Irish by birth, Trinity by the grace of God – a life celebrated

Denis Parsons Burkitt
(1911-1993)

Burkitt’s Lymphoma Symposium Featured Speaker:

Louis M. Staudt
M.D. Ph.D.
Chief, Lymphoid Malignancies Section, Deputy Chief, Metabolism Branch, Centre for Cancer Research, National Cancer Institute, Maryland, USA

Dr. Staudt received his B.A. from Harvard College in 1976, graduating Cum Laude in Biochemistry. He was awarded a Medical Scientist Training Program fellowship at the University of Pennsylvania School of Medicine and received his M.D. and Ph.D. degrees in 1982. His Ph.D. thesis in the field of immunology, performed in the laboratory of Walter Gerhard, revealed somatic hypermutation as a mechanism of rapid antibody diversification during normal immune responses. Following Internal Medicine training, he joined Nobel Laureate David Baltimore's laboratory at the Whitehead Institute as a Jane Coffin Childs Fellow. There he cloned and characterized the first tissue specific transcription factor, Oct-2. He established his laboratory in the Metabolism Branch, National Cancer Institute, in 1988, and currently studies the molecular basis of human lymphoid malignancies. Dr. Staudt is currently Deputy Chief of the Metabolism Branch and he also co-directs the Lymphoma/Leukemia Molecular Profiling Project (LLMPP), a multi-institutional consortium that aims to develop a new molecular framework for the diagnosis of all lymphoid malignancies. Dr. Staudt serves on the Editorial Boards of Cancer Cell, The Journal of Experimental Medicine and Genome Biology. He has received numerous awards for his research, including the 2009 Dameshek Prize from the American Society of Hematology for outstanding contribution in hematology.

Dr. Staudt’s laboratory initiated the use of genomic-scale gene expression profiling to define the molecular basis of therapeutic response and survival in lymphoid malignancies. This effort revealed that the most common type of non-Hodgkin’s lymphoma, diffuse large B-cell lymphoma, is actually comprised of three distinct diseases with different responses to chemotherapy. With respect to Burkitt’s lymphoma, Dr. Staudt’s laboratory created a gene expression-based diagnostic
method that distinguished this entity from diffuse large B cell lymphoma (Dave et al. NEJM 2006 354:2431). This molecular diagnosis was based on 4 gene expression signatures, with Burkitt’s lymphomas having high expression of c-myc and its target genes, and a subset of germinal center B cell-restricted genes, and low expression of NF-kB target genes and MHC class-I genes. Importantly, Dr. Staudt’s gene expression-based diagnostic method identified a substantial number of cases as “molecular” Burkitt lymphoma that appear to be misdiagnosed as diffuse large B cell lymphoma by current diagnostic methods. This distinction is critically important because Burkitt’s lymphoma and diffuse large B cell lymphoma require different chemotherapeutic regimens to be cured.