

# A Turning Point

- Sarah Oliver

For the first time, scientists have discovered a chemical that prevents brain tissue death in the neurodegenerative disease, Prion disease, which is similar to Alzheimer's, Parkinson's, and Huntington's disease. Roger Morris, a professor at King's College in London, stated: "This finding, I suspect, will be judged by history as a turning point in the search for medicines to control and prevent Alzheimer's disease." Science Translational Medicine published the study, in which mice with Prion disease were treated with the chemical. Without treatment, the mice would die within 12 weeks. With the treatment, not only did the mice survive, but also they "were absolutely fine," according to Professor Giovanna Mallucci, the lead researcher. Although side effects include diabetes and weight loss, this breakthrough marks the starting point for preventative drug therapy.

Most neurodegenerative disease research focuses on misfolded proteins specific to a disease (the alpha-synuclein protein for Parkinson's, amyloid and tau for Alzheimer's, and the Huntington protein for Huntington's disease) that cause the body to respond in ways that harm itself. This "breakthrough" chemical targets the cells' response to the misshapen proteins, giving it potential to combat a wide range of neurodegenerative diseases.

A very close relative, my grandmother, was recently diagnosed with Alzheimer's. This is incredibly hard on my family since we're beginning to see the effects of the disease on my bright, kind, and affectionate grandmother. Although a preventative drug is probably too far away to benefit my grandmother, any progress towards an Alzheimer's cure means a lot to me. Even still, the potential drug gives me hope my family and I will not have to suffer if we were to inherit the disease.