



Parthenon Research

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Introduction to Alzheimer's Disease and Future Therapies

- **Alzheimer's Disease Is A Major Unmet Medical Need In the US** An estimated 5.3 million people have Alzheimer's disease in the US alone. This number is expected to reach 8.0 million by 2015, as the population ages and the number of people over age 60 increases. There are currently an estimated 450,000 new cases diagnosed in the US each year, expected to reach 500,000 each year by 2020.
- **An Effective Drug Would Be Highly Valuable** There are five FDA-approved drugs that improve symptoms (palliative therapies), but none slows the progression of disease or addresses its cause (disease modifying drugs). A therapy that could stop (or even slow) the decline in the patient's condition would greatly reduce the cost of caring for the patients, reduce health care resource consumption, and improve the quality of patients' lives.
- **Large Sales Potential** Worldwide sales of the Alzheimer's disease drugs are estimated at over \$6 billion, dominated by two drugs with marginal efficacy. Despite high expectations, clinical trials for drugs based on widely accepted theories have not shown efficacy. An effective therapy would improve patients lives' and reduce health care costs for millions of patients. The established worldwide market and dire need could lead to rapid adoption and market penetration. Patients are also likely to be on such a drug for several years, from their early 60s until death. These factors add up to an attractive and lucrative market.
- **New Theories On Alzheimer's Disease Are Emerging** For the past 15 years, most drug development has been based on the theory that Alzheimer's disease was caused by a protein known as beta amyloid . Many drugs were based on removing beta amyloid or preventing its formation. However, data from clinical trial failures and new studies have undermined this theory, leaving the field with no frontrunners and a need for new drugs.
- **We Believe Alzheimer's Disease Is a Fertile Area For Investors** In this report we describe some of the theories on the causes and the disease process in Alzheimer's disease, as well as some promising therapies in development.