FOREWORD

Parkinson's disease is an increasingly common neurodegenerative condition, which causes not only dysfunction of movement but also a broad range of nonmotor features, including mood disturbance, sleep dysfunction, autonomic dysfunction, cognitive deficits, and dementia, and neuropsychiatric symptoms. For half a century, we have had an effective symptomatic therapy for the cardinal motor features of Parkinson's disease in the form of levodopa, but its long-term utility is limited by the emergence of motor fluctuations and dyskinesia in many patients. A different approach is required to manage the nonmotor symptoms, many of which have a nondopaminergic basis, and these problems can be particularly challenging to treat effectively. Furthermore, our current therapeutic approaches have no impact on the underlying progression of the disease which ultimately leads to significant motor and cognitive disability in many patients. A major conundrum in this condition is understanding its striking clinical variability, which encompasses a spectrum from a benign phenotype with levodopa-responsive symptoms and minimal progression, to a malignant phenotype with rapid progression to severe gait dysfunction, falls and dementia. Understanding the biological basis of heterogeneous forms of the disease is critical to allow development of new therapeutic strategies which are better targeted to different subgroups of patients.

This book integrates the considerable expertise of a range of authors from different disciplines, from clinicians through to basic scientists, in order to present a comprehensive and up-to-date overview of Parkinson's disease. In recent years, we have made significant progress in understanding the pathological and genetic basis of the disease and its heterogeneous forms, and the first section of the book is dedicated to reviewing this. The variable clinical features of the condition and its differential diagnosis are then considered. The final section provides a detailed overview of treatment approaches, including not only pharmacological therapies but also surgical therapies including deep brain stimulation and cell transplantation strategies. The combination of basic biology, clinical knowledge and therapeutics gives this book a very broad appeal. I hope that it will be of value to clinicians and health professionals caring for patients with Parkinson's disease, as well as providing an excellent introduction for junior researchers entering the field.

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