in science and natural history."

We're not surprised. We're thinking of answering the ad ourselves. We have science degrees too, and we're getting tired of trying to identify an NIH somewhere in the horde of lawyers gamboling on the Mall these sunny spring weekends.

the ones promising boosts in memory and self-esteem—couldn't possibly work, could they? A group of scientists has finally done a double-blind study on the tapes, which play music combined with an inaudible "suggestive" message, and their answer, not surprisingly, is no.

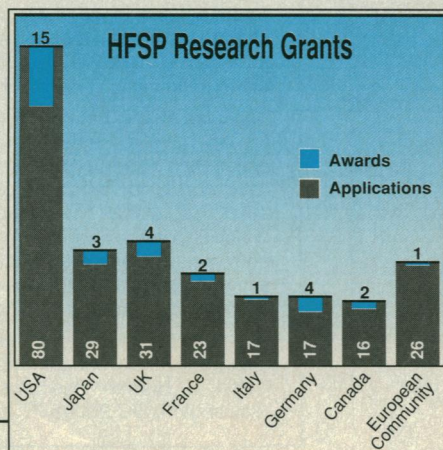
The investigators, psychologists all, were headed by Anthony Greenwald of the University of Washington. They gave out a pile of memory improvement tapes to 237 self-improvement-hungry subjects. However, they had switched labels on

some tapes so about half the subjects who thought they had a memory tape really had a self-esteem tape and vice versa. The researchers gave the subjects standardized memory and self-esteem tests before and after the experiment.

The result: Those who listened to memory tapes improved memory about the same amount as those who got self-esteem tapes. Oddly, though, the memory tapes seemed to do a significantly better job of bolstering self-esteem than the tapes that were billed to do so.

Grants Without Frontiers

A Japanese science program struggling to develop an international identity last week awarded a second annual round of research grants in molecular biology and brain science. The program—called the Human Frontiers Science Program (HFSP)—will spend approximately \$12 million to support 32 research projects involving international collaboration, along with 90 post-doctoral fellows. In spite of the program's international thrust, much of the money will end up in the United States.



The HFSP was initiated by Japan in 1987 largely as a way to deflect U.S. criticism that Japan was not spending enough on basic research. Although Japan has tried to encourage other countries to join in supporting HFSP, it still carries the lion's share of the load: \$24.5 million for the fiscal year that began 1 April, with France (the host country for the HFSP secretariat) next at only \$1.5 million.

U.S. scientists won 15 of the 32 new grants (worth approximately \$250,000 per year for 3 years) and eight of the fellowships. But the United States gets even more of the program's money than those statistics suggest: 57 of 90 fellows worldwide will be coming to this country for their research projects.