



Copper in Biology: Maturation of Copper Proteins and Copper Homeostasis

Guest Editor:

Dr. Francesca Cantini

1. Magnetic Resonance Center,
University of Florence, Sesto
Fiorentino, 50019 Firenze, Italy
2. Department of Chemistry,
University of Florence, Sesto
Fiorentino, 50019 Firenze, Italy

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Message from the Guest Editor

Dear Colleagues,

Copper is an essential transition metal ion found in many key human enzymes. Its ability to assume distinct redox states by cycling between oxidized copper(II) and reduced copper(I) makes copper an appropriate cofactor in proteins, showing a wide range of catalytic functions, such as reactive oxygen species detoxification, electron transfer and mitochondrial functions. In order to prevent the binding of the “wrong” copper ion, cells have developed very efficient homeostatic and trafficking mechanisms. Thus, copper distribution, exploitation and excretion is tightly regulated in cells. Molecular recognition by protein–protein interactions efficiently guarantees the correct delivery of copper to Cu-dependent enzymes.

An overview on copper proteins will be considered, and original papers aim to unravel the precise molecular nature of copper within different cellular compartments are welcome. Contributions that show recent advances in maturation of copper proteins and copper homeostasis processes will be also considered.

Dr. Francesca Cantini
Guest Editor





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Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of
Odontostomatologic and
Specialized Clinical Sciences,
Sez-Biochimica, Faculty of
Medicine, Università Politecnica
delle Marche, Via Ranieri 65,
60100 Ancona, Italy

Message from the Editor-in-Chief

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