

Special Issue

Lipopolysaccharides and Innate Immunity: Potential Usefulness

Message from the Guest Editor

Lipopolysaccharide (LPS) has historically been referred to as an endotoxin because its intravascular injection induces dramatic inflammatory responses. However, with the elucidation of the mechanisms of innate immunity, LPS has come to be regarded as a substance that can regulate innate immune function, and thus, play a preventive role against various diseases, including modern ones. For example, it has been demonstrated that LPS exposure is helpful for the prevention of allergic asthma among children; LPS exerts its effects on the mucosal tissues of the oral cavity, intestinal tract, and skin; while antibiotic-induced impairment of innate immune function can be prevented, or immune function may be restored by LPS intake. These factors suggest that a paradigm shift is underway to re-examine the physiological role of LPS. In this Special Issue, we will focus on the role of LPS as a regulator of innate immune functioning and have introduced basic and applied approaches, with special attention to the potential usefulness of LPS.

Guest Editor

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