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unexpected insights. In contrast, in the first and final seminars the witnesses were small groups of participants who had worked closely together, and produced more cohesive, but predictable analyses.

The first transcript of the volume is on 'Making the human body transparent: the impact of nuclear magnetic resonance imaging'. This is a fascinating—at times technically obfuscating—account of the difficulties of developing, evaluating and implementing complex medical technology in an era when other options seemed to offer more promising ways forward than MRI.

The second seminar focused on the structural and personal reasons for engaging in research in general practice. These confirmed a well-known picture in that research was largely organized by personal curiosity about epidemiological subjects. It remained the concern of an enthusiastic minority because of the inadequate time available after clinical practice; the lack of research training for general practitioners; and the under-funding of later departments of general practice which therefore curtailed their research capacity.

In the third seminar on the use of psychiatric drugs there were perceptive analyses of the serendipitous discovery of the miracle-working drugs of the late 1940s and 1950s in an era before the conventional clinical trial; their use on patients without the constraints of later regulatory machinery; and the dramatic transformation of the asylum. In addition, it was interesting to learn about an earlier Calvinistic reluctance by pharmaceutical companies to develop certain drugs for sexual dysfunction, despite good evidence of their effectiveness.

The final witness seminar on the MRC Common Cold Unit revealed that good science in those halcyon early days of the MRC was a matter of trusting gifted individuals to get on with their research. It also revealed the difference between formal structures and actual practice. The seminar

was helpful, like all enlightening historical meetings, in distinguishing myth from fact, and doing so in unexpected ways. The "myth" that some impecunious people had a cheap honeymoon at the Unit was exposed as fact, whilst the common perception that it was a unit researching the common cold was revealed as a gross oversimplification of its much more varied work in virology.

Given the variety of subject matter in a volume such as this one, where few readers are likely to be equally interested in such disparate themes, a recent decision to publish single witness seminars is to be welcomed.

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Anthony Brinton Wolbarst, *Looking within: How X-ray, CT, MRI, ultrasound and other medical images are created and how they help physicians save lives*, Berkeley and London, University of California Press, 1999, pp. xiii, 206, illus., \$50.00 (hardback 0-520-21181-2), \$19.95 (paperback 0-520-21182-0).

One of the challenges facing medical historians is not to make technical mistakes in the content of the medicine on which they write. I know that I have inadvertently, when speaking, increased by a factor of ten the frequency of the waves emitted by the earliest ultrasound machines (merely a displaced decimal point but a major error) and located a radium bomb in an X-ray machine (an aberration and an embarrassment). Apologies to all who heard me. I also remember listening, with ever-mounting disquiet, as a very distinguished historian based an hour-long discourse upon what amounted to a serious misconception regarding procedures of paediatric care. Clinicians in the audience corrected him very politely but the loss of credibility was

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incalculable. The recollection still makes me cringe. There but for the grace, etc.

The benefits to be gained from having a friendly expert to advise on technical matters are thus enormous. This is essentially the role Wolbarst's book might fulfil for historians interested in medical imaging. It supplies clear, cogent and accessible accounts of how the various imaging technologies work. This historian, for one, was forced to confront the fact that his understanding of the principles of MRI was somewhat defective. A noteworthy feature of the text is that the physical and technical descriptions are very usefully supplemented with illustrative clinical cases. How the machines serve, sometimes indeed constitute, the process of diagnosis, and how they guide therapy, are effectively conveyed. Safety issues receive a concise but sophisticated and eminently reasonable assessment.

This is not, however, a book that historians should resort to to learn about history. Despite the publisher's claims to the contrary, the accounts of the development of the various techniques are slight and partial. I spotted one error. Wolbarst implies (p. 136) that B-mode ultrasound derives its name from reference to the brightness of the image. This is not the case. The terms A-mode and B-mode originated with radar imaging and were so designated merely to distinguish one from the other. C-mode and D-mode also exist. Perhaps physicists in turn need historical advisors.

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Frank Fenner and Bernardino Fantini,
Biological control of vertebrate pests: the history of myxomatosis, an experiment in evolution, Wallingford, CABI Publishing, 1999, pp. xii, 339, illus., £60.00 (0-85199-323-0).

In 1983 Frank Fenner delivered the Royal Society's Florey Lecture in London.

Its title: 'Biological control as exemplified by smallpox eradication and myxomatosis' defined two lasting interests and major achievements in Fenner's scientific career, and also the scope of his involvement in historical research on virus diseases and virology of recent years. He was awarded the Japan Prize for his part in the WHO's worldwide smallpox eradication campaign, successfully concluded in 1979; and he worked on myxomatosis in his native Australia from 1951 to 1965 when he published, with F N Ratcliffe, *Myxomatosis*, a standard text on the disease. The current volume may be seen as a sublimation of the latter interest, and is a happy outcome of collaboration with Bernardino Fantini, the Italian Director of the Louis Jeantet Institute for the History of Medicine at the University of Geneva.

In a lucid text, the authors use myxomatosis and its virus in rabbits as a model in a comprehensive examination of historical aspects of the development of biological control of vertebrate pests and its origins. Emphasis here is on developments in Europe and in particular in Australia, where the European rabbit was first introduced in the mid-nineteenth century as a food reservoir for shipwrecked sailors, and where much early twentieth-century and later work on the disease and its possibilities as a control measure was carried out. The rabbits in a rapidly expanding population were initially valued as game animals, or trapped for their meat and skins; but because of their sheer numbers they soon came to be seen as a destructive agricultural pest, and within fifteen years of their introduction, laws to control the growing threat were being put into place. A variety of methods were used: trapping, shooting, destruction of burrows, and building of rabbit-proof fences. Not until 1951 did biological control of Australia's rabbit plague become possible. In that year experiments, carried out on behalf of the Council for Scientific and Industrial Research (CSIR) in Australia,