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## LETTERS

### Abriding Medical Education

My reaction to Walsh's article "Medical education: Carnegie panel urges expansion, acceleration" (13 Nov., p. 713) is that such expansion and acceleration may produce unexpected advantages. The demand that a larger amount of knowledge be acquired in a shorter period of time could foster a change in the attitudes of physicians toward continuing education. On the other hand, there is the danger that it will only further increase the current resistance of the physician to expose himself to future learning. Physicians too often assume a facade of omnipotence today as a defense against the unrealistic public and professional expectations that they should have a command of the vast total spectrum of medical knowledge. An obligation to continue one's education would threaten this facade by requiring a confrontation with deficient areas of knowledge. There must always be a lowering of defenses if new knowledge is to be accepted. It is certainly questionable whether continuing education can be acquired simply by attending symposiums at medical conventions and by following the literature in specialty journals.

One need in medical education is to instill the continuing spirit of inquiry in every student. This spirit has frequently been lacking in the exchange between professors and students because the faculty is required to encapsulate knowledge and deliver the final unsailable truth. There is often a general atmosphere of grandiosity, fostered by the public's needs, accepted by the teachers, and transmitted to the students in the medical schools.

This atmosphere may be changed if the students are to be given less time for preparation without the goal of acquiring total knowledge. The shorter training period may reveal to the students gaps in their preparation which will encourage them to obtain continuing (throughout life) education—a step that is necessary if one is to use his potential to the maximum. These changes may not only increase the number of physicians, but they may continue to improve the breed.

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The Carnegie Commission's report calls for increasing medical school enrollment by 50 percent in 7 to 8 years, and an even greater increase in paramedical personnel—a very big order. In 1910 the Flexner Report led to improved medical education, and specialization and research orientation in academic medicine. If this Carnegie report is heeded seriously by medical educators, it should lead to a better system of health care.

One recommendation—shortening the period of medical training from 4 to 3 years should probably not be combined with another recommendation that the internship be eliminated. I would suggest that a medical student might consider either a 3-year medical school or skipping the internship, but not unless, of course, he does not plan to practice medicine.

Further, the Carnegie Commission proposes the creation of a "midpoint degree," after which the student could pursue the M.D. or Ph.D. curriculum or take employment as a teacher or as a medical assistant or associate. The last options would be better named research assistant or associate rather than medical, since one learns science and biology early in medical school, not medicine. An appropriate title for the "midpoint degree" might be master of science (M.S.) in human biology.

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### Industry and Academe: Closer Ties

This may be an opportune time to consider closer integration between industrial requirements for research and development and academic or institutional basic research programs. Federal funding is no longer adequate to support a normal rate of growth of the basic research structure in universities built up over the last 15 years. Also, there are several advantages in forming closer ties between basic research and industry. The selection of basic research problems (from an otherwise infinite range of choices) can be made more directly in the public interest. Also, basic research will have available a very large addition to its funding sources apart from the usual federal agencies (Department of Health, Education, and Welfare, National Science Foundation, Atomic Energy Commission, and others). To achieve this inte-