



Plant Shoot Gravitropism

Guest Editor:

Dr. Dmitry Suslov

Department of Plant Physiology
and Biochemistry, Faculty of
Biology, Saint Petersburg State
University, Universitetskaya emb.
7/9, 199034 St. Petersburg, Russia

Deadline for manuscript
submissions:

closed (28 February 2022)

Message from the Guest Editor

Dear Colleagues,

Gravitropism is traditionally defined as the directed growth of a plant or plant organ in response to gravity. It appears as a bending that restores the normal orientation of a plant's body with respect to the gravity vector. When considering gravitropism in shoots, the above definition is only accurate for their young elongating parts that bend due to a difference in the rate of axial cell growth. The role of cell walls in shoot gravitropism is more multifaceted than their involvement in root gravitropism. Unlike roots growing in dense soil, plant shoots have no physical support from the surrounding medium. Thus, the fine control of cell wall extensibility, which underlies differential cell elongation during gravitropism, should be delicately balanced with wall reinforcement in shoots to keep their vertical position in the field of gravity.

This Special Issue of *Plants* will focus on all recent developments in the exciting field of plant shoot gravitropism: from the gravity perception, through signal transduction, and to the growth response or the generation of contractile properties, which both involve fine changes at the level of cell wall polymers.





plants



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 commentaries on topics of interest to the plant research 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_MDPI](https://twitter.com/Plants_MDPI)