

Richard J Bing

Cardiologist, composer, and writer who fled Nazi Germany

Medical research and composing music were two of the great pleasures of Richard Bing's long life. And both pursuits, he believed, shared a similar goal. "Medical research and music have in common the drive to create," he explained in short documentary film about his life, *Para Fuera*, commissioned by Microsoft and shown last year at the Sundance Film Festival. "The desire to create is really a desire to see something that has been invisible."

Robert T Goldweber, a long time friend, said, "I believe music and medicine were two integrated parts of Richard's life. He needed them both to exist." Dr Goldweber, residency director at the department of emergency medicine at Huntington Memorial Hospital in Pasadena, said that Dr Bing was pleased when his papers were published but added, "I personally believe he was most thrilled when one of his pieces of music was played, whether in a European cathedral or in a church in Pasadena—or in his home."

But while Bing composed more than 300 musical scores, he wrote more than 500 research papers, the first in 1938 for *Science* magazine, a thrill that solidified his desire to pursue medical research. By the late 1940s, working alongside the globally renowned cardiologists Alfred Blalock and Helen Taussig at Johns Hopkins Medical School in Baltimore, he was composing a steady stream of groundbreaking diagnostic papers on a wide variety of heart diseases.

Taussig-Bing syndrome

He founded the school's cardiac catheterisation laboratory, the first in the United States to focus on congenital heart disease. His protocols led to the first analyses of oxygen content of blood in the heart, and he was first to define the pathophysiology of many congenital heart disease. Altogether, he characterised 20 cardiac malformations, including Taussig-Bing syndrome.

His lifelong fascination with metabolism of normal and diseased human hearts began when a catheter was inadvertently inserted into a coronary sinus. He realised that the deoxygenated blood samples taken from the coronary sinus would allow measurement of arteriovenous differences of substrates and metabolites across the human heart.

In 2000, 49 years after he had left Johns Hopkins, the then 90 year old Bing returned to Baltimore to receive an honorary degree for being

"one of the great cardiologists of our time" and "in recognition of a life spent as healer of the heart through both science and music."

Richard John Bing died in November aged 101 at home in La Cañada Flintridge, California. He was born on 8 November 1909 in Nuremberg, Germany. His father was a hops merchant, his mother a singer. He learnt piano at a young age and started composing as a child but opted to study medicine at universities in Vienna, Berlin, and Munich. In 1934, a year after Adolf Hitler took power, he earned his medical degree in Munich. Already sensing the risk of being Jewish in Nazi Germany, he left for Bern, earning in 1935 a second medical degree in case his German degree was revoked or not recognised by other nations.

He moved to Carlsberg Biological Institute in Copenhagen, where he met Nobel prize winner and cardiac surgeon

Alexis Carrel and famous aviator and inventor Charles Lindbergh. This unlikely duo was demonstrating its new perfusion system for keeping organs alive outside the body. Bing, who spoke Danish and English, was recruited to be their translator. They helped him obtain a stipend at Rockefeller Institute in New York, where he spent a year working with them on the "Lindbergh apparatus," on which his 1938 paper focused. The same year he married Mary Whipple, daughter of renowned surgeon Allen O Whipple.

After a surgical internship in New York, he taught at the College of Physicians and Surgeons at Columbia and then at New York University under physiologist Homer Smith. In 1942 he moved to Johns Hopkins to complete his residency and obtain his medical licence, allowing him in 1943 to join the US Army Medical Corps as a captain, rising to lieutenant colonel.

He returned after the war to Johns Hopkins, staying until 1951, when he moved to the University of Alabama to direct its cardiac clinic. In 1956 he moved to St Louis as director of Washington

University's Veterans Administration Hospital and in 1959 to Detroit as chairman of the Department of Medicine at Wayne State University's school of medicine.

Despite administrative duties, he continued to conduct research and publish papers, including working with his wife's cousin, George Clark, a Massachusetts Institute of Technology physicist. They developed positron emitters to determine

coronary blood flow and produce heart images, helping lay the foundation for modern scanning with positron emission spectroscopy.

In 1969 Bing moved to Huntington Medical Research Institutes (HMRI) in Pasadena as director of experimental cardiology, also taking appointments at the University of Southern California school of medicine, Huntington Memorial Hospital, and the California Institute of Technology. As he

approached his 100th birthday, he continued to spend time in the laboratory and to mentor young doctors, regularly publishing papers until 2008.

Life and soul of the party

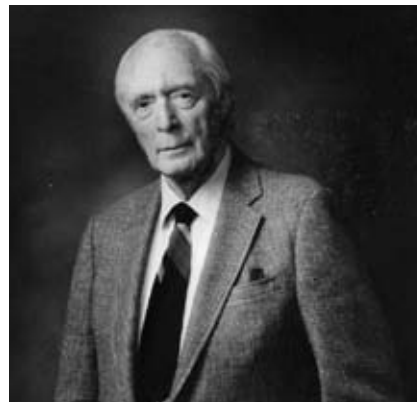
Brian Ross, formerly of Oxford University and now director of clinical magnetic resonance at HMRI, first met Bing in the 1960s when a doctoral student at Oxford. "Richard Bing was a consummate research scientist . . . charming at every level, cultured, sophisticated in conversation, and life and soul of the party—any party, old or young," he said.

Just three weeks before his death, Bing celebrated his 101st birthday at home with a performance by a quartet of members of the Los Angeles Philharmonic Orchestra. His wife of 52 years died in 1990, and a daughter in 1999. He leaves behind a second daughter and two sons.

Ned Stafford

Richard John Bing, cardiologist (b 1909; q 1934, Munich), died 8 November 2010 after having heart disease.

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Michael Alan Gilbert



Former general practitioner Southampton (b 1930; q St Andrews 1955; MRCP), died from Alzheimer's disease and prostate cancer on 19 June 2010.

Michael Alan Gilbert started general practice in 1958 after two years in Hong Kong on national service. An enthusiastic practitioner and clinical teacher, he worked for 34 years in Southampton, training 12 general practitioners in 12 consecutive years, several of whom are now partners. Dental anaesthetics, police work, and port health were among his special interests. He was chair of Southampton district GP committee in 1959 and president of Southampton Medical Society in 1988. He was awarded fellowship of the BMA in 1989 for his service to medicine and long participation in voluntary medical representative work. He leaves a wife, Diana; four children; and 10 grandchildren.

Helen Finch

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John Humphreys



Former consultant surgeon Southport General Infirmary (b 1925; q Liverpool 1948; TD, FRCS, FRCSEd), d 1 September 2010.

After qualifying, John Humphreys was a doctor in the West African Frontier Force in Ibadan, Nigeria (1950-2), where he wrote several papers on tropical medicine. On

his return to Britain he trained as a surgeon in Liverpool. After two years of research at the Mayo Clinic in Minnesota (1957-9), he was appointed consultant general surgeon in Southport (1961-90). He examined for 10 years for the Edinburgh college. Particularly interested in military medicine, John became lieutenant colonel in the Territorial Army Medical Services and in this capacity did locums overseas, including Hong Kong. After retirement he continued as a magistrate in Southport and Liverpool. He leaves two children and three grandchildren; his wife, Marjorie, died a few weeks after him.

Jane Cowan

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Ronald Dennis Martin



Former general practitioner Newquay, Cornwall (b 1933; q The London 1957; MRCP, DA, DOBst), died from prostatic cancer on 8 February 2010. After house jobs, Ronald Dennis Martin ("Ron") did national service in the Royal Army Medical Corps in Germany, where he learnt anaesthesia. He then trained in obstetrics before becoming general practitioner and police surgeon in Newquay for over 30 years, mostly in singlehanded practice. He was one of the first to pass his MRCP, and became a training practice. In winter Ron enjoyed riding and fox hunting, often taking his morning surgery in riding gear to go straight to the meet. In summer he loved dinghy sailing, in retirement gaining his mate's certificate, and being ship's doctor on the last Royal Mail steamer serving Saint Helena. He leaves a wife, Shirley, and two sons.

David Hamblen

Bruce Martin

Cite this as: [BMJ 2011;342:d150](#)

Michael Ward Mills



Former general practitioner Kingstanding, Birmingham (b 1925; q Edinburgh 1948), d 9 May 2010. After qualification, Michael Ward Mills did national service in the Fleet Air Arm based at Donibristle. He then worked in general practice in Penrith and Liverpool before setting up in Kingstanding, Birmingham, where he worked for 41 years, singlehandedly for all but the last few years. Chair of Birmingham Local Medical Committee during 1982-6, he held several offices in the Birmingham branch of the BMA, and worked for many years on Birmingham Family Practitioner Committee, ensuring the quality of out of hours services. He was also honorary treasurer of the BMA Midland Regional Council and chair of the BMA's benevolent Dain Fund. He leaves a wife, Elizabeth; three children; and six granddaughters.

Joanna Leach

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John Bernard Penry



Former consultant radiologist Southmead and Ham Green Hospitals, Bristol (b 1931; q Cardiff 1957; FRCR), d 6 October 2010. John Bernard Penry ("Bunny") studied chemistry for two years before changing to medicine, qualifying with distinction in surgery. After house jobs, he trained in radiology at Bristol Royal Infirmary, being appointed

consultant in Bristol in 1965. Although a generalist, Bunny was a skilled, innovative, and interventional radiologist, affectionally known as the D'Artagnan of the x ray department. His experience in the radiology of the kidney was wide, and he was instrumental in developing a lithotripsy service in Bristol. His many interests and hobbies included photography, sailing, golf, and stamp collecting. After his retirement in 1992 he became an accomplished water colourist. He leaves a wife, Elizabeth; three daughters; and five grandchildren.

Michael Roberts

Campbell Mackenzie

Cite this as: [BMJ 2011;341:d154](#)

Richard John Pugh



Former consultant paediatrician Hull Royal Infirmary, East Yorkshire (b 1921; q Birmingham 1945; MRCP), d 8 October 2010.

On qualifying, Richard John Pugh ("Dick") became a squadron leader in the Royal Air Force and was stationed in Germany for two years. He then trained as a paediatrician at Great Ormond Street, London. After six years as senior lecturer in Leeds at Leeds General Infirmary and St James's Hospital, he became consultant in Hull, where he opened a unit for treating and studying childhood developmental disorders. He also loved working with premature babies in intensive care. He was an early assessor of childhood neglect and abuse, giving evidence in the courts. Passionate about teaching, he played a large part in setting up the postgraduate centre for medical education in Hull. He leaves a wife, Elizabeth; four children; and 11 grandchildren.

Kate Pugh

Cite this as: [BMJ 2011;342:d148](#)