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Nota di contenuto	Preface -- Meiotic Non-disjunction - Insights into the Origin and Significance of Aneuploidy in Human Spermatozoa -- Damage to Sperm DNA Mediated by Reactive Oxygen Species: Its Impact on Human Reproduction and the Health Trajectory of Offspring -- Small RNAs: Their Possible Roles in Reproductive Failure -- The Sperm Epigenome, Male Aging and Potential Effects on the Embryo -- The Role of Uterine NK Cells in Normal Reproduction and Reproductive Disorders -- Seminal fluid Signaling in the Female Reproductive Tract: Implications for Reproductive Success and Offspring Health -- Role of Seminal Plasma in Human Female Reproductive Failure: Immunomodulation, Inflammation and Infections -- Human Leukocyte Antigen-G Within the Male Reproductive System - Implications for Reproduction -- Prostasomes - Their Characterization: Implications for Human Reproduction -- The Paternal Contribution to Fetal Tolerance -- Index.

Sommario/riassunto

Novel topics compiled in this one-of-a-kind volume provide tantalizing hints for clinical application through future translational research. Only recently have we come to ask what role the male might play in pregnancy loss and embryo implantation failure, beyond contributing an abnormal set of paternal chromosomes at fertilization. This volume explores the recent evidence that these conditions might also be related to the transmission of previously unrecognized chromosomal micro-deletions and duplications, or via the epigenetic dysregulation of early embryonic gene function by spermatozoal microRNAs or alterations in sperm DNA methylation patterning, or by DNA damage secondary to either reactive oxygen species or environmental toxicants. In addition, the composition of seminal plasma has been found to be highly complex, containing many factors that play important roles in altering the uterine environment and the female immune system permissive of embryo implantation and trophectoderm outgrowth leading to successful pregnancy. Coverage includes an examination of both spermatozoa and seminal fluid component factors.