

DNA secrets to be unlocked

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Newcastle University researchers are part of a project to revolutionise medicine by unlocking the secrets of DNA. The four year project, which has just been announced by Government, will allow scientists to do pioneering new research to decode [100,000 human genomes](#) – a patient's personal DNA code. The landmark project is on a scale not seen anywhere else in the world.

The Biomedical Research Centre, part of the Newcastle University and the Newcastle Upon Tyne NHS Hospitals Trust is one of three pilot centres involved in the £300m project which Prime Minister David Cameron said "will see the UK lead the world in genetic research within years".

Now, the team are in the process of [recruiting thousands of patients](#) so their genome - material encoded in them and their families DNA - can be sequenced for the 100,000 Genomes Project. The scientists will then examine the results so they can begin to understand the processes that cause the disease.

Sequencing the genome of a person with cancer or someone with a rare disease will help scientists and doctors understand how [disease](#) works. The project has the potential to transform the future of health care, with new and better tests, drugs and treatment. It is expected to provide a lifeline to thousands of families affected by rare genetic diseases and cancers.

Researchers will be looking in particular at rare diseases and are in the

process of recruiting thousands of patients to the project so their [genome](#) and that of their close relatives, can be sequenced. The scientists will then examine the results of the [genome sequencing](#) so they can begin to understand the processes which cause the diseases. It is hoped that in time this will lead to targeted therapies for patients.

Along with Newcastle, Cambridge and London have also been established as test centres.

Professor Patrick Chinnery, who is leading the project at Newcastle University, said: "It is immensely exciting to be directly involved in the 100,000 genomes project which will transform the way we use genetics to diagnose and treat patients in the NHS. Newcastle patients will be amongst the first to benefit because together we have played a key role as one of only three sites recruiting [patients](#) with [rare diseases](#) in the pilot study."

Provided by Newcastle University

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