1. Record Nr. UNINA9910751396403321 Autore Thomas Elizabeth A Titolo Biomarkers for Huntington's Disease [[electronic resource]]: Improving Clinical Outcomes / / edited by Elizabeth A. Thomas, Georgia M. Parkin Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2023 **ISBN** 9783031328152 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (476 pages) Collana Contemporary Clinical Neuroscience, , 2627-5341 Altri autori (Persone) ParkinGeorgia M Disciplina 616.851 Soggetti Neurosciences Neurology Neurophysiology Neuropharmacology Neuroscience Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Molecular Biomarkers. Somatic instability/Telomeres, - Genetic modifiers -- Current clinical trial biomarkers.-Pharmacodynamic biomarkers for Htt-lowering therapeutics.-Inflammatory biomarkers.-Sleep dysregulation markers.-Mitochondrial/Oxidative stress biomarkers.-Microbiomics -- Metabolomics.-Proteomics.-Transcriptomics.-Lipidomics.-Imaging marker overview.-Retinal imaging biomarkers --MRI - non-invasive functional MRI measures -- The evolution of clinical trial methodology.-Digital biomarkers -- The future of telehealth --Summary and future trends. Sommario/riassunto Huntington's disease (HD) is a fatal, inherited, neurodegenerative disorder, characterized by chorea, motor instabilities, psychiatric manifestations and cognitive decline. Early genetic testing provides an opportunity for clinical interventions aimed at delaying onset and/or slowing progression of disease; however, current treatments for HD are limited, with only two FDA-approved drugs available to manage chorea. Encouragingly, however, several disease-modifying treatment approaches are in the therapeutic pipeline, with more than 200 clinical studies, and many more preclinical studies, in the works. Robust and

reliable biomarkers are needed to predict disease onset, monitor disease progression and assess treatment responses. More specifically, biomarkers to stratify patients for clinical trials and biomarkers to track drug efficacy will certainly lead to improved clinical trial design and success. This book represents the first book focused solely on biomarkers for HD and represents a distinct resource that will be informative, not only for clinicians and those involved in clinical trial design, but also for a wide range of neurodegenerative disease researchers. This edited volume is written by top leaders in the field, and takes a cross-disciplinary approach to cover a broad spectrum of biomarker types, in order to provide the latest advances in the development of biochemical, molecular, imaging and digital biomarkers that have been investigated for HD. With the ultimate goal of treating patients, the development of disease-associated biomarkers has never been more important.