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Statement of Dr. Sam Gandy, vice chair, Alzheimer's Association Medical & Scientific Advisory Council

Presented Tto the Bipartisan Congressional Task Force On Alzheimer's Disease

May 3, 2005

Thank you Representatives Markey and Smith for inviting me here today. This is truly a great time to be working in the Alzheimer research field. An unprecedented level of scientific opportunity has brought us to the point where the goal of a future without Alzheimer's disease is clearly within reach. The scientific opportunities exist to find the answers in time, if Congress makes the necessary investment now.

The changes in the brain that cause Alzheimer's begin 10 to 20 years before symptoms appear. Baby boomers start entering the age of greatest risk in 2010. To prevent the looming epidemic, answers have to come before it is too late for 77 million baby boomers.

We can treat Alzheimer's and some day we will be able to prevent this disease, but not without more research and more help from Congress. Researchers supported by the National Institutes of Health need additional funding in this fiscal year alone to continue large scale, controlled, clinical trials that will identify therapies and treatments capable of slowing or halting the onset and progression of Alzheimer's.

Funds are also needed to pursue promising leads in genetics, imaging and in understanding basic mechanisms of the disease. The picture of the basic mechanisms of Alzheimer's disease is nearly complete. Advances in genetics and imaging give scientists the tools they need to find surrogate biomarkers and risk factors for Alzheimer's instead of waiting until symptoms appear. This is the key to a prevention strategy.

Epidemiological research is rapidly identifying new targets for interventions – including compounds such as Gingko biloba and huperzine A that are already widely available – that now must be tested in large scale clinical trials to see which may actually slow or prevent disease. A single large-scale clinical trial could cost as much as \$25 million and take 3 – 5 years, but clinical trials are the only way to translate – and verify – the findings of basic research into real-world treatments.

The National Institute on Aging has built the interdisciplinary research infrastructure in the Alzheimer's Disease Centers and the Cooperative Study that make possible unprecedented levels of collaboration within and across academic settings – to find answers faster, cheaper and better.

Increasing federal spending on Alzheimer's research to \$1 billion or more a year is what is needed to accelerate the pace of scientific discovery. Additional funding will help scientists build on the tremendous progress that has been made in the diagnosis and treatment of Alzheimer's over the last 15 years. New insights into prevention offer hope for slowing progression of the disease in those already affected and postponing the onset of illness in those at risk.

Recent advances in research include the development of diagnostic criteria and clinical instruments for reliable assessments of dementia, better understanding of abnormal protein changes involved in the death of brain cells and possible strategies for reversing those changes and growing evidence about the impact of healthy lifestyles on cognitive function. Knowledge of the biology of this disease has opened doors to the possibility of an Alzheimer's vaccine.

There have also been advances in imaging. Researchers funded in part by the National Institutes of Health and the Alzheimer's Association developed the first compound that highlights abnormal Alzheimer protein deposits in patients undergoing a PET brain scan.

In addition, scientists are closing in on the search for a way to identify signs of the development and progress of the disease long before symptoms appear -a key to speeding drug trials and targeting new medications to those for whom the treatments will have the greatest benefit.

Despite the recent progress in Alzheimer research, the underlying cause still remains a mystery, and additional work is needed to identify new targets for preventing Alzheimer's, understand risk factors, including the interactions between genetics and environmental factors, detect Alzheimer's before it ravages the brain and conduct basic science research.

As a result of the recent slowdown in NIH funding, many promising research proposals are going unfunded. NIA, for example, can only fund 15 percent of the most qualified proposals reviewed. Even then, funding levels for each grant are reduced an average of 10 percent below budgets submitted by the investigators. The slowdown in funding is also starting to affect our ability to recruit young, talented scientists to the field of the Alzheimer research. Now is not the time to scale back our commitment. We are so close but years of promising research will be for naught unless we keep the funding flowing through the NIH.

Thank you for your commitment to Alzheimer research and care. The Alzheimer's Association joins you in accelerating the day that we have a world without Alzheimer's disease. \$1 billion or more a year in federal funding for Alzheimer research is what is needed to accelerate the pace of scientific discovery.