

Preface

The year 2006 is the centenary of Alois Alzheimer's presentation to a meeting of German psychiatrists held in Tübingen, Germany. In 1906, Alzheimer described the results of his studies on a female patient known as Auguste D., who had suffered from a progressive pre-senile dementia. In 1907, Alzheimer published this study in a paper entitled "Über eine eigenartige Erkrankung der Hirnrinde" in *Allgemeine Zeitschrift für Psychiatrie und psychisch-gerichtliche Medizin*. This paper was a landmark in our understanding of the disease that now bears his name. The paper described the major lesions that are now known to be common to all forms of Alzheimer's disease.

After 100 years it is time to reflect upon the enormous progress that has been made since Alois Alzheimer's first observations were reported. The chapters within this book describe some of the major conceptual advances of the last few years, particularly in understanding Alzheimer's disease pathogenesis, and the research that may lead to successful therapies. Central to the story of Alzheimer's disease is the β -amyloid protein or A β , a 4-kDa polypeptide that is intimately involved in the pathogenic cascade. Increasingly it is recognized that A β is a causative agent that plays a key role in disease pathogenesis.

The chapters in this book are written by experts in their respective fields, and each author provides individual insight into the role of A β in the pathogenesis of Alzheimer's disease. The chapters contain innovative ideas on the biochemical, cellular, and behavioral pathogenesis of Alzheimer's disease that should propel research over the next few years.

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