Evidence-Based Complementary and Alternative Medicine

Special Issue on

Complementary and Alternative Therapies Targeting Inflammasomes for Human Diseases

CALL FOR PAPERS

Inflammation is an innate immune response to protect the body from invading pathogens and intracellular stress signals, whereas chronic inflammation has been considered as a major risk factor that induces a variety of diseases, such as inflammatory/autoimmune diseases, metabolic diseases, and even cancers. An inflammatory response comprises two major consecutive steps: priming and triggering. Priming is the preparatory phase for inflammatory response, whereas triggering is the process that boosts the inflammatory response. Inflammasomes are intracellular protein complexes consisting of intracellular pattern recognition receptors and inflammatory molecules and are activated during the inflammatory response, in response to their specific ligands, leading to inflammatory cell death, pyroptosis, and IL-1 and IL-18 secretion.

Recently, much effort has been made to develop safe and effective anti-inflammatory therapies to treat various diseases, and complementary and alternative medicines (CAMs) have been successfully proposed as safe and effective anti-inflammatory agents that can overcome the serious problems of conventional drugs, such as drug-failure patient groups, side effects, and toxicity. However, a large number of previous studies have focused on the investigation of the priming step rather than the triggering step. Therefore, the studies focusing on the development of promising CAMs to treat various diseases by targeting inflammasomes need to be further explored. Given these problems, not only basic studies of CAM-mediated anti-inflammatory actions by targeting inflammasomes but also development of novel CAMs that are selectively targeting inflammasomes, as well as being safer and more effective than conventional drugs, is highly demanded.

This Special Issue aims to highlight the latest research that will help in understanding the basic mechanisms as well as the development of promising CAMs targeting inflammasomes to prevent and treat various diseases. Therefore, we kindly invite researchers to contribute original research and review articles investigating in vitro, in vivo, nonclinical, and clinical/translational studies focusing on the anti-inflammatory effects of CAMs by targeting inflammasomes and potential CAM therapeutics to treat various diseases.

Potential topics include but are not limited to the following:

- Sources, isolation, and characterization of CAMs inhibiting inflammasome activation
- Chemical modification of CAMs useful for treating human diseases to improve their safety and/or efficacy
- CAM-mediated anti-inflammatory action by targeting inflammasomes
- In vivo CAM-mediated ameliorative effects for human diseases by targeting inflammasomes
- Molecular and cellular mechanisms by which CAMs inhibit inflammatory responses by targeting inflammasomes
- Identification and validation of the molecular targets, or biomarkers of CAMs, to modulate the inflammasome activation in the inflammatory responses and human diseases
- Comparison of inflammasome-targeting CAMs with conventional anti-inflammatory drugs in human diseases
- Nonclinical and clinical/translational studies of human diseases using CAMs targeting inflammasomes
- New inflammasome-related CAMs/technologies with potential applications in diagnosing and treating human diseases

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/ecam/cattihd/.

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

Lead Guest Editor
Young-Su Yi, Kyonggi University, Suwon, Republic of Korea
ysyi@kgu.ac.kr

Guest Editors
Tae Jin Lee, The University of Texas Health Science Center at Houston, Houston, USA
tae.jin.lee@uth.tmc.edu

Sehyun Kim, Pivotal-BIO, South San Francisco, USA
sehyun.kim@pivotal-bio.tech

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