



2019  
Plant Biology

XXIII Meeting of the Spanish  
Society of Plant Physiology

XVI Spanish Portuguese  
Congress of Plant Physiology

Pamplona  
June 26-28, 2019



Prof. Rodriguez' research is focused in the role played by ABA receptors, protein phosphatases and kinases as regulators of ABA signaling, with particular emphasis in the biotechnological potential of the pathway to improve plant tolerance to drought and salinity. His group has played a key role in the discovery and characterization of the PYR/PYL/RCAR family of ABA receptors, and their functional connection with PP2Cs and SnRK2s. He has led and participated in different works that are landmarks in ABA signaling and have brought about a breakthrough in our knowledge of the ABA pathway. His group has contributed several genetic strategies that enhance ABA signaling as a valuable tool for improving plant water use efficiency. Among them, the constitutive inactivation of PP2Cs, overexpression of monomeric ABA receptors and the generation of mutated ABA receptors that enhance ABA-dependent inhibition of PP2Cs. More recently, his group has played a pioneering role in studies that address the turnover of core ABA signaling components, particularly ABA receptors and PP2Cs. He has also studied mechanisms that determine subcellular localization, non-cell-autonomous behavior and half-life of ABA receptors. As a result his group has uncovered a novel route for endosomal degradation of ABA receptors through the ESCRT pathway and has identified a novel family of E3 ligases that mediate the turnover of PP2Cs. He is author of 96 publications (Highly Cited Researcher 2015/2016/2017), which witness the progress in the physiological and biochemical characterization of the ABA signaling pathway.