A novel education model to fit the future of biotechnology

The pharmaceutical and biotechnology industry continues to experience an exciting growth with the advancement of novel technologies and drug products for safe and effective therapies of different diseases. As the industry takes on interesting endeavors in drugs and biologics, digital health and analytics, there is an utmost need for trained personnel to take translational research from bench to bedside and to pave the way in treating patients using personalized, preventive and precision medicine. According to the US Department of Labor, the life sciences occupation is projected to grow up to 8 percent by 2024. Over the last decades, the existence of a strong cultural gap between academia and industry as a barrier for collaboration has been discussed across the globe. It has significantly delayed the translation of academic research into novel therapies for patients. The graduate students in academia are mainly focused on basic science concepts and research with very little training in applying those concepts towards solving real-world problems. To bridge that gap between academia and industry, it is important to understand how the pharmaceutical industry works and the different aspects involved in taking a drug from discovery to market. Understanding the challenges that the industry faces will help students become effective managers and leaders in different functions such as R&D, Regulatory, Marketing and others within the industry. There are currently many such models in place to help bridge this gap between academia and industry. Keck Graduate Institute has trained students using one such model for the last 20 years. I have designed and implemented a few programs in collaboration with a global biopharmaceutical company, Biocon. With the success of these kind of novel programs, industry and academia can come together and adopt some elements of the Biocon-KGI program to train future leaders of the biopharmaceutical industry.

Biography

Meghana Joshi is the Program Director for Biocon-KGI certificate programs based at Keck Graduate Institute, California, USA. She has received her PhD in Biological Sciences from the University of Illinois at Chicago, followed by Post-doctoral experience at M D Anderson Cancer Center, Houston, Texas and Columbia University, New York. Thereafter, she has completed the KGI Postdoctoral Professional Master’s degree, a program training PhD’s to work in the Biotech industry. She teaches a course in Pharmaceutical Drug Development and works as a Consultant to Life Science companies to help them conduct market research and to help in licensing products and forming collaborations, particularly in the area of biosimilars.

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