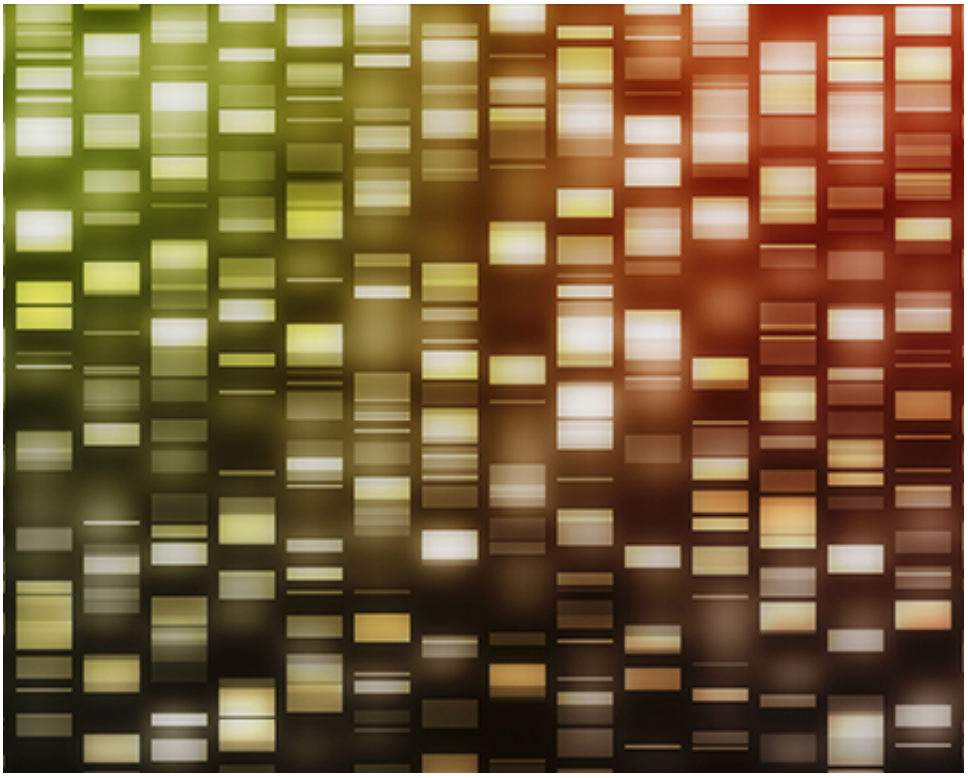
Main intestinal disease bacteria to be sequenced

January 21 2014



Scientists in the Centre for Genomic Research will decode and analyse the 510 archived isolates of Campylobacter from earlier collections of human faeces

The University of Liverpool is to decipher the genomes of the UK's main bacterial cause of food poisoning which results in over 21,000 hospital admissions and 100 deaths each year.

Using the latest whole genome sequencing technologies available at the University's Centre for Genomic Research, scientists will decode and analyse the 510 archived isolates of Campylobacter from earlier collections of human faeces.

Campylobacter

Campylobacter is widely recognised as the main bacterial cause of foodborne infections leading to diarrhoea, and in 2010 was responsible for an estimated 21,300 hospital admissions and 100 deaths in the UK, at a cost of approximately £784 million.

The new project is funded by the Food Standards Agency and, when it concludes in February 2015, scientists will have a greater understanding of sources and transmission routes associated with human Campylobacter. The Agency will then be able to use these results to directly benefit the public health benefits.

The bacterial isolates used in this study were obtained from faecal samples from thousands of people with symptoms of diarrhoea and vomiting during two separate time periods (1993-1996 and 2008-2009).

The research will give scientists key information about the make-up of the UK Campylobacter population and will also link to other research at the University examining Campylobacter found in poultry and the general environment.

Prevention

Professor of microbiology, Craig Winstanley, from the University's Institute of Infection and Global Health is leading the project. He said: "Campylobacter causes misery for thousands of people in the UK every

year. The research will give us a much better idea of precisely how the bacteria get into humans and how this might be prevented.

"Working with the Food Standards Agency means that this work can then be turned into concrete public health benefits."

Provided by University of Liverpool