

Illustrations from the Wellcome Institute Library

The Strangeways Research Laboratory: Archives in the Contemporary Medical Archives Centre

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The Strangeways Research Laboratory, Cambridge, an independent research institution of world-wide renown, was founded as the Cambridge Research Hospital in 1905. The Contemporary Medical Archives Centre at the Wellcome Institute holds the important archive of the Strangeways itself (which includes papers of its founder, Thomas Strangeways Pigg Strangeways, 1866–1926), and also the papers of the Director from 1929 to 1970, Dame Honor Bridget Fell (1900–1986), and of the radiologist Frederick Gordon Spear (1895–1980), Deputy Director from 1931 to 1958, as well as a smaller group of papers of Alfred Glucksmann (1904–1985), who worked at the Strangeways. There is, additionally, a group of files among the papers of Sir Peter Medawar (1915–1987) reflecting his involvement as one of the trustees of the Strangeways between 1962 and 1985. Honor Fell's correspondence with Sir Edward Mellanby and other collaborators in their joint research on the effects of Vitamin A on skeletal development is to be found among the Mellanby papers.¹

The laboratory was the brainchild of T S P Strangeways, demonstrator and later lecturer in Pathology at Cambridge. He was convinced that the knowledge of disease could best be advanced by studying it as it occurred within the living human body, and determined on investigating rheumatoid arthritis and allied conditions. Largely funded by himself, with support from colleagues, a research hospital was opened in 1905. A Committee for the Study of Special Diseases was set up to support the work by participating in the research and in raising money: over the years the Trustees included several distinguished medical men, such as Sir Clifford Allbutt, Sir Thomas Barlow, Sir Walter Morley Fletcher, Sir Victor Horsley, Sir Charles Martin, Sir William Osler and Sir Humphry Rolleston. Patients were not charged fees but most, grateful for the care and attention, gave donations on leaving. Strangeways also maintained relations with other hospitals for the purposes of obtaining data on rheumatoid patients.

Due to lack of funds, the hospital was forced to close in 1908, but re-opened the following year. An appeal for building larger premises was launched (Figure 1) and in 1912 these were opened as the Cambridge Research Hospital (during the First World War this served as a small hospital for officers, financially supported by Otto Beit, resuming

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¹ Papers of Sir Edward and Lady Mellanby, CMAC: PP/MEL/B.37, 39, 40.



Figure 1: From *The Begging Book* presented to Strangeways, in CMAC: PP/FGS/C.2.



Plate 1: Staff and visitors, Cambridge Research Hospital, 1924. Back row: J A Andrews, H B Fell, V C Norfield, J G H Frew; front row: F G Spear, T S P Strangeways, R Chambers, R G Canti, CMAC: PP/HBF/E.15.



Plates 2 (a) and (b): Exterior of the Strangeways and interior of one of the labs, CMAC: PP/HBF/F.15.

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research investigations in 1917). In 1923 it was decided that clinical research could be better undertaken in a larger hospital and this side of the work was transferred to St Bartholomew's Hospital, London.

After nearly two decades of investigation, Strangeways concluded that research on rheumatoid arthritis was being impeded by lack of knowledge of the physiology of the cells of the joints. He therefore reorientated his research interests to the study of living cells by means of tissue culture *in vitro* and *in vivo*, and became one of the pioneers of this new technique. He gathered around him a group of researchers to undertake detailed study in this field (Plate 1).

There are three boxes of Strangeways' own papers (or material pertaining to him) among the archive (CMAC: SA/SRL/A): these include some correspondence (including letters from the 1914–1917 period of the Hospital's existence as a convalescent hospital), and some research notebooks of his work on cell biology.

Strangeways died prematurely in 1926, and there was some doubt as to whether an institution so closely associated with one man could continue after his death. Honor Fell and F G Spear, however, fought to keep it open, pointing out that it was the only institution in the country devoted to cell biology. The Trustees decided at a meeting in January 1927 to prolong its existence as a "centre of pure science . . . pursuing its own investigations into the fundamental laws of living matter". The Medical Research Council was prevailed upon to continue and increase its support, but initially only on a temporary basis. In 1928 Honor Fell, still under thirty, who had already been working with Strangeways for some years, was appointed Director and it was decided to rename the hospital "The Strangeways Research Laboratory" as a permanent memorial to its founder (Plates 2 (a) and (b)).²

A great advantage of the appointment of Fell as Director, in spite of her comparative youth, was that she did not need a salary. Initially funded by a Beit Memorial Fellowship (the archives of the Beit Memorial Fellowships are also in the CMAC), she was subsequently supported by Royal Society Research Fellowships, and ultimately a Royal Society Professorship. Funding for the work of the Laboratory became available from a variety of sources, including the Medical Research Council in continuation of previous support, and it received a substantial bequest from its longstanding friend, Sir Otto Beit. The researchers who worked at the Strangeways were never paid from Laboratory funds but obtained funding from a wide variety of sources. The Strangeways was run on a shoestring, eased by occasional larger grants from the Rockefeller Foundation, the Nuffield Foundation, the Royal Society and the Wellcome Trust, most of which were designated for particular projects such as the purchase of an electron microscope or building extensions. Other bodies which gave significant support over the years were the Medical Research Council, the Sir Halley Stewart Trust, the Colonial Office and the East Anglian Regional Hospital Board.

In spite of this financial exigency, the Laboratory had an international reputation in the field of cell biology, although their achievements were not quite as sensational as the imagination of a journalist from the *Sunday Dispatch* made them out to be early in 1935. Honor Fell wrote to Sir Henry Dale in some agitation to tell him that the journalist had

² *History of the Strangeways Research Laboratory (formerly Cambridge Research Hospital), 1912–1962*, in archives of the Strangeways, CMAC: SA/SRL/J.3.

told her that “Two stories are circulating (a) that we are on the point of creating life and (b) that we are about to grow babies in bottles.” The Editor of the *Sunday Dispatch*, in view of the currency of these stories, refused to believe Fell’s denials and was anxious to scoop competing newspapers with the full account.³ Though no cutting of this particular story can be found in any of the collections, F G Spear’s files of memorabilia include a number of cuttings giving a rather similar populist view of what was being done at the Strangeways. In March 1936 the *Daily Express* claimed “Woman Scientist Cultivates Life in Bottles”, while in the following year the *Daily Mirror* returned to the “Babies in Bottles” motif in a brief allusion to Petar Martinevitch’s work on culturing sex-glands. In April 1938 *Titbits*’ full-page article by Norah Burke, ‘Could You Love a Chemical Baby?’, referred to work by Fell and her colleagues Miss S Glasstone and Miss Fischmann in tissue culture.⁴

Martinevitch was Yugoslavian, one of many researchers from all over the world who sought to spend some time at the Strangeways studying the techniques it had pioneered. Because of the restricted space and facilities there was often a waiting list, and researchers were sometimes startled to find that they were expected to engage in a range of tasks including the washing of equipment and routine preparation of specimens. British Commonwealth researchers came from Australia, the British West Indies, Canada, India, Kenya, Malaya, and Uganda. Within Europe scientists came from Austria, Belgium, Czechoslovakia, France, Germany, the Netherlands, Hungary, Italy, Norway, Poland, Portugal, Sweden, Switzerland and Yugoslavia. Scientists from the USA, Argentina and Brazil, as well as from the USSR, Israel, Turkey, China and Japan, came to pursue their studies at this small Cambridge institution. Numerous distinguished British scientists who spent at least some time working at the Strangeways included Lord Florey, Sir Peter Medawar and Sir Francis Crick (Figure 2).⁵

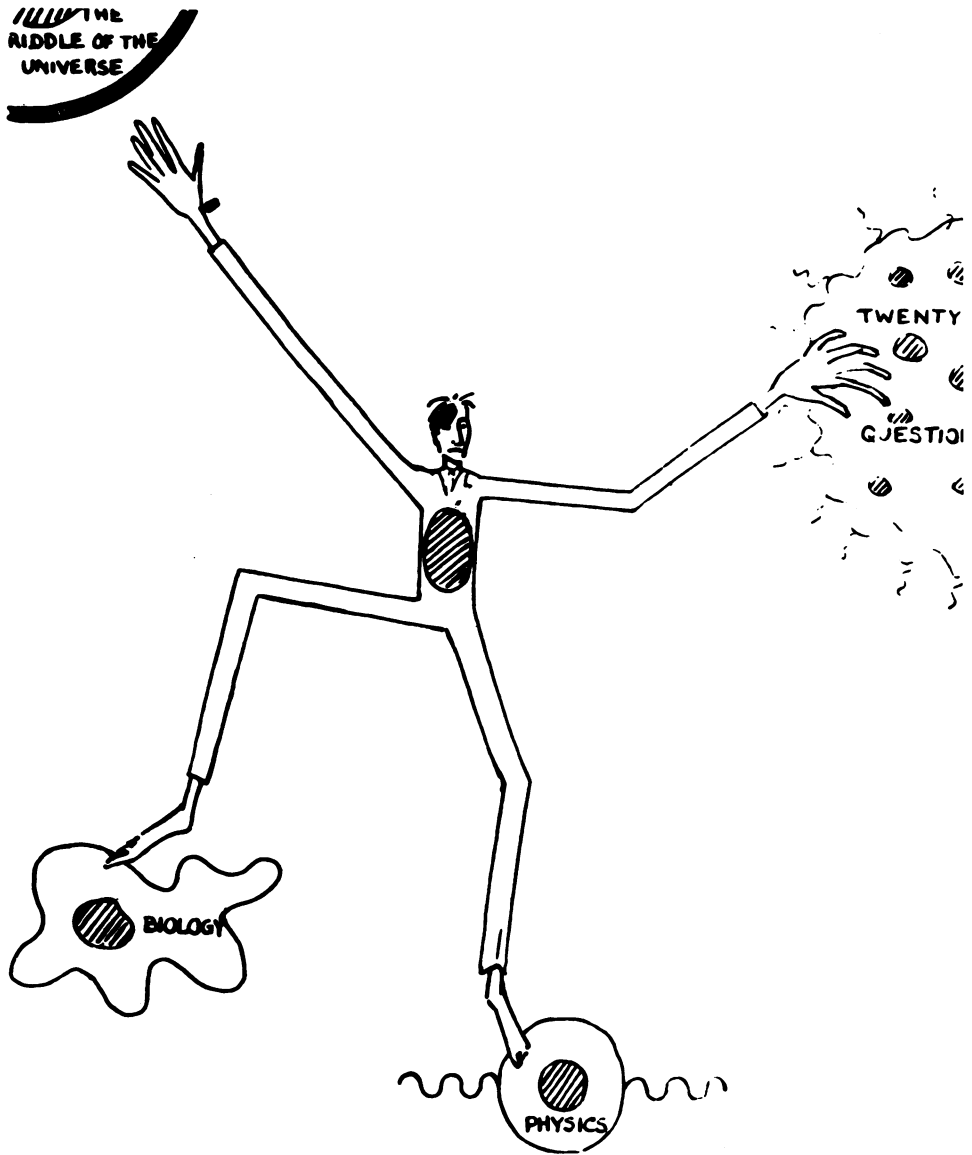
The archive of the Strangeways is not complete, though sometimes the material is supplemented by that in the Fell and Spear papers: for example, although there is no complete set of Annual Reports in the archives of the Laboratory, the gap is largely filled from the sets retained among Spear’s papers (CMAC: PP/FGS/C.43–45). Minutes of the Trustees’ Annual Meetings, 1928–1971, survive, and there is correspondence between the Trustees and Governors and Honor Fell of an official nature, 1929–1970, and less formal and/or confidential, 1960–1970 (CMAC: SA/SRL/C.1–22). Sir Peter Medawar’s own files of correspondence and minutes as a Trustee cover the period from 1962 to 1985 (CMAC: PP/PBM/B.3–8).

The Strangeways archive contains a substantial amount of material on funding matters, perhaps reflecting the fact that money was so short that it needed careful control. There are two boxes plus an outside volume of account books and ledgers (CMAC: SA/SRL/D.1–21), and six boxes of correspondence with funding bodies (and related material): in some cases these files include requests for Honor Fell to referee other applicants for support (CMAC: SA/SRL/E.1–89).

³ Trustees correspondence, Honor Fell to Sir Henry Dale, 4 Feb. 1935, CMAC: SA/SRL/C.4.

⁴ Papers of F G Spear, Strangeways memorabilia, 1936, 1937, 1938, CMAC: PP/FGS/C.17–19.

⁵ CMAC: SA/SRL/J.3.



THE DENCRITIC CELL

Figure 2: An impression of how the young Francis Crick struck his colleagues. CMAC: PP/FGS/C.29.

There are seven boxes of general correspondence, which, however, does not constitute a complete series, running as it does from 1942 to 1947, 1954 to 1956, and 1965 to 1970 (CMAC: SA/SRL/G.1–79). This correspondence includes that of Honor Fell in her capacities other than as Director of the Strangeways: for example, there are three files of the letters she received from Sir Edward and Lady Mellanby and other associates about joint Vitamin A research, 1949–1956 (CMAC: SA/SRL/G.17–19), complementing material in the Mellanby papers.⁶ There is a small group of files on miscellaneous administrative matters (including problems over the supply of feed for research animals during rationing, 1943–1953, and the Visitors' Book, 1928–1963) (CMAC: SA/SRL/F.1–12), and a further box of material on various matters which does not fit into any of the aforementioned sequences: this includes material on collaborative research with Professor John Ryle into wound healing and treatment of fracture, 1939, contacts with India, and visiting scientists from other countries (CMAC: SA/SRL/H.1–13). There is also a section of "Historical" material (CMAC: SA/SRL/J.1–27).

Embedded within the Strangeways archive are some small groups of papers of scientists who worked there, including correspondence (1938–1947), notes, reprints and personalia of C Robinow (CMAC: SA/SRL/K.1–5), Dr E M Brieger's correspondence with the Leprosy Research Fund, and some notes (CMAC: SA/SRL/K.6–9), and a little material of Professor Michael Abercrombie, who succeeded Honor Fell as Director (CMAC: SA/SRL/K.10–11) (Abercrombie's own papers are in the CMAC but have not yet been catalogued). There are also three volumes of records of the National Radium Commission, 1932–1943, including Minutes of the Gramme Unit Committee from 1932 to 1937 (CMAC: SA/SRL/L). Additional records of this body are to be found among the Spear papers and in the records of the Medical Research Council Cyclotron Unit (CMAC: SA/MCU); the papers of Constance Wood (CMAC: GC/95) are also of relevance. The "Historical" section of the Strangeways archives includes the research files of Professor G E H Foxon, 1975–1982, which relate particularly to Strangeways himself and to R G Canti's important pioneering work during the 1930s in the cinematography of cell development (CMAC: SA/SRL/J.4–13). There is also a group of files on the history of the SRL compiled by Dr Audrey Glauert (CMAC: SA/SRL/J.23–25).

Honor Fell continued throughout her lengthy tenure as Director to pursue an active and significant research career of her own as well as undertaking the burdensome administrative duties of directorship of an institution which lacked the resources to employ staff solely for routine administrative tasks. She was a leading cell biologist with an international reputation in her own right, specializing in observing through organ culture the effects of various substances upon the cells of bones, cartilage and other tissues. Her technical adeptness in the field of organ culture was often remarked upon, as well as her intellectual capacity to put this technique to the service of interesting and important scientific problems.⁷ As she pointed out in a letter to Professor H R Dean, one of the Trustees, in 1947

The elements of tissue culture are deceptively easy to learn, but to apply the technique successfully to a specific problem is usually extremely difficult and demands much technical experience.⁸

⁶ see note 1 above.

⁷ *Biographical memoirs of Fellows of the Royal Society*, vol. 33, London, Royal Society, 1987, pp. 235–59.

⁸ Trustees correspondence, Honor Fell to Professor H R Dean, 1 Dec. 1947, CMAC: SA/SRL/C.6.

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She collaborated with a wide range of clinicians, radiobiologists, electron microscopists and biochemists.

Her papers relate largely to her activities separate from her responsibilities as Director of the SRL, although they do include her correspondence with, and reports to, the Royal Society, which funded her during nearly all her period in this post. The collection includes research notebooks from the 1920s to 1986, her writings, files on her connections with other bodies both in the UK and abroad, and concerning her activities following her retirement from the Directorship of the SRL (in 1979 she returned to pursue her research at the Strangeways, and was working at her bench on new problems until very shortly before her death).

Among the bodies with which she was associated were the Society for the Protection of Science and Learning and the Medical Research Council Biophysics Research Unit at King's College London. Her overseas connections included the USA and several European societies, and she visited both India and Japan during the 1960s. She was also concerned about scientific careers for women, an interest which is reflected in her correspondence (for example, in the Strangeways files relating to visits by schoolgirls to the Laboratory) and in her writings, and it should be borne in mind that she sponsored the careers of a number of women scientists at the Strangeways.

The papers of F G Spear contain two and half boxes relating to his pioneering radiobiological work at the Strangeways: these are further classified into research notebooks, a file of 'Radiological Memos', and folders of demonstration material on tissue culture and *in vivo* work in cell biology. Spear's papers also incorporate five boxes of historical material and memorabilia on the Strangeways: these include annual reports from 1929 to 1950, and radiological reprints by Strangeways' staff. His writings include published and unpublished material on his work at the Strangeways, some of them in collaboration with other individuals working there. His papers also reflect his relations with other bodies, principally the British Institute of Radiology, of which he was President, 1961/2.

Dr Alfred Glucksmann (1904–1985) was one of a number of scientists who fled from Germany during the 1930s and came to work at the Strangeways, along with his wife Dr Ilse Lasnitzki. The Strangeways experienced considerable difficulties when war broke out and "enemy aliens" taking an essential part in the activities of the Laboratory were either interned or placed under severe restrictions. Glucksmann himself was shipped off to Canada in July 1940, even though representations were concurrently being made about his significant contributions to the Strangeways wound-healing research, which was of national importance.⁹ This problem was exacerbated by additional restrictions imposed as a concomitant of secret Government work for the Chemical Defence Research Department of the Ministry of Supply being undertaken by Fell and Dr Allsop: three young German-Jewish women who had been working with Glucksmann had to work inconveniently at home rather than in the Laboratory itself.¹⁰ Freeing the scientists from internment was not the end of the problem, and in 1943 Sir Henry Dale intervened in order to obtain deferment of call-up for military service of Dr Werner Jacobsen, pointing out that

⁹ Trustees correspondence, Honor Fell to Dr Malcolm Donaldson, 12 and 16 July 1940, CMAC: SA/SRL/C.3.

¹⁰ Fell to Dale, 25 Sept. 1940, CMAC: SA/SRL/C.4.

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his employment, at the present time, in HM Forces, for combatant service to which he is not particularly suited, would entail a serious loss to the progress of medical knowledge. . . . Dr Jacobsen would be enabled to render his best service to this country, if he were left to continue for a further period his important medical researches, and to do his duty in the Home Guard, of which he is an active member.¹¹

The CMAC holds a small group (3 boxes) of Glucksmann's own papers, which include some material on his earlier career. His diaries from 1930 to 1948 are still in the possession of the family but a microfilm is held. The collection also contains correspondence from the 1930s to the 1980s with various colleagues, collaborators, etc., and a virtually complete set of offprints of his published writings, 1929–1966.

The Strangeways, Fell, and Spear papers all include numbers of photographs of individuals, groups, and the Strangeways buildings (see Plates). There are nominal indexes to correspondents for the Strangeways and Fell collections, which contain substantial amounts of correspondence with individuals and institutions. There is also some correspondence relating to the Laboratory and its activities in Spear's memorabilia files.

These collections are thus of considerable interest to potential researchers on a variety of topics. They are available subject to the usual conditions of access to the Contemporary Medical Archives Centre, and photocopies of the catalogues can be supplied at the usual Library rates.

¹¹ Carbon copy of Sir Henry Dale to the Co-ordinating Officer for District Manpower Board, Ministry of Labour and National Service, at Luton, 13 July 1943, CMAC: SA/SRL/C.4.