

## Special Issue

# Molecular Mechanism of Thermoregulation in Ectotherms

### Message from the Guest Editor

Many vertebrates regulate their body temperature in response to thermal variability of the environment. In recent years, several studies have revealed a number of receptor ion channels that mediate the perception of several temperature ranges. Most of the knowledge about thermoregulation and thermoperception corresponds to mammals and model animals such as rodents, mice and rats; however, the underlying molecular mechanism of the thermoregulation in ectotherms remains unknown. The present Special Issue will allow us to gain an understanding of the anatomical, thermoreceptor and functional relationships within the molecular network that control the thermoregulation in ectotherms. Delineating the molecular circuit mechanism underlying the thermoregulation provides us with a platform for exploring its functional organization, elucidating the molecular underpinnings of its interactions, and discovering novel approaches to modulating body temperature, as well as being able to understand how the ectotherms may cope with climate change.

### Guest Editor

Prof. Dr. Sebastian Boltana

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