

Dr Simon Campbell CBE FRS FMedSci



Undertaking innovative research to discover new drugs to improve our health

Dr Campbell graduated from Birmingham with a 1st Class BSc in Chemistry in 1962 and a PhD in Chemistry in 1965. He was awarded an honorary DSc from Birmingham in 2004. His postdoctoral research was carried out in Chile and Stanford and following a faculty position at the University of Sao Paulo Brazil, he joined Pfizer in 1972

Why he is outstanding

Innovative research by Dr Campbell and his team at Pfizer at Sandwich in Kent led to the discovery of amlodipine (Norvasc/Istin), sildenafil (Viagra) and doxazosin (Cardura), which all became some of the world's best selling prescription drugs.

Amlodipine causes relaxation of vascular smooth muscle which lowers blood pressure and increases blood flow to the heart and so is effective for the treatment of hypertension and angina. This innovative new medicine was designed after Dr Campbell's team carefully analysed the structural features associated with smooth muscle relaxation and long duration of action. Amlodipine has benefited millions of patients worldwide, where annual sales reached over \$5bn

'The difference between success and failure can be just one atom,' said Dr Campbell, 'so drug design requires a very clear understanding of molecular properties.'

Sildenafil (Viagra) is probably the world's best known drug but was originally targeted for hypertension and angina. Tests in student volunteers showed quite a different function and sildenafil is now the world's leading oral therapy for the treatment of male erectile dysfunction.

Did you know?

Dr Campbell retired as Pfizer's head of research in 1998, but still acts as a scientific consultant to Pharma, Biotech, charities and government organisations worldwide

Dr Simon Campbell "Discovering innovative new medicines such as sildenafil is a significant challenge since it took 13 years to transform this research idea into a marketed product and involved 1,500 Pfizer staff overall. Drug discovery is a shared experience not a mechanical event and is best carried out by small multidisciplinary teams with strong leadership"