



Interactions of Redox-Active Proteins and Their Substrates

Guest Editor:

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Message from the Guest Editor

The identification and characterization of protein interactions is required to understand protein function and the organization and regulation of cellular life. From a biochemical point of view, life can be regarded as a carefully regulated flow of electrons from donor compounds to acceptors of higher reduction potential. In most cells the flow starts from the universal electron donor glucose to acceptors, in processes that ultimately generate energy in the form of ATP. Apart from glucose, complementary reducing equivalents may be provided by NADPH (sometimes produced by glucose itself via the pentose phosphate pathway) to be used in other redox-involving processes such as the reduction of ribonucleotides to deoxyribonucleotides, the assimilation of sulphur, or cell signalling or may be used by networks of “antioxidant” proteins that may reverse undesired oxidations. This special issue is essentially an update on the interactions of proteins participating in cellular electron flows or being affected by them. Structural elements of the interactions, the interacting species and the kinetic properties of interactions are well within the scope of the special issue.





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Message from the Editor-in-Chief

It has been recognized in medical sciences that in order to prevent adverse effects of "oxidative stress" a balance exists between prooxidants and antioxidants in living systems. Imbalances are found in a variety of diseases and chronic health situations. Our journal *Antioxidants* serves as an authoritative source of information on current topics of research in the area of oxidative stress and antioxidant defense systems. The future is bright for antioxidant research and since 2012, *Antioxidants* has become a key forum for researchers to bring their findings to the forefront.

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