Preface

The world population is getting older, and, as a consequence, pathologies associated with aging, such as movement disorders, are becoming more common. Both natural aging and movement disorders impair structures and systems used for daily activities involving locomotion and posture. Therefore, understanding how these impairments affect motor control during walking and posture is critical for the design of innovative therapies and interventions to enable older adults with and without movement disorders to navigate home and community environments safely and independently.

This book was conceived to bring together the most updated knowledge in the area of posture and gait research, with special focus on the alterations caused by aging and movement disorders. Top researchers from all around the world were then invited to cover specific topics mastered by them, with enough freedom for them to include whatever they felt appropriate about the invited topics. Authors have different backgrounds which characterize a multidisciplinary approach for the content presented. The final result is absolutely fantastic, and we are truly delighted to introduce *Locomotion and Posture in Older Adults: The Role of Aging and Movement Disorders* to the literature.

The book includes four distinct parts. First, readers will find an introductory part that presents background concepts to motor control in aging and movement disorders. The following two parts cover specific topics related to walking and posture, respectively. The final part is dedicated to technology and rehabilitation designed to manage the impairments caused by aging and movement disorders on gait and posture.

Individual chapters are independent, and therefore, readers can have the choice of not following the chapter order presented in the book. It is even possible that, depending on the level of expertise, readers can choose to skip chapters or jump from chapter to chapter. We hope that all those interested in posture and gait research and/or rehabilitation and physical intervention, including undergraduate and graduate students, researchers, and professionals, will find helpful content in the book. Most importantly, we hope that readers will be able to transfer this knowledge to their daily practice.
We acknowledge the effort and high-quality work of all authors listed in the contributors. A huge “thank you” for helping us complete this book.

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