

Report of the 2004 PT Section Education Committee

Ensuring the Supply of Highly Qualified Pharmaceutical Scientist Specialists in Product Development and Related Technologies for Present and Future Needs

Executive Summary

The 2004 PT Section Education Committee took the first steps in addressing the charge: "How to ensure the supply of highly qualified pharmaceutical scientist specialists in product development and related technologies that meet current and future needs." This charge was borne out of a sense that graduate programs in colleges of pharmacy are increasingly failing to produce sufficient numbers of appropriately qualified specialists in product development and related pharmaceutical technologies and that the pharmaceutical industry has been forced to recruit and train scientists from other disciplines. Surveys conducted by this committee of the membership (PT, PDD and BT sections) and a representative group of pharmaceutical executives validated this concern and provided insight into its nature and depth. For example, the executives reported that 50% or less of product development staff have undergraduate degrees in pharmacy and that 50% or less have advanced degrees in pharmaceuticals/industrial pharmacy/pharmaceutical technology, yet entry-level Ph.D.s in these specialties bring a better mix of skills to the product development table than their counterparts from other science disciplines, and that this advantage persists even after 4-6 years experience on the job. And the great difficulty in finding candidates with the right mix of experience and education was also made clear by the surveys. Based in large part on an analysis of these surveys, this committee developed an extensive list of issues to be addressed by future PT Education committees and AAPS. Among these were: (1) Should AAPS encourage and assist in the establishment of graduate programs in product development/technology and/or tracks in academic institutions whether or not they are colleges of pharmacy? (2) Should AAPS develop standards for and qualify such educational programs and tracks? (3) How do we and what role should AAPS play in creating awareness in colleges and universities of our needs and the incentives to develop and maintain programs that meet these needs?, and (4) How can stable funding be provided for programs in product development and technology? An AAPS workshop involving such groups as FDA, PhRMA, ISPE NSF, AACP, and academia is proposed as a way to begin addressing these issues.

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Charge:

Broadly, PT Section Chair Dr. Anil Salpekar charged this committee to seek ways to ensure the supply of highly qualified pharmaceutical scientist specialists in product development and related technologies that meet current and future needs. Further, the committee deliberations should include, but not be limited to, such issues as advocacy and support for educational programs to train such specialists.

Composition of the Committee:

The following committee of senior pharmaceutical scientists representing education, industry and FDA was assembled by the Chair.

Ajaz Hussain
James McGinity
Stephen Nail
Michael Pikal
David Savello
Joseph Schwartz
Larry Augsburger (Chair)
Anil Salpekar (Ex Officio)
Victor Van Beuren (AAPS Staff Liaison)

[Excerpted from full paper provided by Larry Augsburger, Ph.D.]