

Bioengineering Seminar

Richard O. Cliff

*Adlyfe, Inc., COO/CFO and Vice President
Rockville, Maryland*

Novel Probes for Early Stage Diagnosis of Alzheimer's Disease

Adlyfe Inc. is a biotechnology company founded in the spring of 2003 located in Rockville, MD to bring to market innovative diagnostic products for neurodegenerative diseases. Protein aggregation in tissues is associated with multiple human diseases of protein misfolding including Alzheimer's, Creutzfeldt - Jakob disease (CJD), and Parkinson Disease. These debilitating diseases affect millions of people, with high mortality and significant costs of healthcare delivery. Our innovative diagnostic technology is focused on diagnosing these diseases before symptoms occur and will allow monitoring of the earliest signs and progression of disease.

Alzheimer's disease (AD) afflicts 10% of those over 65, and perhaps half of those over 85. Every year Alzheimer's not only kills 100,000 Americans, but also costs society a staggering \$183 billion in health care. One of the most important unmet needs in the AD field is early diagnosis of AD. Adlyfe's patented Pronucleon™ technology is based on small peptides (Pronucleon™ probes) that bind specifically to misfolded protein and are amino acid sequence matched to detect amyloid beta (A β) oligomers. Pronucleon™ probes have been shown to selectively detect soluble A β oligomers which are thought to mediate the pathology and death of neurons in AD and which likely precede the formation of insoluble A β plaques. We will discuss aspects of the development and application of this technology along with early stage corporate venture concepts.

February 7th, 2013

12:30PM-1:30PM, Room 3507

Nguyen Engineering Building



BIOGRAPHY

Richard Cliff is a co-founder of both Adlyfe (2003) and Cellphire (2005) and currently serves as the Chief Operating Officer of both companies. With Cellphire he was the Principal Investigator on a DARPA contract for the use of stabilized platelets for advanced wound repair. Previously Mr. Cliff was with Geo-Centers, Inc. from 1987 to 2004 where he held several titles; most recently Senior Scientist and Operations Manager. While at Geo-Centers he was responsible for the process and product development of an advanced blood substitute product for the US Navy, along with management of a \$15 million technical services contract with the Naval Research Laboratory Bio/Molecular Engineering Center. He also served as the Principal Investigator on a DARPA contract from the Bio-Molecular Motors program. In 2000-2004, Mr. Cliff was an affiliate Assistant Professor at George Mason University where he initiated efforts in Biomaterials/Tissue Engineering technology within the Shared Resource Instrumentation Facility (SRIF) to develop academic-government-industry collaboration. Mr. Cliff received his Bachelor of Science degree in Biological Sciences from the George Washington University and an Executive Masters in Technology Management from the Wharton School of Business and the School of Engineering and Applied Science at the University of Pennsylvania.

For any questions please contact Claudia Borke at cborke@gmu.edu, (703) 993-4190