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Volume Editors

P. Giannakopoulos  Geneva
P.R. Hof  New York, N.Y.

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List of Contributors

Frédéric Assal
Faculty of Medicine and Neurology
Department of Clinical Neurosciences
University Hospitals of Geneva
rue du Micheli-du-Crest 24
CH–1211 Geneva (Switzerland)

Constantin Bouras
Division of Neuropsychiatry
Department of Psychiatry
University of Geneva Hospitals
2, chemin du Petit-Bel-Air
CH–1225 Chêne-Bourg, Geneva (Switzerland)

Marie-Pierre Deiber
INSERM U877, Faculty of Medicine
FR–38706 La Tronche Cedex (France)

Leonardo C. de Souza
INSERM 610, Pavillon Claude Bernard
Hôpital de la Pitié-Salpêtrière
47, Boulevard de l’Hôpital
FR–75651 Paris Cedex 13 (France)

Bruno Dubois
INSERM-UPMC UMRS 610
Fédération of Neurology AP-HP
Hôpital de la Salpêtrière
47-83, Boulevard de l’Hôpital
FR–75013 Paris (France)

Timo Erkinjuntti
Memory Research Unit, Department of Neurology
Helsinki University Central Hospital
PO Box 300
FI–00029 Helsinki (Finland)

Serge Gauthier
McGill Center for Studies in Aging
6825 LaSalle Blvd.
Montréal, QC, H4H 1R3 (Canada)

Panteleimon Giannakopoulos
Division of Geriatric Psychiatry
Department of Psychiatry
University of Geneva School of Medicine
2, chemin du Petit-Bel-Air
CH–1225 Chêne-Bourg, Geneva (Switzerland)

Celine Goetz
Pritzker School of Medicine
University of Chicago
5458 S. Cornell Ave.
Chicago, IL 60615 (USA)

Gabriel Gold
Department of Geriatrics and Rehabilitation
Hôpital des Trois-Chênes
3, chemin du Pont-Bochet,
CH–1226 Thônex, Geneva (Switzerland)

Patrick R. Hof
Regenstrief Professor of Neuroscience
Department of Neuroscience
Kastor Neurobiology of Aging Laboratories
Mount Sinai School of Medicine
New York, NY 10029 (USA)

Vicente Ibáñez
Neuroimaging Unit
Department of Psychiatry
2, chemin du Petit-Bel-Air
CH–1225 Chêne-Bourg, Geneva (Switzerland)
Kurt A. Jellinger  
Institute of Clinical Neurobiology  
Kenyongasse 18  
AT–1070 Vienna (Austria)

Andrew Kertesz  
University of Western Ontario  
St. Joseph’s Hospital  
268 Grosvenor St.  
London, ON, N6A 4V2 (Canada)

Enikő Kövari  
Division of Neuropsychiatry  
Department of Psychiatry  
Geneva School of Medicine  
2, chemin du Petit-Bel-Air  
CH–1225 Chêne-Bourg, Geneva (Switzerland)

Mario F. Mendez  
Neurobehavior Unit (116AF)  
V.A. Greater Los Angeles Healthcare System  
11301 Wilshire Blvd.  
Los Angeles, CA 90073 (USA)

Reto Meuli  
Department of Radiology and Interventional Radiology  
Centre Hospitalier Universitaire Vaudois and University of Lausanne  
CH–1011 Lausanne (Switzerland)

Agnès Michon  
Psychiatry Department, Division of Geriatric Psychiatry  
University Hospitals of Geneva (HUG)  
2, chemin du Petit-Bel-Air  
CH–1225 Chêne-Bourg, Geneva (Switzerland)

Pascal Missonnier  
Neuroimaging Unit, Department of Psychiatry  
University of Geneva Hospitals  
2, chemin du Petit-Bel-Air  
CH–1225 Chêne-Bourg, Geneva (Switzerland)

Agneta Nordberg  
Karolinska Institutet, Department of Neurobiology  
Care Sciences and Society, Division of Alzheimer Neurobiology  
Karolinska University Hospital  
Huddinge, Novum 5th floor  
SE–141 86 Stockholm (Sweden)

Leonardo Pantoni  
Department of Neurological and Psychiatric Sciences  
University of Florence  
Viale Morgagni 85  
IT–50134 Florence (Italy)

Anna Poggesi  
Department of Neurological and Psychiatric Sciences  
University of Florence  
Viale Morgagni 85  
IT–50134 Florence (Italy)

Marie Sarazin  
Fédération des Maladies du Système Nerveux  
Research and Resource Memory Centre, Pavillon Paul Castaigne  
Hôpital de la Salpêtrière  
47, Boulevard de l’Hôpital  
FR–75013 Paris (France)

William W. Seeley  
University of California, San Francisco  
UCSF Memory and Aging Center, Box 1207  
San Francisco, CA 94143-1207 (USA)

Marian van der Meulen  
Faculty of Medicine and Neurology  
Department of Clinical Neurosciences  
University Hospitals of Geneva  
rue du Micheli-du-Crest 24  
CH–1211 Geneva (Switzerland)

Armin von Gunten  
Service de Psychiatrie de l’Age Avancé (SUPAA)  
Département de Psychiatrie  
Centre Hospitalier Universitaire Vaudois and University of Lausanne  
Route du Mont  
CH–1008 Prilly (Switzerland)

Dina Zekry  
Hôpital des Trois-Chênes  
3, chemin du Pont-Bochet  
CH–1226 Thônex, Geneva (Switzerland)
Preface

Research on dementing illnesses is in the midst of an agitated period. During the past 50 years, it has progressively matured from a primarily social service problem to the clinicopathological definition of a wide spectrum of diseases, evaluation of measures of cognition, analysis of brain microstructure, and, more recently, visualization of the pathological substrates such as b-amyloid and tau protein in vivo. Despite these impressive developments in diagnostic tools, biomarkers, and imaging modalities, we still ignore the etiology of the more frequent clinical syndromes leading to the irreversible loss of cognitive functions, namely Alzheimer’s disease, Lewy body disease, vascular and frontotemporal dementia. Recent epidemiological work highlights the complex relationships among these entities by demonstrating the high frequency of mixed conditions in very old people and indicating that they may share common risk factors. Moreover, the old and still unresolved question of the limits between normal and pathological aging is to date complicated not only by the description of several transitional forms of mild cognitive impairment characterized by the predominance of brain compensation phenomena that allow for preserving cognitive performances and social adaptation despite an often substantial biological compromise but also by poor response to currently available substitution treatments. Paralleling the difficulty to formulate clear pathogenetic hypotheses, an accelerated pace of compounds entering clinical trials are now available mainly for Alzheimer’s disease. Most agents still target clinical end points associated with mild to moderate forms of the disease rather than focus on modulation of the underlying pathologies. Although there are obvious practical but also ethical reasons for this, meaningful progress in other areas of medicine such as cardiology and oncology has targeted and monitored improvement or abatement of pathology as the primary end point as a successful disease-modifying strategy.

In this rather uncertain context, new evidences from basic and clinical sciences should be available in a simple and comprehensive form for general practitioners and mental health professionals. In fact, the pivotal role of clinicians assuming the day-to-day hard work with demented patients and their families may be reinforced by a bet-
ter integration of current knowledge in the field of dementia pathogenesis, diagnostic procedures and therapeutic possibilities. Avoiding an overspecialized approach, this book aims to provide such an updated view of the disorders likely to be encountered in a daily practice and reviews the major issues presented by each clinical entity in terms of disease pathophysiology, overlap of conditions, diagnosis, therapeutic possibilities and recommendations about patient management issues. To facilitate reading for a nonspecialist, each section is focused on a major form of dementia and is organized following the same scheme reviewing the pathophysiology of the disease, its diagnostic challenges, its characteristic neuroimaging features, and therapeutic interventions. We also hope that this book will reach an additional goal, that of bridging the gap between clinical practice, advanced imaging, recent therapeutics, and basic sciences in order to be an excellent guide for mental health professionals working in the field of dementia.

Panteleimon Giannakopoulos
Patrick R. Hof