



an Open Access Journal by MDPI

# **Seed Protective Mechanisms**

Guest Editor:

## Dr. Philippe Grappin

IRHS, Agrocampus-Ouest, INRA, Université d'Angers, SFR 4207 QUASAV, 49000 Angers, France

Deadline for manuscript submissions: **20 August 2024** 



mdpi.com/si/191175

#### Message from the Guest Editor

Dear Colleagues,

Because the success of seed germination and seedling establishment determines reproductive success and plant fitness, many protective and resistance mechanisms have developed to overcome (a)biotic constraints and optimise plant propagation.

From seed formation and maturation to dispersal and seedling emergence, many primary and secondary metabolisms, regulatory networks, hormonal pathways and physicochemical and structural features has been identified for their contribution to the outstanding ability of seeds to resist adverse environmental conditions. These adaptative mechanisms illustrated the by longevity, dormancy, drought and temperature tolerance properties of seeds and their atypical interactions with biotic environments are currently well documented by physiological studies that now benefit from the development of phenotyping tools, microscopy imaging, molecular genetics and genomics.

This Special Issue is dedicated to updating knowledge on contribution of the tolerance and adaptive mechanisms developed by seeds to face environmental constraints and successfully ensure the establishment of the next plant generation.







an Open Access Journal by MDPI

### **Editor-in-Chief**

#### Prof. Dr. Dilantha Fernando

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

#### 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 community.

#### **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 (Plant Science)

#### **Contact Us**

*Plants* Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/plants plants@mdpi.com X@Plants\_MDPl