University of Edinburgh research may lead to new treatment

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Research at the University of Edinburgh has identified a key molecule linked to kidney disease in people with diabetes.

This may lead to new therapies following studies on mice and rats where blocking a protein called P2X7R prevents kidney damage associated with diabetes.

Diabetes is the leading cause of kidney failure and around 40% of those who have diabetes eventually develop kidney disease.

Dr Robert Menzies, British Heart Foundation Immediate Fellow at the University of Edinburgh, said: "Diabetic kidney disease is reaching epidemic levels, but we are still searching for that blockbuster drug to help patients. This study is a major advance in understanding how kidney damage occurs in diabetes and where we might focus our efforts in finding a treatment.

"Our next studies are being designed to determine if the P2X7R-blocking drug, which is already known to be safe in humans, could reverse more severe kidney damage or even prevent it. These studies are a very encouraging move forward."

The study — carried out in collaboration with UCL and Imperial College London— was supported by the Medical Research Council and Kidney Research UK, with findings published in the journal *EBioMedicine*.

Elaine Davies, Director of Research Operations at Kidney Research UK, said: "With diabetes representing the most significant risk factor for developing kidney disease, we welcome this important step forward in our understanding of the mechanism behind diabetic kidney disease. We look forward to hearing about how this study develops."

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