Dementia prevention hopes raised by £1.9m boost to scan study

Dementia researchers are to receive a £1.9 million investment to identify the earliest brain changes associated with conditions such as Alzheimer’s disease.

The brain imaging project – known as the TriBEKa Consortium – involves research teams from three countries. It will paint the clearest picture yet of the first factors that determine risk of dementia.

Although the condition is associated with old age, changes in the brain that lead to dementia can occur decades before symptoms appear.

Experts say that understanding these changes are key to developing ways to intervene before irreversible damage has been done.

The initiative – the largest of its type to focus on this age group – brings together experts led by the University of Edinburgh in the UK, the Barcelonaβeta Brain Research Center in Spain and Sweden’s Karolinska Institute.

Researchers will use a brain scanning technique known as positron emission tomography (PET) to detect harmful build-up of chemicals associated with dementia. Brain structure will be measured using a tool known as magnetic resonance imaging (MRI).

Participants in the study – aged between 40 and 65 – will also take part in memory tests, family history and lifestyle assessments and will be invited to take part in a three-year follow-up.

Data gathered from the project will be made available to the global science community using data-sharing platform known as the Global Alzheimer’s Association Interactive Network (GAAIN).

The funding boost comes from the U.S.-based Alzheimer’s Association and donation from an anonymous international charitable foundation. The project will be launched on Friday in London at the Alzheimer’s Association International Conference.

Dementia affects 47 million people worldwide, with Alzheimer’s disease the most common cause. There are 9.9 million new cases diagnosed globally each year.
Professor Craig Ritchie, Director of the University of Edinburgh’s Centre for Dementia Prevention, said: “Dementia is an urgent health issue and requires forward-thinking international collaboration to defeat it. As brain changes that cause dementia happen many years before symptoms, we have an opportunity to prevent progression before people are affected. TriBEKa puts us in a unique position to understand how we might do this.”

Professor José Luis Molinuevo, Scientific Director of the Barcelonabeta Brain Research Centre, said: "Modelling and understanding early changes in Alzheimer’s disease is key for understanding the role of the different risk factors and designing prevention trials. The TriBEKa Consortium will become a key source of information to give those answers."

Dr Maria C. Carrillo, Chief Science Officer at the Alzheimer’s Association, said: “We are proud to contribute the TriBEKa Consortium. We know that it is essential that we learn how to identify Alzheimer’s brain changes at the earliest point, with the goal of understanding risk factors to ultimately intervening in the disease process before cognitive decline and dementia symptoms are present.”

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