

Special Issue on  
**Inflammation and Immune System in Hypertension**

# CALL FOR PAPERS

Hypertension is a major public health issue, which contributes to a plethora of cardiovascular disease. Although many drug classes are used to treat hypertension, less than 50% of patients achieve blood pressure control. Thus, it is important to identify unknown mechanisms involved in the pathogenesis of hypertension and to design improved medications for its treatment.

The role of immunity in hypertension has long been speculated. In the past decade, more evidence from researchers provided various connections between hypertension and immunity. For example, innate immune cells (e.g., dendritic cells, macrophages, and monocytes) or adaptive immune cells (B, CD4<sup>+</sup>T, CD8<sup>+</sup>T, and T cells) participate in blood pressure regulation and organ damage via releasing inflammatory cytokines and chemokines or stimulating reactive oxygen species. Others also reported that lymphatics, a secondary circulating system and an important part in the immune system, play critical roles in maintaining body sodium/fluid homeostasis, thereby regulating blood pressure. Moreover, recent studies on microbiome in Dahl hypertensive rats indicated that gut microbiota may be a significant factor influencing inflammation and immunity in hypertension.

These intriguing studies showed that many organs (such as heart, kidney, brain, and vasculature) are involved in the connection between immunity and hypertension; however, the precise mechanisms and molecular targets for therapeutics to this pathogenesis are yet to be defined. Therefore, more fundamental studies on delineating the mechanisms by which immunity affects blood pressure need to be further established.

This special issue welcomes submissions addressing new knowledge regarding the role of immunity in hypertension and related organ damage. We encourage both basic and clinical investigators to contribute original research articles as well as review articles that will further elucidate the mechanism of this pathogenesis.

Potential topics include but are not limited to the following:

- ▶ Role of innate/adaptive immune cells in the pathogenesis of hypertension and/or related organ damage
- ▶ Molecular mechanisms of inflammatory cytokines and chemokines in hypertension
- ▶ Autoimmunity in the pathogenesis of hypertension
- ▶ Role of lymphatics in hypertension and related organ damage
- ▶ Contribution of gut microbiota to immunity and hypertension
- ▶ New inflammatory biomarkers in hypertension
- ▶ Therapeutic approach targeting inflammation and immune system in hypertension

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/ijhy/iish/>.

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

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