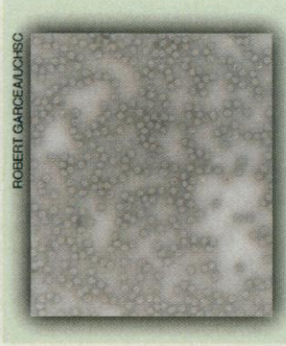
LETTERS



Seeking a pattern

An author questions whether "the standards and procedures" used in "advocacy research" are "minimally sufficient to support the conclusions reported." A reason why simian virus 40 (left), which was a contaminant in some batches of polio vaccine in the 1950s, could play a role in human cancer is presented. And a debate continues about the nature of patterns that some call "punctuated equilibria" in the evolution of bacteria in vitro and organisms in the fossil record.

Standards for Advocacy Research

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As one of the four Brooklyn College scientists who drafted the petition citing the New York Public Interest Research Group (NYPIRG) for research misconduct, I would like to clarify several points in the article "Charges fly over advocacy research" by Jock Friedly (News & Comment, 7 Mar., p. 1411). The issue is not whether advocacy research should be held to the same standards as those used for peer-reviewed science (our petition did not address that question), but whether the standards and procedures used are minimally sufficient to support the conclusions reported. Our petition states that NYPIRG research does not "meet accepted minimum standards."

Contrary to NYPIRG's statement, its study of the Audi 500 car (*1*) contains original data [as does its landfill study (*2*)], which as NYPIRG acknowledges in print (*1*, p. 95), were gathered in a survey it prepared. In any case, the premise that studies without original data should be judged by lower standards than studies with such data is fallacious. Any data, original or not, can be manipulated to support a desired, albeit invalid, result.

The implication of political scientist Michael Kahan that our petition was issued in lieu of publishing a rebuttal to NYPIRG's studies is incorrect: three of the five NYPIRG studies at issue were critically examined in scholarly journals (*3*). The evidence developed in those publications is unassailable. For example, the analytical procedure used in NYPIRG's recycling report (*4*) provides a result which, while favorable to their position, is physically impossible (its proposed recycling plants yield 3600 more tons of material daily than they take in).

References

1. T. A. Wathan and H. Caffey, *Shifting the Blame: A Report on Sudden Acceleration in the Audi 500* (New York Public Interest Research Group, New York, 1987).
2. "What's blowing in the wind: Preliminary findings of a health study of a community near the Fountain Avenue and Pennsylvania Avenue landfills" (Toxics Project, New York Public Interest Research Group, New York, 1983).
3. D. E. Seidemann, *Northeast. Environ. Sci.* **6**, 103 (1987); *Environ. Manage.* **15**, 73 (1991); *Buffalo Environ. Law J.* **3**, 221 (1995).
4. W. L. Hang and S. A. Romalewski, *The Burning Question: Garbage Incineration vs. Total Recycling in New York State* (New York Public Interest Research Group, New York, 1986).

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SV40 and Human Cancer

The principal reason for concern that simian virus 40 (SV40) might play a role in human cancer is not mentioned in the article "Monkey virus DNA found in rare human cancers" by Elizabeth Pennisi (News & Comment, 7 Feb., p. 748). The reason is that SV40 has been shown to be capable of transforming normal human cells into cancer cells in vitro (*1*). Enormous efforts were made after the discovery of SV40 in polio vaccines in the 1960s to have vaccine manufacturers switch from monkey kidney cells as the substrate for virus replication to normal human cells, for the very reasons (*2*) described in Pennisi's article.

Unlike the case with primary monkey kidney cells, no extraneous viruses have been found in normal human diploid cell