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Altri autori (Persone)	HeddenPeter ThomasStephen G <1969-> (Stephen Gregory)
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Nota di contenuto	Plant Hormone Signaling; Contents; Contributors; Preface; 1 Abscisic acid synthesis, metabolism and signal transduction; 1.1 Introduction; 1.2 Biosynthesis and catabolism pathways; 1.2.1 Main early steps of ABA biosynthesis; 1.2.2 Epoxy-carotenoid cleavage; 1.2.3 The conversion of xanthoxin to ABA; 1.2.4 ABA catabolism; 1.3 Regulation of ABA synthesis and metabolism; 1.3.1 Developmental regulation; 1.3.1.1 Vegetative tissues; 1.3.1.2 Reproductive organs; 1.3.2 Regulation in response to abiotic stresses; 1.3.3 Regulation by endogenous signals and factors 1.4 ABA signaling in seed maturation processes: proteolysis and combinatorial protein interactions1.5 Stress responses in vegetative tissues: the five major nexuses; 1.5.1 ABA recognition sites and the

search for the receptors; 1.5.2 Transcriptional network as the readout; 1.5.3 RNA metabolism; 1.5.4 Protein phosphatases 2C; 1.5.5 Sucrose non-fermenting-related kinases; 1.6 ABA signaling in guard cells: simple movements controlled by complex mechanisms; 1.7 ABA as antagonizing signal to light in stomatal movement; 1.8 Concluding remarks; Acknowledgements; References
2 Auxin metabolism and signaling2.1 Introduction; 2.2 Auxin metabolism; 2.2.1 Indole-3-acetic acid biosynthesis; 2.2.1.1 The tryptophan-independent pathway; 2.2.1.2 IAA biosynthesis from tryptophan; 2.2.2 IAA conjugates in plants; 2.2.2.1 IAA-peptide conjugates; 2.2.2.2 Amino acid conjugates; 2.2.2.3 Amide conjugate hydrolysis; 2.2.2.4 Ester conjugates; 2.2.3 IAA degradation; 2.3 Auxin signaling; 2.3.1 Auxin-responsive genes; 2.3.2 Auxin response factors; 2.3.3 Regulation of auxin response by the SCFTIR1 ubiquitin-ligase; 2.3.4 Regulation of SCFTIR1 activity
2.3.5 Identification of an auxin receptor2.4 Conclusions and future perspectives; Acknowledgements; References; 3 Integration of brassinosteroid biosynthesis and signaling; 3.1 Introduction; 3.2 Metabolism; 3.2.1 Biosynthesis; 3.2.1.1 DET2; 3.2.1.2 SAX1; 3.2.1.3 DWF4; 3.2.1.4 CPD; 3.2.1.5 ROT3 and CYP90D1; 3.2.1.6 CYP85A1 and CYP85A2; 3.2.1.7 Other biosynthetic functions; 3.2.2 Inactivation; 3.2.2.1 BAS1; 3.2.2.2 CHI2/SHK1/SOB7; 3.2.2.3 UGT73C5; 3.2.2.4 BNST3 and BNST4; 3.2.3 Functional aspects of BR metabolism; 3.2.3.1 Regulation of biosynthetic genes
3.2.3.2 Regulation of BR-inactivating genes3.2.3.3 Conservation of BR synthesis in higher plants; 3.3 Signal transduction; 3.3.1 BRI1 and BAK1; 3.3.2 BIN2 and BSU1; 3.3.3 BZR1 and BZR2/BES1; 3.3.4 BIM1; 3.3.5 Signaling mechanism and other putative components; 3.4 Future prospectives; 3.4.1 Metabolism; 3.4.2 Signal transduction; 3.4.3 Crops; Acknowledgements; References; 4 Cytokinin metabolism and signal transduction; 4.1 Introduction; 4.2 Cytokinin metabolism; 4.2.1 Cytokinin biosynthesis; 4.2.2 Cytokinin interconversion and conjugation; 4.2.3 Cytokinin catabolism
4.3 Cytokinin signal transduction

Sommario/riassunto

Plant growth is regulated by developmental programmes that can be modified by environmental cues acting through endogenous signaling molecules including plant hormones.This volume provides an overview of the biosynthesis, catabolism, perception and signal transduction of the individual hormone classes, followed by chapters on hormone distribution and transport, and the roles of hormone signaling in specific developmental processes. Particular attention is paid to the regulation of hormone signaling by environmental and developmental cues, sites of hormone metabolism and action, and int

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Nota di contenuto	Basic principles of nanoscience -- Nanostructure materials and nanomodification techniques -- Nanopolymer and nanopolymerization -- Microfluidics, nanofluidics and nanobiosensor -- Nanobiodevice and nanoprobe -- Nanotherapy -- Nanodiagnosis -- Nanopharmacology -- Nanohematology -- Nanoinformatics -- Nanocomputing -- Nanoquantity measurement in medicine -- Nanoimaging and nano-visualization -- Social aspect of nanotechnology -- Quantum medicine -- Picomedicine: next step.
Sommario/riassunto	This work focuses on nanomedicine and nanobiotechnology. It specifically covers the clinical aspects, scientific aspects, and laboratory aspects relating to these scientific views. It presents summative data from both the nanomedicine and nanobiotechnology scientific community as well as additional metanalysis for topics.