



## NAD<sup>+</sup> and Pyridine Nucleotides, Central Players in Plant Metabolic and Developmental Acclimation

Guest Editor:

**Dr. Bertrand Gakière**

Institute of Plant Sciences of  
Paris-Saclay (IPS2), Université  
Paris-Saclay INRAE CNRS,  
Bâtiment 630, Avenue des  
Sciences, CS 80004, CEDEX, 91192  
Gif-sur-Yvette, France

Deadline for manuscript  
submissions:

**closed (30 April 2022)**

### Message from the Guest Editor

Several studies have shown that stimulation of NAD<sup>+</sup> synthesis is associated with better plant productivity and could lead to accelerated senescence. Increased NAD<sup>+</sup> levels are linked to enhanced resistance to a diverse range of (a)virulent pathogens via salicylic acid (SA), ethylene, jasmonate, and abscisic (ABA), and a reciprocal regulation between NAD<sup>+</sup> metabolism and ABA has been demonstrated under abiotic stress conditions. Thus, the cellular and subcellular availability of NAD<sup>+</sup> may prime plant growth and development to changing environmental conditions, abiotic stress resistance, and immunity.

This Special Issue will address recent advances in our understanding of the actions of NAD<sup>+</sup> and pyridine nucleotides in metabolic, hormonal, and organellar retrograde signalling that allow plants to grow, to tolerate abiotic stresses, to enhance their immunity, and to adapt their development accordingly.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Alessandra Napolitano

Department of Chemical  
Sciences, University of Naples  
"Federico II", Via Cintia 4, I-80126  
Naples, Italy

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, FSTA, PubAg, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Chemistry, Medicinal) / CiteScore - Q1 (Food Science)

## Contact Us

---

*Antioxidants* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/antioxidants](http://mdpi.com/journal/antioxidants)  
[antioxidants@mdpi.com](mailto:antioxidants@mdpi.com)  
[X@antioxidants\\_OA](https://twitter.com/antioxidants_OA)