

Dr. Shizuo Akira is director of center for advanced modalities and drug delivery system and special appointed professor of Immunology Frontier Research Center. He received his M.D. and Ph.D. from Osaka University. After two years of postdoctoral working in Department of Immunology, University of California at Berkeley, he started to study on IL-6 gene regulation and signaling in the Institute for Molecular and Cellular Biology, Osaka University, and cloned transcription factors, NF-IL6(C/EBP beta) and STAT3. He was professor in Department of Biochemistry, Hyogo College of Medicine from 1996 to 1999, where he became involved in Toll-like receptors research. By generating TLR family knockout mice, he identified ligands of many TLR members. He also demonstrated that the difference in signaling pathway among TLRs is due to selective usage of adaptor molecules such as MyD88 and TRIF. He demonstrated that pathogen-derived RNA is recognized by cytoplasmic receptor family, besides TLRs, and clarified the molecular mechanism of antiviral response against RNA viruses. His research interests moved to the effector phase of TLR responses, that led to the role of mRNA degradation in inflammation and immune responses. He is now focusing on the role of endoribonuclease Regnase-1 in a variety of biological phenomena.

Awards and Honors: 2004 Robert Koch Prize, 2006 William B. Coley Award for Distinguished Research in Basic Immunology, 2007 Imperial Prize and Japan Academy Prize, 2009 National Academy of Sciences of USA, Foreign Associate & Person of Cultural Merit, 2010 Keio International Medical Science Prize & Avery-Landsteiner Prize & EMBO Associate Member, The 2011 Canada Gairdner International Award, 2014 Member of the Japan Academy