

Enabling microfluidic platforms for screening of biomarkers and fast diagnosis of infectious and diagnosis diseases

Prof. Gwo-Bin Vincent Lee

Professor, Department of Power Mechanical Engineering, National Tsinghua University, Taiwan

日時: 2012年3月9日(金) 15:30 - 16:30

会場: 東京大学工学部2号館 3F 31A会議室

要旨

Microfluidic technology has been an enabling technology in the recent year for a variety of biomedical applications. In this talk, I will briefly introduce two on-going research works in my group. The first one is the screening of biomarkers (aptamers) using microfluidic technologies in an automatic format. A magnetic-bead-based, automatic microfluidic system was used to select DNA-based aptamers, which can be crucial biomarkers for various applications, including diagnosis and target therapy. In the second part of my talk, I will talk about how to use integrated microfluidic systems for fast diagnosis of several diseases, including infectious disease and genetic diseases.

