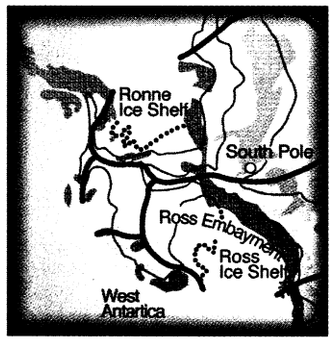
LETTERS

Going with the floe

"Rapid product approval" is said to be a goal of a new policy at the U.S. Food and Drug Administration. Nobel laureates are said to be "a little ungracious" if they complain about taxes. The probability of collapse of West Antarctic ice sheets (right) is discussed. Light is shed on the genetics of multiple sclerosis. Suggestions are made for improving the prospects of "young doctoral scientists preparing for careers." And Linus Pauling's curriculum vitae would not have included the word "biochemist."



Review Staff at FDA

Ira Berkower's letter (11 Apr., p. 183) about proposed cuts in the Center for Biologics Evaluation and Research (CBER) of the U.S. Food and Drug Administration (FDA) misstates the negotiated agreement for the reauthorization of the Prescription Drug User Fee Act (PDUFA). As the principal negotiator for the biotechnology industry, I can state unequivocally that under the terms of the agreement we are not requesting that any employees be "fired." A series of performance enhancements have been agreed on by FDA and industry that will improve drug development. It was our intent during the discussions to improve FDA resources. The results include increased funding (more than 20% greater relative to the user fees paid during the current fiscal year) for an information system that will permit electronic submissions as well as more review staff. Collectively, we believe that the improvements will shorten the development time for new drugs and therapies anywhere from 10 to 16 months.

Under the PDUFA agreement, the $10 million per year of user fee funds that goes into research will be phased out over 5 years. At the same time, there will be a phase-in of an additional $32 million per year to support increased review staff. Thus, we do not anticipate a net loss of FDA employees working on new drug reviews, but an increase. CBER will continue to have approximately 150 full-time research positions paid for out of appropriated funds.

The biotechnology industry is committed to an appropriately funded FDA with an augmentation of review activities by prescription drug user fees. The public has been well served by this program, and the enhancements will continue toward the goal of rapid product approval and a shortening of the development process.

Alan Goldhammer
Biotechnology Industry Organization, 1625 K Street, NW, Suite 1100, Washington, DC 20006–1604, USA
E-mail: agoldhammer@bio.org

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Nobelists' Taxes

Given that Nobel Prizes in the sciences are generally given for scientific discoveries rather than the scientist's inherent characteristics or selfless acts, and given that the research that made these discoveries possible was often funded by the government, or by tax-exempt institutions, it seems a little ungracious that Nobel laureates should complain if they are asked to support the very institutions that made it possible for them to receive the award in the first place (E. Stokstad, News & Comment, 11 Apr., p. 192). Or perhaps I am confused about their motivations. It would be interesting to know how much Nobel Prize money is donated to charitable causes.

Mike Klymkowsky
Department of Molecular, Cellular, and Developmental Biology, University of Colorado, Boulder, CO 80309–0347, USA
E-mail: klym@spot.colorado.edu

Arguably, the Nobel Prize winnings should be applied in its entirety to the national debt, as most of the winners have done their research at public expense.

Joshua Roth
Technical Editor, Sky & Telescope,

Post Office Box 9111,
Belmont, MA 02178, USA

The article about the excruciating agony felt by Nobel laureates because they are required to pay taxes on a $1-million prize brought tears to my eyes.

William F. Prokasy
390 Duncan Springs Road,
Athens, GA 30606, USA
E-mail: wprokasy@uga.cc.uga.edu

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Pauling on Pauling

In the book review by Seymour Mauskopf of *Before Big Science: The Pursuit of Modern Chemistry and Physics, 1800–1940* by Mary Jo Nye (Simon and Schuster Macmillan, 1996) (11 Apr., p. 216), there is a quotation about Linus Pauling "becoming a 'biochemist.'" Sixteen years ago, Stephen Raymond and I were writing a book about the homocysteine theory of arteriosclerosis (*1*). I sent Pauling a late draft of our manuscript, in which we had referred to the controversy surrounding Pauling and vitamin C and described him as a biochemist. Pauling wrote back with a critique of what we had written about him and added I may point out that you refer to me as a biochemist, which is hardly correct. I can properly be called a chemist, or a physical chemist, or a physicist, or an x-ray crystallographer, or a mineralogist, or a molecular biologist, but not, I think, a biochemist.

In our final draft we described him as a "chemist."

Edward Gruberg
Biology Department,
Temple University,
Philadelphia, PA 19122, USA
E-mail: v5381e@vm.temple.edu

References

1. E. Gruberg and S. Raymond, *Beyond Cholesterol: Vitamin B6, Arteriosclerosis and Your Heart* (St. Martin's, New York, 1981).

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West Antarctic Ice Sheet Collapse?

Charles R. Bentley (Perspectives, 21 Feb., p. 1077) suggests that a useful estimate of the probability of a West Antarctic ice-sheet collapse in the next 100 years can be obtained by assuming it to be a random event occurring once every 100,000 years. He bases this view on results of a single model experiment that imposed a strong 100,000-year forcing resulting in an asynchronous (but not random) response behavior of occasional total collapse and more frequent partial collapse (*1*). I strongly disagree with the view that the probability of collapse is either random or quantifiable at present. The ice sheet dominates an environment that itself responds to past and ongoing climate changes in a variety of time scales. Because climate changes are not random, neither can the ice sheet's response to these changes be random.

Research has uncovered a historical record of the ice sheet that is indicative of instability. Microfossils from beneath the ice sheet indicate that at least once since it formed, the West Antarctic ice sheet disappeared and reformed (*2*). Analysis of sea-level records, of global isostatic adjustments, and of Antarctic geology defines a retreat of the ice sheet that began 11,000 years ago and contributed from 10 to more than 20 meters to sea level (*3*). Over half of this rise occurred in the last 7000 years, once the Pleistocene ice sheets had virtually disappeared (*4*).

Areas studied in detail have typically been found to be changing on shorter time scales (decades to 1000 years). Ice streams in the Ross Embayment are changing width and speed and are migrating farther inland; recent grounding of ice shelves has occurred; and in

"Not being a protein chemist, I just want to clone the gene, express it, isolate the protein and move on," says Malcolm Zellars, who's working on his post-doc at Tufts University Medical School in Boston, Massachusetts, USA.