



Carotenoid Biosynthesis, Regulation, Storage and Degradation in Plants

Guest Editor:

Dr. Chris Cazzonelli

Hawkesbury Institute for the Environment, Western Sydney University, Richmond, NSW, 2753, Australia.

C.Cazzonelli@westernsydney.edu.au

Deadline for manuscript submissions:

29 February 2020

Message from the Guest Editor

Epigenetic and metabolic feedback regulation of the carotenoid pathway can alter carotenoid homeostasis, signifying essential functions for carotenoids in mediating development and/or responding to changes in the environment. Carotenoids can be degraded by enzymatic and non-enzymatic oxidative cleavage, generating phytohormones as well as mobile apocarotenoid signalling metabolites. Emerging trends in carotenoid biology are unearthing new apocarotenoid signals, their pathways for synthesis and their mechanisms of action. Some of these apocarotenoids have recently emerged as bioactive molecules to treat human cancer (dihydroactinidiolide); induce plant herbivore resistance (loliolide); and control root development (anchorene), parasitic weed germination (strigolactone), growth (zaxinone) as well as stress acclimation (β -cyclocitral) in plants. This Special Issue of *Plants* invites submissions that address the above issues and describe new aspects related to carotenoid biology in plants.





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 in Science Citation Index Expanded (SCIE) and **BIOSIS Previews** (Clarivate Analytics), **Scopus** (from Vol. 5) and other databases. Citations available in PubMed, full-text archived in PubMed Central.

CiteScore (2018 Scopus data): **4.06**, which equals rank 29/404 (Q1) in 'Plant Science'.

Contact Us

Plants
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
Fax: +41 61 302 89 18
www.mdpi.com

mdpi.com/journal/plants
plants@mdpi.com
@Plants_MDPI