

## Cecil Hougie

Discoverer of congenital deficiency in the blood coagulation factor X

Cecil Hougie, the world renowned coagulationist, has died suddenly in La Jolla, California, aged 87. His account of the discovery and identification of the clotting factor X defect in a US patient, Rufus Stuart, in 1955 is described in his readable 2004 historical monograph *Thrombosis and Bleeding: An Era of Discovery*. The inherited deficiency is found in one of every 500 000 to one million people and causes abnormal bleeding. In its preface he poignantly writes, "The book not only tells the story of remarkable discoveries, but it is also about the scientists that made them: their dedication, idealism, perseverance, enthusiasm, painstaking work and sometimes genius. There are few if any scientists who, at some time or other, have not made a scientific error."

Wikipedia's entry for factor X states, "American and British scientists described deficiency of factor X independently in 1953 and 1956, respectively" ([http://en.wikipedia.org/wiki/Factor\\_X](http://en.wikipedia.org/wiki/Factor_X)). As well as having the wrong date, this does not recognise the precedence of Hougie's discovery, which was in 1957. The existence of an additional clotting factor in normal serum, different from factor VII, was suspected in both Oxford and the Chapel Hill centre of the University of North Carolina but had not been proved.

### Russell's viper venom

In the year before Hougie made the discovery, which was published in the *Journal of Clinical Investigation* (1957;36:485-96, doi:10.1172/JCI103446), a report had come from Oxford that described a coagulation defect in a patient named Audrey Prower. This differed from Stuart in that the Prower clotting defect was stated to be corrected by the coagulant Russell's viper venom. The conclusion, therefore, was that these were two different coagulation defects.

Further work at Oxford after Hougie's paper was published showed that their original description was incorrect, and the viper venom test was in fact prolonged. As a result the Stuart and Prower defects were shown to be identical. This Stuart-Prower abnormality was subsequently renamed congenital factor X deficiency by the International Nomenclature Committee. Factor X was then shown to be essential for normal blood clotting by both the intrinsic (blood) and extrinsic (tissue) clotting systems.

At Chapel Hill, with the encouragement of Dr K M Brinkhous, Hougie published many further reports on clotting factors, their development, and their interactions. These included contributions on the nature of hypercoagulable states and coagulation defects, at a time when substantial advances were being made.

### Founding faculty member

He taught at the University of Virginia and at the University of Washington in Seattle. In 1968 Hougie moved to the University of California in San Diego. There he was appointed professor of pathology and was a founding faculty member and ultimately professor emeritus of the medical school. He was the first director of the special coagulation laboratory of the Medical Center at the University of California in San Diego, and he inspired generations of medical students and residents, many of whom subsequently pursued careers in academic medicine.

During his career Hougie wrote several books, including *Fundamentals of Blood Coagulation*, and more than 300 published papers. In the new rapidly expanding discipline of blood coagulation research of the 1950s, he was greatly encouraged by the world renowned Oxford coagulation director, Professor R G Macfarlane, assisted by Dr Rosemary Biggs.

Hougie was born in Manchester, England, on 29 October 1922. He was a pupil at the Manchester Grammar School, graduated in medicine from London in 1947, and trained in pathology in London. He left the UK in 1955 for the University of North Carolina as part of the medical exodus to the United States.

Cecil was a lifelong keen golfer and a regular tennis player well into his 80s. He was also a ded-

icated and excellent fisherman and would launch his skiff from the impressive beach adjacent to his house at La Jolla. From there he regularly fished for Pacific salmon and large white sea bass. One outcome was that he published in the medical

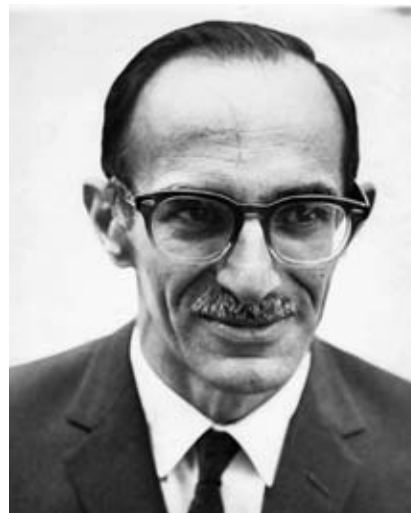
press several reports on fish blood samples that he acquired during these expeditions. They included description of coagulation changes among healthy and sick Pacific salmon that he caught in British Columbia every year and studies of the coronary artery changes in spawning Pacific salmon and steelhead trout. He also maintained his lifelong interest in the United Kingdom, reading the online edition of the *London Times* daily at his home and visiting colleagues, friends, and relations in England and Scotland at least annually until his 86th year.

He leaves his wife, Barbara, a former UK physiotherapist to whom he was married for almost 60 years, and his son, Christopher.

**Leon Poller** [leon.poller@manchester.ac.uk](mailto:leon.poller@manchester.ac.uk)

Cecil Hougie, coagulationist (b 1922; q 1947, London), died on 18 April 2010 from a perforated duodenal ulcer after having chronic lymphatic leukaemia for many years.

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**He regularly fished for Pacific salmon and large white sea bass. One outcome was that he published in the medical press several reports on fish blood samples that he acquired during these expeditions**

### ADVICE

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## John Alexander Aitken



Former consultant in geriatric medicine Clatterbridge Hospital, Wirral (b 1929; q Edinburgh 1952; MD, FRCPEd, MTheol), died from pulmonary fibrosis on 3 August 2010. Six months after qualifying, John Alexander Aitken became a medical missionary in Nyasaland. He then specialised in Belfast under George Adams, a founder of geriatric medicine, and was consultant in Clatterbridge from 1965 until retirement in 1989. He developed a comprehensive geriatric service, including a well respected service for Parkinson's disease, and led the development of a hospice and a charitable nursing home for long term care. He also founded the postgraduate centre, supervising many registrars who later led the specialty in the UK. He was a church elder and commissioner for lay preachers, gaining his theology masters degree in retirement. He leaves a wife, Madge; three children; and four grandchildren.

**Christopher Turnbull**

Cite this as: *BMJ* 2010;341:c5191

## Irving Gilbert



Former consultant physician Basildon, Orsett, and Billericay Hospitals, Essex (b 1916; q The London 1940; MD, FRCP), died from prostate cancer on 20 July 2010. Born Israel Gelbart in London, Irving Gilbert entered medical school as a Price intercollegiate scholar, and won the Letheby prize for organic chemistry. He married in 1942 and

two days later joined the Royal Army Medical Corps in India, returning more than three years later. After the second world war he worked at the London Jewish, Lambeth, Billericay, and Orsett Hospitals, becoming consultant in 1954. He was skilled with the Hermon-Taylor rigid gastroscope and was among the first to use flexible gastroscopes. He retired in 1981, and in 2007 moved to a Nightingale home, where his good humour and spirit shone through. Predeceased by his wife, Nettie, in 2006, he leaves two children and six grandchildren.

**Esther Rosten**

**Jonathan Gilbert**

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## Philip William Hutton



Former physician specialist Uganda Medical Service, and consultant geriatrician New Cross Hospital, Wolverhampton (b 1908; q Cambridge/The London, 1935; MD, FRCP), died from congestive heart failure on 20 April 2010. One of the oldest and longest subscribed members of the BMA (since 1934), Philip William Hutton played a key part in developing medical services and medical education in Uganda. He joined the Government Medical Service in the Uganda Protectorate in 1937, remaining until independence in 1961, and he was founding lecturer in physiology at what is now Makerere University. On returning to Britain, he was consultant geriatrician in Wolverhampton until 1973. He improved geriatric services over a few years from what he described in the *BMJ* as "desperate and irremediable" to "manageable." Predeceased by his wife, Winifred, and two daughters, he leaves two children and five grandchildren.

**Sarah Hutton**

Cite this as: *BMJ* 2010;341:c5085

## Emma Maloney



Consultant paediatric anaesthetist Derriford Hospital, Plymouth (b 1968; q Oxford 1993; FRCA), died from colorectal cancer on 5 July 2010. Emma Maloney threw herself with her trademark exuberance into student life at Oxford, particularly rowing. After training in anaesthesia in London, Edinburgh, and Sheffield, she became interested in paediatrics and did further subspecialty work at the Children's Hospitals in Manchester and Auckland. She was appointed to her "dream job" in Devon in 2008 but was almost immediately diagnosed with cancer. Despite gruelling treatment, she never returned to the job she enjoyed so much and did so well. Family and friends were by far the most important parts of Emma's life. By her own admission, she had little interest in academia. Instead she had a quick-witted intelligence and broad general knowledge, not to mention a glorious soprano voice. She leaves a husband, Robin, and two sons.

**Simon Yarrow**

Cite this as: *BMJ* 2010;341:c5193

## David Russell Powell



Former consultant cardiothoracic anaesthetist Northern General Hospital, Sheffield (b 1940; q Sheffield 1968; FRCA), died from prostate cancer on 30 June 2010. David Russell Powell ("Russ") played a major part in the evolution of cardiothoracic anaesthesia as a specialty in Sheffield, developing paediatric and heart lung

transplantation services. He was a founder member, later honorary life member, of the Association of Cardiothoracic Anaesthetists. Russ became the first medical director of the Northern General Hospital Foundation Trust, a post he held with distinction for seven years. In 2005 he took semi-retirement to concentrate on his role as clinical director of NHS professionals. A proud Welshman and keen sportsman, his many passions included rugby and fast cars. He leaves a wife, Jill, and a son from his first marriage.

**G K Davies**

**G Hood**

**J E Hunsley**

Cite this as: *BMJ* 2010;341:c5083

## John Smith



Former deputy chief medical officer Scottish Home and Health Department (b 1913; q Cambridge/Glasgow 1938; OBE, FRCPs Glas, FRCPEd, FFFPM), d 10 August 2010. John Smith wrote the medical orders for the D-Day landings, and planned the move of 34 000 hospital beds from France to Belgium. The youngest full colonel in the RAMC in 1945, he was responsible for disbanding the Wehrmacht medical services in the British Zone. He was mentioned in dispatches, appointed OBE in 1945, and given Belgium's highest honour in 1947. In 1947 he joined the Department of Health for Scotland in a hospital services team preparing for the coming health service. He remained in the Scottish Office until retirement in 1975. The church was important to him, and he was an elder and session clerk. Predeceased by his wife, Elizabeth, and by one son, he leaves four children and seven grandchildren.

**Iain S Macdonald**

**Michael F Smith**

Cite this as: *BMJ* 2010;341:c5184