

■ ANDREW T. HATTERSLEY



Brief:

Professor Andrew Hattersley is the Professor of Molecular Medicine at the University of Exeter, UK and a practicing consultant diabetologist at the Royal Devon and Exeter hospital. He trained in Medicine at the Universities of Cambridge and Oxford. His postgraduate education was in London, Oxford and Birmingham. Since he moved to Exeter in 1995 he has published over 600 papers, given more than 300 national and international lectures and received many national and international awards for his research including being appointed as a fellow of The Royal Society in 2010 and being awarded a CBE in 2017.

Research Summary

Professor Andrew Hattersley is a clinician scientist who has made outstanding scientific discoveries in diabetes that have transformed our understanding, diagnosis and treatment of genetic forms of diabetes.

In 1995, he and Sian Ellard established a genetic laboratory in Exeter that is now world leading for monogenic diabetes diagnosis and research; receiving over 20,000 samples from 104 countries. They have described alone, or with others, 24 new genetic causes of diabetes; over half of all genetic subtypes.

Hattersley has led the studies which have carefully characterised the diabetes and other clinical features of these patients. These findings have been central in improving diagnosis, management and treatment for patients with monogenic diabetes throughout the world.

Hattersley's major advance has been to take beta-cell science into treatment of patients. After proving mutations in the beta-cell potassium channel were the commonest cause of neonatal diabetes he went on to show that these patients could replace their insulin injections with sulphonylurea tablets and improve blood sugar control. Hattersley ensured patients benefited by offering free genetic testing for every diabetic patient in the world diagnosed before 6 months.

He continues to identify new and important genes for beta-cell development, function and destruction by studying neonatal diabetes patients. Gene discovery in patients with a complete failure of pancreas development has shown that early human beta-cell development differs markedly from mice; this is critical information for creating human beta-cell replacement therapy from stem cells.

For Professor Andrew Hattersley the patient is always the focus of his science.