

ABSCISIC ACID SIGNALING NETWORKS IN *ARABIDOPSIS*

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Several *ABA-insensitive (ABI)* loci encoding transcription factors regulate seed maturation and ABA-inhibition of germination and seedling growth by ABA. We are expanding our knowledge of this signaling network by determining which of these factors interact with each other, identifying additional factors that interact directly with the ABI gene products, and identifying genes that are directly regulated by the ABI factors. These studies have revealed extensive cross-regulation among these factors, and identified a novel plant-specific family of proteins that modifies ABA and abiotic stress sensitivity. Regulatory targets of the ABI factors tested constitute less than 10% of all ABA-regulated genes, including presumed desiccation protectants and additional regulators, but their over-expression correlates with hypersensitivity to ABA and other stresses. Our results may lead to strategies for manipulation of seed nutritional, germination or storage qualities.