

information they needed in order to participate in medical decision-making about their bodies. The Women's Liberation Movement was on the crest of a wave, and the emphasis of the book was squarely on women "reclaiming" their bodies from a male-dominated medical profession. An area of particular concern to feminists at the time was the medical treatment of women in childbirth. Feminist activists and scholars blamed excessive intervention on patriarchal doctors. Male dominance of obstetrics, it was claimed, drove clinical practice, leading to the adoption of techniques of no proven benefit to either the mother or her infant.

In *The medical delivery business* Bridgman Perkins revisits that debate from the vantage point of the twenty-first century and her considerable experience as a health planner. Her cleverly titled book rejects the assumption that male dominance adequately explains excessive obstetrical intervention. Bridgman Perkins suggests instead that developments in perinatal care since 1900 should be explored within a different framework: the production side of the organization of medicine.

Using examples from maternal and infant care, she argues that throughout the twentieth century industrial and commercial enterprises provided models for the institutions, specialties and technological developments of modern medicine. Scientific management techniques were first applied to clinical medicine in the early 1900s, favouring the development of a hierarchical division of medical labour and the subdivision of clinical care into separate tasks assigned to different levels of hospital staff. Surgical and technological interventions were introduced in order to enhance productivity and speed of clinical process. In early twentieth-century America, labour and delivery units were constructed along the lines of industrial production, and the slow and careful delivery of the baby's head, without inflicting injury to the mother, was replaced by a quick episiotomy. At Dublin's National Maternity Hospital in the 1960s, consultant obstetrician Kieran O'Driscoll pioneered the strategy of managing labour with oxytocin acceleration as a cost-efficient procedure aimed at rationalizing workloads and

removing bottlenecks in the flow of patients through the unit. Thus Bridgman Perkins also makes the very important point that business principles do not enhance efficiency without impinging on the clinical content and practice of medicine: the practice, the science and the business of medicine are all inextricably bound up together.

Can anything be done to correct the warping of maternity care? This question is especially pertinent at a time of increasing concern about escalating rates of caesarean section. Bridgman Perkins does not believe that the consumer-oriented approach championed by feminist activists and health reformers provides an adequate response to the industrialization of childbirth. She argues instead for reforms based on human health needs rather than on market economics, with an emphasis on equity of access, appropriateness of intervention, and caring. In putting forward these proposals, she echoes other twentieth-century critics of modern biomedicine, who in different ways have advocated a more patient-centred approach to health care.

Bridgman Perkins is a health planner, not a trained historian. This shows through in the way secondary sources are cited and integrated into the main discussion. But the book is painstakingly researched and generally well written. The author deserves high praise for producing an intelligent, thought-provoking and insightful account of the business approach in medicine. Anyone working on the history of twentieth-century maternity care will find *The medical delivery business* an invaluable addition to the existing literature on the subject.

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**D A Christie and E M Tansey** (eds),  
*Leukaemia*, transcript of a Witness Seminar held on 15 May 2001, Wellcome Witnesses to Twentieth Century Medicine, vol. 15, London, Wellcome Trust Centre for the History of Medicine at UCL, 2003, pp. ix, 85, £10.00 (paperback 0-85484-087-7).

**D A Christie and E M Tansey** (eds), *Genetic testing*, transcript of a Witness Seminar held on 13 July 2001, Wellcome Witnesses to Twentieth Century Medicine, vol. 17, London, Wellcome Trust Centre for the History of Medicine at UCL, 2003, pp. xix, 130, £10.00 (paperback 0-85484-094-X).

**D A Christie and E M Tansey** (eds), *Cystic fibrosis*, transcript of a Witness Seminar held on 11 July 2002, Wellcome Witnesses to Twentieth Century Medicine, vol. 20, London, Wellcome Trust Centre for the History of Medicine at UCL, 2004, pp. xix, 119, £10.00 (paperback 0-85484-086-9).

**D T Zallen, D A Christie and E M Tansey** (eds), *The rhesus factor and disease prevention*, transcript of a Witness Seminar held on 3 June 2003, Wellcome Witnesses to Twentieth Century Medicine, vol. 22, London, Wellcome Trust Centre for the History of Medicine at UCL, 2004, pp. xxii, 98, £10.00 (paperback 0-85484-099-0).

Witnesses give evidence. Gathering the chief protagonists involved in the development of a medical advance to talk about what they did and what they saw, recording their discussion, and making it available for historians, is the gist of what these four books are about. They arise from a series of seminars of the Wellcome Witnesses to Twentieth Century Medicine, begun by the Wellcome Institute's Twentieth Century Medicine Group in 1990. Fifteen years later the meetings and publications generated by them are going strong, and have tackled subjects as diverse as contraception, chemotherapy and the common cold. The selection reviewed here expands that diversity, while retaining a common format. The topics chosen had their births, beginnings or breakthroughs within the last half-century or so. A panel of around two-dozen people share their memories of the parts they and their colleagues played. The seminars aim "to capture the spirit of what it was like to live through a period of medical change . . . what it was like at the time".

*Leukaemia* (volume 15) was still a rapidly fatal disease in the 1960s when one participant recalled his time as a houseman at St Bartholomew's Hospital: "We might be putting up 30 or 40 drips per day and preserving the veins was all that was keeping these patients alive. Young patients when first admitted would start in a bed at the far end of the ward and would work their way up to the two single rooms that were at the entrance of each ward, where two or three of them would die every day—of course, some of the patients didn't even know that they had leukaemia, which was the standard practice of those days" (p. 25). Chemotherapy changed all this, and human experimentation with this and that new drug, cavalier to modern regulated practice, shaped into clinical trials, such as the UKALL series that began in the 1970s. The mix of racy anecdotes and sober reflection tells the story of how a loose transatlantic network of enthusiasts raised the survival of children with acute lymphoblastic leukaemia to over 70 per cent.

*Genetic testing* (volume 17) kicks off in the 1950s with the working out of the structure of DNA in Cambridge. This gave a boost to human genetics, and the development of recombinant DNA techniques that followed, opened the way to ever more ingenious molecular methods, leading eventually to the identification of specific genes and their variants that cause particular diseases. With the promise of genetic testing to revolutionize diagnosis, risk assessment, prognosis and treatment choice yet to be realized, this volume covers the ground up to the full sequencing of the human genome.

In *Cystic fibrosis* (volume 20) the whole story of a disease, first characterized in the 1930s, is tackled—elucidation of its cause, the pathophysiological mechanisms of organ damage, the invention of a reliable method of diagnosis, discovery of the genetic abnormality, its relations to outcome, and the enormous improvement in survival. Included amongst the professors, knights, great and good that tell their stories, is a patient. Their reminiscences catch the pace of these advances and the way that they were shared, tested, adopted and proved to be effective

## Book Reviews

in the care of children who hitherto died in early life, but now live well into adulthood.

*The Rhesus factor and disease prevention* (volume 22) is another example of a “problem solved”—in the space of thirty years (1940–70). A lucid introduction, a focused topic, a small group of articulate participants, a skilful chairman and a great story, make this compulsive reading. Some strong and forthright figures (including Cyril Clarke remembered and David Weatherall remembering) enliven it. A handful of amateurs, pursuing a topic at the edge of their clinical interests, without external funding, confound our modern view that peer-reviewed, grant-funded research programmes are the only way to solve clinical problems.

So what do these books offer the historian and how well do they succeed as source materials? The discussion is often quite technical, and they are of value primarily to those with a specific interest in the topics addressed. They offer research students starting out on a project a chance to overview a subject and orientate themselves. The proceedings of each seminar include an introduction by its chairman, followed by an edited transcript. Shape and order are imposed by the considerate and thoughtful manner in which the participants recollect events, and courteous acknowledgments of the parts that others played. The essential relevant publications are listed, and they alone are very useful (the later volumes list them alphabetically at the back, which is easier than as footnotes. I detected one error—Robin Coombs’ initials were mysteriously F H C, in *The Rhesus factor*). Each book has a glossary of technical terms, brief biographical notes and an index.

These books convey the serendipity of scientific success and the chance professional encounters behind the apparently ordered and purposeful pursuit of research. As a landmark discovery on the pathway to genetic testing, elucidation of the structure of DNA by Francis Crick and James Watson was based on an assorted constellation of prior observations, which they put together to achieve their breakthrough. Their seminal *Nature* paper of 1953 reports the bald findings in dry scientific

prose. Watson’s *Double helix* (1969) tells a fuller story, albeit through the vision and voice of one protagonist. Bringing together many of the key people who played a part in and lived through a period of medical discovery or advance, adds another dimension; the web of partnerships, rivalries and accidental encounters is exposed. Out of the telling tales, animated exchanges, shared memories, and considered accounts, often arises the question of priority of discovery. Desire to be first in print drives many researchers, while others claim no ulterior motive than curiosity or altruism. Nevertheless, in all four books there are debates about who was first and which was the seminal paper. Primacy in publication preoccupies professionals, but behind the egos are events, which at the time seemed trivial, but were milestones as important as the papers. Some of these are captured here.

These witness seminars counterbalance and enrich the lifeless language of scientific papers and give wider context to the colourful autobiographical accounts that sometimes follow. They are something in between collective oral histories and living theatre. The transcripts compress a story, known by the players, and perhaps the reader, into a one-act play that traces events from first efforts to culmination or solution. They are “remembrance of times past” by a selection of well-informed and articulate players, who can enjoy the gratification of seeing a good job done. The photographs of the participants on the covers, like those at the back of a theatre programme, personalize the cast list, further emphasizing the theatrical nature of these medical dramas. Having created and sustained this innovative series it is hoped that the Wellcome Twentieth Century Medicine Group will tackle more of the numerous topics that are ripe for its treatment. These witness seminars fill a gap between published scientific papers and personal accounts, adding a valuable collective oral source to the historical record.

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