Communication between scientists has traditionally been very open. Our own inquiries for information from individuals in areas of "direct" competition have always been answered with the most courteous, informative, and genuinely helpful kinds of responses. As Korn suggests, this intervention may encourage secretive competition and the involution of the current expressive and open scientific attitude. As far as research grants are concerned, there seems very little to be gained through the Freedom of Information Act, but a great deal to be lost. It encourages "scientists" with questionable ethics to seek new and stimulating ideas via the easy route of obtaining successful grant applications for their own professional advancement. We agree with Korn that *all* scientists should adopt a policy as outlined by the Inter-Assembly Council of NIH-NIMH to consider the ethical questions of obtaining such grant applications and not to make such requests.

Publication of the names of those individuals making requests would inform the scientific community of the extent of this activity and discourage the use of the grant applications for any purpose other than general background information.

ROGER L. LADDA
Division of Genetics,
Department of Pediatrics,
College of Medicine,
Pennsylvania State University,
Hershey 17033

FRED RAPP
Department of Microbiology,
College of Medicine,
Pennsylvania State University

I endorse the suggestions of the NIH-NIMH Inter-Assembly Council and of Edward D. Korn and suggest an additional policy. Inasmuch as the provisions of the Freedom of Information Act and the interpretation of that act by the District of Columbia Court of Appeals places grant applications in the public domain and requires that copies be made available to anyone who asks, it seems reasonable that granting agencies, journal editors, and members of the scientific community should henceforth consider a grant application (approved or not) a professional communication whose contents can be cited by the writer of the application for the usual scientific and professional purposes, as evidence of prior publication.

IRWIN PESETSKY
Department of Anatomy,
Albert Einstein College of Medicine,
Yeshiva University,
1300 Morris Park Avenue,
Bronx, New York 10461

I take strong exception to the comments of Edward D. Korn regarding the usage by scientists of their fellow scientists' grant applications. It is sad indeed that a court of justice had to intervene to safeguard the rights of the public. Korn's suggestion to scientists to refrain from exercising their legal right is inappropriate in an open and free society. In addition to its pervading implications in science, the suggestion may have far-reaching social, ethical, and legal repercussions.

Korn raises the questions of the possible adverse effect of public distribution of grant copies on the task of evaluation by study sections, on scientific exchange, and on secretive competition among scientists. Knowledgeable scientists fully conversant with the disadvantages of peer review include as much material in their grant proposals as they feel will land them the grant without jeopardizing their originality. Contrary to Korn's fear, I feel scientists will continue to be as explicit in their grant proposals as they deem necessary in their self-interest. In fact, with the knowledge that their proposals may be made public, scientists are likely to submit better proposals in the future, taking the same care and caution that they take when submitting articles for publication. This will facilitate, rather than make more difficult, the task of study sections in weeding out the less desirable proposals.

An open grant system will provide an additional forum for scientific communication among investigators in diverse geographical and professional areas, as publications do now. Furthermore, successful grant applications will also serve to educate the uninitiated in the art of grantmanship. Competition, secretive or open, engenders productivity. Besides, many would agree that as mortals we scientists fare no better than others when it comes to vices associated with self-survival.

G. K. BATRA
Department of Pediatrics,
School of Medicine,
Emory University,
Atlanta, Georgia 30303

Bicentennial Bells: A "Precedent"

Constance Holden's article "The Bicentennial: Science loses out" (News and Comment, 8 Aug. 1975, p. 438) opens with the sentence, "It has been rumored that someone's idea of an arresting way to celebrate America's science and technology for her 200th birthday is to build a firecracker that could be seen from the moon"; in closing, the article mentions

the American Revolution Bicentennial Administration's plan for 4 July 1976: "The afternoon is to be devoted to town meetings and speeches, and at 4 p.m. (11 a.m. Hawaii time) all the bells will ring out simultaneously." Regarding this last item, Darlene C. Schmidt (Letters, 26 Sept. 1975, p. 1045) raises the question: "Has anyone considered what the effect might be of all that simultaneous sound vibration?"

This brings to mind a report of another experiment along the same lines. I quote the report in extenso:

> Once on a time, a notion was started, that if all the people in the world would shout at once, it might be heard in the moon. So the projectors agreed it should be done in just ten years. Some thousand shiploads of chronometers were distributed to the selectman and other great folks of all the different nations. For a year beforehand, nothing else was talked about but the awful noise that was to be made on the great occasion. When the time came, everybody had their ears so wide open to hear the universal ejaculation of Boo—the word agreed upon—that nobody spoke except a deaf man in one of the Fejee Islands, and a woman in Pekin, so that the world was never so still since creation.

This report is from "The autocrat of the breakfast table (Everyone his own Boswell)" by Oliver Wendell Holmes.

ARTHUR F. SCOTT

Department of Chemistry,
Reed College,
Portland, Oregon 97202

References

1. O. W. Holmes, *The Writings of Oliver Wendell Holmes* (Houghton Mifflin/Riverside, Boston, 1891), vol. 1, p. xi.

"Greenhouse Effect": Definition

The discussion of the term "greenhouse effect" in the letters section of *Science* (12 Dec. 1975, p. 1042) provides an example of a popular lexicographic fallacy. The etymology of a word should not be confused with its meaning. No matter that the coinage of "greenhouse effect" may have been based on an incomplete analogy between the processes of heating by natural radiation of a greenhouse and of the earth's surface and lower layers of atmosphere. Once the word is in use, meaning is determined by usage and not by its derivation. Of the 41 citations for "greenhouse effect" in the Merriam Company research files, 28 apply to heating of the earth's surface and surrounding layers of atmosphere, and seven refer to a supposed similar phenomenon on other planets. Only six citations are inexplicit or can be construed as including the heating of a greenhouse itself. Based on this evidence of usage, the term "greenhouse effect" was entered in Webster's New Collegiate Dictionary and will be included in the forthcoming addenda to Webster's Third New International Dictionary. The discussion in *Science* was particularly useful, since it brought to light the fact that the definition needs to be revised to emphasize the earth's surface as well as the lower layers of the atmosphere, as follows.

> : warming of the earth's surface and the lower layers of atmosphere that tends to increase with increasing atmospheric carbon dioxide and that is caused by conversion of solar radiation into heat in a process involving selective transmission of short wave solar radiation by the atmosphere, its absorption by the earth's surface, and reradiation as infrared which is absorbed and partly reradiated back to the surface by carbon dioxide and water vapor in the air.

ROGER W. PEASE, JR.

G. & C. Merriam Company,
47 Federal Street, Post Office Box 281,
Springfield, Massachusetts 01101

Maytenus: A Folk Medicine

Interested in both *nomina generica* and folk medicine, I was curious about Kupchan's reference to "ack-ack" (Letters, 14 Nov. 1975, p. 612) as the only common name found for any species of *Maytenus* (in Africa?). Uphof (*1*) notes that African *Maytenus* (alias *Gymnosporia*) *senegalensis* has several colloquial names, among them *bazimo*, "confetti tree," *kisambila*, *mmoza*, and *umiviesa*. It is reportedly used as an aphrodisiac, for treating blennorrhagia, and for wounds.

In Brazil, *Maytenus* (alias *Nemopanthus*) *ilicifolius* is called *cancerosa* (*2*). It is sold in markets and is recommended for ulcers and stomach disorders. In Argentina, it is called *congorosa* and *sombra de toro*. It is also called *congoasa* and *mayteno*. It has been called "holy thorn tree" in English. Containing tannin, the foliage is used as an analgesic, aperient, astringent, cicatrizant, and stomachic. Sometimes the leaves are used to adulterate maté, the Paraguayan tea. Remillard *et al.* (19 Sept. 1975, p. 1002) reported that maytansine, which comes from *Maytenus*, inhibits mitosis. Is the name *cancerosa* a coincidence?

JAMES A. DUKE

Plant Taxonomy Laboratory,
Agricultural Research Center,
U.S. Department of Agriculture,
Beltsville, Maryland 20705

References

1. J. C. Th. Uphof, *Dictionary of Economic Plants* (Cramer, Lehre, Germany, ed. 2, 1968), p. 334.
2. C. Stellfeld (G. M. Hocking, translator), *Q. J. Crude Drug Res.* **8**, 1301 (1968).