

UNIVERSITY of **HOUSTON** | ENGINEERING
Department of Biomedical Engineering

BME Distinguished Speaker Seminars

Increase the Impact of our Research and Innovation via Commercialization

Friday, November 3, 2017
SEC 204: 12:00-1:00PM



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Abstract: A challenging mission that many research-oriented universities face in addition to education and research is creating new value and contributing to humanity through our research endeavors. In addition to producing future leaders and well-trained workforce in our students, universities are expected to develop novel innovations, remarkable discoveries and breakthrough technologies by working on high-risk high-return research and making what most people believe impossible possible. Although many pioneering discoveries are being made and new exciting technologies are being developed in biomedicine, however, even the most promising technologies face numerous obstacles in technology commercialization. They typically languish and die in the valley of death, frustrating the researchers, universities, governments, and investors alike.

Translational research in biomedicine from lab bench to the marketplace where products and services are provided and consumed is far more complicated, difficult and time-consuming than many people estimate or are willing to tolerate. For the benefit of humanity and a better future, on the other hand, our mission points us to incessantly engineering biomedical innovations and endeavoring to make them go all the way into the marketplace with creativity, collaboration and perseverance. To make the (seemingly) impossible possible takes courage, confidence and

competence with partnership, patience and determination. Also, we have to get out from our comfortable silo, overcome fear and break down the walls between researchers, laboratories, departments/disciplines, institutions, countries, and academia/industry. In this presentation, I will share my experiences and opinions on the obstacles and formula of successes and failures in translational research and commercialization in academia.

Bio: Dr. Yongmin Kim received BS degree in electronics engineering from Seoul National University in 1975, and MS and Ph.D. degrees in electrical engineering from University of Wisconsin in 1979 and 1982, respectively.

For 29 years from 1982 to 2011, he was Professor of Bioengineering, Professor of Electrical Engineering, and Adjunct Professor of Radiology and Computer Science and Engineering at the University of Washington in Seattle. From 1999 to 2007, he was Professor and Chair of Bioengineering. From 2004 to 2007, he was Hunter and Dorothy Simpson Endowed Chair in Bioengineering. From September 2011 to August 2015, he was President of Pohang University of Science and Technology (POSTECH) in Korea. Currently, he is Past President and Professor of the Department of Creative IT Engineering at POSTECH. From September 2015 to February 2016, he was Advisor to Washington Research Foundation in Seattle, Washington.

His research interests include medical imaging and computing, ultrasound systems, distributed diagnosis and home healthcare, and computer architecture. He has supervised many graduate students, leading to ~40 Ph.D. and ~100 Masters degrees. Dr. Kim and his research group have made 85 inventions that have led to ~70 patents, transferred the invented technologies to industry with 27 licenses, and helped commercialization of these technologies. He has more than 450 research publications.

Dr. Kim received the 2003 Ho-Am Prize in Engineering. In 2005, he received Distinguished Achievement Award from University of Wisconsin. He received IEEE/EMBS Early Career Achievement Award and IEEE/EMBS Distinguished Service Award in 1988 and 2010, respectively. In 2011, he received IEEE EMBS William J. Morlock Award. In 2012, he was selected as the University of Washington Medicine Inventor of the Year.

He was Program Chair of 1989 IEEE EMBS Conference and Chair of SPIE Medical Imaging Image Display Conference from 1990 to 1999. He was Symposium Chair of SPIE Medical Imaging from 1998 to 2001. He was Conference Co-Chair of 2009 & 2017 IEEE EMBS Conferences. From 1992 to 2006, he was ABET program evaluator for computer engineering and bioengineering. He served on IEEE Fellow Committee from 1998 to 2001. He served on the IEEE/EMBS Administrative Committee for many years. He was the IEEE/EMBS President in 2005 and 2006. Dr. Kim is Fellow of the IEEE, American Institute for Medical and Biological Engineering, and International Academy for Medical and Biological Engineering.