

Lay summary

BRAIN UK Ref: 21/009

Alpha-synuclein in Krabbe disease

Dr Daniel Erskine, Newcastle University

Krabbe disease is a rare disease that affects very young infants and usually causes their death by the age of two years old. Parkinson's disease (PD) is the second most common neurodegenerative disease after Alzheimer's disease, and is thought to be caused by a protein called alpha-synuclein. Alpha-synuclein is thought to accumulate in some brain cells in PD and cause their death, with the loss of important brain cells leading to symptoms experienced by patients. Recent studies have suggested that alpha-synuclein may also accumulate in Krabbe disease, so the aim of our study is to investigate whether alpha-synuclein accumulations in Krabbe disease are similar to those in PD. This is important as many drugs are being developed to stop alpha-synuclein accumulating in PD, therefore if it is similarly altered in Krabbe disease this may suggest these drugs are also useful for Krabbe disease.