

## RANDOM SAMPLES

edited by CONSTANCE HOLDEN

### Caffeine Link in Parkinson's Bolstered

Recent studies have shown that the more coffee people drink, the less likely they are to get Parkinson's disease (PD). Now, researchers have shown in mice how caffeine may prevent the loss of dopamine, the critical brain chemical that is depleted by the disease. But they warn that we're still a long way from prescribing double lattes to ward off PD.

A team led by Michael A. Schwarzschild of Massachusetts General Hospital in Boston inject-

ed a neurotoxin called MPTP into mice to produce Parkinson's-like lesions in the striatum, a brain area targeted by the disease. In a week, dopamine levels in the area dropped by 85%, they report in the 15 May issue of the *Journal of Neuroscience*. But if mice were given low doses of caffeine—equivalent to one or two



Keeping up the dopamine?

cups of coffee in a human—prior to the MPTP hit, dopamine levels fell by only 60%. MPTP toxicity could be completely prevented by higher caffeine doses under some conditions.

Caffeine apparently achieves its protective effect by blocking the A<sub>2A</sub> adenosine receptor, which appears almost exclusively in striatal neurons, says Schwarzschild. Stifling this receptor stems injury to adja-

cent dopamine-producing neurons, although how this works is not yet clear.

Caffeine is known to seek out adenosine receptors, but, says Schwarzschild, until recently, "we never would have thought to look at caffeine in this model for Parkinson's because it is a really 'dirty' drug"—that is, it

has impacts on a number of signaling systems. However, population studies showing a strong inverse relationship between coffee-drinking and PD have been piling up. "The results in the animal model complement quite nicely what we observed in humans," says Harvard University epidemiologist Alberto Ascherio. He emphasizes, however, that none of the research proves a causal association between caffeine and risk of PD.

Schwarzschild says a next step will be to look at Parkinson's patients to see if there is a correlation between their coffee drinking and progression of the disease.

### Darwin's Brush With Racism

The Louisiana House of Representatives passed up an opportunity to make a fool of itself last week when it derailed a "Darwin-was-a-racist" statement passed by its Education Committee.

On 1 May the committee voted, 9 to 5, for a resolution calling on schools to "reject the core concepts of Darwinist ideology that certain races and classes of humans are inherently superior to others," and noting that such ideas provided excuses for the likes of Adolf Hitler. Scientists and educators promptly jumped on the statement as an unusual but unmistakable attack on the teaching of evolution.

The resolution's sponsor, Sharon Weston Broome (D-Baton Rouge), said she didn't want to throw evolution out of the classroom but just wanted people to be warned about Darwin's unsavory side. Two scientists testified against the resolution, pointing out that Darwin was an ardent foe of slavery. In response, Broome evoked Harvard biologist Stephen J. Gould, to the effect that "biological arguments for racism ... increased by orders of magnitude following acceptance of evolutionary theory."

Darwin won this round—the House instead passed a simple antiracism resolution. But Eric Meikle of the National Center for Science Education in Oakland, California, says Louisiana still bears watching: Lawmakers are also considering a measure that would prohibit the state government from "printing or distributing material that contains information that has been proven to be false or fraudulent." "The language parallels that used in attacks on evolution textbooks elsewhere," says Meikle.

### New Math

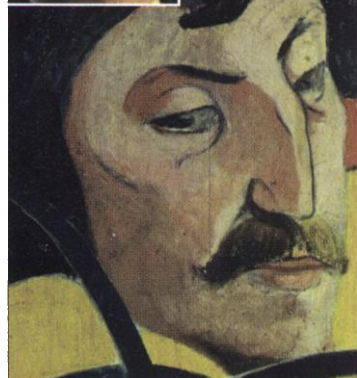
"The new political theory of relativity is E squared equals MC: Education plus the economy means majority in the Congress."

—Representative J. C. Watts (R-OK), mangling Einstein's famous equation—and apparently confusing multiplication with addition—in a 3 May letter to Republican House members.

### Gene King Portrays His Court

William Haseltine, once dubbed "gene king" by *Business Week*, likes to surprise his staff each year with their pictures in the company annual report. "I design it myself," says Haseltine, president of Human Genome Sciences (HGS) in Rockville, Maryland. Last year, employees had to pose in *tableaux vivants* imitating famous paintings. This year Haseltine paired photos of top staff with works of 20th century art that he thinks represent them.

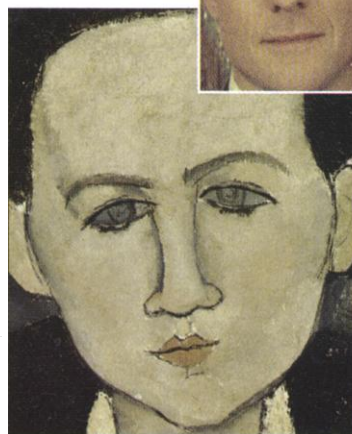
Haseltine doesn't consult with his staff on the exercise. Do they like it? "I think everyone has been uniformly delighted," he claims. Senior vice president for drug development David Stump says he likes himself as Van Gogh this year but isn't sure how Haseltine made that connection: "I asked Bill, 'Is it the furrowed brow, the scraggly beard, the un-



William Haseltine as Gauguin.

certain ear ... or the borderline sanity?"

For himself, Haseltine chose a self-portrait by Paul Gauguin. Gauguin was "very creative," he explains; he made a big career change, and, most importantly, "it is a very strong image."



HGS's Gardiner Smith as a Modigliani.