graduate level, the student benefits indirectly from university research because it helps to keep the teacher current in his field and enthusiastic about it. Without the federal research policies which have made possible the present high level of academic research in science, many of the most capable members of the science faculties in our colleges and universities would not be in the universities at all, but would instead be in industrial or governmental research positions, or even in other nations, and American students would be attempting to learn science in a kind of backwater remote from the mainstream of advances in science.

All of us agree that the nation's efforts in higher education and the government's policies in supporting science can probably be improved. Discussion of problems by those of us who responded is not evidence for conflicts between research and higher education. I find the recommendations of the Reuss subcommittee report to be generally very sensible, but I am fearful that real damage can be done to our fine national programs in higher education and in science if individuals or the press accept the picture of "conflicts" which the report seems to me to paint by selecting unrepresentative excerpts from statements made to the subcommittee.

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## **Exclusive Rights**

Recently I received in the mail, as part of a general mailing, a copy of the statement dated 19 August 1965, of Walter A. Munns, president of Smith, Kline and French Laboratories, before the Subcommittee on Patents, Trademarks, and Copyrights of the Committee on the Judiciary, United States Senate. The statement attempts to justify alterations in the current patent policy of government agencies supporting research in the life sciences. Though the justification is inadequate, the statement points up a number of issues which have been developing just below the surface of discussion in other fields of science as well as pharmacy whenever the industrial and academic communities share common interests.

For those of us who have spent parts of our careers in both industry and

1770

academe, it is, perhaps, a little easier to recognize some of the absurdities which arise in the so-called "collaboration" of industry and university on some problem of "mutual" interest. The situation is summed up by the highly improbable juxtaposition of ideas in the phrase "reasonable exclusive rights" used in the statement. The main issue arises from the fact that what is "reasonable" from one point of view may not be "exclusive" enough from another. In our ever more market-oriented lives, a confusion has grown up between the proper roles of the university and of the profit-making industrial concern. Collaborations between universities and industries clash (all too inaudibly at the moment) on these differences in purpose-for, though some of us seem to have forgotten, the primary function of the university is to acquire knowledge through research and then disseminate that information to as large an audience as possible, whereas industry's primary function (as honestly stated by a number of distinguished American businessmen) is to maximize profit. The conflict of motives is, therefore, a basic one. Industry must keep "company-confidential" as much of its special knowledge as possible, while universities are obligated to disperse their knowledge to all who are willing to listen.

Usually this conflict of motives is ignored both by university administrators eager for any additional support of research activities and by corporate attorneys trying to safeguard their corporation's investment and potential profit. Often this results in outright restrictions on the publication of experimental results. The acceptance of this censorship by the university should be explicitly and vigorously condemned as an abrogation of its prime responsibility.

Since university collaborators are often supported by additional funds from state or federal grants, the "collaboration" may represent an economical way for the corporation to develop and test new concepts without making the investment required for either the establishment of a permanent industrial laboratory or full support of the academic project through a conventional overhead contract. The president of the drug company is essentially asking to enter the game after the major inventions have been conceived and to obtain exclusive rights for work which is more properly in the public domain.

I am very much in favor of public ownership of patents emerging from university research projects supported by public funds. I am also very much in favor of legislation which will prevent the indirect subsidy of some of most prosperous corporations our through the mechanism of "collaborative" projects which do not fully cover the costs of the projects. I would hope that this would also minimize the extent to which industrial motives can be imposed upon (or accepted by) public academic institutions through restrictive confidential agreements.

The drug industry is not alone in its unreasonable search for "reasonable exclusive rights." A situation is developing with respect to computer teaching machines such that the issue of public control and ownership of educational facilities may actually be opened to serious question during the next few years.

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## The Camelot Affair

John Walsh's report on *l'affaire* Camelot (News and Comment, 10 Sept., p. 1211) was an essentially correct account of the facts insofar as they are known. One passage, however, bears closer scrutiny. He writes:

There is a surprising degree of agreement, in and out of government, that studies with the objectives of Camelot are necessary. At a time when stage-managed "wars of national liberation" are emerging as the number-one foreign policy problem for the United States, the potential contributions of social sciences research abroad can hardly be ignored.

Project Camelot can be viewed as a reaffirmation of the old saw, "It ain't what you do, it's the way you do it." At the lowest level, the name Project Camelot, with its echo of military jargon, its quixotic ring, and its cloak-and-dagger aura, was regrettable in the context of Latin American sensitivities.

I wish to address myself to two issues implicit in this passage. The first is moral, the second technical.

It is perfectly reasonable that practical social scientists should wish to offer their services to their country or, in a less charitable view, should be eager to obtain research grants from any of the numerous government agencies sponsoring research. But a difficulty arises when the purposes which they