International Conference & Exhibition on NICSGroup In f e r e n c e s Accelerating Scientific Discovery

22-24 Nov 2011 Philadelphia Airport Marriott, USA



Dr. Mansour Mohamadzadeh

University of Florida, USA

Novel oral targeted vaccines for cancer & pathogen challenges

Vaccines have been revolutionary effective to potentiate antibody avidity and T cell longevity, particularly in immune suppressive individuals. Despite worldwide vaccination against various devastating diseases, more than 20% of children are still left unvaccinated resulting in approximately two million unnecessary deaths every year just because of the constraints on vaccine production, distribution or the route of its delivery.

To achieve a potent vaccine against microbial or cancer challenge, novel targeted and directional vaccine strategy should be developed to elicit roust mucosal and systemic immune responses against vaccine targets. Generating an oral and inexpensive vaccine that involves introduction of desired vaccine subunits into beneficial commensal bacteria and its manufacture one option, which would open new avenue in the field. Such effort will include novel "targeting" of the vaccine, evaluation of vaccine effectiveness against deadly pathogens, and the control of beneficial commensal bacteria, including *L. acidophilus* gene expression that can readily be consumed to enable natural delivery of "targeted" antigen to intestinal immune cells that elicit robust immunity against pathogens. Given the fact that mucosal vaccines have an important role in immunotherapy of several infectious diseases (i.e., HIV), it is anticipated that such an oral vaccine platform will serve as a foundation work for pursuing a role of a novel arm of immune system (i.e. mucosal immune system) in the protection and the immunotherapy of various deadly pathogens.

Biography

Mansour Mohamadzadeh has completed his Ph.D at Johannes Gutenberg University in Mainz, Germany and Postdoctoral studies from Johannes Gutenberg, and SWMU University School of Medicine. He is a professor at Department of Infectious Diseases and Pathology at University of Florida, Gainesville. He has published more than 60 papers in reputed journals. He is one of the leaders in vaccine and therapeutic strategies. His laboratory currently focus on two major research projects

1) to study the properties of novel adjuvants that induce the activation of mucosal DCs, and 2) to elucidate cellular and molecular mechanisms that rebalance overt inflammatory immune responses induced by pathogenic commensal bacteria within the mucosal side.