# Special Issue

# Molecular Networks Regulating Seed Maturation, After-Ripening, Dormancy and Germination

## Message from the Guest Editor

Understanding the molecular mechanisms underlying seed life that allow seeds to be properly constituted, arrest embryo growth and ultimately germinate under favourable conditions, constitutes an important topic in plant molecular biology. Transcriptional and posttranscriptional regulation of gene expression play key roles in a wide range of plant life processes and stages. This is the case of seed life, which requires highly coordinated gene expression triggering molecular changes involving various metabolic pathways. All these coordinating mechanisms are in their great majority, governed and led by the content and/or sensitivity of plant hormones, being ABA, gibberellins and ethylene the most committed. However, the effect of other endogenous and environmental factors should not be ruled out. The seed dry storage regulates seed dormancy by specific transcriptional programs that induce changes in signaling and seed hormones whose balances are modulated by other hormones such as jasmonates and salicylic acid. This Special Issue will explore advancements in the regulatory mechanisms underlying development and maturation, dormancy, after-ripening and germination of seeds.

### **Guest Editor**

Prof. Dr. Angel J. Matilla

Departamento de Biología Funcional (Área Fisiología Vegetal), Facultad de Farmacia, Universidad de Santiago de Compostela, 15782 Santiago de Compostela, Spain

### Deadline for manuscript submissions

closed (29 February 2024)



# **Plants**

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/170866

Plants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
plants@mdpi.com

mdpi.com/journal/ plants





# **Plants**

an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 7.6 Indexed in PubMed



## **About the Journal**

### Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

#### Editor-in-Chief

Prof. Dr. Dilantha Fernando

Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

#### **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, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

### **Journal Rank:**

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)

