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Letters

Money and mortality

Gordon Couger (Letters, SN: 3/21/87, p.179) is right. Statistics on "causes of death" are useless as guides for spending research money. First, they are based on official blindness to the fact that most "elderly" deaths are the consequence of aging to the point where the next ailment to come along will cause the death no matter what it is. Second, they give no value to length of life. Pneumonia takes a baby, a 20-year-old, a 90-year-old, they each count the same.

Simply eliminating deaths over 65 from the present data and recalculating would be a meaningful improvement.

Better, but probably not enough better to warrant the expense of developing it for past decades, would be a calculation of person-years-before-65 lost to each disease category.

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Cover: The black spleenwort fern shown here, as seen from several different angles, wasn't grown in a flower pot or in a shady spot by a stream, but on a computer. This set of fractal images was computed from a simple set of equations, which captured the fine details evident in a real fern. A similar method can be used for image compression, permitting a lot of information to be conveyed by a small amount of data. (Illustration: Barnsley/© 1987, Georgia Tech Research Corp.)



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However, this information would be extremely useful, on a current basis, for making research decisions. Current statistical data could easily be programmed to provide it.

Edgar R. Jones
Englewood, Fla.

AIDS test complicated by vaccine?

If an AIDS vaccine is successfully developed according to current strategy ("AIDS drug approved, vaccine tested," SN: 3/28/87, p.198), then a significant conundrum will present itself. The only way to diagnose AIDS is to observe such lethal conditions as pneumocystis pneumonia or Kaposi's sarcoma. A test for the presence of the virus itself seems possible, but not when the virus is in its latent phase. A successfully vaccinated person will test positive on the ELISA or similar tests for the AIDS antibodies. How will we be able to

distinguish carriers of the AIDS virus among the hopefully planet-wide vaccinated population?

Bill Watson
Professor of Mathematics
St. John's University
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The AIDS virus contains several different antigens, or proteins. If a vaccine is developed, it will probably induce the immune system to make antibodies to only a small, specific subset of the AIDS antigens. In theory, the presence of antibodies to AIDS antigens that are not contained in a vaccine would indicate infection rather than vaccination.

As you note, another possible way to distinguish between infection and vaccination is the difficult procedure of testing for the virus or its genetic material. A number of biotechnology companies are now working on such a test.

— S. Weisburd

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