

1. Record Nr.	UNINA9910437617303321
Titolo	Oxygen transport to tissue XXXV // Sabine Van Huffel ... [et. al.], editors
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	1-4614-7411-6
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (497 p.)
Collana	Advances in experimental medicine and biology ; ; 789
Altri autori (Persone)	HuffelSabine van
Disciplina	572.47
Soggetti	Tissue respiration Biological transport
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- Acknowledgements -- Remembering Professor Mamoru Tamura -- Part 1: Hypoxia -- Increased Kidney Metabolism as a Pathway to Kidney Tissue Hypoxia and Damage: Effects of Triiodothyronine and Dinitrophenol in Normoglycemic Rats -- Hypoxia-Induced Cerebral Angiogenesis in Mouse Cortex with Two-Photon Microscopy -- Reduction of Cytochrome c Oxidase During Vasovagal Hypoxia-Ischaemia in Human Adult Brain: A Case Study -- Increased HIF-1 and 2 Accumulation, but Decreased Microvascular Density, in Chronic Hyperoxia and Hypercapnia in the Mouse Cerebral Cortex -- Oxygen Delivery: The Principal Role of the Circulation -- Heart Rate Variability in Newborns with Hypoxic Brain Injury -- Part 2: Brain Oxygenation -- Simultaneous Monitoring of Brain and Skin Oxygenation during Haemorrhagic Shock in Piglets -- Hemispheric Differences of Motor Execution: A Near-Infrared Spectroscopy Study -- Acute Stress Exposure Preceding Global Brain Ischemia Accelerates Decreased Doublecortin Expression in the Rat Retrosplenial Cortex -- Effects of Transcranial Direct Current Stimulation of the Motor Cortex on Prefrontal Cortex Activation during a Neuromuscular Fatigue Task: An fNIRS Study -- The Effect of Inner Speech on Arterial CO <sub>2</sub> , Cerebral Hemodynamics and Oxygenation - A Functional NIRS Study -- Investigation of Frontal Lobe Activation with fNIRS and Systemic Changes during Video Gaming -- Effect of Valsalva Maneuver-induced Hemodynamic Changes on Brain Near-infrared Spectroscopy

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Sommario/riassunto

From the 40th annual conference of the International Society on Oxygen Transport to Tissue (ISOTT), held in Bruges, Belgium in August 2012, this volume covers aspects of clinical applications, muscle oxygenation, cancer, measurement technologies, oxygen transport modelling and Near-Infrared Spectroscopy (NIRS), cell metabolism and brain oxygenation. Each topic was presented by one or two invited speakers, and a series of contributed talks.

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