

# Implications of inflammatory cell death-PANoptosis in health and disease

**Joo-Hui Han**

College of Pharmacy and Research Institute of Pharmaceutical Sciences, Woosuk University, Republic of Korea

Regulated cell death (RCD) pathways, such as pyroptosis, apoptosis, and necroptosis, are essential for maintaining the body's balance, defending against pathogens, and eliminating abnormal cells that could lead to diseases like cancer. Although these pathways operate through distinct mechanisms, recent genetic and pharmacological studies have shown that they can interact and influence each other. The concept of "PANoptosis" has emerged, highlighting the interplay between pyroptosis, apoptosis, and necroptosis, especially during cellular responses to cellular stress and infections.

In this talk, I will provide a concise overview of PANoptosis and its molecular mechanisms, exploring its implications in various diseases, and emphasizing the role of PANoptosis in infections, cytokine storms, and inflammatory diseases.

**Keywords:** PANoptosis, Inflammatory cell death, Infection, Cytokine storm