

dent's science experiment. Or that a naturally occurring black hole might wander into the neighborhood (bad news, since we wouldn't be able to do a thing about it). But Easterbrook reminds us that while the White House was fretting about the kind of supergerm threat depicted in a re-

cent thriller, *The Cobra Event*, real terrorists were in the final stages of plotting the attack on the World Trade Center with old-fashioned jetliners. Yes, Easterbrook concedes, the world *could* end tomorrow. But "it makes far more sense to focus on mundane troubles that are all too real."

## *The Ultimate Pain Killer*

"The Secret Killer" by David Stipp in *Fortune* (Oct. 27, 2003),  
1271 Sixth Ave., 16th fl., New York, N.Y. 10020.

Recent medical studies suggest that anti-aging pills—the miracle drugs we've all been waiting for—may be as close as our own medicine cabinets. According to Stipp, a senior writer at *Fortune*, aspirin, ibuprofen, and other nonsteroidal anti-inflammatory drugs (NSAID) could be the "rough draft" of drugs that will extend life spans and stem the alarming increase in age-related diseases, from Alzheimer's to cancer.

Over the past decade medical researchers have focused on "smoldering, low-level in-

flammation in places like arterial walls and the brain" as the root of many ailments of old age. Claudio Franceschi, scientific director at the Italian National Research Center on Aging, says, "Inflammation is probably the background and driving force behind all major age-related diseases." But that opinion is hardly unanimous in the medical community.

Franceschi began formulating his "inflammaging" theory a decade ago, when his research revealed that as people age, vital immune cells become more prone to in-

### EXCERPT

## *Eek!*

*A few years ago, the U.S. Congress gave a scientific commission the task of developing a symbolic language that would make clear the danger posed by the U.S. storage site for atomic waste. The problem to be solved was the following: How should the concepts and symbols be constituted in order to communicate to those living 10,000 years from now?*

*The commission was made up of physicists, anthropologists, linguists, brain researchers, psychologists, molecular biologists, gerontologists, artists, etc. The commission looked for examples from the oldest symbols of humanity, studied the ruins of Stonehenge (1500 B.C.) and the pyramids, researched the reception of Homer and the Bible, and heard explanations of the life cycle of documents. These, however, only reached a few thousand, not 10,000, years into the past. The anthropologists recommended the symbol of the skull and crossbones. A historian, however, remembered that the skull and crossbones meant resurrection to the alchemist, and a psychologist carried out experiments with three-year-olds: If the skull and crossbones is stuck on a bottle, they cry in fear, "poison"; if it is stuck on a wall, they enthusiastically call out, "pirates!"*



—Ulrich Beck, professor of sociology at the University of Munich,  
in *Security Dialogue* (Sept. 2003)

flammation. The male centenarians he and his colleagues have studied appear to possess gene variants that lessened this “pro-inflammatory effect of aging.” Another “strong producer of pro-inflammatory molecules,” Stipp adds, is body fat, which has been linked to a host of diseases.

Franceschi is not the only scientist to study the relationship between inflammation and disease. A 2001 study by a Dutch team discovered that regular NSAID users had an 80 percent lower risk of Alzheimer’s disease, and another recent study found that long-term aspirin users had 32 percent less risk of heart attacks. Other studies suggest that NSAIDs may substantially cut the risk of colon, lung, prostate (in men), and breast (in women) cancer. That’s not all. A second class of drugs, called statins, usually prescribed to lower cholesterol levels also reduce inflammation, and like NSAIDs they seem to have significant disease-reducing effects.

Familiar statins include Lipitor and Crestor.

Many medical experts remain skeptical, pointing out that there are few, if any, studies conclusively proving that inflammation causes certain diseases. They believe that “low-level inflammation may be a symptom, rather than an inducer, of inner decay,” Stipp says. He explains that since NSAIDs aren’t patented high-revenue drugs, pharmaceutical companies haven’t had much incentive to study them. However, better-targeted drugs free of NSAID side effects such as gastrointestinal bleeding could be very lucrative, and studies likely to produce more conclusive findings are now under way. Yet it could be years before scientists learn if, or exactly how, NSAIDs affect specific age-related diseases, and “we may never know for sure whether [they] work as broad preventatives.” In the meantime, Stipp concludes, losing weight and taking an aspirin every day or two (with a doctor’s okay) couldn’t hurt.

## *What Scientist Shortage?*

“Do We Need More Scientists?” by Michael S. Teitelbaum, in *The Public Interest* (Fall 2003), 1112 16th St., N.W., Ste. 140, Washington, D.C. 20036.

Since the mid-1980s, university administrators, corporate employers, and government agencies have been warning of a dire shortage of native-born scientists and engineers. Last year, the National Science Board warned that the shortfall could “seriously threaten our long-term prosperity, national security, and quality of life.” Isn’t it strange, then, asks Teitelbaum, program director of the Alfred P. Sloan Foundation, to read newspaper reports about big layoffs of scientists and engineers in the computer, telecommunications, and aerospace industries, and stories about newly minted science and engineering Ph.D.’s who can’t find stable jobs?

What all the highly publicized warnings of impending crisis lack, says Teitelbaum, is solid evidence. There is no “strong upward pressure on real wages” for the nation’s 3.5 million scientists and engineers, and unemployment in science and engineering is as high as it is in other education-intensive professions. (It averaged

more than 4 percent in engineering in the first half of 2003, and more than 5 percent in the computer and mathematical occupations. Overall unemployment in the nation ran about 6 percent.)

What about forecasts of future shortages? A 2000 National Research Council panel found that earlier dire predictions had not panned out. The truth is, Teitelbaum says, “no one can know what the U.S. economy and its science and technology sectors will look like in 2010.”

He sees naked self-interest behind the doomsayers’ warnings: Universities want students; employers want to keep the wages of scientists and engineers down; and government agencies want to restrain the costs of research.

If the alarms prompt Washington to encourage more foreign students to fill the supposed gap, Teitelbaum points out, the result could be a surplus of scientists and engineers, depressing wages. That would make science and engineering *less* attractive to young Americans—just what the critics say they don’t want.