

Special Issue on
**Macrophage Functions and Regulation: Roles in Diseases
and Implications in Therapeutics**

CALL FOR PAPERS

Macrophages, as a key element in the innate immunity, play an important role in the first-line defense against the pathogens and modulating inflammatory responses. Circulating monocytes derived from bone marrow myeloid progenitors differentiate into tissue macrophages through a fine-regulated process. Macrophages are not homogenous and they are generally categorized into two broad but distinct subsets as either classically activated (M1) or alternatively activated (M2). In general, M1 macrophages promote inflammation while M2 macrophages help to resolve inflammation and promote tissue remodeling. However, sustained macrophage infiltration in face of injury eventually becomes pathological, resulting in irreversible tissue destruction and disease progression and deterioration. Thus, better understanding of the regulation of macrophage differentiation and polarization, as well as their roles in disease pathogenesis, will contribute to the development of selective and effective therapies.

We invite authors to contribute original research articles, as well as review articles, of both *in vitro* and *in vivo* studies using animal and human models to this special issue.

Potential topics include but are not limited to the following:

- ▶ Mechanisms of macrophage differentiation
- ▶ Regulation of macrophage polarity
- ▶ Regulation of macrophage fate (apoptosis and survival)
- ▶ Crosstalk between macrophages and other cells in innate immunity
- ▶ Role of macrophages in cardiovascular diseases
- ▶ Role of macrophages in pulmonary diseases
- ▶ Role of macrophages in kidney diseases
- ▶ Role of macrophages in infectious diseases
- ▶ Role of macrophages in cancer
- ▶ Role of macrophages in neurological diseases

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jir/mfrit/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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