Battlefield Medicine: Paradigm Shift for Pharmaceuticals Manufacturing

Event Type:
Special Seminar

Contact Person:
Rebecca Zangmeister

Event Info

Date:
Wednesday, December 17, 2014 - 11:00am to 12:00pm

Location:
5112
2129

Details

Speaker/Presenter:
Dr. Geoffrey Ling

Speaker Title:
Director of the Biological Technologies Office,

Speaker Affiliation:
DARPA

Event Description:
Current manufacturing of organic small-molecule pharmaceutical drugs and large-molecule protein therapeutics usually takes weeks or months to prepare and airlift to battlefield front lines. As a result, medicine often does not reach the patients who most urgently need it. Additionally, when a new threat emerges, the various preparedness efforts lead to wasted materials, labor, and money when that threat is not fully realized. The Defense Advanced Research Projects Agency's (DARPA) Battlefield Medicine program is focused on developing innovative, distributed pharmaceuticals and biologics manufacturing platforms for multiple drugs that enable response to a specific threat without requiring specific preparedness for that threat. The program is composed of two integrated research thrusts to enhance the medical capabilities of far-forward providers: Pharmacy on Demand (PoD) and Biologically-derived Medicines on Demand (Bio-MOD). DARPA’s aggressive timeline and metrics for the program include production of multiple U.S. Food and Drug Administration-approved pharmaceuticals and therapeutics within the same miniaturized manufacturing platform at appropriate purity and efficacy levels and very short end-to-end manufacturing times (<24 hours).
Dr. Geoffrey Ling is the founding director of the Biological Technologies Office. He began his DARPA service in 2004 as a Program Manager in the Defense Sciences Office (DSO). He created and managed a broad research portfolio, spanning neuroscience, infectious disease, pharmacology, and battlefield medicine. His Revolutionizing Prosthetics program developed advanced arm prostheses controlled either non-invasively or directly by a user’s brain. His Preventing Violent Explosive Neuro Trauma program developed new understanding and treatment of blast-induced traumatic brain injury (TBI). He was the 2009 DARPA Program Manager of the Year and served as the DSO Deputy Director from 2013-2014.

Setup

IT Setup:
Projector
Laptop
Video Conferencing (WebEx, Skype, etc)