



Mediators of Inflammation

Special Issue on

Innate Immune Sensors, Inflammation, and Cancer

CALL FOR PAPERS

Innate immune system is the first line of defense against pathogens through sensing the pathogen associated molecular patterns (PAMPs) by its sensor proteins called pattern recognition receptors (PRRs), which include Toll-like receptors (TLRs), RIG-I-like receptors (RLRs), NOD-like receptors (NLRs), and C-type lectin like receptors (CLRs), and cytosolic DNA sensors including the recently identified cGAS. In addition to PAMPs, PRRs also sense endogenous damage associated molecular patterns (DAMPs). Upon recognition of either PAMPs or DAMPs, the PRRs will be activated and trigger intracellular signaling and activate transcription factors IRF and NF- κ B, which will induce the production of antiviral Interferons (IFNs) and proinflammatory cytokines, respectively. On the other hand, the PRR mediated innate immune responses must be under tight control; otherwise, the uncontrolled and sustained inflammation and the resulting tissue repair response can result in chronic inflammatory diseases, autoimmune diseases, and cancer.

PRR mediated innate immune responses play very important roles in the fighting against pathogens and resolving of infectious diseases; however in certain cases, the initiated PRR responses contribute to the pathogenesis of infectious diseases due to inflammation such as malaria. In terms of cancer, considering the contrasting roles of IRF and NF- κ B pathways of PRR signaling in the cell growth, the functions of PRRs in cancer are distinct and complex depending on the individual PRR and the type of cancer. Furthermore, how the PRRs regulate the antitumor immunity is not very known. The whole area is still fast growing and lots of efforts are necessary to understand the more details. We invite researchers to submit original research as well as review articles that offer insights into the functions of PRRs in the tumorigenesis.

Potential topics include, but are not limited to:

- ▶ The function of PRRs in the initiation and progression of cancer
- ▶ Cross talks between PRR signaling and cell growth, cell death, angiogenesis, metastasis, or other tumorigenesis processes
- ▶ The profiles of cytokines and chemokines in the cancer and the regulation by PRR signaling
- ▶ Influence on antitumor immunity by PRRs
- ▶ Modulation of PRR signaling by agonists or antagonists in cancer

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/mi/iis/>.

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