



## The Role of Metal Ions in Biology, Biochemistry and Medicine

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### Message from the Guest Editor

Metal ions are fundamental elements for the maintenance of lifespan of plants, animals and humans. Their substantial role in biological systems was recognized a long time ago. They are essential for the maintenance of life and their absence can cause growth disorders, severe malfunction, carcinogenesis or death. They are protagonists as macro or microelements in several structural and functional roles, participating in many biochemical reactions and arise in several forms. They participate in intra and inter cellular communications, in maintaining electrical charges and osmotic pressure, in photosynthesis and electron transfer processes, in the maintenance of pairing, stacking and the stability of nucleotide bases, in regulation of DNA transcription, proper functioning of nerve cells, muscle cells, brain and heart, transport of oxygen and in many other biological processes up to the point that we cannot even imagine a life without metals. With the application of new modern methods to study biological and biochemical systems, new and sophisticated roles of metal ions in living systems can be revealed in articles in this Special Issue that aims to highlight some of the new advances.





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## Message from the Editor-in-Chief

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