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Nitric Oxide Signaling in Plants

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Message from the Guest Editors

Dear Colleagues,

Nitric oxide (NO) is a gaseous reactive molecule which is a key component of plant cell signaling mechanisms. NO is involved in the breaking of seed germination, the growth and development of the plant as well as flower senescence and formation of root nodules in legumes. Stress responses of plants, such as drought and pathogen challenge, involve the generation and accumulation of NO in plant cells. NO can be produced in plant cells by several mechanisms, one of the main sources being the enzyme nitrate reductase. Modification of thiol groups of proteins by NO, a process known as *S*-nitrosation (or *S*-nitrosylation) is a key mechanism by which signaling is propagated in cells. This protein modification can be reversed by SNO-reductases, allowing such signaling to be toggled on and off. This Special Issue of *Plants* will highlight the production and roles of NO in plants, along with the ways NO can interact with other reactive signaling molecules, leading to coordinated signaling events in plants.

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Guest Editor



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Special Issue



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Message from the Editor-in-Chief

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