

inch of letter height should be provided for each 10 m or 33 ft of desired legibility distance. Finally, the nighttime conspicuity of critical traffic control devices such as stop and yield signs should be increased through the use of more highly (retro-)reflective material on the sign face; and, the installation of overhead lighting at intersections, especially those with pedestrian crosswalks, is an important safety countermeasure.

In addition to the roadway improvements highlighted above, best practices addressing freeway operations, highway-rail grade crossings, and numerous other geometric and operational elements may be found in the Highway Design Handbook for Older Drivers and Pedestrians. An Implementation Guide is also provided to support decisions about when such improvements deserve priority for transportation planning at the local, corridor, or State level.

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### Source:

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2. Publication FHWA-RD-01-103. U.S.DOT: Washington, D.C., 2001. The contact information to obtain copies of this document is as follows: Federal Highway Administration RD&T Report Center, HRTS, 9701 Philadelphia Court, Unit Q, Lanham, MD 20706, USA, Phone: +1 (301) 577-0818

### Alois Alzheimer MD PhD (1864 – 1915)

Alzheimer's disease is the most common cause of dementia in western civilization. One famous contemporary who suffers from it, is former U.S. President Ronald Reagan. How did this disease get its name? Below the story of the name giver, Alois Alzheimer.

Early in the morning of June 14, 1864, little Aloysius was born to the notary public

Eduard Alzheimer and his second wife Theresia in Marktbreit (currently: Ochsenfurter Straße 15a), Bavaria, Germany. Here the christening celebration was also held. Ignaz Ruland, canon of Würzburg, baptized the child and Alois Alzheimer, curate at Sulzfeld, acted as godfather. In 1989, on the occasion of Alois Alzheimer 125<sup>th</sup> birthday, the house was fitted with a memorial plaque and may be visited since.

*Family Alois Alzheimer*



Alois Alzheimer obtained his high school diploma in 1883 in Aschaffenburg, and subsequently studied in Berlin, Tübingen, and Würzburg, where he successfully defended a doctoral thesis on ceruminal glands in 1887<sup>1</sup>. In December 1888 Alzheimer started his education in psychiatry and neuropathology at the City Mental Asylum in Frankfurt am Main, headed by Emil Sioli (1852-1922). Alois was appointed director in 1895.

In April 1894, Alois Alzheimer married Cäcilia S. Nathalie Wallerstein (1860-1901), widow and heir of the wealthy banker Geisenheimer. It made Alois financially independent. Three children were born. One of them, Gertrude, later married the Breslau physician Georg Stetz, who obtained the Psychiatry Chair in Munich in 1946.

Alzheimer left Frankfurt in 1903, and, following a short-term stay in Heidelberg, moved to Munich to continue his scientific and medical activities at the Royal Psychiatric Clinic (Director: Emil Kraepelin, 1856-1926) where he also obtained his PhD (Habilitation) in 1904<sup>2</sup>.

*First reported Alzheimer patient*



Alois joined the staff of the Psychiatric Institute as associate professor in 1908, and became director of the clinic's anatomical laboratory. This soon gained international reputation and turned into a meeting place for researchers, such as Hans Gerhardt Creutzfeldt (1885-1964) and Alfons Maria Jakob (1884-1931). Former students remember Alois from his cigars during histology laboratory teaching. He would look through the microscope while still smoking but put the cigar down as he commenced his explanations. At the end of class, a cigar stump next to the microscope at every student's bench was the result.

The first reported patient with what we now know as 'Alzheimer Disease' is Mrs. Auguste D., a housewife married to a railroad employee in Frankfurt, and born on the 16th of May 1850, who had been admitted to hospital in November 1901. At home she had become unable to care for herself, and rejected all help. Upon hospitalisation she became increasingly disoriented with impaired memory, and slowly lost her ability to read and write. Hallucinations and loss of higher mental functions followed<sup>3-4</sup>. She died on April 8, 1906 of insufficiently treated decubitus.

At the 37<sup>th</sup> Meeting of Southwest German Psychiatrists held in Tübingen in November 1906 Alois Alzheimer reported on this patient whose symptoms included, upon post-mortem examination, a 'paucity of cells in the cerebral cortex and clumps of filaments between the nerve cells'. His colleagues at the meeting were neither amused nor impressed. Psychoanalysis was the main subject of discussion in this era. In 1910, at the suggestion of Emil Kraepelin, the disease was named 'Alzheimer's disease'.

Recently the clinical notes of this first 'Alzheimer patient' were re-analysed and confirmed, while histological and molecular genetic findings obtained on the original tissue sections<sup>5-8</sup> showed Auguste D. to be homozygous for apolipoprotein allele epsilon<sup>3</sup>, a common

feature in early-onset Alzheimer's Disease. Nowadays, a tendency in the literature has occurred to use the term Alzheimer's Disease and Related Disorders (ADRD) to acknowledge that a whole family of diseases has to be considered under this name.

Alois had a broad interest in mental disorders and their clinical research. In 1910 he co-founded and co-published a new scientific journal to expand publication possibilities for clinical research on neurological and psychiatric disorders. The journal has been renamed twice but is still going strong<sup>9</sup>, while being indexed and abstracted in Medline.

On July 16, 1912, Alzheimer was appointed director of the Clinic of Psychiatry and Neurology and full professor at the Silesian Friedrich-Wilhelm-University in Breslau (now Wrocław). Emperor Wilhelm II of Prussia personally signed his certificate of appointment. From October 1915 onward, Alois Alzheimer became increasingly bedridden and finally succumbed to cardiac failure following endocarditis on December 19, 1915, in Breslau. He was laid to rest at the principal cemetery in Frankfurt am Main at the side of his wife<sup>10</sup>.

## Acknowledgement

Pictures taken from: Maurer K. and Maurer U. Alzheimer. Das Leben eines Arztes und die Karriere einer Krankheit. München: Pieper 1998; ISBN 3-492-04061-6; reproduced by courtesy of the authors.

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## Book Review

K. Warner Schaie, M. Pietrucha, editors, 2000. *Mobility and Transportation in the Elderly*. New York: Springer. ISBN 0826 113095, about Euro 50.00

The contents of the Schaie and Pietrucha book provide a broader context for this special issue of *Gerontechnology* dealing with 'Driving in Old Age: Use of Technology to Promote Independence.' The book addresses the whole scope of mobility issues confronting older adults today, from considerations

of the role of sensory, cognitive, and body-related functions, proceeding with the potential, limits, and risks of different means of mass transportation for older adults, and closing with a glance at intelligent technology systems. Although the issues are framed much more broadly, the driving behaviour of older people is featured predominantly throughout the whole book. The book itself emerged from a conference of the prestigious 'Social Structure Conference Series' held annually at Pennsylvania State University since the end of the 1980s under the leadership of K.W. Schaie. Among the characteristics of this conference series, also to be seen in the present book, is the profound analysis of a rather small set of core issues for the theme selected for discussion (mobility in the elderly, in the present case) and the invitation of extensive commentaries aimed to frame these analyses within a diversity of additional theoretical and empirical perspectives. Another major feature of this series is the multidisciplinary approach, echoed in the present volume through the inclusion of scholars and professionals from psychology, geriatrics, engineering, human factors research, and other fields of transport research.

In terms of basic preconditions for mobility in the later years, the first main chapter written by James L. Fozard provides a very focused analysis of age-related sensory and cognitive changes. Fozard builds his review of major empirical findings around a triangle of geropsychology research findings, namely that with age, the speed of behaviour is slowing, that the interdependence between sensation and cognition becomes closer, and that skilled performance requires more sensory information from the environment. Two commentaries add in terms of depth of analysis, namely D. Alfred Owens with his discussion of ambient vision, as well as application, and Loren Staplin with his effort of extending on Fozard's person-environment model for improving everyday driving behaviour of elder people. William J. Evans offers additional substance to the better understanding of