

New clinical trial to test drug for diabetes in reducing risk of alzheimer's dementia

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A new study led through a collaboration between the Diabetes Trials Unit and the Department of Psychiatry at the University of Oxford, and the global healthcare company, Novo Nordisk, will examine whether semaglutide, a tablet used to treat diabetes, can change the course of the earliest change in the brains of people at risk of developing Alzheimer's dementia

The Impact of Semaglutide in Amyloid Positivity (ISAP) trial will recruit 88 volunteers currently living without dementia from five UK clinical sites in: Oxford, Imperial College London, University College London, Exeter, and Bristol. Participants will have a PET (Positron emission tomography) head scan to check levels of amyloid protein in their brains. Scientists believe that higher levels of this protein are linked to an increased future risk of dementia. This new study is at the forefront of research that tests the concept that the long 'preclinical' stage of dementia, that is, the 10- to 20-year period during which the condition develops, but people do not have symptoms, is a window of opportunity to interfere with the disease process and delay or even prevent dementia.

Dr. Ivan Koychev, ISAP chief investigator and trial steering committee co-chair, Department of Psychiatry, University of Oxford, said:

"The ISAP study uses a type of drug prescribed for diabetes, and for which there already are data suggesting that it is linked to a lower risk of dementia. We will test if it interferes in the preclinical and very early symptomatic stages with the underlying mechanisms driving Alzheimer's disease—tau protein accumulation and neuroinflammation. The obvious advantage of exploring compounds already in clinical practice is that we cut years from drug development as their safety has already been tested. This innovative study builds on the existing collaboration between the University of Oxford and Novo Nordisk, as well as the Oxford-based Dementias Platform UK project and the Oxford Health Biomedical Research Centre, which aim to accelerate research into stopping [dementia](#) before it causes symptoms."

Trial participants who have high amyloid protein levels in their brains will have further PET head scans to determine levels of the protein. These scans will check also for tau protein, which is thought to damage nerves, and to estimate levels of inflammation in the brain. Volunteers

will then be asked to take either semaglutide, a drug used currently for type 2 diabetes, or a placebo tablet, every day for one year. Researchers will repeat the tau and inflammation scans to see if those taking the semaglutide drug have lower levels of tau [protein](#) and inflammation in their brains compared with people taking placebo.

Emeritus Professor Rury Holman, co-chair of the Trial Steering Committee, Diabetes Trials Unit, OCDEM, University of Oxford, said:

"Developing an effective disease modifying therapy for Alzheimer's disease remains one of the key unmet needs of modern medicine given the increasing numbers of people developing this condition and the associated disability, societal costs, and reduced life expectancy. ISAP is another great example of academia and industry working together for the benefit of patients."

Provided by University of Oxford

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