Record Nr. UNINA9910876516603321 Telomeres and telomerase / / [editors, Derek J. Chadwick and Gail **Titolo** Cardew1 Pubbl/distr/stampa Chichester, England;; New York,: John Wiley & Sons, 1997 **ISBN** 1-282-34806-X 9786612348068 0-470-51543-0 0-470-51544-9 Descrizione fisica 1 online resource (252 p.) Collana Ciba Foundation symposium;; 211 Altri autori (Persone) ChadwickDerek CardewGail Disciplina 572.8 572.87 Soggetti **Telomere** Telomerase Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Symposium held at Ciba Foundation, Feb. 25-27, 1997. Note generali Includes bibliographical references and indexes. Nota di bibliografia Nota di contenuto TELOMERES AND TELOMERASE; Contents; Participants; Introduction; The telomere and telomerase: how do they interact?; Telomerase and the chromosome end replication problem; General discussion I; The role of the EST genes in yeast telomere replication; Drosophila telornere elongation; General discussion I1; Raplp and telomere length regulation in yeast; Chromatin and ageing in yeast and in mammals; The limited reproductive life span of normal human cells in culture; Human ageing and telorneres; General discussion I11; Telomerase assays in the diagnosis and prognosis of cancer Mouse models for the study of telomeraseGenetic control of telomerase and replicative senescence in human and rodent cells; Repair and processing events at DNA ends; Telomeres in the haemopoietic system; Final general discussion; Summary; Index of contributors; Subject index Sommario/riassunto Telomeres and Telomerase Chairman: Sydney Brenner 1997 Telomeres are the protective genetic elements located at the ends of

chromosomes and are essential for correct chromosomal structure and

function. They are not fully replicated by the conventional DNA

polymerase system because DNA synthesis occurs only in the 5??? to 3??? direction and requires an RNA primer for initiation. Consequently, cells require a special enzyme to maintain the telomeric ends of chromosomes during each round of replication. This enzyme, telomerase, is a ribonucleoprotein that extends chromosome ends by adding short s