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Titolo	Spaceflight and the Central Nervous System : Clinical and Scientific Aspects // edited by Alex P. Michael, Christian Otto, Millard F. Reschke, Alan R. Hargens
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ISBN	3-031-18440-8
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (139 pages)
Collana	Medicine Series
Disciplina	704.94962941
Soggetti	Neurology Aerospace engineering Astronautics Aerospace Technology and Astronautics Vol espacial Efectes fisiològics Sistema nerviós central Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	1. History of Spaceflight and the Central Nervous System -- 2. Cardiovascular Physiology and Fluid Shifts in Space -- 3. Effects of Microgravity and Space Radiation on the Nervous system -- 4. Cognitive Performance and Neuromapping -- 5. Spine Biomechanics and Pathology -- 6. Vestibular System -- 7. Why the study of intraocular pressure is important to understand and prevent SANS -- 8. Central Nervous System (CNS) Neoplasms in Microgravity -- 9. Space Renaissance and Neurodegeneration -- 10. Summary and Future Directions.
Sommario/riassunto	This book consolidates the current knowledge of how short and long-duration spaceflight affects the anatomy and physiology of the central nervous system. It also incorporates the methodology and constraints of studying the central nervous system in space. Chapters detail advances in imaging techniques available to assess intracranial and

intraocular pathology as well as translational medicine with an emphasis on brain cancer and neurodegenerative disease in spaceflight. Additionally, the book offers theoretical background information, tested laboratory protocols, and step-by-step methods for reproducible lab experiments to aid neuroscientists and neurobiologists in laboratory testing and experimentation. Spaceflight and the Central Nervous System is the first to comprehensively include all aspects of spaceflight-induced changes in the central nervous system. It is an invaluable resource for basic and clinical laboratory trainees and researchers in aerospace medicine and physiology or for those looking to gain specific knowledge in spaceflight neuroscience.
