

Chem 412 Seminar

30. April, 2001

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Alzheimer's Disease

Alzheimer's Disease is the most common form of senile dementia in adults. As age increases, development of this disease becomes more prevalent. For this reason it has become a major public health concern primarily due to the increase in life expectancy. The disease is associated with damage of specific brain regions including the hippocampus and cortex, which play important roles in cognitive processes such as memory and learning. Affected regions of the brain accumulate two types of protein clusters known as neurofibrillary tangles and amyloid plaques. Four genetic factors have been linked to an increase the incidence of Alzheimer's disease. To date all of these genetic factors have been shown to increase the production and/or deposition of the amyloid plaques. The build up of these proteins leads to malfunctions in intercellular communication and eventually neuronal cell death. Until recently, the causes of the disorder were almost completely unknown, making a cure or even a treatment extremely difficult to find.

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