



Application of Protein Toxins as Cell Biological and Pharmacological Tools

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Message from the Guest Editor

Protein toxins from bacteria and plants are a serious threat to human and animal health. However, because of their intimate interactions with host cells, they have also become valuable tools to molecularly dissect cell biological functions that range from endocytosis and intracellular trafficking to cell signaling and apoptosis. Several characteristics such as ease for biochemical handling and the robustness of phenotypes are responsible for their success as cell biological tools. The in-depth understanding of their activities has, in turn, also attracted attention to their use as pharmacological tools to manipulate cellular processes that malfunction in disease situations or that can be targeted for therapeutic intervention. Cancer immunotherapy by immunotoxins or toxin subunit-based vaccines are only some of the many possibilities for using toxins in biomedical research. In this special issue of *Toxins*, primary research papers and review articles are assembled that address the aspects that are summarized above.





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Message from the Editor-in-Chief

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