



Thirumala-Devi Kanneganti, Ph.D. is Vice Chair of Immunology Department at St. Jude Children's Research Hospital. Her first of many major contributions to the field of innate immunity was the initial discovery of the role of NLRP3 in caspase-1 activation (NLRP3 inflammasome) by microbial

components (*Nature* 2006 Mar 9;440(7081):233-6). Her research identified the activation mechanisms of inflammasomes during infections and autoinflammatory diseases and the crosstalk between pyroptosis, apoptosis and necroptosis pathways. Using novel genetic mouse models and in-depth molecular and biochemical analyses, her lab has discovered distinct and previously unrecognized functions of IL-1 α , IL-1 β and IL-33 cytokines and their signaling pathways in inflammatory diseases and cancer. Her lab has recently identified ZBP1/DAI as an innate sensor of influenza virus that triggers the NLRP3 inflammasome and programmed cell death pathways, NLRC3 as a regulator of PI3K signaling, cGAS-STING-IRF-GBP-IRGB10 pathway in liberating ligands for sensing by AIM2 and NLRP3 inflammasomes. Dr. Kanneganti's collective work includes 180 manuscripts, and many of these studies appeared in top-ranking journals including *Nature*, *Nature Immunology*, *Cell*, *Cancer Cell*, and *Immunity*. Her studies contributed significantly to shaping our current understanding of NLRs, inflammasomes and cytokines of the IL-1 family in all areas of immunology. The American Association of Immunologists (AAI) has recognized her contributions to the field of immunology by selecting her for the AAI-BD Biosciences Investigator Award in 2015.

Dr. Kanneganti serves on numerous editorial boards and several national and international advisory and grant review committees. She is currently the Chair of the NIH Innate Immunity and Inflammation study section. She has mentored several research fellows, many of whom have gone on to become independent principal investigators, and she has also received the 2015 Vince Kidd Mentor of the Year Award.