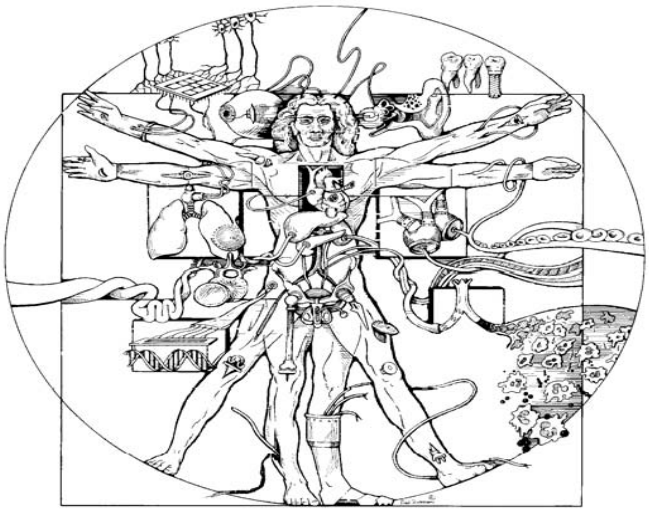
Biomedical Engineering Seminar



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"Nanoengineered Microfluidic Platforms for Complex Biological Systems"

Abstract: The advent of novel insight into the molecular and nanoscale mechanisms that govern biological processes at the system level will serve as a foundation for driving the development of next generation translational biomedical technologies. In addition, this insight, coupled with the development of advanced materials and devices designed, will enable us to take innovative approaches to explore the fundamental design rules in complex biological systems. This talk will discuss several technological modularities toward the next generation molecular devices and engineering frameworks for biomedical applications. Specific examples include i) a high surface-to-volume ratio microfluidic device for rapid antibiotic susceptibility testing, ii) a multi-functional electrode design for point of care diagnostics, and iii) a plasma lithography technique for elucidating the mechanoregulation of myogenic self-organization. If successful, these technological modularities may collectively enable a new generation of quantitative, integrative, and systematic interrogation of complex biological systems.

Monday, August 31, 2009
2:00 pm
Keating 103
Host: Marty Pagel, Ph.D. (404-7049)

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