quite utopian. What is needed is a human ecology that is action-oriented—that puts practice as primary. In this context public health fundamentally is practice. The philosophy will emerge only from the experience of action.

LEO KARTMAN

199 Bel Mar Avenue, No. 39, Daly City, California 94015

Medical Research: Fragmented or Goal-Oriented

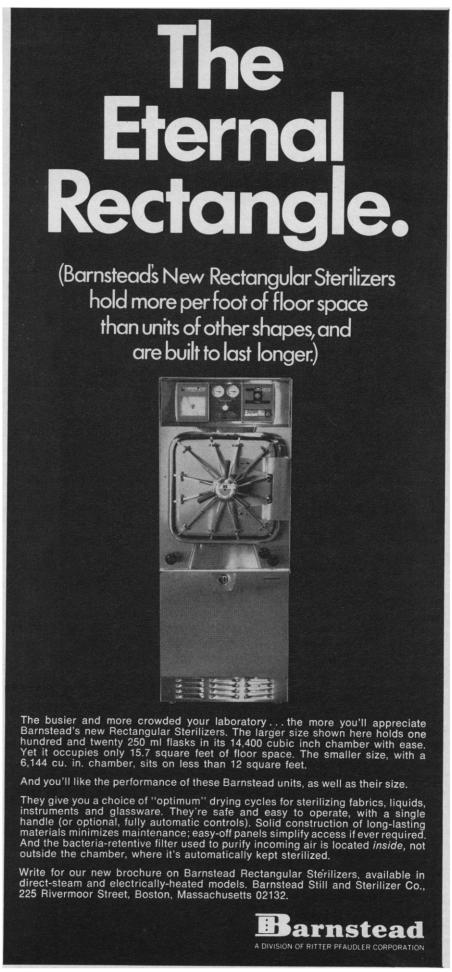
I agree with Leaf ("Government, medical research, and education," 9 Feb., p. 604) that, in our rush to fund increased application of medical research, we should not allow funding of basic and applied medical research to falter. Not only must this research compete increasingly with other welfare programs, but it becomes increasingly expensive as it becomes more and more complex and detailed; hence the funding should probably accelerate. . . .

Leaf's attack on the awarding of some medical research contracts to industrial research laboratories (as opposed to awarding all research grants and research contracts to universities and university-operated research laboratories) is unwarranted. Has Leaf ever worked in private industry and experienced the freedom of action and goaloriented programing possible when everybody on a project is working 100 percent of the time on the project, and is not splitting himself up into many little pieces between research, teaching, patient care, committee meetings, seminars, and government consultation? The point Leaf seems to be missing is that some industrial research laboratories are actually better qualified than any university group to do a certain task by virtue of hard-won expertise. After all, it is industry which gives us many of our really great scientific and technological breakthroughs . . . and even some of the medical ones.

HENRY LEE

Epoxylite Corporation, South El Monte, California 91733

All of us undoubtedly share Leaf's frustrations with the effort report and would welcome its abolition. But even if the report cannot be stopped, at least it could be changed so that it makes sense. Effort reports should have a fourth category, self-education. Tabulated under this heading would be the many hours of the week spent in reading,



Now in <u>bead form</u> for chromatography of biologic substances...

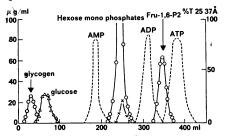
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Model experiment with glycogen, glucose, sugar phosphates and adenosine phosphates on a column of DEAE-Sephadex A-25. (From Biochim. Biophys. Acta 74 (1963) 588, by permission of the author)

Anion Exchangers (Bead Form)

Туре	Grade		Capacity (meq/g)	Bed Volume ¹ (ml/g)
DEAE- Sephadex A-25	40-120μ	CI-	3:5 ± 0.5	5-9
DEAE- Sephadex A-50	40-120μ	CI-	3.5 ± 0.5	25-33

Cation Exchangers (Bead Form)

Туре	Grade	lonic Form	Capacity (meq/g)	Bed Volume ² (ml/g)
CM- Sephadex C-25	40-120μ	Na+	4.5 ± 0.5	6-10
CM- Sephadex C-50	40-120μ	Na⁺	4.5 ± 0:5	32-40
SE- Sephadex C-25	40-120μ	Na⁺	2.3 ± 0.3	5-9
SE- Sephadex C-50	40-120д	Na+	2.3 ± 0.3	30-38

- 1. In Tris-HCI buffer, pH = 8.3, ionic strength = 0.05.
- 2. In sodium phosphate buffer, pH = 6, ionic strength = 0.06.

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listening, and chatting with colleagues and with visitors. After all, the outstanding feature of a great university is that it provides a way of life favoring the activities of self-education, as well as the tools of research. Therefore, granting agencies will not be astonished that self-education is a major and honorable consumer of their investigator's time. The availability of this category will remove a part of the ambiguity and outright dishonesty in filing the effort report.

WILLIAM G. VAN DER KLOOT Department of Physiology, New York University Medical Center, 550 First Avenue, New York 10016

Subpoenas: Show Probable Cause

Readers of Science, including especially Stamler and Hall ("Un-American activities: Court rule aids Stamler in contempt case," 1 Dec., p. 1249) and Glass and Pond (Letters, 1 Mar.), may be interested in a "Note" in the Minnesota Law Review [52, 665 (1968)] entitled "The application of the Fourth Amendment to congressional investigations." Brief excerpts will suffice:

It is suggested that the (Supreme) Court should require a showing of probable cause, as required by the fourth amendment, before allowing the issuance of a subpoena requiring an appearance before a congressional investigation.

The whole philosophical basis for the fourth amendment's protection against searches and seizures without probable cause is the notion that the individual has the right to keep the affairs of his life private. While this right is admittedly not absolute . . . it is a right so basic to our concept of limited government that it should not be lightly disregarded.

Furthermore, the right of privacy must protect the individual's mind as well as his possessions. The Court has protected certain contents of the mind from governmental invasions in criminal proceedings under the fifth amendment. However, the basic recognition that a person's mind is his most sacred possession and should be accorded the greatest protection from governmental invasion is equally applicable to all forms of governmental action. Moreover, the individual's mind should be accorded as much, if not more, protection than his possessions for he therein keeps his most private possessions—his memory and his thoughts.

The protection which this requirement would afford the witness, in comparison with the burden it imposes upon Congress, is significant. The individual will be able to force investigators to show reason to believe that he will be able to provide useful information before they can interrupt this life. This will force the investigation to

