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Sommario/riassunto	The seed plays a fundamental role in plant reproduction as well as a key source of energy, nutrients and raw materials for developing and sustaining humanity. With an expanding and generally more affluent world population projected to reach nine billion by mid-century, coupled to diminishing availability of inputs, agriculture is facing increasing challenges to ensure sufficient grain production. A deeper understanding of seed development, evolution and physiology will undoubtedly provide a fundamental basis to improve plant breeding practices and ultimately crop yields. Recent advances in genetic, biochemical, molecular and physiological research, mostly brought about by the deployment of novel high-throughput and high-sensitivity technologies, have begun to uncover and connect the molecular networks that control and integrate different aspects of seed development and help determine the economic value of grain crops with unprecedented details. The objective of this e-book is to provide a compilation of original research articles, reviews, hypotheses and

perspectives that have recently been published in *Frontiers in Plant Science*, *Plant Evolution and Development* as part of the Research Topic entitled "Advances in Seed Biology". Editing this Research Topic has been an extremely interesting, educational and rewarding experience, and we sincerely thank all authors who contributed their expertise and in-depth knowledge of the different topics discussed. We hope that the information presented here will help to establish the state of the art of this field and will convey how exciting and important studying seeds is and hopefully will stimulate a new crop of scientists devoted to investigating the biology of seeds.
