



Lipopolysaccharide: Bacterial Endotoxin 2.0

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Message from the Guest Editor

Lipopolysaccharide (LPS) is the major molecular surface component of the outer membrane of Gram-negative bacteria. LPSs are negatively charged molecules exposed to the external environment and that provide a physical barrier that protects bacteria from antibacterial agents.

The LPS lipid A released from cell surfaces of bacteria during multiplication, lysis, or death can be recognized by specific host cell receptors and is responsible for the activation of the innate immune system via the induction of inflammatory cytokines release. The uncontrolled activation of the innate immune response triggers the development of septic shock and multiple-organ failure. Thus, lipid A is one of the most potent immune-stimulators, of which the toxicity depends on its primary structure and the severity of infection.

The set of articles proposed for this Special Issue will examine the structure, composition, biological activity, host interaction, and induction of the innate immunity of the Gram-negative bacterial endotoxin.





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Message from the Editor-in-Chief

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