1. Record Nr. UNINA9910367257603321

Autore Russell-Buckland Joshua

Titolo Oxygen Transport to Tissue XLI / / edited by Pan-Dong Ryu, Joseph C.

LaManna, David K. Harrison, Sang-Suk Lee

Pubbl/distr/stampa Springer Nature, 2020

Cham:,: Springer International Publishing:,: Imprint: Springer,,

2020

ISBN 3-030-34461-4

Edizione [1st ed. 2020.]

Descrizione fisica 1 online resource (425 pages)

Collana Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 1232

Disciplina 572.47

Soggetti Medicine

Biomedicine, general

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Includes index.

Nota di contenuto Part I Brain Oxygenation and Function -- Near-Infrared Spectroscopy

Measured Cerebral Blood Flow from Spontaneous Oxygenation Changes in Neonatal Brain Injury -- Nonlinear Transfer Entropy to Assess the Neurovascular Coupling in Premature Neonates -- Reference Value of Brain Tissue Oxygen Saturation in Newborns Immediately after Birth -- Relationship between Brain Tissue Oxygenation and Metabolism during Rewarming after Neonatal Hypoxia-Ischaemia Relates to Initial Electrical Abnormality -- Impact of Skull Thickness on Cerebral NIRS Oximetry in Neonates: An in silico Study -- Resuscitation with Drag Reducing Polymer after Traumatic Brain Injury with Hemorrhagic Shock Reduces Microthrombosis and Oxidative -- Anodal Transcranial Direct Current Stimulation Improves Impaired Cerebrovascular Reactivity in Traumatized Mouse Brain -- Comparative Analysis of Simultaneous

Transcranial Doppler and Perfusion Computed Tomography for Cerebral Perfusion Evaluation in Patients with Traumatic Brain Injury --Meningeal Lymphatic Pathway of Brain Clearing from the Blood after Hhaemorrhagic Injuries -- Relationship between Cerebral Oxygenation and Skin Blood Flow at the Frontal Lobe during Progressive Hypoxia: Impact of Acute Hypotension -- Cerebral Autoregulation during Active

Standing Test in Juvenile Patients with Instantaneous Orthostatic Hypotension -- Cerebral Blood Oxygenation Changes in Juvenile

Patients with Delayed Orthostatic Hypotension during an Active Standing Test -- Relationship Between Cognitive Dysfunction and Systemic Metabolic Disorders in Elderly: Dementia Might be a Systematic Disease -- Relationship Between Cerebral Blood Oxygenation and Electrical Activity During Mental Stress Tasks: Simultaneous Measurements of NIRS and EEG -- Right-Left Asymmetry of Prefrontal Cerebral Oxygenation: Does it Depend on Systemic Physiological Activity, Absolute Tissue Oxygenation or Hemoglobin Concentration?- Effect of Gum Chewing on PFC Activity during Discomfort Sound Stimulation -- Effect of Mastication Muscle Activity on Prefrontal Cortex NIRS Measurement: a Pilot Study -- Part II Tumor Oxygenation and Metabolism -- Hypoxia Compromises Anti-Cancer Immune Responses - Peter Vaupel Lecture -- 'Oxygen Level in a Tissue' - What do Available Measurements Really Report?- Clinical and Statistical Considerations when Assessing Oxygen Levels in Tumors: Illustrative Results from Clinical EPR Oximetry Studies -- Fatal Alliance of Hypoxia-/HIF-1-driven Microenvironmental Traits Promoting Cancer Progression -- Quantification of Tumor Oxygenation based on FMISO PET: Influence of Location and Oxygen Level of the Well-Oxygenated Reference Region -- Pathways of Oxygen Diffusion in Cells and Tissues: Hydrophobic channeling via networked lipids -- Part III Muscle Oxygenation and Sports Medicine -- Effect of Exercise Duration on Post-exercise Persistence of Oxyhemoglobin Changes in the Premotor Cortex: A Near-infrared Spectroscopy Study in Moderateintensity Cycling Exercise -- Relationship Between Muscle Oxygen Saturation and Exercise Load in Patients with Malignant Hematopoietic Disease -- Comparison of the Effects of Continuous and Intermittent Exercise on Cerebral Oxygenation and Cognitive Function --Relationship between Exercise Capacity and Muscle O2Hb saturation in Patients before Hematopoietic Stem-Cell Transplantation -- Differences in Muscle O2 Dynamics During Treadmill Exercise Between Aerobic Capacity-matched Overweight and Normal-weight Adults -- Cerebral Oxygenation Dynamics of the Prefrontal Cortex and Motor-Related Area During Cardiopulmonary Exercise Test: A Near-infrared Spectroscopy Study -- Reduced Optical Path Length in the Vastus Lateralis during Ramp Cycling Exercise -- Improvements in Skeletal Muscle can be Detected using Broadband NIRS in First-Time Marathon Runners --Comparison of Two NIRS Tissue Oximeters (Moxy and Nimo) for Noninvasive Assessment of Muscle Oxygenation and Perfusion -- Part IV Cell Metabolism and Tissue Oxygenation -- Effects of Pulsed Magnetic Field on the Hemolysis of Erythrocytes Exposed to Oxidative Stress --Role of Microtubule-associated Factors in HIF1 Nuclear Translocation -- Extracellular Acidosis Regulates the Expression of Inflammatory Mediators in Rat Epithelial Cells -- Part V Methodology of O2 Measurements -- Reducing False Alarm Rates in Neonatal Intensive Care: A New Machine Learning Approach -- Development of an IoTbased Monitoring System for Healthcare: A Preliminary Study --Developing a Model to Simulate the Effect of Hypothermia on Cerebral Blood Flow and Metabolism -- Validation and Comparison of Monte Carlo and Finite Element Method in Forward Modeling for Near Infrared Optical Tomography -- Development of a Cuff-less Blood Pressure Monitoring System and its Application -- Usefulness of a New Device to Monitor Cerebral Blood Oxygenation using NIRS during Cardiopulmonary Resuscitation in Patients with Cardiac Arrest: A Pilot Study -- Application of Peripheral Near Infrared Spectroscopy to Assess Risk Factors in Patient with Coronary Artery Disease: Part 1 --Broadband NIRS Cerebral Evaluation of the Hemodynamic and Oxidative State of Cytochrome-c-oxidase Responses to +Gz Acceleration in

Healthy Volunteers -- Time-resolved NIROT 'Pioneer' System for Imaging Oxygenation of the Preterm Brain: Preliminary Results --Application of Peripheral Near Infrared Spectroscopy to Assess Risk Factors in Patient with Coronary Artery Disease: Part 2 -- Optimization of Band Selection in Multispectral and Narrow-Band Imaging: An Analytical Approach -- Fabrication and Optical Characterization of Gelatin-Based Phantoms for Tissue Oximetry -- Two-Photon Autofluorescence Imaging of Fixed Tissues: Feasibility and Potential Values for Biomedical Applications -- Part VI Special Topics -- Acute Anemia Induces Erythropoiesis in Rat Organ Surface Primo-Vascular Tissue -- Analysis and Differential Expression of Primo Genes using RNA-Seg and gRT-PCR Experiments -- Acupuncture Inhibits the Increase in Alpha-synuclein in Substantia nigra in an MPTP- induced Parkinsonism Mouse Model -- On the Biomarkers of Alzheimer's Disease -- Effective Murine Model Induction for Niche Study in Immune Cells against Leukemia -- Index.

Sommario/riassunto

This book presents cutting-edge papers and perspectives on the transport of oxygen to tissues by scientists in a multitude of disciplines such as biochemistry, engineering, mathematics, medicine, physics, physiology, veterinary and complementary medicine. The book is composed of the following 6 parts: Brain Oxygenation and Function, Tumor Oxygenation and Metabolism, Muscle Oxygenation and Sports Medicine, Cell Metabolism and Tissue Oxygenation, Methodology of O2 Measurements, and Special Topics. The articles in this book have been presented at the 46th annual meeting of the International Society on Oxygen Transport to Tissue (ISOTT 2018) held in Seoul, Republic of Korea, from July 1 to July 5, 2018. Academics, clinical and industry researchers, engineers, as well as graduate students who are interested in oxygen transport to tissue will find this book a great reference and a useful learning resource. The chapters "Near-Infrared Spectroscopy Measured Cerebral Blood Flow from Spontaneous Oxygenation Changes in Neonatal Brain Injury", "Developing a Model to Simulate the Effect of Hypothermia on Cerebral Blood Flow and Metabolism" and "Broadband NIRS Cerebral Evaluation of the Hemodynamic and Oxidative State of Cytochrome-c-Oxidase Responses to +Gz Acceleration in Healthy Volunteers" are available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.