



Cardiotonic Steroids: From Toxins to Hormones

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Message from the Guest Editors

Dear Colleagues,

Cardiotonic steroids (CS), obtained from plants such as *Digitalis purpurea* and *Strophanthus*, and animals like toad *Bufo Marinus*, were once widely used components of traditional medicine. CS functions include not only the inhibition of Na/K-ATPase, and regulation of the monovalent ions balance and cell homeostasis, but also the initiation of multisignal cascade transduction pathways. By binding to the Na pump, CS can affect cell growth and differentiation, apoptosis and proliferation, glucose metabolism, and control of central nervous functions. Dysregulation of CS plays an important role in multiple diseases, including chronic kidney disease, cancer, preeclampsia, hypertension, and other cardiovascular disorders. The understanding of this class of hormones will lead to the discovery of the novel therapeutic strategies in the regulation of physiological functions and in curing diseases. The present Special Issue on “Cardiotonic Steroids” is dedicated to the recent findings related to a multifaceted role of these incredible molecules in health and disease.





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