Special Issue

Botulinum Neurotoxin and Parkinson's Disease

Message from the Guest Editors

Parkinson's disease (PD) is a progressive neurodegenerative disease, and is the second most frequently occurring of this type. The main motor symptoms of PD, such as bradykinesia, akinesia, rest tremor, rigidity, postural instability, and gait disorders, are caused by axonal degeneration of dopaminergic fibers in the striatum and subsequent or parallel loss of dopaminergic neurons in the substantia nigra pars compacta. Botulinum toxins, produced by the anaerobic bacterium *Clostridium botulinum*, are among the most potent poisons present in nature. They inhibit the release of acetylcholine from the presynaptic terminal by affecting SNARE and SNAP proteins. In recent years botulinum neurotoxin (BoNT) has been used for the treatment over 100 different medical indications. Many of the symptoms for which BoNT has been found to be effective occur in a variety of neurological disorders. Especially in Parkinson's disease, BoNT has been successfully applied to treat various motor symptoms. In this Special Issue, we ask experts to contribute manuscripts that examine the current therapeutic indications and effectiveness of BoNT in PD or respective animal models.

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Toxinology is an incredibly diverse area of study, ranging from field surveys of environmental toxins to the study of toxin action at the molecular level. The editorial board and staff of *Toxins* are dedicated to providing a timely, peer-reviewed outlet for exciting, innovative primary research articles and concise, informative reviews from investigators in the myriad of disciplines contributing to our knowledge on toxins. We are committed to meeting the needs of the toxin research community by offering useful and timely reviews of all manuscripts submitted. Please consider *Toxins* when submitting your work for publication.

Editor-in-Chief

Prof. Dr. Jay Fox
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