



THE UNIVERSITY of EDINBURGH



University
of Glasgow

News Release

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£15m initiative puts Scotland at forefront of gene-led healthcare

A major investment in gene sequencing technology will secure Scotland's place as a world leader in a genomics revolution that is set to transform healthcare.

The initiative will enable scientists and clinicians to access equipment that can decode the entire genetic make-up of a person for less than £750.

The Universities of Edinburgh and Glasgow are to partner with Illumina (NASDAQ: ILMN), the global leader in sequencing and genomics, in the £15 million project. The investment will establish The Scottish Genomes Partnership, which will install 15 state-of-the-art HiSeq X sequencing instruments divided between two hubs within the Universities.

Researchers will be able to study the genomes of both healthy and sick people on a large scale and faster than before.

Linking genetic data with clinical information will enable more precise, molecular diagnoses for patients in the Scottish NHS, leading to more personalised treatment and safer selection of drug therapies.

It will also bring new understanding of the causes of both rare and common diseases, opening the door to the development of new treatments.

The Partnership will initially focus on very rapid screening of cancer patients, diagnosing childhood illnesses, disorders of the central nervous system and population studies.

Eventually, by utilizing other Illumina systems, they hope to use the technology to study genomes from plants and livestock for agricultural research, an area at which Scotland excels. They also hope to examine infectious organisms such as bacteria and viruses in order more quickly and accurately to diagnose infections.

The Universities will draw on the Medical Genomics leadership based at the University of Glasgow's Wolfson Wohl Cancer Centre, a leading-edge translational research facility dedicated to cancer, and the expertise of Edinburgh Genomics, the UK's largest university-based gene sequencing facility.

Professor Jonathan Seckl, Vice Principal (Research) at the University of Edinburgh, said: "Scotland is uniquely placed to make a significant contribution to the field of genomics medicine. It has well established and approved methods of linking electronic health records to medical research programmes, governed by NHS and academic regulations.

Ranked among the top universities in the world

“Edinburgh is also home to the UK’s national supercomputer facility, which will provide the high performance data processing ability needed to analyse the vast volume of information that will be generated from this research. This affords an exceptional opportunity for Scotland’s outstanding researchers and clinicians to transform the way medicine is practiced in the coming years”

Professor Anna Dominiczak, Vice Principal and Head of College of Medical, Veterinary and Life Sciences at the University of Glasgow, said: “Scotland has an ideal ecosystem to lead the world in precision medicine. With a population of 5.3 million, cohesive and collaborative NHS, academia and industry, we have developed unique capability to screen DNA from patients with cancer, rheumatoid arthritis and other inflammatory and infectious diseases.

“This will add significant value to Glasgow’s investment in the South Glasgow University Hospital and will allow us to select the best treatment for individual patients.”

Jay Flatley, CEO of Illumina said: “We are very excited to work with The Universities of Edinburgh and Glasgow as they create The Scottish Genomes Partnership and are committed to working closely with them on this ground-breaking initiative. By unlocking the power of the genome, we can better understand cancer and rare diseases and ultimately transform how they are diagnosed and treated.”

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