# Contents

- Insulin Action in the Brain and the Pathogenesis of Alzheimer’s Disease ......................................................... 1  
  C. Ronald Kahn and Ryo Suzuki

- The Brain-insulin Connection, Metabolic Diseases and Related Pathologies ...................................................... 21  
  Kyriaki Gerozissis

- Insulin-Mediated Neuroplasticity in the Central Nervous System ................................................................. 43  
  Lawrence P. Reagan

- Stress Hormones and Neuroplasticity in the Diabetic Brain .......... 57  
  Alexis M. Stranahan and Mark P. Mattson

- Diabetes and the Brain – An Epidemiologic Perspective .......... 73  
  Lenore J. Launer

- Cognition in Type 2 Diabetes: Brain Imaging Correlates and Vascular and Metabolic Risk Factors .................... 81  
  Geert Jan Biessels

- The Relationship Between the Continuum of Elevated Adiposity, Hyperinsulinemia, and Type 2 Diabetes and Late-onset Alzheimer’s Disease: An Epidemiological Perspective ....................... 89  
  José A. Luchsinger

- The Role of Insulin Dysregulation in Aging and Alzheimer’s Disease .............................................................. 109  
  Suzanne Craft
Is Alzheimer’s a Disorder of Ageing and Why Don’t Mice get it? The Centrality of Insulin Signalling to Alzheimer’s Disease Pathology ........................................................................................................ 129
Simon Lovestone and Richard Killick

PKC and Insulin Pathways in Memory Storage: Targets for Synaptogenesis, Anti-apoptosis, and the Treatment of AD ........... 153
Miao-Kun Sun, Thomas J. Nelson, and Daniel L. Alkon

Diet, Abeta Oligomers and Defective Insulin and Neurotrophic Factor Signaling in Alzheimer’s Disease ................................. 183
Greg M. Cole, Qiu-Lan Ma, Fusheng Yang, Atul Deshpande, Oliver Ubeda, and Sally A. Frautschy

Serum IGF-I, Life Style, and Risk of Alzheimer´s disease .............. 201
Joaquin Piriz, Takeshi Nishijima, Jose Luis Trejo, and Ignacio Torres Aleman

Index .................................................................................................................. 215
Diabetes, Insulin and Alzheimer's Disease
Craft, S. (Ed.)
2010, XIV, 218 p. 30 illus., 21 illus. in color., Hardcover
ISBN: 978-3-642-04299-7