

# Riemer H.J.A.Slart, René A.Tio, Philip H.Elsinga, Markus Schwaiger (Eds): *Autonomic Innervation of the Heart: Role of Molecular Imaging*

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This book is an explanatory guide of the nuclear medicine techniques that allow the study of the autonomic nervous system of the heart. Interesting for physicians and researchers, this theoretical and practical guide covers topics regarding the pathophysiology of myocardial sympathetic innervations and the various radiotracers available in both the traditional nuclear medicine with gamma emitters and in positron emission tomography (PET). Furthermore, studies performed with hybrid scanners (SPECT-CT, PET-CT), physics of the images, as well as software that allows post processing, are discussed and analyzed.

The editors of the book are three researchers from the University of Groningen: Riemer H.J.A. Slart, René A. Tio, and Philip H.Elsinga, who are, respectively, a nuclear physician, a cardiologist and a chemist, who have associated in their editorial work with Markus Schwaiger, from the University of Munchen, recognized as one of the greatest experts in Nuclear Cardiology. All the authors who contributed to this publication belong to the world's elite in the field.

The book of 465 pages, including figures, tables and schema, is organized into 23 chapters and an index. The first four chapters deal with anatomy, physiology, pathophysiology, development and the role of the au-

tonomic nervous system of the heart. From the fifth to tenth chapter, the various features of SPECT and PET radiotracers used to study sympathetic innervation of the heart, and the principles of application of the various methods, are widely and clearly explained. Subsequent chapters explain in detail the potential value of the images of cardiac innervation in a wide range of normal and para-physiological conditions and in diseases, including ischemic heart disease, diabetes mellitus, heart failure, amyloidosis, ventricular arrhythmias, and heart transplant. The heart-brain axis in neurodegenerative diseases, to allow the understanding of the possible clinical role in pathological conditions such as Parkinson disease and Parkinsonism, the cardiac-renal axis, and the association between mental stress and cardiac dysfunction, are also treated. The last chapter discusses the negative influence of cardiotoxicity on the nervous autonomic cardiac system, determined by chemotherapy, monoclonal antibodies and radiotherapy. All 23 chapters are composed of various sub-chapters, and are structured with an initial summary that allows the reader to have a preliminary knowledge, even if approximate, followed by the topic analyzed in each individual section. Updated references are also included as hints for new insights.

In conclusion, this book represents a qualified, extensive and updated book on the role of molecular imaging of the autonomic innervations of the heart, which can generate the interest of all the nuclear physicians, residents, cardiologists, neurologists, and basic scientists, and of all others who want to be introduced to a very intriguing new field of clinical applications, in which other knowledge and methodological improvements are needed to support a wider diffusion in clinical practice.

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