

their local schools. "But I think that those who are open-minded will welcome it."

Despite the hurdles facing NSF's new program, Guthrie says ESEP has shown that the right environment can make for a great partnership. "I'm still in charge," she says about the students she has worked with. "I take care of discipline and make sure that we follow the curriculum. But they often bring in other material that I don't have access to. And even when they use terminology that might be a little too sophisticated, the kids think it's really neat to be taught by a scientist."

—JEFFREY MERVIS

BIOTECHNOLOGY

Reaction to Stem Cells: A Tale of the Ticker

For the Geron Corp. of Menlo Park, California, it was déjà vu all over again last week, as the company announced research results that sent investors into a tizzy. In January, the biotech company's stock almost doubled in price when *Science* published a paper by a Geron-funded researcher reporting a way to extend the lifespan of human cells (*Science*, 16 January, p. 349). But the price soon sank as investors realized that the scientifically interesting findings wouldn't soon lead to profitable products. Last Thursday, it happened again.

Geron, which has been operating in the red to the tune of \$40 million since 1994 and is still years away from profitability, saw its stock price jump, then slump, when company-supported researchers reported in *Science* and the *Proceedings of the National Academy of Sciences* that they have cul-

tured "immortal" stem cells in the laboratory (*Science*, 6 November, pp. 1014 and 1145). The cells could potentially be used to repair damaged organs and tissues.

The graph below tells the tale of the ticker: 1) On 30 October, *Science* sends more than 1200 reporters an "embargoed" notice of the stem cell paper a week in advance of publication. They are not allowed to report the findings publicly until the following Thursday at 4 p.m. 2) As reporters begin to prepare their stories, rumors about the findings begin to circulate and Geron's stock edges upward. On 2 November at 10:58 a.m. Eastern Standard Time (EST), an anonymous Geron investor posts this message on a Yahoo! stock buyers' bulletin board: "[Geron] stock is going through the roof this morning. ... What's the news? Does anyone know what is going on?" 3) Sometime after noon EST on 5 November, the French Press Agency puts out a story about the findings at least 3 hours early. By 1 p.m., Geron's stock price jumps by \$2. By 4 p.m., when the embargo officially ends, the price is around \$10. "It looks like everybody on the street knows what the news is except us," e-mails an exasperated investor, who hasn't yet seen the story. 4) On Friday, after the findings make the headlines, Geron's stock soars to \$24.50, roughly four times its price a week earlier. "The reaction of the stock price is absurd," Jim McCamant, editor of *Medical Technology Stock Letter* in Berkeley, California, warns the Associated Press. 5) After a weekend of reflection, investor interest slumps and Geron prices slide to \$13.75. The discovery, opines one analyst, "is a lot more significant scientifically than commercially."

—DAVID MALAKOFF



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ScienceScope

CANADIAN PANEL DIALS UP FIELDS

The Canadian government has asked a blue-ribbon panel to assess the potential health risks of electromagnetic fields (EMFs) produced by cell phones and other wireless devices. The study is meant to inform a government effort to update regulations that set limits on EMFs produced by consumer products.

"There's an awful lot of controversy around this issue," says Elizabeth Nielson of Health Canada, the nation's health agency. Although she says any risks associated with EMFs have been "difficult to prove one way or another," she hopes the panel—which will review existing studies—will address public worries about cancer and other issues. Epidemiologist Daniel Krewski of the University of Ottawa will chair the eight-member committee.

Canadian officials would like to consider the panel's findings when drafting the new regulations. But that may have to be done informally, because the panel isn't scheduled to officially release its report until March—the same time the safety code revisions are due out.



PNAS MAINTAINS EMBARGO

Biologist Nicholas Cozzarelli dreams of a world in which scientists wouldn't have to keep quiet in public about their papers in press at a scientific journal. He believes such embargo rules, which many journals use to prevent early data release, are inimical to scientific communication. So, as editor of the *Proceedings of the National Academy of Sciences* (PNAS), Cozzarelli has proposed getting his journal out of the embargo business.

But the 50-member PNAS editorial board is divided on Cozzarelli's plan, which he presented at a 30 October meeting. Some members argue that PNAS's competitive edge might suffer. Geneticist Arno Motulsky of the University of Washington, Seattle, also worries that the lack of an embargo might encourage commercial sponsors of research to hype findings before publication. Such concerns prompted the PNAS board to postpone action on making their journal embargo-free—at least until their next meeting in April.

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