

## Preface from the Editor

Alzheimer's disease is a serious health concern in developed countries where the population is progressively aging. At the personal level, the diagnosis of the disease represents a devastating scenario for both the sufferer and the caregivers. In recent years, medications have been developed that mitigate somewhat the symptoms and delay, for a while, the progression of the disease. It is expected that in the coming years new medications will be developed that are capable of halting the chain of pathological events and symptoms of the disease. This book covers a wide range of the pharmacological mechanisms underlying the present and potential new therapies. The recent extraordinary advances in our understanding of the cell and molecular biology of Alzheimer's disease allow for an optimistic forecast of innovative therapies. I am glad that Andrea Malacuso, from Springer, asked me to edit a book addressing these issues. The opportunity allows me to contribute a little to the awareness of the pharmacological challenges. I am most grateful to all the contributors who enthusiastically responded to the call. I am particularly gratified in having them as authors of comprehensive reviews as they have made important contributions to the field and, just as important, because of their friendship, which I have had the privilege of enjoying for many years.

I trust that this book will be of value to a wide audience interested in cellular and molecular mechanisms leading to the pathology of Alzheimer's disease and on the multiple, possible, therapeutic opportunities ahead of us. The field of research is enormous, and therefore we have selected the therapeutic targets that seem the most hopeful and for which there is a solid rationale. There are a number of emerging therapeutic targets, such as the inactivation/removal of A $\beta$  peptides, among others, which might have potential applications if specific leading compounds were to be identified.

On a personal note I would like to say how committed I am to this subject of research, both because of its social importance and for the good science it is generating. I would also like to thank all my past and present collaborators and express my gratitude for the friendship of many of the leading actors in this field. I would like to say here also "thank you" to Dr. Alan Frosst and

the Frosst family and Merck-Frosst Canada for their interest in our work and the granting institutions which make it possible, the Canadian Institutes of Health Research, and the US Alzheimer's Association. Finally, I would like to say "thank you" to Martha, my wife and best friend, for her love and fortitude, and to my daughters, Paula and Karina, for bringing us so much happiness, and also for their patient ears to "Papa's dreams."

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Pharmacological Mechanisms in Alzheimer's  
Therapeutics

Cuello, C. (Ed.)

2007, XX, 324 p. 35 illus., Hardcover

ISBN: 978-0-387-71521-6