

Centro de Ciências do Mar e do Ambiente

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Palestras MARE

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New stress-tolerant crop plants for multi-purpose uses

28 de março de 2017, 14:00

Anfiteatro da Fundação da Faculdade de Ciências da Universidade de Lisboa (FFCUL)

We are interested in a molecular understanding and using the genetic diversity and physiological plasticity of higher plants to exploit their potential for different applications. A focus is on salt- and drought tolerant plant species and plant species with a high demand for sulfur. Application of mild stress, such as drought or salt stress or nutrient deficiency, induces drastic changes in the metabolism and generally increases the contents of secondary metabolites. A better understanding of the varying adaptations to stress in different plant genotypes could further be used to influence and optimize the contents of useful secondary metabolites. Also, species within the ecological groups of seagrasses and mangroves have a high potential for valuable secondary metabolites: They grow in the intertidal zone and have to deal with changing environmental conditions even during the course of one day. Results indicate a high potential for new compounds which can be used in different applications, such as inhibition of biofilm formation.