LETTERS

"Peer" Review

Present procedures of reviewing research proposals may be not only impractical and wasteful but also deficient and harmful. Four problems relate to peer competence and peer rights.

1) For the most advanced scientists only a few or no peers exist. In their research, new areas are explored, often with special techniques and approaches. There is thus a high probability that one or several aspects of a proposal will not be appreciated by the judging "quasi-peers." In some cases, the number of reviewers in a committee may improve the chances for fair judgment. However, for advanced scientists, a competent review cannot be achieved unless a reviewer who is working in the same field with similar techniques and a similar amount of experience is consulted.

2) The closest scientific peer is a competitor. Even though reviewers try to be fair, nobody likes his or her programs or original ideas to be screened and judged by a real or potential competitor. Current procedures do not exclude such competitors. The present method violates democratic principles of respect for and protection of the individual.

3) Applicants are not given the same "peer" rights their "peer" reviewers have. A mechanism does not exist that would allow consideration of a rebuttal of reviewers' criticism before decisions for funding are made. Even when there is good evidence for errors of judgment, bias, incompetence, or negligence by the reviewer(s), the only recourse for denial of funding is resubmission of the research proposal. Each resubmission causes delay of funding for 8 to 12 months. Possible consequences are disruption of laboratory work, loss of momentum, discouragement, and dismissal of trained personnel.

4) "Peer" reviewers remain anonymous. Possible deficiencies in their competence and bias related to the competition problem are covered up by this practice. Imagine anonymity in book reviews, theater columns, political exposés, or letters to the editor. Would it not be considered escaping responsibility? Why do scientists provide and accept anonymous reviews of grant applications and journal manuscripts? In an *open review system*, merits and weaknesses would be assessed more thoughtfully and criticisms would be made more responsibly.

My recommendations? Do keep a review system. However, send the review-

ers' comments with names and signatures to the investigator, who would be allowed one rebuttal. Comments and rebuttal would then be available when the proposal is considered for funding.

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Appraising Psychotherapy

I choose to take a somewhat perverse pleasure in the fact that Eliot Marshall, in his article "Psychotherapy works, but for whom?" (News and Comment, 1 Feb., p. 506), found so much of my own article "Can psychotherapy research guide the policy maker?" (*1*) worthy of repeating. I do regret, however, that he did not quote from it fully enough to represent my views more faithfully.

The rather unflattering summary of the state of the art of psychotherapy which Marshall represented as my conclusion was in fact my synopsis of the position presented in the report of the President's Commission on Mental Health (PCMH) (*2*). One of the major points of my article was that the PCMH's appraisal was unwarranted. I do not believe I was being particularly obscure when I stated: "Practitioners will not and should not easily accept the modest assessment of their effectiveness." I followed this statement with a discussion of the limitations of assessment by diagnostic categories, which obscures the fact that the preponderance of patients who seek psychotherapy are effectively treated (*1*, pp. 301-302). Again on page 303 I discussed the shortcomings of the research on which the report of the PCMH was based and concluded, "In view of this fact, I am prepared to place but modest reliance on the present conclusions of the PCMH Report regarding psychotherapy."

I would be pleased indeed if Marshall's references to my statements had the effect of stimulating the reader to seek out my original article. It's really quite good.

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References

1. M. B. Parloff, *Am. Psychol.* **34**, 296 (1979).
2. *President's Commission on Mental Health: Report to the President, 1978* (Government Printing Office, Washington, D.C., 1978), vol. 4.

University-Industry Programs

I want to offer a constructive criticism of the outstanding article "Research, innovation, and university-industry linkages" by D. J. Prager and G. S. Omenn (25 Jan., p. 379). The authors have made a thorough, thoughtful, and balanced presentation of the crucial national needs, the many opportunities, and the serious impediments that control the establishment of university-industry R & D linkages. They suggest several actions or initiatives that the federal government can and should take in order to develop and enhance these vital interactions. They mention several exciting examples of successful industry-university cooperation. However, they do not cite and draw on the experience of a successful, ongoing, university-industry-government R & D program that is the perfect model for the activities and actions they propose. I refer to the National Sea Grant College Program of the National Oceanic and Atmospheric Administration, Department of Commerce.

The Sea Grant Program was the vision of such farsighted individuals as Athelstan Spilhaus, John Knauss, Senator Claiborne Pell (D-R.I.), and former Congressman Paul Rogers. It has grown from the germ of an idea in 1966 to a major national program that taps the reservoir of talent and expertise available in our nation's universities and directs it toward economically and environmentally sound development and use of this country's marine resources. The original act stressed the need for strong industry-university ties in effective joint R & D. Today, thanks to the continued interest, close oversight, and increasing support by Congress, the Sea Grant Program is mutually supported, university-based, and does for marine industries and businesses exactly what the authors propose on a general, nationwide basis.

Twenty-eight successful Sea Grant programs now exist. By building on the Sea Grant concept and principles, universities can initiate other industry-university linkages of the type recommended by Prager and Omenn.

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Erratum: In the report "Access of urinary nonvolatiles to the mammalian vomeronasal organ" by C. J. Wysocki *et al.* (15 Feb., p. 781), the parts of Fig. 1 were inadvertently interchanged.

Erratum: In the report by R. G. Wyatt *et al.* "Human rotavirus type 2: Cultivation in vitro" (11 Jan., p. 189), in the sentence describing the porcine rotavirus plaque reduction test (p. 190, column 3, line 16), the concentration of pancreatin in the agar overlay should have been given as "0.15 percent of 2.5 percent pancreatin 4 × N.F.; Gibco."