

Book Reviews

Earlier chapters similarly foreground the experience of one sick child, one family, allowing Krueger to probe deeply public reactions to cancer through newspaper and court reactions, as well as private correspondence. The closing chapters move further into the clinical history, following researchers into the lab and presenting families' accounts of how they felt about their children being experimental subjects. The conclusion explores why childhood cancer has been such a popular topic for the American media since the 1930s, and why it is seen as a disease of common interest, worth state funding and close press attention, a disease of the community and not just the private family.

Throughout the book, then, Krueger sets close textual analyses of private experiences alongside accounts of the available clinical options, and shows that until the major breakthroughs of the 1960s, the ultimate responsibility for a child's health, or death, was seen to lie firmly with the mother: the widespread belief that cancer could be treated most successfully if only it was treated hard and at its first appearance, translated to an understanding—shared by parents and clinicians—that mothers should be more watchful of their offsprings' health. Only with the advent of curative treatments did the burden to rescue these sick children fall on scientific medicine itself.

The Gunthers' memoir was frequently set as a text in American high schools in the 1950s to encourage teenagers to broaden their powers of empathy. As Krueger shows, fictional and fictionalized accounts of death from childhood or adolescent cancer remained popular through to at least the 1970s, and a quick search through any library or bookshop in the United Kingdom will show that the topic still draws a large readership here; cancer story-lines in soap operas and films also attract a substantial viewer share. The belief that the drama of childhood cancer is somehow of interest or value to us all persists. Krueger's book takes us back stage and shows the painful and brave complexity behind each

battle. It would be of value in any medical humanities course.

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Kenton Kroker, Jennifer Keelan and Pauline M H Mazumdar (eds), *Crafting immunity: working histories of clinical immunology*, The History of Medicine in Context, Aldershot, Ashgate, 2008, pp. x, 308, £60.00 (hardback 978-0-7546-5759-0).

Of all medical sciences, immunology has long enjoyed a reputation of being one of the least medical. The historiography has fostered this view by focusing on theory-laden concepts such as Ehrlich's side-chain theory. Studying the immune system seemed to entail both medical questions and those posed by biochemistry. Immunologists appeared to be people who laid rather more accent on generalized, systematic and abstract knowledge than, for instance, clinicians.

More recently such notions have been challenged by authors who placed the discipline more "between bench and bedside" (Ilana Löwy). *Crafting immunity* develops this into a systematic argument. In the introduction, the editors forcefully make the point that the history of immunology can be understood as one that is informed by clinical expertise and clinical concerns, as, for example, when clinical concerns in the diagnosis and treatment of cancer informed the recent development of immunology as a field. Given this approach, it is hardly surprising that the thirteen papers that make up the volume are all case studies. Divided into four parts, the chapters are arranged in a loosely chronological order that covers a period from 1800 to our immediate present.

The two initial papers by Andrea Rusnock and Kenton Kroker on the history of the smallpox vaccination testify to the charms of this approach. They refrain from squeezing this practice into the unsatisfactory frame of a prehistory where there was a handling of

immunities but no immunology. Jenner's ideas about the efficacy of his vaccine are shown to be informed by contemporary ideas about the natural history of diseases and their taxonomy. It was changes in the practical handling of the vaccine in societies that supplied new perspectives. Towards 1900, these created a fascinating immunological field of study by pushing the issue of minimizing the risk of the vaccine's application in relation to the so-called serum sickness into the centre of interest. Moving on in time, two most interesting papers by Mark Jackson and Carla Keirns elaborate the extent to which one of the popular research objects in immunology at the time of the First World War, namely allergy, was shaped by clinical concerns to interpret and treat such conditions. Departing from bacteriological ways of thinking, immunologists focused on bacteria-analogous objects such as pollen as a cause of hay fever, which they subsequently tried to target with therapies. In fact, those who researched hay fever frequently had a patient history of their own to offer. If we add contemporary serology to this, an interesting picture arises. Immunology in the early twentieth century responded to a current in the medicine of these days that was critical of the reductionism of classical bacteriology. Serology, vaccinology and allergology thereby appeared to be driven by concerns to fill in the gap between the abstractions of classical "bacterio-centrist" (Kochian) bacteriology and clinical practice. It was, as Ilana Löwy argues in her paper, a field that was aiming to overcome the division of "physician versus bacteriologist" that was so popular amongst *fin-de-siècle* doctors.

Dialogues of that sort also played a role in virus research which is the focus of Michael Bresalier and Kenton Kroker. In this case some more indirect connections become visible. While serological diagnosis of a viral disease like flu exerted little clinical relevance before the Second World War, the concept of flu as a viral infection resonated well with clinical dissatisfaction with the established (yet disputed) bacterial aetiology of the disease. This illustrates "how the construction

of viruses and virus diseases as immunological problems facilitated the translation of esoteric virus work into medical problems, and how these problems were redefined in the process" (p. 135). In the closing chapter of this section Pauline Mazumdar examines the League of Nations' hygiene commissions' attempts at serum standardization. Such standards could easily be considered a showcase for a history of immunology as theory-driven discipline. Yet, as Mazumdar shows, success was rarely seen in the pursuit of such projects. Standards still existed, but their enforcement was difficult. Instead they served as boundary objects to facilitate communication between differing localized national cultures of serology. The final four papers of the volume take us beyond the Second World War and to the histories of radioimmunology, HIV-Aids, the immunology of pregnancy and finally the history of smallpox vaccines. For this reviewer, it was Angela Creager's paper that was most interesting here. It shows how a popular diagnostic technology—radio-immunoassays—influenced the development of the field in the period in question.

What the volume convincingly shows is that the history of immunology can be assessed as one of a dialogue between bench and bedside. Yet a different picture arises. From a history of closely connected theories, it is transformed into one of sometimes loosely connected objects and practices: therapeutic vaccines, allergies, sera, radio-immunoassays and so forth. Sometimes, as in the case of allergies, the link to the other fields may even be fairly loose. The delimitation of what actually counts as immunology may not be easy at times if one follows such an approach. However, its virtues are that it provides us with a broader and more nuanced picture of historical processes.

All in all, the book is a very welcome addition to the historiography of immunology. With well edited papers, illustrations and an index, it is also very usable. It reminds us that in studying the history of medicine it is often quite rewarding to focus on what people do rather than on what they write. It is this

point that the serologist Ludwik Fleck made when he opened his *Genesis and development of a scientific fact* (first German edition, 1935) with observations on the history of a serological diagnosis, i.e. with observations on immunology as a science of the clinic.

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L A Reynolds and E M Tansley (eds),
*Clinical pharmacology in the UK,
c.1950–2000: influences and institutions*,
Wellcome Witnesses to Twentieth Century
Medicine, vol. 33, London, Wellcome Trust
Centre for the History of Medicine at UCL,
2008, pp. xxiv, 139 (paperback 978-085484-
117-2).

L A Reynolds and E M Tansley (eds),
*Clinical pharmacology in the UK,
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I suspect that most of us have been touched, perhaps unknowingly, by the mysteries of clinical pharmacology at some stage in our lives, whether as patients swallowing pills to reduce cholesterol, relieve a headache or treat a perennial bout of hay fever, or as doctors thumbing anxiously through the *British National Formulary* in search of enlightened knowledge about the exact dosage or frequency of prescribed medication. In each case, we place our personal health or that of our patients in the hands of those clinicians and scientists whose job it is to determine the

precise pharmacodynamics and pharmacokinetics of an increasing range of active drugs, and to moderate or eliminate the risk of adverse reactions, particularly from a fashionable tendency to polypharmacy.

In spite of the critical manner in which pharmacological knowledge underpins much clinical practice (and indeed self-medication), we know little about the history of clinical pharmacology or about the nature of its often contentious relationships with the pharmaceutical industry, doctors and academic researchers, and with government (and increasingly European) regulations. These two Witness Seminars were organized to address such issues and, in many ways, they largely succeed in opening up and exploring interesting disciplinary and political questions. Drawing on personal memories of individual and collective career pathways, volume 33 focuses on the early pioneers of the specialty, on the evolution of research and training centres in the United Kingdom, and on the emergence of specialist societies and publications during the decades following the Second World War. Although the story that emerges from the reminiscences of contributors is largely London-centred, there are constructive accounts of developments elsewhere, including Scotland and Wales. Broader international links, and particularly the role of the World Health Organization, are only briefly mentioned (although they deserve greater historical scrutiny), but there are challenging accounts of the obstacles to professional recognition, especially within clinical settings, and of the enduring (and laudable) concern amongst British clinical pharmacologists to improve the safety of prescribing amongst newly qualified junior doctors.

Focusing on relations with the pharmaceutical industry and on the growing regulation of medicines following the thalidomide tragedy, volume 34 contains material which is perhaps more directly useful to historians of medicine. The picture of the industrial contours of clinical pharmacology