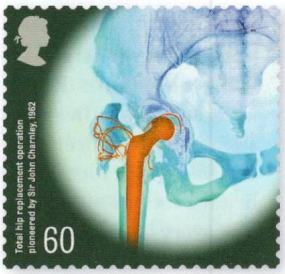
Life-changing science Celebrating British

First Class inland letter rate: heart-regulating beta-blockers synthesised by Sir James Black in 1962

58p basic rate worldwide: antibiotic properties of penicillin, discovered by Sir Alexander Fleming in 1928



60p, Europe up to 20g: total hip-replacement operation, pioneered by Sir John Charnley in 1962

BETA-BLOCKERS, SCANS AND HIP REPLACEMENTS are among the British medical breakthroughs that have benefited the world. These and three other major 20th-century turning points in medicine will be celebrated in a set of six new stamps issued on 16 September. The Medical Breakthroughs issue comprises six stamps, a first day envelope, Presentation Pack and stamp cards showing enlarged versions of each of the stamps.

Inspiration and background The UK has been at the forefront of medical research and technology since William Harvey first described the circulation of blood in 1628. British scientists can take credit for the discovery and application of the smallpox vaccination, anaesthetics, antiseptic surgery and many public health measures, but perhaps some of the most important breakthroughs have taken place in the past hundred years or so.

This issue celebrates six of these significant medical breakthroughs. In order to whittle them down, medical historian Professor Dorothy Porter was consulted to determine the 20 most significant British medical breakthroughs of the past century, and then her recommendations were shortlisted to six, each covering a different area of medicine.

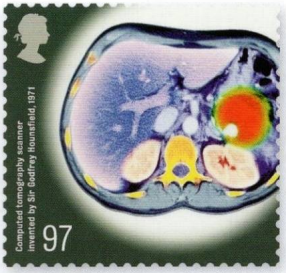
The issue in detail The First Class stamp features beta-blockers, which were synthesised by Sir James Black in 1962. The drug revolutionised the medical management of angina and is considered one of the most important contributions to clinical medicine and pharmacology of the 20th century. The 58p stamp celebrates Sir Alexander Fleming's 1928 discovery of penicillin, which began the modern era of antibiotic discovery. The 60p stamp recognises Sir John Charnley's development of the hip replacement, which was first performed in 1962. The 67p stamp honours the work of Sir Harold Ridley, who proposed the use of artificial lenses in the eye to correct cases of cataracts. The 88p stamp commemorates Sir Ronald Ross's discovery of the presence of the malarial parasite in a species of mosquito and its

Medical Breakthroughs, 16 September 2010	
Set of stamps	£4.11
Presentation Pack	£4.65
First day envelope, unstamped	30p
First day cover, mail order price	£5.31
Serviced first day cover stamps, overseas customers	£4.52
Set of six stamp cards	£2.40
Retail stamp book, to be issued 2011	£2.46

breakthroughs in medicine that helped the world

67p basic airmail rate up to 20g: artificial lens implant surgery, pioneered by Sir Harold Ridley in 1949

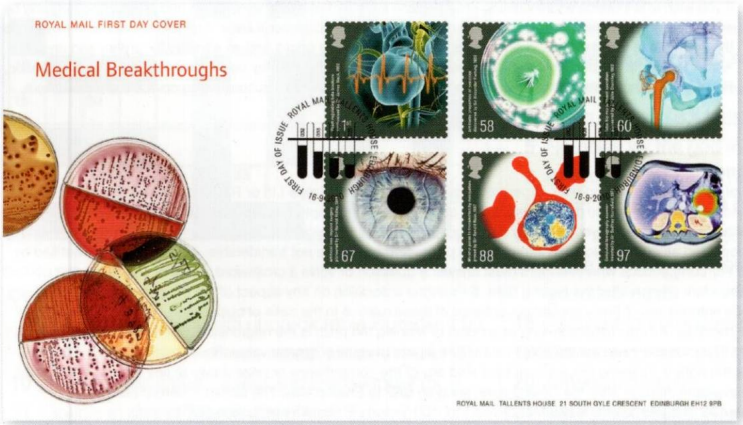
88p, Europe up to 40g: malaria parasite transmitted by mosquitoes, proved by Sir Ronald Ross in 1897



97p, world airmail up to 20g: computed tomography scanner invented by Sir Godfrey Hounsfield in 1971

consequent transmission. And the 97p stamp recognises Sir Godfrey Hounsfield's work that eventually led to the development of CT scanning.

For thematic collectors Many other Royal Mail stamps have featured medical subjects: 1963 Red Cross Centenary Congress; 1965 Centenary of Joseph Lister's Discovery of Antiseptic Surgery; 1967 British Discoveries and Inventions (*Penicillium notatum* 1/-); 1975 Health and Handicap Funds; 1987 Centenary of the St John Ambulance Brigade; 1994 Medical Imaging, 1999 Millennium Series – The Patients' Tale; 2000 Millennium Series – Mind and Matter, x-ray of hand holding computer mouse 45p; 2001 Centenary of Nobel Prize, physiology scratch-and-sniff disinfectant 40p; 2003 Fiftieth Anniversary of the Discovery of DNA; 2008 Women of Distinction, Elizabeth Garrett Anderson 48p; 2010 Royal Society, Jenner, Lister and Hodgkin; 2010 House of Stewart Miniature Sheet, Foundation of the College of Surgeons. Please note that these stamps are no longer available from Royal Mail, as they have all been withdrawn from sale, with the exception of the last two, dated 2010, which remain on sale for a limited period •



The Royal Mail First Day cover carries a stylised Petri dish graphic, and each stamp of the Medical Breakthroughs issue cancelled with the special Tallents House handstamp featuring four test tubes at the centre