

Much of the public debate about the merits of cDNA sequencing is focused on the filing of patents on fragments of genes. We believe that gene fragments are of value and are thus worth patenting. Nevertheless, because of the rapid identification of new genes by many different groups worldwide, we believe that use patents may ultimately be more important than DNA patents to the future of the biotechnology industry. We plan to pursue the biological function of interesting new molecules we discover in our program accordingly.

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Converting Weapons to Fuel

Of the many new problems introduced by the end of the Cold War, none presents a greater threat than the fate of weapons-grade nuclear materials in several countries of the Commonwealth of Independent States (CIS). Denaturing stockpiles of weapons-grade uranium could be accomplished quickly by reversing the separation process used to make it. Enriched uranium could be mixed with depleted

material to create isotopic compositions that would not be weapons-grade but would be useful as fuel for nuclear power reactors. This process is cheap and would require no research, development, or investment in infrastructure. Recent indications that the United States may purchase weapons-grade uranium from Russia (1) are heartening. Such a purchase could be preceded or followed by denaturing.

Unfortunately, denaturing weapons-grade plutonium is not feasible, as it can be reversed by widely known chemical processes. However, plutonium could be consumed in the intense neutron fields of nuclear reactors. The technology and infrastructure necessary to produce mixed oxide fuel, composed of natural or depleted uranium and a small percentage of plutonium, are available in several nations. If all of the power reactors in the United States were fueled with mixed oxides, the time required to effectively eliminate a weapons-grade plutonium stockpile of 200 tons (a common estimate of the total stocks in the United States and the CIS) would be about 2 years.

It took four decades to build up today's stockpiles of weapons-grade uranium and plutonium; they could be eliminated in a few years. Furthermore, they could provide a benefit to mankind in the form of electric

power, which would partly compensate for the terror they have engendered.

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References

1. "Economic stimulus and investment package fact sheet" (U.S. Department of Energy, Washington, DC, 1993).

The G-Word

I enjoyed very much "Heavenly name dropping" (ScienceScope, 29 Jan., p. 587), which gently pokes fun at my co-author Leon Lederman for calling his new book *The God Particle*. I must say that I've gotten a giggle out of the mental picture of Lederman crisscrossing the country over the past 6 weeks, eating bad airline food, breathing the rancid air in television green rooms, developing repetitive motion disorder

AAAS Prize for Behavioral Science Research

Entries are invited for this prize which is awarded for a meritorious published paper in the behavioral sciences. The purpose of the prize is to encourage the development and application of methods for the study of social behavior, using the logic of observation and explication so fruitful in any scientific endeavor. Entries should deal with basic observation and construction in the areas known as social process, group behavior, or interpersonal behavior.

A prize of \$2,500 plus a commemorative plaque will be awarded at the AAAS Annual Meeting in San Francisco, California, February 1994.

Papers must have appeared in a peer-reviewed journal since January 1, 1992. Deadline for submission is July 1, 1993.

For complete guidelines, contact: Catherine Campos, AAAS Behavioral Science Research Prize, American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005, 202/326-6621.

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