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	Nota di contenuto	Preface -- Chapter 1. Transcriptomics of the carotid body (Audrys G. Pauza, David Murphy and Julian F. R. Paton) -- Chapter 2. The adult carotid body: a germinal niche at the service of physiology (Ricardo Pardal) -- Chapter 3. Evidences that sympathetic overactivity and neurogenic hypertension correlate with changes in the respiratory pattern in rodent models of experimental hypoxia (Benedito H. Machado) -- Chapter 4. Control of arterial hypertension by the AhR blocker CH-223191: a chronopharmacological study in chronic intermittent hypoxia conditions (António B. Pimpão, Cátia Sousa, Maria J. Correia, Nuno R. Coelho, Emília Monteiro, António F. Melo Júnior and Sofia A. Pereira) -- Chapter 5. Three days of chronic intermittent hypoxia induces 1-adrenoceptor dependent increases in left ventricular contractility (Anthony L. Marullo, Eric F. Lucking, Daniel Pender, Pardeep Dhaliwal and Ken D. O'Halloran) -- Chapter 6. The beneficial effect of the blockade of stim-activated TRPC-ORAI channels on vascular remodeling and pulmonary hypertension inducedby intermittent hypoxia is independent of oxidative stress (Rodrigo Iturriaga and Sebastián Castillo-Galán) -- Chapter 7. Intermittent hypoxia and weight loss: insights into etiology of the sleep apnea phenotype (Marianne Gagnon, Stéphanie Fournier, François Marcouiller, Loralie Guay, Vincent Joseph, Natalie J Michael and Richard Kinkead) -- Chapter 8. Effects of gestational intermittent hypoxia on placental

morphology andfetal development in a murine model of sleep apnea (Esther Valverde-Pérez, Jesús Prieto-Lloret, Elvira Gonzalez-Obeso, María I. Cabero, Maria L. Nieto, Marta I. Pablos, Ana Obeso, Angela Gomez-Niño, Rosa M. Cárdaba-García, Asunción Rocher and Elena Olea) -- Chapter 9. Ventilatory effects of acute intermittent hypoxia in conscious dystrophic mice (Michael N. Maxwell, Anthony L. Marullo, Aoife D. Slyne, Eric F. Lucking and Ken D. O'Halloran) -- Chapter 10. Intermittent hypoxia and diet-induced obesity on the intestinal wall morphology in a murine model of sleep apnoea (Esther Valverde-Pérez, Elena Olea, Ana Obeso, Jesús Prieto-Lloret, Asunción Rocher and Elvira Gonzalez-Obeso) -- Chapter 11. Enhanced peripheral chemoreflex drive is associated with cardiorespiratory disorders in mice with coronary heart disease (Liena Bravo, Katherin V. Pereyra, Hugo S. Diaz, Mariajosé Flores, Karla G. Schwarz, Camilo Toledo, Esteban Díaz-Jara, Leticia González, Marcelo E. Andia and Rodrigo Del Rio) -- Chapter 12. Role of peripheral chemoreceptors on enhanced central chemoreflex drive in non-ischemic heart failure (Katherin Pereyra, Esteban Díaz-Jara, Paulina Arias, Liena Bravo, Camilo Toledo, Karla Schwarz and Rodrigo Del Rio) -- Chapter 13. Effect of carotid body denervation on systemic endothelial function in a diabetic animal model (Marlene D. Cabral, Fátima O. Martins, Inês B. Martins, Bernardete F. Melo, Joana F. Sacramento, Silvia V. Conde and Jesus Prieto-Lloret) -- Chapter 14. Contribution of carotid bodies on pulmonary function during normoxia and acute hypoxia (Karla G. Schwarz, Maríajose Flores, Nicolas Voituron and Rodrigo Del Rio) -- Chapter 15. Increased abdominal perimeter differently affect respiratory function in men and women (Joana F. Sacramento, Iolanda Caires, Maria P. Guarino, Maria J. Ribeiro, João C. P. Santiago, Ana T. Timóteo, Mafalda Selas, Miguel Mota-Carmo and Silvia V. Conde) -- Chapter 16. Carotid body resection prevents short-term spatial memory decline in prediabetic rats without changing insulin signaling in the hippocampus and prefrontal cortex (Adriana M. Capucho, Ana Chegão, Fátima O. Martins, Bernardete F. Melo, Natália Madeira, Joana F. Sacramento, Rosalina Fonseca, Hugo Vicente Miranda and Sílvia V. Conde) -- Chapter 17. Constitutive Expression of Hif2a Confers Acute O2 Sensitivity to Carotid Body Glomus Cells (Olalla Colinas, Alejandro Moreno-Domínguez, Patricia Ortega-Sáenz and José López-Barneo) -- Chapter 18. Of mice and men, and plethysmography systems: does LKB1 determine the set point of carotid body chemosensitivity and the hypoxic ventilatory response? (A. Mark Evans) -- Chapter 19. Analyzing angiotensin II receptor type 1 clustering in PC12 cells in response to hypoxia using direct stochastic optical reconstruction microscopy (dSTORM) (Hayyaf S. Aldossary, Daniel J. Nieves, Deirdre M Kavanagh, Dylan Owen, Clare J Ray, Prem Kumar, Andrew M. Coney and Andrew P. Holmes) -- Chapter 20. The Carotid Body "Tripartite Synapse": Role of Gliotransmission (The Carotid Body "Tripartite Synapse": Role of Gliotransmission) -- Chapter 21. Necroptosis contributes to reduced carotid body-mediated chemoreflex function during aging in mice (Esteban Díaz-Jara, Karla G Schwarz, Angelica Ríos-Gallardo, Camilo Toledo, Julio A Alcayaga, Felipe A Court and Rodrigo Del Rio) -- Chapter 22. Chronic metformin administration does not alter carotid sinus nerve activity in control rats (Joana F. Sacramento, Bernardete F. Melo, Jesus Prieto-Lloret and Silvia V. Conde) -- Concluding remarks.

Sommario/riassunto

The book will contain reviews and brief research articles from the participants attending the International Society for Arterial Chemoreception (ISAC) meeting, to be held in Lisbon in Portugal in June/July 2020. Since ISAC was first established, almost 70 years ago, many advances in the classical field of arterial O2, CO2 and pH sensing

have been achieved but the most impressive ones are probably related to the non-canonical roles of the carotid body, as its involvement in sympatho-mediated diseases. Over the recent years, the carotid body field has gained attention with the findings that carotid body dysfunction is associated with the development/maintenance of highly prevalent diseases from cardio-metabolic diseases to asthma. Knowing that most of the patients with these pathologies lack long-term disease control, it is imperative to define new pathophysiological mechanisms aiming to find new therapeutic targets for treatment and prevention. This book will cover a broad range of topics related, not only with the fundamental knowledge of the mechanisms related with the chemical sensing in the carotid body, but also with the adaptive and mal-adaptive responses of arterial chemoreceptors to O2-dependent and O2-independent mechanisms, namely with their impact on respiratory, cardiovascular, and metabolic homeostasis in healthy and disease conditions. This volume will be required text for all the researchers in the field of arterial chemoreceptors and will provide a valuable reference source for years to come.