



生命科学学院2017年度秋季学期学术系列讲座之十一

# New Approaches to Addressing Fundamental and Practical Challenges in B Cell Biology



Speaker:

**Frederick W. Alt**

Member of the National Academy of Sciences and the National Academy of Medicine  
Director of Program in Cellular and Molecular Medicine at Boston Children's Hospital  
Investigator of Howard Hughes Medical Institute  
Charles A. Janeway Professor of Pediatrics and Professor of Genetics, Harvard Medical School

## Abstract:

Development of More Physiologically Relevant Mouse HIV-1 Vaccine Models and Elucidation of Nature of Peyer's Patch Germinal Center B *IgH* Repertoires.

The Alt lab continues to elucidate many new aspects of the mechanism and control of V(D)J recombination including discovering that this reaction is regulated by a process that allows the initiating RAG endonuclease V(D)J recombination factors to explore directionally within chromosomal loop domains for target substrates. His lab also continues to discover new aspects of the mechanism and regulation of IgH CSR and the related process of Ig variable region exon somatic hypermutation. The lab's recent work, based on their development of high throughput methods to study DSBs and chromosomal translocations, have provided major new insights into the mechanisms that contribute to chromosomal rearrangements within the 3D genome of developing lymphocytes and cancer cells or their progenitors. The lab also has used their new approaches to identify a set of genes that recurrently break in neuronal stem and progenitor cells and, thereby, which may contribute to brain diversification and neuropsychiatric diseases and cancer. Most recently, the lab has built on their more basic molecular immunology discoveries on antibody gene assembly to generate innovative new mouse models for testing immunization strategies for eliciting aHIV-1 broadly neutralizing antibodies.

时间：2017年11月30日（星期四），9:00-10:00

地点：生命科学学院邓祐才报告厅

主持人：胡家志

欢迎各位老师同学积极参加！

