

Innovation and Implementation of Life Sciences in the United States

Invitation to Seminar:

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Date: Friday, April 28, 2017 from 9:30 – 12:30

Place: COBIS, Ole Maaløes Vej 3, 2200 København N

You are cordially invited to an informative seminar on the topic of conducting life sciences research and business in the United States. The importance of understanding the state level in the U.S. market cannot be overstated. Life sciences activity within U.S. states operates in ecosystems. At this seminar, you will get a chance to learn about the life sciences ecosystem in the State of Alabama and the cutting-edge precision medicine research being conducted. This seminar is organized as part of a larger Life Sciences Trade & Investment Mission travelling to Copenhagen in late April 2017.

Agenda:

9:30 Registration, Coffee and Networking

9:45 – 10:00 Navigating your Bioscience entry to the U.S. and the State of Life Sciences sector By Greg Canfield, Alabama Secretary of Commerce

Revenue in the dynamic US biotech sector has grown an average of 10 percent annually over the past decade, and the U.S. remains the largest market for pharmaceuticals and the leader in R&D. Sec. Canfield will share information on trends in the bioscience ecosystem in the U.S. and Alabama.

 10:00 - 10:10
 Science on the Cutting Edge: Informatic and Genomic Precision Medicine Solutions

 By Amy Sturdivant, Economic Development Specialist, HudsonAlpha Institute for Biotechnology

A brief overview of thought leaders who have chosen Alabama for conducting research and doing business in biotechnology. In light of the recently announced Danish National Strategy for Personalized Medicine, these messages will relate to opportunities for Danish life sciences companies, including highlights of a groundbreaking program offering free cancer risk genetic testing called "Information is Power."

10:10 – 10:40 Clinical Utility of Precision Medicine; Improving Quality and Reducing Costs through Genomics *Jill Tapper, Founder & COO, Envision Genomics*



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30,000,000 people living in the United States today have a rare disease and more than half of these are children. Envision Genomics offers a comprehensive clinical solution leveraging whole genome sequencing for care delivery in rare and undiagnosed disease, and creates the foundation for a fundamental shift in healthcare from reactive to proactive. Jill will discuss how the Envision solution is improving quality and reducing healthcare costs by embracing precision medicine.

10:40 – 11:00 Solving the World's Hardest Problems

By Dr. Timothy J. Sellati, Distinguished Fellow and Chair, Department of Infectious Diseases, Drug Discovery Division, Southern Research

This presentation focuses on the drug discovery and development work of Southern Research, a not-for-profit multiplier that partners with universities, national labs, and corporations. Southern Research has a unique role in the Alabama life science ecosystem and is a model of success, showing how not-for-profit organizations in the U.S. effectively connect research institutions with corporations in the drug discovery process, enhancing and building on the work of both.

11:00 – 11:20 Bolstering Biotech Industry via Micro clusters and PPPs

By Dr. Andrew Byrd, Director, Office of Commercialization & Industry Collaboration, USA Technology & Research Park

The biotech industry in the U.S. thrives on collaboration with multipliers and research institutions that constitute micro clusters. PPPs are a growing model in the U.S. biotech sector that have proven successful in unlocking innovation. Learn in this session about some of these successful models.

11:20 – 11:50 Transformation of Big Data into Clinically Actionable Knowledge; the Precision Medicine Revolution

By Dr. Liz Worthey, Director of Software Development & Informatics, HudsonAlpha Institute for Biotechnology

Identification of molecular changes provides an opportunity to understand their role in health and disease, and in a clinical setting to apply that understanding to prevention, diagnosis, and treatment. Despite significant advances in our understanding of the basis of human health and disease, until recently the pace at which we could study causal molecular changes has remained relatively static for many decades. The introduction of new technologies including sequencing technologies supporting whole genome DNA sequencing, RNA sequencing, and immune repertoire sequencing, and computational and informatics technologies that support storage, analysis, visualization, and integration of these large datasets has fundamentally altered how



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changes are identified and studied. This has transformed the practice of medicine and the field of translational research. HudsonAlpha is a leader in both omic data generation and its subsequent analysis. Our faculty are leaders in several cutting-edge Precision Medicine initiatives. This talk will focus on these capabilities as they relate to the projects and initiatives underway within the Institute.

- **11:50 12:00 Dialogue with the Presenters Questions & Answers** By Erin Koshut
- 12:00 12:30 Lunch
- 12:30 Conclusion of program

About the Life Sciences Sector in the State of Alabama

Alabama is home to more than 800 bioscience companies, including 54 medical device companies, with a long list of accolades that accompany them. Birmingham-based Southern Research, for instance, has discovered seven FDAapproved drugs used in cancer treatment and has made important advances in the treatment of AIDS, polio, and mosquito-borne viruses. The HudsonAlpha Institute for Biotechnology in Huntsville is a leader in research on the human genome, gathering genomic data for thousands of academic, clinical, and commercial clients nationwide. Underscoring the track record of innovation found in Alabama's bioscience sector is the fact that organizations in the state received \$280 million in National Institutes of Health (NIH) funding in 2015.

