Advances in healthcare have led to an extended life expectancy throughout the developed world, but cognitive impairment in later life, and Alzheimer's disease (AD) in particular, remains one of the intractable problems which can blight quality of life as we age. Depression in Alzheimer's disease is an additional factor which has a significant impact on disability, disease progression, and caregiver burden.

This book, volume 4 of the Advances in Alzheimer's Disease book series which is published in coordination with the Journal of Alzheimer’s Disease, presents papers which reflect the progress in recent years of research into depression in AD. This research has focused on several areas, including the improvement of diagnostic criteria and outcome measures for depression and depressive symptoms in AD, genetic and imaging studies to elucidate the neurobiological mechanisms, and clinical trials of antidepressants. The book is divided into sections on phenomenology, epidemiology, neuropsychology, neurobiology and neuropathology, neuroimaging, genetics, and treatment.

Providing a stimulus to further research in this challenging area by engaging both basic and clinical researchers, this book will be of interest to all those whose work involves understanding and dealing with depression in those suffering from Alzheimer's disease.

Contents

Section 1. Phenomenology

- Phenomenology of Depression in Alzheimer’s Disease / Filipa Novais and Sergio Starkstein
- Apathy and Depression in Mild Alzheimer’s Disease: A Cross-sectional Study using Diagnostic Criteria / Michel Benoit, Gilles Berrut, Johanna Doussaint, Serge Bakchine, Sylvie Bonin-Guillaume, Patrick Frémont, Thierry Gallarda, Pierre Krolak-Salmon, Thierry Marquet, Claude Mékiés, François Sellal, Stéphane Schuck, Renaud David and Philippe Robert

Section 2. Epidemiology

- Depression in Alzheimer’s Disease: Epidemiology, Mechanisms, and Management / Song Chi, Jin-Tai Yu, Meng-Shan Tan and Lan Tan
- Late-Life Depression as a Risk Factor for Mild Cognitive Impairment or Alzheimer’s Disease in 30 US Alzheimer’s Disease Centers / Kyle Steenland, Conny Karnes, Ryan Seals, Claudine Carnevale, Adriana Hermida and Allan Levey
- Latent Classes of Neuropsychiatric Symptoms in NACC Controls and Conversion to Mild Cognitive Impairment or Dementia / Jeannie-Marie S. Leoutsakos, Sarah N. Forrester, Constantine.G. Lyketsos and Gwenn S. Smith

Section 3. Neuropsychology

- Neuropsychological Functioning in the Acute and Remitted States of Late-Life Depression / Aaron M. Koenig, Isaac J. DeLozier, Michelle D. Zmuda, Megan M. Marron, Amy E. Begley, Stewart J. Anderson, Charles F. Reynolds III, Steven E. Arnold, James T. Becker and Meryl A. Butters
- Coupled Cognitive and Functional Change in Alzheimer’s Disease and the Influence of Depressive Symptoms / Laura B. Zahodne, D.P. Devanand and Yaakov Stern
Section 3. Neuropsychology
- Gender-Specific Differences in Cognitive Profiles of Patients with Alzheimer's Disease: Results of the Prospective Dementia Registry Austria (PRODEM-Austria) / Gisela Pusswald, Johann Lehrner, Michael Hagmann, Peter Dal-Bianco, Thomas Benke, Marisa Loitfelder, Josef Marksteiner, Jochen Mosbacher, Gerhard Ransmayr, Guenter Sanin, Reinhold Schmidt and PRODEM Study Group

Section 4. Neurobiology and Neuropathology
- Depression and Alzheimer's Disease: Is Stress the Initiating Factor in a Common Neuropathological Cascade? / Susana Aznar and Gitte M. Knudsen
- The Role of Indoleamine 2,3-Dioxygenase in a Mouse Model of Neuropsychiatric Depression / Nikoletta Dobos, Erik F.J. de Vries, Ido P. Kema, Konstantinos Patas, Marloes Prins, Ingrid M. Nijholt, Rudi A. Dierckx, Jakob Korf, Johan A. den Boer, Paul G.M. Luiten and Ulrich L.M. Eisel
- Depression and Alzheimer's Disease: Novel Postmortem Brain Studies Reveal a Possible Common Mechanism / Naomi Nihonmatsu-Kikuchi, Yoshitaka Hayashi, Xiu-jun Yu and Yoshitaka Tatebayashi
- Neuropathology of Depression in Alzheimer's Disease: Current Knowledge and the Potential for New Treatments / Ahmad A. Khundakar and Alan J. Thomas

Section 5. Neuroimaging
- Depressive Symptoms and Biomarkers of Alzheimer's Disease in Cognitively Normal Older Adults / Nancy J. Donovan, David C. Hsu, Alexander S. Dagley, Aaron P. Schultz, Rebecca E. Amargiglio, Elizabeth C. Mormino, Olivia J. Okereke, Dorene M. Rentz, Keith A. Johnson, Reisa A. Sperling, and Gad A. Marshall
- Hippocampal Volume in Older Adults at Risk of Cognitive Decline: The Role of Sleep, Vascular Risk, and Depression / Emma L. Elcombe, Jim Lagopoulos, Shantel L. Duffy, Simon J.G. Lewis, Louisa Norrie, Ian B. Hickie and Sharon L. Naismith
- Depressive Symptoms, Antidepressant Use, and Brain Volumes on MRI in a Population-Based Cohort of Older Persons Without Dementia / Mirjam I. Geerlings, Adam M. Brickman, Nicole Schupf, Davangere P. Devanand, José A. Luchsinger, Richard Mayeux and Andrew S. Small
- Association of Vascular Factors and Amnestic Mild Cognitive Impairment: A Comprehensive Approach / Ignacio Casado Naranjo, Juan Carlos Portilla Cuena, Beatriz Duque de San Juan, Alfonso Falcón García, Ra’ul Romero Sevilla, Ana Serrano Cabrera, Carmen Cámara Hijań, Silvia Romero Chala, José Manuel Fuentes and José María Ramírez Moreno
- The Default Mode Network may be the Key Substrate of Depressive Symptom-Related Cognitive Changes / Donald R. Royall, Raymond F. Palmer, Eric D. Vidoni and Robyn A. Honea
- Neuropsychiatric Symptoms and Functional Connectivity in Mild Cognitive Impairment / Catherine E. Munro, Nancy J. Donovan, Brendan J. Guercio, Sarah E. Wigman, Aaron P. Schultz, Rebecca E. Amargiglio, Dorene M. Rentz, Keith A. Johnson, Reisa A. Sperling and Gad A. Marshall
- Corpus Callosum Structure is Topographically Correlated with the Early Course of Cognition and Depression in Alzheimer's Disease / Margherita Di Paola, Owen Phillips, Maria Donata Orfei, Fabrizio Piras, Claudia Cacciari, Carlo Caltagirone and Gianfranco Spalletta
- Regional Coherence Changes in Alzheimer's Disease Patients with Depressive Symptoms: A Resting-State Functional MRI Study / Zhongwei Guo, Xiaozheng Liu, Xize Jia, Hongtao Hou, Yulin Cao, Fuquan Wei, Japeng Li, Xingli Chen, Yingchun Zhang, Yuedi Shen, Lili Wei, Luoyi Xu and Wei Chen
- Brain Structure and Function Related to Depression in Alzheimer's Disease: Contributions from Neuroimaging Research / Jessica A. Brommelhoff and David L. Sultzer

Section 6. Genetics
- Comprehensive Gene- and Pathway-Based Analysis of Depressive Symptoms in Older Adults / Kwangskik Nho, Vijay K. Ramanan, Emrin Horgusluglu, Sungeun Kim, Mark H. Inlow, Shannon L. Rischer, Brenna C. McDonald, Martin R. Farlow, Tatiana M. Foroud, Sujuan Gao, Christopher M. Callahan, Hugh C. Hendrie, Alexander B. Niculescu, Andrew J. Saykin and for the Alzheimer’s Disease Neuroimaging Initiative (ADNI)
- BDNF Genetic Variations Increase the Risk of Alzheimer’s Disease-Related Depression / Barbara Borroni, Mario Grassi, Silvana Archetti, Chiara Costanzi, Marta Bianchi, Luigi Caimi, Carlo Caltagirone, Monica Di Luca and Alessandro Padovani

Section 7. Treatment
- A Review of Pharmacological Treatments for Depression in Alzheimer’s Disease / Kostas T. Siarkos, Everina A. Katirtzoglou and Antonios M. Politis
- Depression and Suicidal Ideation During Two Psychosocial Treatments in Older Adults with Major Depression and Dementia / Dimitris N. Kiosses, Paul B. Rosenberg, Amanda McGovern, Pasquale Fonzetti, Hana Zaydens and George S. Alexopoulos
Alzheimer's Disease and Depression. WebMD Medical Reference in Collaboration with the Cecil G. Sheps Center at the University of North Carolina at Chapel Hill. Articles On Behavior Problems With Dementia and Alzheimer's. Behavior Problems With Dementia and Alzheimer's. The Journals of Gerontology: “Behavioral Treatment of Depression in Dementia Patients: A Controlled Clinical Trial.” Society of Biological Psychiatry: “Depression in Alzheimer’s Disease: Heterogeneity and Related Issues.” Alzheimer Association: “Depression and Alzheimer’s.” Helpguide: “Suicide Prevention.” Social Care Institute for Excellence: “When People with Dementia become Withdrawn.” This book, volume 4 of the Advances in Alzheimer’s Disease book series which is published in coordination with the Journal of Alzheimer’s Disease, presents papers which reflect the progress in recent years of research into depression in AD. This research has focused on several areas, including the improvement of diagnostic criteria and outcome measures for depression and depressive symptoms in AD, genetic and imaging studies to elucidate the neurobiological mechanisms, and clinical trials of antidepressants. The book is divided into sections on phenomenology, epidemiology, neuropsychology, neu