1. Record Nr. UNINA9910754089503321 Autore Grimaldi Giuliana Titolo Mechanisms and Emerging Therapies in Tremor Disorders / / edited by Giuliana Grimaldi, Mario Manto Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2023 **ISBN** 3-031-26128-3 Edizione [2nd ed. 2023.] Descrizione fisica 1 online resource (556 pages) Collana Contemporary Clinical Neuroscience, , 2627-5341 Altri autori (Persone) MantoMario Disciplina 616.8/3 616.8 Soggetti Medicine - Research Biology - Research Neurology Neurosciences Nervous system - Diseases Biomedical Research Neuroscience **Neurological Disorders** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto PART I: Fundamental Aspects -- Chapter 1. Definition of Tremor --Chapter 2. Membrane Mechanisms of Tremor -- Chapter 3 Advances in the Genetics of Human Tremor -- Chapter 4. Two origins of tremors related to the Guillain-Mollaret triangle: the forward model-related tremor and the inferior olive oscillation-related tremor -- PART II: Tremor in Clinical Practice -- Chapter 5. Physiologic Tremor -- Chapter 6. Rest Tremor -- Chapter 7. Postural Tremors -- Chapter 8. Isometric Tremor -- Chapter 9. Essential Tremor and Other Forms of Kinetic Tremor -- Chapter 10. Cerebellar lesions and tremor -- Chapter 11. Orthostatic Tremor -- Chapter 12. Posttraumatic Tremor and Other Posttraumatic Movement Disorders -- Chapter 13 Tremor in Childhood -- Chapter 14. Metabolic Causes of Tremor -- Chapter 15. Drug-

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Processing -- Chapter 18. Diffusion imaging in Tremor -- Chapter 19. The role of the noradrenergic system in tremor pathogenesis -- Chapter 20. Metabolic Networks in Parkinson's Disease -- PART IV: Therapies -- Chapter 21. Deep brain stimulation for tremor -- Chapter 22 Mechatronic Devices for Upper Limb Tremor.

Tremor is intimately linked to the numerous interactions of the central and peripheral nervous system components tuning motor control, from the cerebral cortex to the peripheral effectors. Activities of central generators, reflex loop delays, inertia, stiffness, and damping are all factors that influence the features of tremor. This completely updated new edition discusses the pathophysiology of tremor, including membrane mechanisms and rodent models, the advances in genetics, and the musculoskeletal models pertinent to body oscillations. The main forms of tremor encountered during clinical practice are considered, taking into account neuroimaging aspects. The book covers recent advances in methodologies and techniques of assessment and provides practical information for daily management. This new edition is informed by the guidelines of the Tremor Task Force of the International Parkinson and Movement Disorders Society. New chapters include Classification of Tremors, Medically Induced Tremors, Resting State fMRI, and Gabaergic Pathways. In addition to pharmacological treatments, neurosurgical approaches such as deep brain stimulation (DBS) and thalamotomy are discussed. Emerging techniques under development are also introduced.