



# Workshop on Engineering the Future of Medicine via Innovation and Collaboration

**June 18, 2009 (Thursday)**  
**POSCO International Center in POSTECH (Pohang, Korea)**

8:15 Registration: Auditorium, 1<sup>st</sup> FL

8:45 Welcome and Opening by Sunggi Baik, Ph.D., President of POSTECH

## Session I: Distributed Diagnosis and Home Healthcare

Session chairs: Bumman Kim, Ph.D., POSTECH

Jong Kim, Ph.D., POSTECH

9:00 Yongmin Kim, Ph.D., Univ. of Washington & POSTECH  
"D2H2: The Healthcare Delivery Paradigm in the 21<sup>st</sup> Century"

9:40 Kun-Ho Yoon, MD, Catholic University  
"Ubiquitous Healthcare: Urgent Need for Diabetes Management"

10:10 Luke Lee, Ph.D., UC Berkeley  
"Nanobiophotonics and Biofluidic Application Specific Integrated Circuits (BioASICs) for Systematic Biology and Quantitative Medicine"

10:55 Hwanjo Yu, Ph.D., POSTECH  
"VRIFA: Visualization Tool for Risk Factor Analysis and Computer-Aided Diagnosis"

11:20 Jae-Hyoung Cho, MD, Catholic University  
"Intelligent Clinical Decision Supporting Systems and Stress Monitoring"

11:45 Dong Sun Han, MD, Pohang Semyung Christianity Hospital  
"Clinical Needs for Cardiology Practice"

12:15 Lunch break

## Session II: Technologies for Future Medicine

Session chairs: Jin Won Lee, Ph.D., POSTECH

Kyong Tai Kim, Ph.D., POSTECH

13:00 Nitish Thakor, Ph.D., Johns Hopkins University  
"Clinical Neuroengineering: Monitoring the Brain from Bench to Bedside"

13:45 DaeWon Moon, Ph.D., KRISS  
"Nano-Bio-based Imaging for Cardiovascular Diagnosis: New Imaging Modality"

14:20 Donhee Ham, Ph.D., Harvard University  
"Silicon NMR Biosensor Chip - Circuit Designer's Approach to Early Disease Detection and Low Cost Medicine"

14:55 Dong-Woo Cho, Ph.D., POSTECH  
"SFF (Solid Freeform Fabrication) and its Application to Tissue Engineering"

15:20 Afternoon Coffee/Tea Break

15:40 Sung Key Jang, Ph.D., POSTECH  
"Non-biological Molecular Forceps Aptamers for Biotechnologies"

16:05 Gyoo-Cheon Kim, Ph.D., Pusan National University  
"New Weapon against Cancer: Air Plasma Coupled with Antibody-conjugated Gold Nanoparticles"

## Session III: Technology Commercialization in Biomedicine

Session chairs: Jinha Kim, Ph.D., Vimed Systems

Hong-June Park, Ph.D., POSTECH

16:30 Jinha Kim, Ph.D., Vimed Systems  
"Global Healthcare Market Trend and Commercialization Challenges in Korea"

17:00 Yongmin Kim, Ph.D., Univ. of Washington & POSTECH  
"Challenges in Technology Commercialization: Academic Perspectives"

17:25 Panel Discussion  
Jinha Kim, Yongmin Kim, Luke Lee (UCB), Nitish Thakor (JHU), and Kun-Ho Yoon (Catholic U)

18:30 Banquet (Grand Ball Room, 2<sup>nd</sup> FL)

- Hosted by POSTECH Distinguished Foreign Professor Program
- Sponsored by Division of IT Convergence Engineering (WCU),  
Division of Integrative Bioscience & Biotechnology (WCU) and  
Educational Institute of Future Information Technology (BK21)