



Special Issue Reprint

Microbial Virulence Factors

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Edited by
Jorge H. Leitão

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Microbial virulence factors encompass a wide range of molecules produced by pathogenic microorganisms, enhancing their ability to evade their host defenses and cause disease. This broad definition comprises secreted products such as toxins, enzymes, exopolysaccharides, as well as cell surface structures such as capsules, lipopolysaccharides, glyco- and lipoproteins. Intracellular changes in metabolic regulatory networks, governed by protein sensors/regulators and non-coding regulatory RNAs, are also known to contribute to virulence. Furthermore, some secreted microbial products have the ability to enter the host cell and manipulate their machinery, contributing to the success of the infection. The knowledge, at the molecular level, of the biology of microbial pathogens and their virulence factors is central in the development of novel therapeutic molecules and strategies to combat microbial infections. The present collection comprises state of the art research and review papers on virulence factors and mechanisms of a wide range of bacterial and fungal pathogens for humans, animals, and plants, thus reflecting the impact of microorganisms in health and economic human activities, and the importance of the topic.

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