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Incorporating Science News Letter

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COVER: Mitochondria—the energy factories of a cell—magnified millions of times life size. The thin membrane that surrounds each mitochondrion can be seen. Now that biologists have synthesized the membrane that surrounds the cell, they will move on to the next challenge—synthesizing the mitochondrion membrane and other membranes inside the cell. See p. 155. (Photo: Donald O. Rudin and Paul Mueller)

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To the Editor

Nonstandard analysis

Congratulations on Professor Steen's article ("The Metamathematical World of Model Theory," SN: 2/15/75, p. 108). It is high time the artificial epsilon/delta cult, started by Cauchy and Weierstrass, and furthered by the coyly pseudonymous, pentacephalic "Bourbaki," was replaced by more fruitful and less artificial methods. Good calculus teachers for years have insisted on the reality of infinitesimals and their finite ratios; and in 1935 Skolam was actually stating only in more fashionable form what had been clear for centuries and especially clear since Peano: that integers have no upper limit of magnitude. Bravo Robinson for putting Newton's and Leibniz's solid insight into form palatable in our day.

*K. Demys, Ph.D.
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Before his death Abraham Robinson and I made a film lecture on Nonstandard Analysis. For those who would like to see him, it is available from Modern Hearing Aids, 1212 Avenue of the Americas, New York City. It is part of a series sponsored by the Mathematical Association of America.

*John Friedman
Newton, Mass.*

Scientists in policy

I was happy to see your article "AAAS: Hard Science or soft issues?" (SN: 2/8/75, p. 86). In regard to your comments on our paper (its full title: "Splendid isolation or professional excursion: Report of a pilot study on scientists' attitudes towards health policy," by Daniel Melnick, Ph.D., and Vijaya L. Melnick, Ph.D.) we would like to draw the attention of your readers to the following:

• We stressed the point that the participation of scientists in policy matters might be explained in terms of several factors (we identified eight), which could be categorized as falling into two classes a) those depending upon the attitudes, orientations, and opinions of the scientists themselves and, b) those depending upon the structure of the organization within which they work.

• We would like to make it clear that it is not *our* opinion that only "over the hill" scientists are involved in policy matters. In fact, we observe in our paper that "Anyone who consults the hearing records of the relevant Senate and House committees can find numerous examples of productive research scientists who also take an active interest in policy matters. We met several scientists at Oak Ridge who were equally productive in the lab and in the hearing room. In spite of this, many scientists that we talked to could not accept such a possibility."

Thank you, for giving us an opportunity to clarify this matter and for your interest in our work.

*Vijaya L. Melnick, Ph.D.
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Lamenting name change

As one who is fast approaching the first of my 29-and-holding years, I find myself sentimental. In the summer of 1967, I was an ORAU trainee (Oak Ridge Associated Universities; pronounced, locally, "oh rhow") in the Biology Division of Oak Ridge National Laboratory. How is it that I am now a HAU (Holifield Associated Universities)? As your article (SN: 1/25/75, p. 55) regarding the change of the name of Oak Ridge National Laboratory to the Holifield National Laboratory points out, there are many places in the Oak Ridge complex that could be improved by names (such as Bldg. 4500, Y-12, X-10, K-25). In fact, that way guides could cease tempting visitors with an explanation that these codes represent secret map coordinates used to hide the lab from invaders. That first summer with atomic cows turned me onto science, mainly because of Dr. Al Haber, who was my biology division adviser and eventual graduate school professor. We will no longer be able to reminisce about our time in Oak Burg. And what will happen to those splendid mornings of near-zero traffic movement as fog hovers over Oak Ridge Highway? Of course, I am carrying on, but then I am growing old and longing for the days of my youth in far-away and soon-to-disappear Oak Ridge.

*Paula J. Thompson
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(The bill to change the name back to its original form is in committee with the Joint Committee on Atomic Energy.—Ed.)

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