Special Issue

Molecular Mechanism of Forest Tree Defense against Pathogens and Pests

Message from the Guest Editor

In response to biotic stressors, plants defend themselves through various physical, morphological, biochemical, and molecular mechanisms. Like other plants, forest trees have evolved a complex set of defense mechanisms.

Unlike annual plants, trees do not die from genetically programmed senescence. However, trees are subjected to repeated attacks from pathogens/pests during their long lifespan and can be killed by various forest diseases. In addition to the defense processes highly conserved in all plants, trees have equipped themselves with other specific defensive machineries, such as protective structures consisting of bark and defensive chemicals specific to wood tissues. The current knowledge of the molecular mechanisms underlying trees' physical, morphological, and biochemical defenses, as well as host resistance or susceptibility to forest parasites, is very limited. This Special Issue aims to improve the current understanding of the molecular interactions between tree hosts and their biotic agents in forest habitats, and thus review and research papers involving all aspects of tree defense against pathogens and pests are very welcome.

Guest Editor

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Forests (ISSN 1999-4907) is an international and cross-disciplinary, scholarly forestry journal. The distinguished editorial board and refereeing process ensures the highest degree of scientific rigor and review of all published articles. Original research articles and timely reviews are released online, with unlimited free access. Our goal is to have Forests be recognized as one of the foremost publication outlets for high quality, leading edge research in this broad and diverse field. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global forestry community.

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