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Sommario/riassunto	Cryopreservation is the preservation of cells at sub-zero temperatures. Although useful, the process is not without its challenges. One of the major challenges is the formation of ice crystals in the cells to be preserved. However, vitrification, where glass is formed instead of crystals, can be achieved using cryoprotection agents (CPAs). This book provides a comprehensive overview of cryopreservation and its applications. It discusses advancements in the field, challenges, guidelines, and recommendations for successful germplasm conservation. Chapters discuss the use of CPAs, cryopreservation of fish sperm, cryopreservation of oocytes and sperms, female fertility preservation, cryopreservation of large structures and tissues, and much more.