UW BIOENGINEERING AND THE FUTURE

Inside the labs shaping tomorrow's medical technology

You will have the opportunity to:

- Meet world-class bioengineers
- Understand the latest research
- Hear about tech transfer projects and business opportunities
- Network with industry peers

6:00 pm Lecture
6:45 pm Reception

William H. Foege Bioengineering Building, Main Lobby
1705 NE Pacific St., Seattle

RSVP to Carolyn McQueen at coeevent@uw.edu or (206) 543-0167. Parking information available upon RSVP.

THURSDAY, NOVEMBER 5, 2009 ... RSVP BY OCT 29

Molecular imaging: What role does imaging play in enabling personalized medicine?

Matt O'Donnell, Dean of UW College of Engineering

Healthcare spending represents more than 16 percent of the United States' gross domestic product and is growing rapidly. The traditional approach to treating disease is reactive — more than 70 percent of the nation's healthcare dollar goes to treatment, with only 20 percent spent on prediction and diagnosis. A radical departure from this traditional approach is required to contain healthcare costs. The key to cost containment is to shift from diagnosing symptomatic patients to detecting disease in a presymptomatic population, i.e., to shift to personalized healthcare delivery. In this talk we will discuss the central role of molecular imaging and therapy in delivering the promise of personalized medicine.

TUESDAY, DECEMBER 1, 2009 ... RSVP BY NOV 24

The grand challenges and opportunities of biologic drug development

Pat Stayton, Professor, Department of Bioengineering

The pharmaceutical industry is facing critical economic and pipeline challenges as industry investments over the past decade have continued to increase linearly while the number of potential new drugs has dropped precipitously. The development of biologic drugs from the macromolecules of biology — DNA, RNA, and proteins — changes this equation and has offered a conceptual route to getting around many of the constraints of small molecules. Exciting recent advances from the nanotechnology and polymer chemistry fields have created a timely opportunity to develop enabling biologic drug technologies. The talk will provide an overview on the newly established partnership between the University of Washington, Fred Hutchinson Cancer Research Center, and the Seattle national pharma/biotech community, and how it is addressing the challenges and grand opportunities of biologic drug development.

THURSDAY, JANUARY 21, 2010 ... RSVP BY JAN 14

New low-cost diagnostic technologies to improve global health

Paul Yager, Chair of the Department of Bioengineering

Engineers helped to implement the 20th-century paradigm of medical diagnosis performed by highly trained specialists with access to centralized laboratories. It has worked for the wealthy people in the developed world, but not so well for other people and other places. In the 21st century, we need an approach to healthcare that is better suited to places where the centralized laboratories have never existed. The key will be to use cell phones, which are becoming ubiquitous and very inexpensive to acquire, to process medical data and thus provide the diagnosis to where it can best be utilized. This talk will focus on how we are engineering new low-cost diagnostic technologies that can bring rapid high-quality analysis of biological fluids to people anywhere.