Record Nr. UNINA9910349454403321 Epigenesis, Genetic / / edited by Elisabetta Baldi, Monica Muratori Titolo Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-21664-0 Edizione [2nd ed. 2019.] Descrizione fisica 1 online resource (216 pages) Collana Advances in Experimental Medicine and Biology, , 0065-2598; ; 1166 Disciplina 573.21 571.93845 Soggetti Gene expression Medical genetics Human physiology Gene Expression Gene Function **Human Physiology** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references. Nota di bibliografia Genetic factors affecting sperm chromatin structure -- Mechanisms of Nota di contenuto origin of chromosome deletions and rearrangements in spermatozoa --The sperm epigenome: implications for ART outcomes -- Epigenetic transgenerational inheritance -- Environmental genetic and epigenetic sperm alterations -- Sperm DNA fragmentation: mechanisms of origin -- Sperm DNA fragmentation: consequences for reproduction --Oxidative damage to sperm DNA: attack and defence -- Interventions to prevent sperm DNA damage effects on reproduction.-Cryopreservation of sperm: effects on chromatin and strategies to prevent them -- Effect on sperm DNA quality following sperm selection for ART: new insights -- Sperm DNA damage in cancer patients --Index. Sommario/riassunto There are several types of damage that can be found in the male gamete. This book covers the genetic damage in spermatozoa that can originate during spermatogenesis, or during transit in both male and female genital tracts. Damage can also be due to ageing, environmental

or iatrogenic conditions, as well as to the protocols to cryopreserve and

to select spermatozoa in assisted reproduction techniques. The purpose of this book is to provide a comprehensive resource for all possible DNA damages in sperm, the relation to fertility and infertility, and possible transgenerational heritable effects.