Full-Time Researchers in Universities

Far from creating "parasites" in universities as H. W. Davenport alleges (Letters, 21 May, p. 1040), any arrangement [such as the recently terminated NIH Career Awards] which exempts a faculty member from teaching and administrative duties for a time obviously enables him to pursue his chosen research activities with a vigor and to a depth not possible otherwise. It would appear to be a strange and limited field of science indeed, and a limited university, which could not profit from such pursuits. . . .

Man's social evolution is closely related to his development of specialized skills and the ability of his community to organize in such a manner as to take advantage of these. The *raison d'être* of any organization is to nourish all activities in its domain by directing to specific functions the individuals best able to perform them. An administrator who is unable to perceive any better division of responsibilities than a sharing of all activities by all in the community is no administrator at all but a primitive computing device.

Let us not deny the increased difficulties in communication and administration which arise as the members of a community extend their skills over a broader spectrum. Let us also recognize this problem for what it is, however, and proceed to solve it by developing the necessary communicative and administrative skills and organizations rather than by decreasing the breadth of the spectrum (to make it more manageable) by arbitrary elimination of its brightest components.

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. . . Davenport's credentials are impressive indeed, and his scientific output is remarkable in view of his teaching and administrative load. But most departmental chairmen with past histories of productivity in the laboratory do not find it possible to continue major scientific work—a fact which, as Curt Stern indicates in "Thoughts on research" (*Science*, 7 May, p. 772), is painfully obvious to most of us. . . .

If it is agreed that excellence in research is necessary to a university department, the question is, How is it best nurtured? If an excellent scientist, with a valuable research contribution to make, came bearing gifts of frankincense and myrrh from NIH, would Davenport refuse him admission to the academic community unless as a precondition of employment he accepted unwanted teaching and administrative assignments? Or take as an example a renal-physiologist undertaking basic research in a clinical setting, such as a department of medicine. Would it be appropriate to insist that he reduce his productive hours in the laboratory in order to assume some of the burden of the outpatient clinic? The imposition of teaching, service, and administrative duties on a reluctant scientist seems as unwarranted as it is wasteful of talent.

Federal support of research has come about because of an unfilled need. The primary purpose of NIH grants has been the support not of teaching, service, or administration but of research. When an agency is willing to provide substantial—sometimes complete—financial support for full-time research scientists, it seems unfortunate that the program should be in jeopardy because the idea of full-time research is inconsistent with the traditional concept of academic life. It is unfortunate indeed that a scientist who regards research as a way of life should be considered a "parasite." If this is the prevailing attitude among departmental chairmen, then the scientist should indeed, as Davenport suggests, seek his home in the research institute.

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. . . As an undergraduate in a technological institute that had a large and famous research staff, I had the misfortune of having some eminent researchers as lecturers. They were not good teachers; they treated their teaching duties as a necessary evil and had little personal communication with students. Davenport's policy implies that anyone can teach. I do not think that is true. The qualities that make a good researcher are not necessarily those of a good teacher, although there may be a few individuals with both kinds of gifts. Teaching really *is* a noble profession. It should be considered an opportunity and a challenge; people should not be shanghaied into it. . . .

I have two suggestions regarding the teaching-research dilemma:

1) The financial rewards and the prestige of the teaching profession should be increased. A representative group, such as the American Association of University Professors, should prepare a program (acceptable to itself with regard to government nonintervention in education) and submit it to HEW. The plan should include increased stipends for teachers, and travel and training grants for increasing their skill; there might be "career" teaching professorships.

2) Additional independent research institutes should be set up. Apparently the Europeans are far ahead of us in this respect [R. P. Grant, C. P. Huttrer, C. G. Metzner, *Science* **146**, 493 (1964)]. Such institutes would provide a favorable climate for full-time research and, as Davenport suggests, would be a good place for those not interested in teaching except through research training.

I am certainly not advocating the abandonment of research in universities; these steps would, however, increase the attractiveness of teaching and would provide more space for research throughout the country. In any case it does not seem that Davenport has much to worry about, since before long the career-award holder will apparently be an extinct species.

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Old Ties with the Smithsonian

This is a note of appreciation of Greenberg's story about the Smithsonian Institution in the issue of 12 March (p. 1266). It filled in a number of blank spots in my knowledge of the earlier years of the institution, with which Research Corporation has always had unique and close ties.

The long-term ties we have had with the Smithsonian are, I suspect, little known but quite interesting. Cottrell, who founded Research Corporation, had earlier offered his patents to the Smithsonian, and the offer had been accepted; but the board of the Smithsonian reversed itself a month later on the ground that the institution had no means of commercializing patents. Its secretary, Walcott, took Cottrell in hand, however, and introduced him to the distinguished group which, with Walcott, became the incorporators and first directors of Research Corporation. Walcott participated closely in the foundation's activities and aided greatly in its development as a philanthropic organization. Upon his retirement from the Smithsonian, Abbot succeeded him on the board,