Edward Donnall Thomas

Nobel laureate, known as the father of bone marrow transplantation

Edward Donnall Thomas, director of clinical research Fred Hutchinson Cancer Research Center (b 1920; q Harvard 1946), d 20 October 2012.

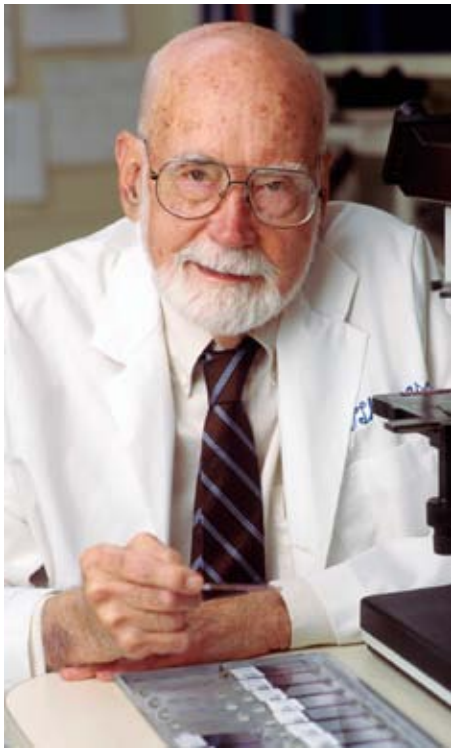
US Nobel laureate Edward Donnall Thomas was born in Mart, Texas, the only child of Edward E Thomas, a general practitioner, and Angie Hill Donnall, a teacher. Don (as he was known to family and friends) grew up in Prairie Hill in rural Texas; it was here he learnt a love of the outdoors, including hunting and fishing. By the time Don Thomas died in Seattle at age 92 on 20 October 2012, this country boy had gained recognition worldwide for his pioneering work in stem cell research and bone marrow transplantation. He had helped save the lives of tens of thousands of people with otherwise fatal diseases (including leukaemia, lymphoma, thalassaemia, and aplastic anaemia).

Firsts in transplantation

In 1956, Thomas performed the first successful syngeneic bone marrow transplant between two humans (a refractory leukaemia patient and his identical twin) at the Mary Imogene Bassett Hospital in Cooperstown, New York. He moved to Seattle in 1963, becoming the first head of the division of oncology at the University of Washington School of Medicine. It was not until 1969 that Thomas's team performed its first transplant for a leukaemia patient, using a matched sibling donor who was not a twin. In 1974 Thomas joined the faculty of the Fred Hutchinson ("Hutch") Cancer Research Center as its first director of medical oncology. He later became associate director, and eventually director, of the centre's clinical research division.

In 1977, the Hutch team, led by Thomas, performed the first matched transplant from an un-related donor.

In 1990, the Nobel Assembly at the Karolinska Institute awarded the Nobel prize in physiology or medicine jointly to Thomas and kidney transplant pioneer Joseph E Murray, for their discoveries enabling the development of organ and cell transplantation into a method for treating human disease.[1] Murray and his colleagues were the first to carry out a kidney transplant between human identical twins. Thomas had been successful in transplanting bone marrow cells from one individual to another and had shown that intravenously infused bone marrow cells were able to repopulate the bone marrow and produce new blood cells.



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"Bone marrow transplantation and its sister therapy, blood stem cell transplantation, have improved the survival rates for some blood cancers from almost zero to upward of 90%"

The assembly described how Murray had "discovered how rejection following organ transplantation in man could be mastered," and Thomas "managed to diminish the severe reaction that the graft can cause in the recipient—that is, the so called graft versus host reaction."[1]

The path to successful bone marrow transplantation was not an easy one, for the researchers, for the patients and their families, or for that matter for the rodents or dogs used in transplantation research. Thomas tenaciously persevered with his studies despite the naysayers.

"The many failures of allogeneic marrow grafting in human patients caused most investigators to abandon such studies in the 1960s," he said in his Nobel lecture in 1990.[2] "By 1967, we thought that the time was right to return to allogeneic marrow grafting in humans . . . Recognising that the care of patients with advanced leukaemia undergoing allogeneic grafts would be difficult, we began to assemble the necessary team . . . Our team carried out our first transplant using a matched sibling donor for a patient with advanced leukaemia in March 1969."

By 1990, marrow grafting had progressed from a highly experimental procedure to being accepted as the preferred form of treatment for a wide variety of diseases at many varying stages of disease.

Don Thomas stepped down from his position at the Hutchinson Center at age 70 in 1990 and officially retired from the centre in 2002.

Brilliance and curiosity

"Thomas's work is among the greatest success stories in the treatment of cancer," according to the Aplastic Anemia and MDS International Foundation.[3] "Bone marrow transplantation and its sister therapy, blood stem cell transplantation, have improved the survival rates for some blood cancers from almost zero to upward of 90%."

Thomas's friend Fred Appelbaum, director of the Hutchinson Center's clinical research division said, "Although he was quiet and modest, he was stubborn. He believed in what he was doing, and he was going to make it happen. It's hard to imagine today how hard it was to make this reality because it was against the prevailing medical wisdom."

Don Thomas imbued his children with a sense of intellectual curiosity and moral responsibility at an early age, according to his son E Donnall (Don) Thomas Junior. "He conveyed a sense of medicine as a calling rather than a job, which no doubt explains why two of us chose that path in our education," he said.

Thomas's wife, Dottie, was his research partner. A trained medical technologist, she worked alongside him in the lab and at the Hutch Center.

Don Thomas leaves Dottie, two sons, and a daughter.

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References are in the version on bmj.com.

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Peter William Hayward

Former general practitioner Coventry (b 1929; q Cambridge/Guy's Hospital 1953), died from ischaemic heart disease on 15 July 2012.

On joining the Royal Army Medical Corps Peter William Hayward was posted to Sierra Leone and the military hospital at Daru. After national service he worked long hours to establish a successful general practice in his home town and earned a reputation as a knowledgeable and caring doctor. His easily recognised powerful voice helped to reinforce his advice to his patients. For many years Peter worked as an assistant to the dermatology department of the Coventry hospitals as well as doing part time occupational medicine, and for a time was doctor to Birmingham City Football Club. He was an enthusiastic golfer, gardener, and foreign traveller. He leaves his wife, Charlotte; two children; and three grandchildren.

Howel Jones

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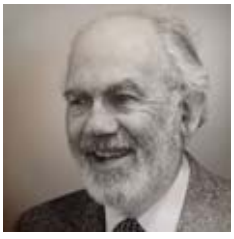
Colin Kaplan



Emeritus professor of microbiology Reading (b 1920; q University of Cape Town 1947; Dip Bact, FIBiol, FRCPath), died from pneumonia on 1 July 2012.

Colin Kaplan moved his family to England after the 1948 introduction of apartheid legislation in South Africa. He pioneered a programme to accelerate the production of freeze dried smallpox vaccine. In 1961 he began consulting for the World Health Organization; his work took him to India, Nepal, Thailand, Burma, Indonesia, and Sri Lanka, and he oversaw the global eradication of smallpox in 1977. In 1968 he'd taken the chair of microbiology at Reading University, where he remained until his retirement in 1986. In 1997 his book *Infection and Environment* was published to general acclaim, and he was one of the two founding editors of the *Journal of General Virology*. He leaves a daughter, two sons, and six grandchildren.

Jonathan Kaplan

Cite this as: *BMJ* 2012;345:e7452

Cyril Jacob Kaplan

Consultant orthopaedic surgeon and associate professor of orthopaedics Albert Einstein Medical College, New York (b 1917; q University of Cape Town 1940; MChOrth (Liverpool), FRCS Eng, FACS), died from pneumonia on 11 July 2012.

Cyril Jacob Kaplan helped establish and soon headed the orthopaedic department at No 10 military hospital in Haifa, treating casualties of the battles of Israel's war of independence in 1948. On returning to South Africa he started an orthopaedic practice in Durban, working also in reconstructive and corrective surgery in rural leprosy and tuberculosis hospitals. In 1967 he spent time at Professor John Charnley's centre for hip surgery at Wrightington Hospital, subsequently introducing the Charnley procedure to South Africa. In 1971 he took over the department of orthopaedics at the Hadassah Hospital in Jerusalem for some weeks, and in 1973 returned as a volunteer surgeon after the outbreak of the conflict known as the war of atonement. He worked alongside surgeons from Montefiore Medical School in the Bronx and in 1976 accepted their invitation to take up a clinical and academic post in the department of orthopaedics in New York. He returned to South Africa in the 1980s, then to New York in 1989, where he continued to work at Montefiore Hospital until his retirement in 2002. In April 2011 he decided to move back to Durban, his birthplace. He leaves his wife, Sylvia; three sons; a daughter; and two grandchildren.

Jonathan Kaplan

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Alan Colin Markland

Former urologist Medical University of South Carolina (b 1929; q Cambridge 1953; MD), died from a heart attack on 2 September 2012.

At age 24 I started a general practice in a small Canadian town. Five years later I started a urology residency at Mass General Hospital, followed by an academic year at Leeds, productive years at the University of Minnesota, a year in Burma (Myanmar), and three years at Louisiana State University. I then paused with a midlife crisis and was rescued by a programme for impaired physicians, which brought me to the happiest years as professor at the Medical University of South Carolina in Charleston. Wondering how it all passed so quickly? Final thoughts: "Rooster today, feather duster tomorrow"; through lots of effort and help, along with a little luck, "the journey was better than the arrival."

Alan Colin Markland

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Elwyn Roberts

Former general practitioner Bangor (b 1934; q Welsh National School of Medicine 1959), died from complications of Alzheimer's disease on 20th June 2012.

Elwyn Roberts was appointed as a partner at Llys Meddyg (later to become Bron Derw Surgery) in Bangor in 1964, where he remained until his retirement in 1994. The practice moved to larger premises in the early 1970s and grew as a training practice. Elwyn's enthusiasm inspired many young doctors to follow in his footsteps. His interests outside the practice included old cars and football. As the medical officer for Bangor City Football Club he travelled with them in their various ventures into European tournaments. He was a member of the Welsh Medical Society and a local Welsh Literary Society. He leaves his wife, Anne; two children; and two grandchildren.

David Jones, Anthony Vaughan

Cite this as: *BMJ* 2012;345:e7459

Jose A Socrates

Orthopaedic surgeon (b 1948; q Manila 1974; FRCS Edin), died from a heart attack while swimming on 23 September 2012.

In 1977 Jose Antonio Socrates ("Doc Soc") joined the United Nations as a volunteer and did not return to the Philippines until 15 years later. During this time he had acquired a medical licence, trained in the United States, and worked in the UK. In Ipswich he was shown the non-operative methods of fracture care that he put into practice later. In 1990 his UK hospital consultants formed the British Palawan Trust, whose main objective was to provide health services for the people of Palawan (the third largest island of the Philippines), in particular orthopaedics and rehabilitation, and especially to patients who could not otherwise afford them. Soc treated thousands of patients over the years, and gained many honours. He leaves his wife, Cecile; a daughter; and a grandson.

Louis Deliss

Cite this as: *BMJ* 2012;345:e7464

Thomas Glyn Thomas

Consultant orthopaedic surgeon Canterbury and Dover (b 1925; q Guy's Hospital, London 1951), died from carcinoma of the large bowel on 9 August 2012.

Thomas Glyn Thomas trained at the Royal National Orthopaedic Hospital and spent a year in Nairobi. He became consultant to Canterbury and the South East Kent Health Authority in 1965 and worked there until 1991. He served on the cases committee of the Medical Protection Society and was a founder member of the Expert Witness Society, secretary of the British Orthopaedic Association in 1980, president of the orthopaedic section of the Royal Society of Medicine in 1985, and president of the British Orthopaedic Foot Surgery Society. He joined several local choirs and produced excellent drawings and watercolours, as well as being active in the local branch of the Council for the Preservation of Rural England. He leaves two daughters and two sons.

Brian Andrews, Leslie Klenerman

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