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Titolo	Arabidopsis BUPS-ANX Receptor Complex Coordinates with RALF Peptides to Regulate Pollen Tube Integrity and Sperm Release [[electronic resource] /] / by Zengxiang Ge
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Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (85 pages)
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
Disciplina	575.65
Soggetti	Plant physiology Cell biology Proteins Plant Physiology Cell Biology Protein-Ligand Interactions Receptors Reproducció de les plantes Genètica vegetal Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction of plant reproduction and cell-cell communication -- Methods and materials -- Results -- Conclusions and discussions.
Sommario/riassunto	This book summarizes the latest studies on plant reproduction and multiple aspects of signaling in reproductive development. It also presents the most advanced processes in CrRLK1L receptor and RALF peptide studies during plant development. Focusing on signaling in pollen tube integrity and sperm release regulation, it provides significant insights into the BUPS-ANX receptor complex and the corresponding ligands RALF4/19 to promote pollen tube growth with proper cell integrity. It also proposes a working model of female tissue-derived RALF34 competing with RALF4/19 from the BUPS-ANX to trigger pollen tube rupture and sperm release. Offering a detailed

overview of the spatiotemporal regulation mechanism underlying the control of pollen tube integrity and sperm release, the book fills a major gap in our understanding of plant reproductive processes, and as such is a valuable resource for those working in the area of plant signaling.
