



## Molecular Mechanisms Underlying Root Growth Behavior

Guest Editors:

**Prof. Dr. Patrick Masson**

Department of Genetics, College of Agriculture and Life Sciences, University of Wisconsin-Madison, 425G Henry Mall, Madison, WI 53706, USA

**Dr. Shih-Heng Su**

Department of Genetics, College of Agriculture and Life Sciences, University of Wisconsin-Madison, 425G Henry Mall, Madison, WI 53706, USA

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### Message from the Guest Editors

Root system architecture is a dynamic trait that contributes to plant survival and productivity. Its ability to adapt to varying environmental conditions within the constraints dictated by a plant's genotype allows the efficient capture of soil water and nutrients while also permitting adequate plant anchorage to the soil substrate.

Root system architecture is a consequence of multiple and integrated growth behaviors. These include soil penetration, directional growth responses to vectorial signals such as gravity, light, touch, water, salt, oxygen, ions and/or chemical gradients (tropisms), and/or endogenous cues (autotropism; auto-straightening / proprioception), multileveled root branching, responses to symbiotic and/or pathogenic microbes and parasites, and circumnutation processes.

This Special Issue of *Plants* will gather research articles, review papers and short communications that improve our understanding of the molecular, biophysical, cell biological, physiological and/or morphological mechanisms underlying root growth behavior in the broadest sense of the term, and/or their potential applications in agriculture, horticulture, forestry and/or space biology.





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## 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

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Plants Editorial Office  
MDPI, Grosspeteranlage 5  
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