BING SHEU XIAONING JIANG

Nanotechnology in Medicine

NANOTECHNOLOGY HAS PLAYED an increasingly important role in the advancement of medicine, including drug discovery, vaccine development, medical imaging, and drug delivery and therapy. It is our pleasure to introduce Dr. Shao-Ku Kao and Dr. Chao-Sung Lai as the guest editors of this special issue of *IEEE Nanotechnology Magazine* on nanomedicine that covers the use of nanotechnology in bioimaging, drug delivery, and therapy.

Dr. Shao-Ku Kao received his M.S. and Ph.D. degrees from National Taiwan University, Taipei, Taiwan, in 2002 and 2007, respectively. During 1997–2002, Dr. Kao was a senior R&D engineer at Tamarack Microelectronics and was responsible for the development of front-end circuits for Fast Ethernet. Since December 2007, he has been with the Department of Electrical Engineering at Chang Gung University, Taiwan, where he is currently an associate professor. His research interests include the design of power integrated circuits, energy-harvesting techniques, high-speed input–output circuits, and advanced analog-to-digital mixed-signal very large-scale integration design.

Dr. Chao-Sung Lai received his B.S. and Ph.D. degrees from National Chiao Tung University, Hsinchu, Taiwan, in 1991 and 1996, respectively. In 1996, he joined National Nano Device Laboratories, Hsinchu, to conduct research in silicon-on-insulator devices. In 1997, he joined Chang Gung University, Taoyuan, Taiwan, as an assistant professor. He was promoted to associate professor and full professor in 2001 and 2006, respectively.

Dr. Shao-Ku Kao.

Dr. Chao-Sung Lai.

Dr. Lai has been engaged in the research of MOSFETs, flash memory, high-k dielectrics, metal gates, and biosensors. From 2001 to 2002, he was a visiting scholar in research on fin-shaped field-effect transistors in the Department of Electrical Engineering at the University of California, Berkeley. During 2007–2013, he served as the chair of the Electronics Engineering Department and the director of the Biosensor Group in the Biomedical Research Center, for research in biotransistor applications in ions, proteins, DNA, and biomarker analysis. Since 2012, he has served as the dean of the Engineering College and the head of the Biomedical Research Center. He holds 13 U.S. patents and more than 60 Taiwan patents, and he is the author of 350 peer-reviewed papers and two book chapters and has presented 25 international keynote and invited talks. Dr. Lai was a leading guest editor of Science Citation Index journals, including *Microelectronics Reliability*, *Nanoscale Research Letters*, *Solid-State Electronics*, and *IEEE Transactions on Nanotechnology*. He won the Lam Research Award in 1997 and a Distinguished Award from the Electron Devices and Materials Association in Taiwan in 2011. He served as chair of the Association of Chemical Sensors in Taiwan during 2016–2018.

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