Joseph Edward Murray

Nobel prize winner whose interest in the biology of tissue and organ transplantation arose from his military experience

Joseph Edward Murray, winner of Nobel prize for the first successful kidney transplantation and pioneering craniofacial plastic surgeon (b 1919; q 1943 Harvard Medical School), died from a haemorrhagic stroke on 26 November 2012.

Joseph Edward Murray is most remembered for performing three landmark surgeries in organ transplantation and winning the Nobel prize in physiology or medicine for them. He shared the 1990 prize with Edward Donnall Thomas (*BMJ* obituary at bit.ly/WFbqVO), who undertook the first bone marrow transplantation. In 1954 Murray performed the first successful organ (kidney) transplantation between identical twins; in 1959, the first non-identical twin transplantation; and in 1962, the first deceased donor transplantation with chemical immunosuppression.

His work was also instrumental in developing the first kidney registry, in establishing criteria for brain death in a non-heart beating donor, and in spearheading the first international meeting in kidney transplantation, according to Stefan G Tullius, chief of transplant surgery at Brigham and Women's Hospital. "He had a very human approach to transplantation, and patients were part of his family for over 60 years," said Tullius.

Murray was always quick to acknowledge the surgical team, the research scientists who made the surgeries possible, and the Peter Bent Brigham Hospital (now the Brigham and Women's Hospital) in Boston, where he built his career. Roy Calne, Murray's first research fellow at Harvard Medical School, described the atmosphere at Peter Bent Brigham in the 1950s and 1960s as "extraordinary, very small, and collaborative—an environment of the best and the brightest, not one person alone, but a team." Calne remembered Murray for "his curiosity, humanism, persistence, and lifelong optimism." He added: "He was also a deeply religious person and very serious, always putting the patient's needs first."

Murray recognised that organ transplantation put him on new ethical terrain. A devout Catholic, Murray consulted religious leaders, the patients, and their families, discussing the entire procedure, anaesthesia, possible complications, and outcomes. In his Nobel lecture he recalled: "For the first time, in medical history, a normal healthy person was to be subjected to a major surgical operation not for his own benefit." Little was known about immunology and immunosuppression. Many surgeons told him that he would fail. Some viewed transplantation as unnatural and playing with God's work. In 2004, Murray told National



Murray (pictured above with his wife) recognised that organ transplantation put him on new ethical terrain

Public Radio that many critics said: "The doctors are on an ego trip, Dr Frankenstein stuff."

In 1953 Richard Herrick's kidneys began to fail, and he was given two years to live. Herrick had a genetically identical twin, Ronald; theoretically, his immune system was the same, and he would not reject Ronald's kidney. Murray led the team that did extensive testing to assure that the twins were identical. In 1954 Murray transplanted one of Ronald's kidneys to Richard. Richard Herrick lived for eight years before kidney disease struck his new kidney. Murray stayed in contact with Ronald Herrick until he died in 2010.

"My interest in the biology of tissue and organ transplantation arose from my military experience at Valley Forge General Hospital [during the second world war]," said Murray in his Nobel lecture. Valley Forge was a major plastic surgery centre that treated severely burnt patients who could be treated only with donor grafts. "The slow rejection of the foreign skin grafts fascinated me," said Murray. He credited his colleague, James Barrett Brown, chief of plastic surgery there, with leading him to study organ transplantation. In 1937 Brown performed the first cross skin grafting of a pair of identical twins, and the graft proved durable. Murray's first research into organ transplantation was with dogs, and, according to his youngest son, Rick, he remembered each dog by name.

Murray was also a leader in craniofacial surgery, focusing on congenital malformations and

radical surgery after head and neck cancer. In the early 1970s he returned to plastic reconstructive surgery, "a specialty too precious to trivialise," he wrote in his autobiography, *Surgery of the Soul: Reflections on a Curious Career* (review at http://bit.ly/Xc3Scd). "In a 1979 presidential address to the Boston Surgical Society, Murray explained that the 'surgery can change the life of young, deformed children, altering their body image and self image," said Leonard Kaban, chair of oral and maxillofacial surgery at Massachusetts General Hospital, who worked with Murray for 13 years.

In the field of craniofacial and plastic surgery Murray teamed up with Kaban, John B Mulliken, and Joseph Upton, a hand deformities surgeon at Boston Children's Hospital and the Peter Bent Brigham Hospital. Mulliken said: "For Dr Murray, every day was 'magical.' I believe he learnt the importance of this thought from one of his favourite poets, Emily Dickinson, (he called her the 'Belle of Amherst'); the other was John Keats."

In 1940 Murray received a BA in classics from the College of the Holy Cross before graduating in medicine three years later. His son Rick said: "Many of us wondered whether his love of classics and poetry gave him a broad, personalised sensitivity, humility, and eternal optimism across all facets of life."

Murray died in Brigham and Women's Hospital, the same hospital in which he did his transplant work. He leaves his wife, Virginia (Bobby); three sons; three daughters; and 18 grandchildren.

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Mary Adams Hunter



Former general practitioner (b 1922; q Trinity College Dublin 1945), d 13 September 2012.

Mary Adams Wright worked in Omagh before moving to England, initially to Chester Hospital, where she met a fellow doctor and her future husband. Matthew Hunter. The couple moved to Yorkshire in 1948 and married that year, before settling in Skipton, where they lived for the remainder of their lives. Mary worked in child welfare, family planning, and cancer screening clinics until her retirement in 1987. After this she undertook voluntary work for local charities and was an active member of the congregation at Holy Trinity parish church. Despite progressive memory problems she remained independent until the last year of her life. She leaves two children, six grandchildren, and a great granddaughter.

Andrew Hardy, Anne Hardy Cite this as: *BMJ* 2013;346:f411

Peter Francis Kennedy



Former consultant psychiatrist Bootham Park Hospital, York; district general manager and chief executive York District Hospital; vice president Royal College of Psychiatrists (b 1941; q Leeds 1964; MD, FRCPsych), died from disseminated phaeochromocytoma on 27 October 2012.

Peter Francis Kennedy started his academic career in Edinburgh but moved to York because he considered he could make more difference to the lives of mentally ill patients if he was in clinical practice. In 1989 he was appointed district general manager in

York before becoming chief executive of York District Hospital, a World Health Organization consultant on mental health services, and joint leader of the London mental health task force, among many other achievements. He became chairman of St Leonard's Hospice in York in 2001 and was involved in the development of "Hospice at Home," from which he himself benefited during his last month. In 2005 he was appointed vice president of the Royal College of Psychiatrists. He leaves his wife, Sarrie; three children; and seven grandchildren.

Greg Richardson, Tony Rugg Cite this as: *BMJ* 2012;346:f413

Keith Danford Roberts

Former consultant cardiothoracic surgeon Birmingham (b 1923; q Birmingham 1945; FRCS Eng), d 27 June 2012.

When Keith Danford Roberts was appointed to Birmingham Children's Hospital in 1954 he immediately showed his pioneering expertise in treating the previously uncharted problem of tracheo-oesophageal fistula in newborns. He then turned to cardiothoracic problems in infants of all ages and successfully separated conjoined twins long before the procedure became newsworthy. For Keith, compassion was an overriding rule in his everyday concept of his whole life. Predeceased by his wife, Margaret, he leaves a devoted family.

George Watts

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Frank Clifford Rose



Former consultant neurologist (b 1926; q King's College and Westminster Hospital University of London 1949; MRCS Eng, DCH Eng, FRCP Lond), died from heart disease on 1 November 2012.

Frank Clifford Rose made important research contributions to our understanding of speech disorders,

motor neurone disease, and stroke, but it was headache that became one of his most notable areas of study. He served in many organisations, edited several journals, and wrote and edited books. His private practice based in Harley Street was consulted by many notable patients from the UK and abroad. Frank was involved with the research group on migraine and headache at the World Federation of Neurology, eventually becoming its chairman from 1980 to 1995 and editor of the federation's newsletter. He leaves his wife, three children, and grandchildren.

Lord Walton of Detchant Cite this as: *BMJ* 2013;346:f417

Bryan Ogle Scott



Former director and consultant physician in rheumatology and rehabilitation Oxford (b 1920; q Manchester 1944; MRCS Eng, DPhysMed Eng, MA Oxf), d 28 June 2012.

Bryan Ogle Scott started his career as a surgeon but switched to medicine after an allergic skin complaint. He worked in rheumatology and rehabilitation at Oxford's Radcliffe Infirmary for 33 years. A divisional representative of the BMA for 20 years, he was made a fellow in 1992 and produced an annual newsletter for the Oxford division. After the death of his wife he moved to a care home in Plymouth to be near his oldest son. Up to the time of his final stroke, he was attempting, with the approval of the home's owner, to regularise and codify the role of the carers, so essential in the life of many disabled and superannuated patients. Predeceased by his wife, Heather, he leaves three sons.

John Simpson

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David Bryan Stuart Taylor

Former general practitioner (b 1925; q Manchester 1948; MRCGP, DObstDCOG), d 26 October 2012. In the Royal Army Medical Corps in



Malaya David Bryan Stuart Taylor rose to the rank of major in the Lancashire Fusiliers, joining the Territorial Army and becoming a local councillor on his return. He worked in general practice until he retired at the age of 66 and is credited as diagnosing the first case of pulmonary fibrosis in an aluminium worker in Britain. He was area surgeon for the St John Ambulance and was awarded the Commander of the Order of St John in 1989 by the Queen. In his retirement he continued with the St John Ambulance and medical boards and, at 70, became a caseworker for Soldiers, Sailors, Airmen and Families Association Forces Help in Salford. He leaves his wife, Elisabeth; three children; and nine grandchildren.

Catherine McClelland, Robert Taylor, Peter Taylor

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Eileen Wilson



Former community paediatric medical officer (b 1935; q Aberdeen 1958), died from carcinoma of unknown primary on 18 July 2012.

Eileen Wilson (née Beattie) moved to Dundee one year after graduating and started working in paediatrics in Dundee Royal Infirmary, where she met her husband Sydney Wilson, also a doctor. She trained as an anaesthetist for seven years before returning to paediatrics and spent 18 years in Broughty Ferry and Monifieth by Dundee as a school community medical officer. On retirement she and Sydney moved to Aberdeen to be closer to her grandchildren. She leaves four children, seven grandchildren, and two great grandchildren.

Vicki Guthrie, Andrew Wilson Cite this as: *BMJ* 2013;346:f410