

## Letter to the Editor

# Comment on "Academic Pharmaceuticals: The Challenge of Excellence"

In October of 1988, Dr. Vincent H. L. Lee, then Chair of the PDD section of the AAPS, addressed a letter to Dr. Gerhard Levy asking him to chair a task force to address the future of pharmaceuticals and pharmaceutical sciences. The Task Force's charge was to address the quality of graduate education in the pharmaceutical sciences. During 1989, Dr. Levy and his Task Force developed the preceding Report, titled "Academic Pharmaceuticals: The Challenge of Excellence". It is apparent that the Task Force has devoted a great deal of time and effort to provide this thoughtful and focused document. The PDD and PPDM Sections of the AAPS would like to thank Dr. Levy and his Task Force for preparing this report.

The Task Force, composed mostly of academic scientists, chose to focus a major portion of their document on one aspect of the problem, i.e., ways to enhance and maintain pharmaceutical science faculties. This is a long-term solution to improving the number of qualified faculty who will be available to train new students for jobs in our academic institutions, industry, and regulatory agencies: a laudable focus. However, it is only one of many solutions that the AAPS should consider. The problem at hand is immediate and much more complex than to say that we need to enhance the academic environment to retain qualified faculty. If this is our major focus for solving the problem, we may be too late. More immediate, short-term solutions need to be considered as well.

For example, the reasons that funding is not available are simple, yet the solutions may be complex. Pharmaceutical scientists are not currently a force in public policy formation and therefore NIH funding is not significant. In addition, NIH funding tends to be directed to more basic, rather than applied science such as pharmaceuticals. In 1988, the industry surpassed NIH in funding of pharmaceutical research for the first time and did so once again in 1989. If this trend does not change, it is possible that eventually all funding for academic pharmaceutical scientists will need to come from industry; i.e., they may have no alternatives but to accept industry money to achieve the funding to which the Task Force alluded in its Report. Is it possible for industry to

fund without exerting absolute control over study design, interpretation, and reporting? Has innovative research come from industrial funding and will it continue in current and future environments?

If industry is made aware of the vicious cycle and the ultimate outcome—i.e., professors leaving for industry, leading to no future training of industrial scientists—industry not only should continue to provide support for educational training and research, but should extend their efforts. A coherent, cohesive program to provide academic, industrial, and regulatory scientists for our future needs to be developed. Academic, regulatory, and industry goals must be blended, since it appears that one group cannot exist without the others. Plans to improve the quality of pharmaceutical sciences training will need to be an integrated, coordinated effort among academia, industry, and regulatory agencies.

In summary, it is clear that there is a need to recruit and retain quality researchers and educators in our academic institutions. However, other short-term and long-term solutions are needed to continue to provide quality researchers for academia, industry, and regulatory agencies. I urge our academic institutions not to ignore input from industry representatives, who have supported and will continue to support academic efforts for short- and long-term solutions to the "perceived" decrease in quality of graduate education in the United States. Therefore, in an effort to provide creative, integrated solutions to the problem, the AAPS should sponsor a multifaceted, multidisciplinary committee to define mechanisms for implementing recommendations presented in Dr. Levy's report as well as to assess alternate solutions. Perhaps the report that will issue from a combined academic, industrial, and regulatory committee could be titled "Graduate Education and Research in the Pharmaceutical Sciences: Excellence in a Chaotic World."

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