

Editorial

Venom Toxins as Potential Targeted Therapies

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Targeted therapy has been a very hot research topic in the last decade. It focuses on specific medications for treatment of particular diseases, such as cancer, diabetes, heart disease, etc. One of the most exciting recent developments in targeted therapies is the isolation of disease-specific molecules from natural resources, such as animal venoms and plant metabolites/toxins, to use as templates for new drug motif design.

This Special Issue of *Toxins* includes three recent advanced research studies related to bee venoms as potential medicinal therapy in different aspects [1–3]. Furthermore, recent advances in bioactive molecules finding from frog skins, mushroom and venom/toxin/immunotoxins for targeted cancer therapy and immunotherapy are discussed [4–8]. The discussion on using novel disease-specific venom-based protein/peptide/toxin along with currently available FDA approved drugs as combinatorial treatment, such as a family of novel types of antimicrobial agents, were also encouraged to be discussed in these contexts. For examples, an overview of some selected promising snake and ant venom-based peptides/toxins potentially able to address the forthcoming challenges in this field were included [9,10]. In addition, four detailed review articles openly discuss the venom proteins/peptides in different species of snake venoms and toad toxins [11–13]; moreover, plant toxins from Bouganin naturally targeted, as immunotoxins [14], mammalian receptors and demonstrated high specificity and selectivity towards defined ion channels of cell membranes and receptors.

To sum up, all research and review articles proposing novelties or overviews, respectively, were successfully and carefully selected in this Special Issue after rigorous revision by the expert peer reviewers. As a guest editor, I would like to express my deep appreciation to all the selfless and fair reviewers.

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