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Editorial

The Changing Face of Chemical Engineering

ast month, at the 2004 Chemical Industry Medal Award Dinner in New York, Thomas E. Reilly, Jr., retired chairman of the board of Reilly Industries, Inc., was bestowed with the prestigious medal for his many contributions to the chemical industry. During the dinner, Reilly, a strong advocate of the chemical industry, imparted his words of wisdom over where he sees the future of the industry.

"In particular, you can identify several new trends that are developing - one being that chemistry is being married with other sciences and computation," says Reilly. Indeed, this is where the future lies. The combination of chemical engineering and biology continues to take place in areas such as pharmaceuticals and biotechnology. At the annual pharmaceutical exposition and conference, Interphex (New York; Mar. 16-18), I spoke with Janet Woodcock, Director, CDER, FDA, one of the keynote speakers at the conference, regarding the role of chemical engineers in the pharmaceutical sector. She says that chemical engineers will definitely play an increasingly vital role in the future of the industry.

Today, the pharmaceutical industry intensely focuses on R&D, with less emphasis on operations and maintenance, and continuous improvement. Speed-to-market, no matter what the production efficiency, was considered the key to success. But now that the development of blockbuster drugs has slowed down, the industry now needs to refocus its energies. Says Michael Warmuth, corporation divisional VP, corporate quality operations at Abbott Laboratories, another keynote speaker at Interphex, "the paradigm shift that the industry must make to move forward will be to gradually change from batch processes to continuous ones." The bottomline, "operation and maintenance will no longer be considered the stepchild to R&D," says Woodcock. And who better to help in this paradigm shift, but the experts in continuous processes and continuous improvements chemical engineers.

AIChE has been responsive to the trend identified by Reilly. In 2003, the Institute created the Society for Biological Engineering (SBE). The newly founded society is about to reach a major milestone with its first panel discussion, "Reconciling Industrial Needs with Academic Research and Curriculum in Biotechnology," at the World Congress on Industrial Biotechnology and Bioprocessing in Orlando, FL, from April 21-23 (p. 59). The panel will discuss topics such as fostering academic-industrial partnerships and expanding the chemical engineering undergraduate curriculum to include biology and biochemistry. For more information, go to http://bio.aiche.org.

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