

【Abstract of 2009 Grant – in – Aid for Scientific Research on Innovative Areas
(Research in a proposed research area)】

Title of project	Homeostatic inflammation: Molecular basis and dysregulation
Head Investigator Name	MIYAKE Kensuke, The University of Tokyo, The Institute of Medical Science, Professor
Abstract of Research Project	Families of receptors called pathogen sensors, conserved from flies to humans, detect microbial invasion and activate defense programs. Recent studies indicate that pathogen sensors respond to self-derived products as well and have a role in noninfectious inflammatory diseases like obesity, atherosclerosis, and autoimmune diseases. In this research program, we call the interactions between pathogen sensors and self-derived products “homeostatic inflammation” and attempt to reveal the physiological roles and molecular basis of “homeostatic inflammation” in noninfectious inflammatory diseases, establishing the new concept “homeostatic inflammation” as an important homeostatic mechanism controlling the steady, healthy state.
Term of Project: 2009–2013	