Biomarkers battling chronic disease

As Scotland’s population ages, chronic illnesses such as cancer, diabetes and cardiovascular disease will become an increasing burden on healthcare resources. Genetic studies can help tell us which individuals are at increased risk of a given disease, but they can’t determine when symptoms will first start, or how rapidly the condition will worsen. The ability to diagnose a disease at the earliest possible stage will open up a whole new area of medical technology concerned with developing novel ways to prevent and treat common chronic conditions.

Generation Scotland scientists, led by Prof. Anna Dominiczak at the University of Glasgow, have secured a Strategic Research Development Grant of £2m from the Scottish Funding Council for the discovery of new biomarkers in chronic disease. The biomarkers in question are proteins whose levels increase or decrease as a disease starts or progresses.

The identification and characterisation of suitable proteins requires the use of cutting-edge technology such as high resolution capillary electrophoresis and high mass accuracy tandem mass spectrometry. The long-term goal of the project is to develop robust tests that accurately determine disease status and to integrate the proteomic data with genetic information from the Generation Scotland Scottish Family Health Study. This dual approach could potentially revolutionise the management of chronic disease.

Health Minister launches ScotGEN

As the use of genetic information in medicine increases, so does the need for healthcare professionals to have a sound knowledge of clinical genetics. The aim of ScotGEN is to help fulfill the requirement for high quality resources for use in genetics education.

ScotGEN was officially launched in Edinburgh on 28th November 2007 at a one-day conference which was opened by Health Minister Nicola Sturgeon. For more information about ScotGEN, log on to www.scotgen.org.uk.