

BioSyM Seminar Series 2018

Electrokinetic molecular concentration: My journey

Prof. Jongyoon Han

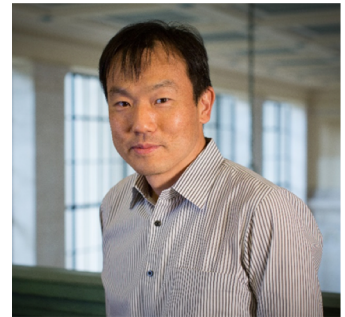
Singapore-MIT Alliance for Research and Technology (BIOSYM)

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Date : 2nd Oct 2018, Tuesday

Time : 12 pm to 1 pm

Venue : Level 5, Perseverance Room



Abstract

In this presentation, I would like to share my own research history of the work related to electrokinetic molecular concentration, which has been my fascination for almost 2 decades. While originally initiated as a quite exploratory project, the study of electrokinetic molecular trapping and ion concentration polarization led me to completely unexpected directions and opportunities for my group, which was challenging and exciting at the same time. Hopefully, I can share all the lessons and insights that I learned from all these years.

Short Biography

Dr. Jongyoon Han is currently a professor in the Department of Electrical Engineering and Computer Science and the Department of Biological Engineering, Massachusetts Institute of Technology. He received B.S.(1992) and M.S.(1994) degree in physics from Seoul National University, Seoul, Korea, and Ph.D. degree in applied physics from Cornell University in 2001. He was a research scientist in Sandia National Laboratories (Livermore, CA), until he joined the MIT faculty in 2002. He received NSF CAREER award (2003) and Analytical Chemistry Young Innovator Award (ACS, 2009). His research is mainly focused on applying micro/nanofabrication techniques to a very diverse set of fields and industries, including biosensing, desalination / water purification, biomanufacturing, dentistry, and neuroscience.