BME DAY

Healthcare Entrepreneurship

CO-SPONSORED BY BIOHOUSTON

Friday, May 1, 2015

UNIVERSITY of HOUSTON

BME Day 2015: *Healthcare Entrepreneurship*

WELCOME REMARKS — 8:30am to 9:00am

PLENARY TALKS

Ali Tinazli, Ph.D. — 9:00am to 9:30am
Vice President for Bionanosicence Research, SONY
"Smart Consumables and Hybrid Devices- Aspects of Technology and Commercialization"

Smart Consumables based on polymer materials with nano-/microscale or supreme optical features are prerequisites for emerging applications in the biomedical markets as in in-vitro diagnostics. Single molecule detection techniques based on fluorescence read-out methods are a prominent example for a number of commercial products. The need for highly parallel read-out of e.g. electrical signals requires the use of CMOS components. Such concepts are required for example in DNA sequencing technologies. Hence, the functional integration of CMOS components in microfluidic, polymer chip architectures is becoming of key importance in a successful product development. The translation of innovation from academia to a commercial setting is becoming increasingly complex owing to the sophistication of new solutions as well as the challenging financial and regulatory environments. To make that leap, products must demonstrate the potential for financial sustainability in the marketplace and, of course, high technical performance. In order to achieve the latter, however, new solutions are often based on nano-, micro-, or biotechnologies, which, in turn, pose challenges to entrepreneurs in terms of the definition of the product specifications, manufacturability, and competitive cost structure.

Colin Brenan, Ph.D. — 9:30am to10:00am
Founder/CCO HiFi BIO BV, EIC of IEEE Pulse
"Start, Build, Exit: Lessons Learned from a Biotech Entrepreneur"

The path of a start-up company is not one of steady progressive development and rising revenues; rather, it is more often than not a "white knuckle" roller coaster ride of ups and downs that fewer than 1 in 10 start-ups survive. This talk tells the tale of two technologies and their non-linear path towards commercialization as told by a biotech entrepreneur-survivor. Starting from the "irrational exuberance" we experienced at their conception in a MIT lab, I will describe the commercialization challenges we faced and how they were overcome to transform ideas borne in a research lab into success biotech products and services sold by global life science companies. I will conclude with the outcome of our journey and the lessons we learned along the way.

COFFEE BREAK — 10:00am to 10:30am

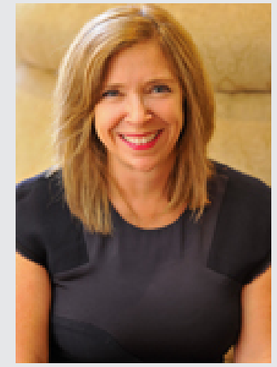
Julien Penders, M.S. — 10:30am to 11:00am
Co-Founder, Bloom Technologies
"Digital health technologies bridging consumer and medical worlds"

The last few years have seen the multiplication of digital health technologies that give people the possibility to track their activity, calories spent, or sleep. Tech savvy consumers embrace these devices, though the relevance and accuracy of the information that is provided is still limited. In this talk will review the latest advances in digital health technologies and how they're shaping the next generation of digital health tools, empowering the consumer with medical grade data and enabling a new consumer driven approach to clinical discovery.

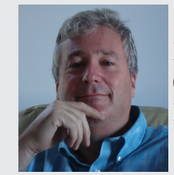
Celeste Fralick, Ph.D. — 11:00am to 11:30am
Chief Data Scientist & Principal Engineer at Intel Corporation
"A Data Scientist Wolf in BME Sheep's Clothing"

An odd career choice for a biomedical engineer, the data scientist role has become a logical progression within the hottest ecosystem known as the Internet of Things. With connectivity increasing in every form factor imaginable, the data scientist can impact every market – including medical. The BME is well equipped to embrace this demanding role, taking experience from regulatory, engineering, statistics, design, and software studies. Dr. Fralick will review the roles and responsibilities of a data scientist, typical processes, and how biomedical engineering studies are a natural fit for this new position.

CAREER PANEL — 11:30am to 12:30pm



Chair/Moderator
Jacqueline Northcut, Ph.D.
President/CEO, BioHouston



Panel Member
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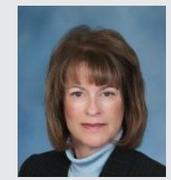

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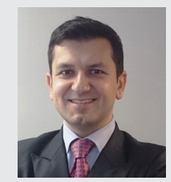

Panel Member
Ali Tinazli, Ph.D.
Vice President for Bionanosicence Research, SONY

Panel Member
Harvey Wiggins, Ph.D.
CEO, Plexon

LUNCH & CAPSTONE PRESENTATIONS — 12:30pm to 2:00pm

CLOSING REMARKS — 2:00pm to 2:10pm

IAB MEETING (IAB Members Only) — 2:10pm to 3:10pm

BME DEPARTMENTAL TOUR (Optional) — 3:10pm to 5:00pm

UNIVERSITY of HOUSTON | ENGINEERING

Our main goal is to develop leadership in academia, government, and industry nationally and globally. The importance of global scientific, social, and cultural interaction and the demands of the dynamic, ever-changing global healthcare economy have been strongly emphasized in our undergraduate and graduate programs. To achieve these goals, we are developing new three emerging academic and research fields including:

Neural and Rehabilitation Engineering

We focus on neural implants, neurogenesis, neurochips, cognitive engineering, neural signal and image processing and modeling, and brain computer interface from hardware to experimentation.

Biomedical Imaging

We focus on in vivo molecular and cellular imaging research with strong emphasis on the imaging of cancer biomarkers, therapy assessment, and cancer biology models etc. We also focus on clinical cardiovascular and brain imaging and develop an advanced interdisciplinary research field based on human cardiovascular and brain imaging.

Genomics, Proteomics and Bionano Engineering and Science

We focus on gene regulatory networks, genetics of systems biology, computational biology, and infectious diseases. We also focus on innovative drug discovery and design, translational research and personalized medicine, as well as the recent advances in bionano science and engineering.

Department of Biomedical Engineering

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