Dr. John E. Connolly, Ph.D.
Director, Program in Translational Immunology
Principal Investigator, Singapore Immunology Network (SIgN)
Singapore

Abstract

"Systems Approaches to Monitoring Immune Responses in Clinical Trials"

During the course of an immune response, cellular communication, trafficking and polarization are achieved through the coordinated expression of cytokines and chemokines. Marked perturbation in these cytokine and chemokine networks are observed in during the course of disease and therapy. The ability to simultaneously monitor changes in multiple cytokines holds both greater discriminatory and instructive power when compared to monitoring a single parameter. We have established methodologies for high throughput monitoring of cellular responses before and during the course of therapy. The assays are non-destructive in nature and are therefore amenable to cross-assay multiplexing with other immunomonitoring procedures. High throughput monitoring can be easily scaled for robotic automation both in the acquisition and analysis phases. The technology itself is broadly applicable to the analysis and monitoring of a wide variety of human conditions, including, cancer, infectious disease, allergy, autoimmune disease and organ transplantation.

Biography

Dr. Connolly is a Senior Principal Investigator and Director for Translational Immunology at the Singapore Immunology Network (SIgN). Additionally, Dr. Connolly serves as Program Director for the BMRC Program in Translational Research in Infectious Disease, a multi-disciplinary center focused on vaccine development. An Adjunct Associate Professor of Immunology at Baylor University, he serves on the Board of Governors for the Institute of Biomedical Sciences.

Dr. Connolly received his Ph.D. in Immunology from Dartmouth Medical School and studied human dendritic cell biology under Dr. Michael Fanger. During this time he was involved in the development of immunotherapeutic preclinical models and clinical trials for *Glioblastoma multiforme* (GBM). He was recruited by Dr. Jacques Banchereau to the Baylor Institute for Immunology Research, a fully translational research institute focused on rationally designed vaccines against cancer and infectious disease. Dr. Connolly served as the Director of Research Initiatives for the Baylor Research Institute, leading a large integrated translational research resource and multi-institutional programs that involved a number of international sites. During his tenure at Baylor, Dr. Connolly was the central core facility director of the NIAID Centers for Translational Research on Human Immunology and Biodefense, an NIH funded consortium of basic, translational research and clinical trials focused on vaccine design. Dr. Connolly is the past President of the Board of Directors of The American Cancer Society in Texas.