**Kamal A. Rashid, Ph.D.**

Education:

Postdoctoral The Pennsylvania State University Molecular Biology/Virology

Ph.D. The Pennsylvania State University Environmental Toxicology

M. Sc. The Pennsylvania State University Environmental Toxicology

B. Sc. University of Baghdad Plant Protection

Dr. Kamal A. Rashid has over thirty years of academic experience in both research and

biotechnology educational program development. During his career he has developed, directed and implemented biotechnology and biomanufacturing training courses at Worcester Polytechnic Institute, Utah State University, Penn State University and internationally. He joined Worcester Polytechnic Institute in 2013 to direct the newly established state-of-the-art Biomanufacturing Education and Training Center (BETC) and professorship in the Department Biology/Biotechnology, Biochemistry/Chemistry and Chemical Engineering. He is tasked with developing biomanufacturing training and graduate certificate courses. The Center presently offers 11 new courses from up-stream processing to downstream processing to cGMP and validation issues for the growing workforce in the New England region and nationally (for a list of these courses see the web site: www.wpi.edu/+betc. Prior to that he was at Utah State University from July 2000 as the Biotechnology Center’s Associate Director and Research Professor of Toxicology. During his tenure at Utah State University, he developed and equipped the bioprocess facility at the Center with the most advanced bioreactors and fermenters that are utilized in both research and training programs. While at Utah State University he received a multi-year, multimillion dollar grant from the US Department of Health and Human Services Biomedical Advanced Research and Development Authority (BARDA) to train employees of vaccine manufacturing facilities from eleven countries in the latest advances in cell-based vaccine production with emphasis of Influenza vaccines. These countries included Brazil, Egypt, Kazakhstan, Korea, India, Indonesia, Mexico, Romania, Russia, Serbia, South Africa, Thailand and Vietnam.

Prior to joining USU, he was a faculty member in the Department of Biochemistry and Molecular Biology at the Pennsylvania State University. While at Penn State, Dr. Rashid conducted research on the impact of environmental pollutants on human health, developed and taught biotechnology undergraduate courses, developed and directed the Penn State biotechnology training programs, directed the Summer Symposium in Molecular Biology for ten years and was the key faculty in the development of the biotechnology undergraduate degree and the course curriculum in the department. Dr. Rashid has delivered numerous lectures and training programs in several countries, including Canada, China, Dominican Republic, Egypt, Indonesia, Iraq, Korea, Malaysia, Philippines, Puerto Rico, Vietnam, Thailand, Taiwan, Singapore and US. Dr. Rashid is very well recognized for his continuing education, teaching and international programs. He received a national Faculty Service Award in 1997 from US University Continuing Education Association for his meritorious service to Penn State University. He was also honored in 2011 as the international professor of the year in College of Agriculture at Utah State University. His present research emphasis is on bioprocessing utilizing both microbial and mammalian cell systems.