

## **KEY WORDS AND PHRASES FOR Synthesize and Secrete Inflammatory Cytokines and Chemokines in Response to PAMPs**

Acute respiratory distress syndrome (ARDS)

Antibodies, defensins, lysozyme, etc.

Disseminated intravascular coagulation (DIC)

Excessive activation of coagulation pathway

Extracellular killing by neutrophils

Excessive production of complement pathway proteins

Excessive production of inflammatory cytokines (IL-1, IL-8, TNF-alpha NO, etc.)

High levels of cell wall PAMPs are released and bind to PRRs on defense cells

Hypoperfusion

Low levels of cell wall PAMPs are released and bind to PRRs on defense cells

Moderate activation of the coagulation pathway

Moderate production of complement pathway proteins

Moderate production of inflammatory cytokines (IL-1, IL-8, TNF-alpha NO, etc.)

Neutrophils, macrophages, etc.

Pathogen-Associated Molecular Patterns (PAMPs)

Pattern-Recognition Receptors (PRRs) on macrophages, dendritic cells, and other cells.

Peptidoglycan, arabinogalactin, mycolic acid, bacterial genome

Peptidoglycan, LPS, porins, mannose, bacterial genome, flagellin

Peptidoglycan, mannose, lipoteichoic acids, bacterial genome, flagellin

Prolonged vasodilation

Stops metabolic enzyme reactions

Vasodilation and diapedesis