Book Reviews

Annie Attia and Giles Buisson (eds), with the collaboration of Markham J. Geller, Advances in Mesopotamian Medicine from Hammurabi to Hippocrates: Proceedings of the International Conference ‘Oeil malade et mauvais œil’, Collège de France, Paris, 23rd June 2006, Cuneiform Monographs, Vol. 37 (Leiden: Brill, 2009), pp. iv + 161, €83.00/$123.00, hardback, ISBN: 978-90-04-17876-2.

The medicine of ancient Mesopotamia (Assyria and Babylonia: roughly modern Iraq, very roughly 2000–200 BC) may be very old, but its study is still in its infancy. Many thousands of therapeutic procedures, diagnostic omens, lists of ingredients and learned commentaries are attested on clay tablets written in the Akkadian and Sumerian languages using the cuneiform script. The first were discovered and deciphered in the mid- to late nineteenth century, while throughout the twentieth century, archaeological investigations continued to reveal many more, often in primary use contexts. However, the complexities of the script and fragmentary state of the manuscripts, combined with the deeply unfamiliar nature of much of the material and the scarcity of Assyriologists to study it, has meant that it is only in the past decade or so that the subject has started to move beyond the impressionistic and descriptive.

The seven papers collected together in this small volume (150 pages plus front matter and indices) do not, despite the book’s title, specifically address advances in Mesopotamian medicine, either in the sense of developments in Antiquity, or, in general, as changing historiographies. Rather, they present a snapshot of a field in flux, in which synthetic, descriptive, presentist approaches co-exist with more interpretative, anthropological and source-critical methodologies.

Mark Geller’s wide-ranging and thoughtful Introduction (pp. 1–12) surveys the current state of the field in relation to the study of ancient Greek and Egyptian medicine. He often contextualises and draws out the significance of the various chapters better than the authors themselves. Of a similarly high standard is Nils Heeßel’s pioneering and fascinating study of ‘The Babylonian Physician Rabâ-ša-Marduk’ (pp. 13–28). From epistolary, administrative and scholarly sources he pieces together the career of a royal healer from the city of Nippur who was posted to the Hittite court in Anatolia in the thirteenth century BC, seemingly as part of a diplomatic exchange. Heeßel also shows that a medical manuscript of his was later looted from Babylonia for an Assyrian royal collection.

In a close philological study, Marten Stol (pp. 29–48) examines the Akkadian verb salâ ‘to be ill’, equating it with the verb salâhu ‘to sprinkle’ (The ‘ [aleph] is a sort of glottal stop). As Geller notes (p. 9), salâ seems to have a much narrower semantic range than its commoner synonym marâšu. A direct comparison of the two verbs would be a helpful next step. Next, Martin Worthington presents ‘Some Notes on Medical Information outside the Medical Corpora’ (pp. 47–78) culled especially from letters and literary works. The extracts he presents – on location, availability and affordability, practitioners’ non-medical activities, divination – offer tantalising glimpses into the practicalities of Mesopotamian healing. However, the chapter’s thematic rather than chronological, geographical or generic organisation perhaps presents an overly homogeneous picture.

In ‘Cuneiform Tablets on Eye Diseases’ (pp. 79–104) Jeanette Finckecatalogues the known Assyrian and Babylonian manuscripts of a standard collection of treatments for various ocular problems, and presents editions of two short related works. Despite Geller’s
advice that ‘there is little point in... attempting
to identify Akkadian words with modern
medical terminology’ (p. 12), Fincke routinely
equates ancient symptom descriptions with
Latinate, bio-medical terms. Similarly,
Barbara Böck’s ‘On Medical Technology in
Ancient Mesopotamia’ (pp. 105–128) groups
(translated) snippets of ancient instructions on
preparing medical treatments under headings
such as ‘maceration’ and ‘decoction’ as if the
latter were ahistorical phenomena.

In the final chapter, Paul Demont debates
‘L’Ancienneté de la Médecine Hippocratique:
Un Essai de Bilan’ (pp. 129–149). This has
relevance insofar as possible Babylonian
influence on some strands of the Hippocratic
corpus have recently been debated, as Geller
explains (p. 6), but the author himself does not
address Mesopotamian medicine at all.

In short, this work is a mixed bag. But it
demonstrates that Assyriology is finally
becoming increasingly receptive to, and
willing to engage with, the mainstream of
medical history.

Eleanor Robson,
Department of History and Philosophy of
Science, University of Cambridge

[Galén]. Galien, Tome III: Le médecin:
introduction, Caroline Petit (ed. and trans.),
Collection des Universités de France
(Paris: Les Belles Lettres, 2009), pp. cxⅰ +
232, €69.00, paperback, ISBN: 978-2-251-
00555-3.

Le médecin: introduction is Volume 3 in the
Budé series of Galen’s works, the fifth volume
to be published. It is not by Galen, although
nothing on the book’s cover or title-page
distinguishes it from Galen’s genuine works;
one must read the Introduction to learn the
editor’s view on its authenticity. Like the
Definitiones medicae, Le médecin (its usual
title in Latin is Introductio sive medicus) is a
pseudepigraphic work of ancient date,
probably produced by a contemporary or
rough contemporary of Galen, that circulated
widely in the mediaeval period because of its
convenient didactic form. All manuscripts
name Galen as the author, but the text was
ruled inauthentic by the editors of the first
printed edition of Galen’s complete Greek
works, the Aldine edition of 1525 (Petit, pp.
cxⅰ-cxx), and published among the pseudo-
Galenic works. Petit concurs with this verdict
and discusses its stylistic and doctrinal basis
(pp. xxxvi-xl). Among doctrinal arguments,
the treatise is noteworthy for its neutral
treatment of the Methodist sect, which
Galen virtually never mentions without
contempt.

That the treatise appears to be nearly
contemporary with Galen but does not cite
him invites the hypothesis that it is a forgery,
perhaps the same forgery Galen refers to in a
story from On my own books – he witnessed
an argument between a man who had
bought a book called Iatros (‘The Doctor’) falsly ascribed to him, and another, familiar
with Galen’s work, who denounced it as a
fake after hearing the opening sentences.
Petit, cautious here as throughout, reviews the
arguments and notes that no evidence can
prove or disprove the identity of the
Introductio sive medicus with the treatise in
the story (pp. xlv–xlix). Similarly, while many
references to Egypt (including a brief
mention of the practice of female
circumcision) suggest an Egyptian
provenance, these references are mostly
literary in nature, cite information attested
elsewhere in Greek sources, and are far from
conclusive proof (pp. 1-li).

Because of the treatise’s antiquity and
influence on the history of medicine, a modern
critical edition has long been desirable. No
edition has been published since that of Kühn
in 1821, which essentially reprinted the
seventeenth-century text of René Chartier.
Petit considers over forty manuscripts dating
from the twelfth to the eighteenth century, and
an ancient Latin translation of Chapters 16–20.
No Syriac or Arabic translation survives or is
attested. Two substantial late (Byzantine or
Arabo-Byzantine) insertions are identified,
printed (in square brackets) and discussed: especially noteworthy is the expansion in Chapter 13 of the text’s original discussion of elephantiasis (pp. lxix–lxxvi and 69–70 with notes), a disease entity that, in antiquity, was closely analogous to modern leprosy. The late expansion reflects a more wide-ranging conception of elephantiasis.

The text is of composite nature although probably, as Petit argues in consensus with most predecessors, the work of a single author (pp. lxv–lxix). It begins with a catechism (answers to neophyte questions, starting with ‘How was medicine discovered?’) and progresses to jejune outlines – little more than lists at times – of medical subjects. Its content can be divided into three main sections: the nature and history of the art of medicine; anatomy and physiology; and pathology and therapy (p. xvii). Petit’s introductory section (Notice) addresses the place of the treatise in ancient medical–pedagogical (‘isagogic’) literature; its doctrinal stance; its date and authorship; its composition; and the history of the text. Appendices to this section print the prologues associated with each of the two manuscript families and compare the chapters attested in each of them.

Petit’s text, translation and commentary are thorough, accurate and sagacious, and I noticed no mistakes or omissions. Anglophone scholarship is well-represented in the bibliography. While we learn nothing revolutionary about ancient medicine from Petit’s introduction and notes, she provides us with a scholarly tool of the highest quality.

Susan P. Mattern, University of Georgia

Gary Ferngren’s excellent and thought-provoking work is an invitation to reconsider some ideas about early Christianity and its relation to medicine that we have too long taken for granted. His main arguments are the following: Christianity was not a religion of healing, which means that Christ’s miracles did not aim to heal people (like Asclepius), but were signs to attest his divine nature. Miraculous healing (and miracles in general) was not common among Christians during the first to third centuries CE. A sick Christian turned to physicians and not to magical–ritual-religious healing. Christian theological and practical philanthropy led to non-medical care for the sick, poor and distressed. With charity and organisation and money, Christianity led to organised (still non-medical) urban health care.

Chapter 2 focuses on the approaches to Greek medicine and physicians of the second-century apologists (Tertullian, Origen, Tatian and Arnobius) traditionally regarded as hostile to medicine. Ferngren reassesses these attacks either as exceptions, or as referring to particular cases, and by no means typically Christian. In favour of Christians’ high valuation of medical practice he lists its popularity as an analogy for the healing of the soul, together with the naturalistic aetiology of diseases probably shared by most sick people, pagan or Christian. One could object that attributing an illness to natural causes would not deter the sick person from turning to healing deities or other ritual healing practices. Similarly, when it comes to the versatile and varied class of healing professionals, turning to any of them does not always reflect the patient’s aetiology of his own disease, but often depends on availability, the advice of others, the healer’s fame and popularity, the patient’s financial means, or his possibilities of travel. What facilitated the embrace of medicine by Christians, in Ferngren’s view, was the fact that, unlike Greek philosophy, ‘medicine, like natural philosophy, could be detached from its pagan framework with relative ease’ (p. 40). Chapter 3 emphatically argues against ‘the thesis that early Christian sources ascribed all illness to demonic

Gary B. Ferngren, Medicine and Health Care in Early Christianity (Baltimore: Johns Hopkins University Press, 2009), pp. xiv + 246, £18.00/$35.00, hardback, ISBN: 978-0-8018-9142-7.
etiology’ (and substitutes for the exaggeration all, the equally great exaggeration none). A valuable section on demons follows, which distinguishes between demonic possession that requires exorcism, and demon-caused illness that calls for healing. One could easily continue this line of thought and posit a distinction between miraculous healing sought for naturally caused disease and demon-caused illness.

The key concept of Chapter 4 is that the New Testament miracles ‘represent the external aspect of salvation, the physical manifestation of a new spiritual order’ (p. 65) and are not to be viewed per se as healing miracles. Christians, however, were soon to face the challenge put by successful pagan healing miracles. They had to come up with a response and a valuation: ‘when claims of contemporary miraculous cures were put forward in the second century, in debate between the followers of Jesus and those of Asclepius, Christians discovered cures were abundant and whose claims were hard to deny, let alone to match’ (pp. 70–1). The value of this observation is shown by the fact that it accommodated different possible accounts. Ferngren’s is that Christians simply did not consider healing important until the fourth century, but put considerable effort into organised, non-professional, mostly palliative care of the sick. This attitude had a two-fold basis: in Christian medical philanthropy (Chapter 5), which actively cared for the sick, especially during plagues; and also outside the community of Christian worship. The theological imperative behind this was the doctrine of the imago Dei: ‘every human life has an absolute intrinsic value as a bearer of God’s image and as an eternal soul’; while money, writes Ferngren, came from wealthy individuals, long before state sponsorship began in 313. Christians’ long experience in medical charity prepared the way for the eventual establishment of the first hospitals as faith institutions (Chapter 6). Christians were able to organise themselves well for a large-scale charity activity, and church communities soon created minor clerical orders to assist them, chosen for spiritual rather than medical qualifications. In Ferngren’s words, the hospital was ‘in origin and conception, a distinctively Christian institution, rooted in Christian concepts of charity and philanthropy’. It had, as he sees it, no ancient precursors either in the sphere of medical care, or in that of religious healing.

What may the reader feel is missing from Ferngren’s argument? The parallel world of non-medical healing, undoubtedly a contemporary reality. But even if the reader concentrates only on the medical side, and on the Christians’ appreciation of medicine, he or she would naturally be curious about the process of adapting medical practice to the needs of faith. How were Hippocratic and Galenic scientific medicine transmitted? How did they become accepted and incorporated into the new Christian paideia, especially as medicine, and the study of medicine, was after all a pagan art, with many of its practitioners closely linked to Greek philosophy and to the fading late Antique pagan intelligentsia?

The book is a challenge, in the best sense, and has an important place in the ongoing dialogue between medical historians and Classical and New Testament scholars. In addition to his scholarly qualities, Ferngren has a sympathetic approach and an engaging ability to step back and see the object of research and the research itself as part of a larger picture. ‘The modern age is a historical period like any other, limited in its perspective by time and culture . . . Understanding that we, too, have historical and cultural limitations forces us to view the past in a manner that is neither patronizing nor disparaging but appreciative of the power of ideas and practices that we do not always share or fully understand’ (p. 10).

Idiko Csepregi,
Museum of Fine Arts, Budapest

Leigh Chipman, The World of Pharmacy and Pharmacists in Mamluk Cairo, Sir Henry Wellcome Asian Series, Vol. 8 (Leiden:}
In what will undoubtedly become one of the key publications in this field, Chipman presents an important study of pharmacists and pharmacy in the mediaeval Islamic world and its, so far, neglected aspects. She begins with a close reading of al-Kühîn al-ʿAṭṭâr’s immensely popular thirteenth-century Arabic guide for pharmacists, the Minhâj ad-dûkkân (‘How to Manage a Pharmacy’), and an analysis of how al-Kühîn al-ʿAṭṭâr added to or modified the recipes of his predecessors. The Minhâj provides practical details, such as the preparation of drugs, substitute drugs, and the identification of less known materia medica, and thus offers insights into the practical work of a pharmacist. In the second part of the book, Chipman moves away from an analysis of the text and places al-Kühîn al-ʿAṭṭâr and his Minhâj in its social context, focusing on depictions of the pharmacist in Mamlûk society. A wide range of sources is consulted, including legal works, popular literature, and chronicles, which generally depict the pharmacist as a scoundrel who was merely concerned with profit. Chipman contrasts this negative image with al-Kühîn al-ʿAṭṭâr’s ideal of a God-fearing pharmacist anxious to help his fellow man, and she draws attention to the fact that the Minhâj generally employs inexpensive and readily available ingredients. She concludes that the reality is likely to be found in between these contradicting depictions.

Religion is a theme which runs through Chipman’s historical investigations, and we thus learn about the disregard for certain Jewish dietary laws, alternatives for wine, and that certain parts of the Minhâj are explicitly devoted to the topic of religion. Even though several parallels to Jewish writings can be identified, al-Kühîn al-ʿAṭṭâr does not go beyond a general monotheism.

Another recurrent theme is the differences between physicians and pharmacists, and here Chipman’s comparisons of the work ethics of both professions yield interesting results. However, even though she emphasises that boundaries between pharmacists and physicians are not always clear-cut, we are left with the general image of practice-orientated pharmacists and theory-orientated physicians. For instance, the thirteenth-century physician Ibn Nafīs is depicted as having stated that his discovery of the ‘pulmonary circulation’ (correctly ‘pulmonary transit’) is purely theoretical. However, Ibn Nafīs actually claimed that tashrīḥ (‘dissection’ or ‘anatomy’) proves his predecessor Galen to have been wrong and it therefore remains open to debate whether or not Ibn Nafīs practised human dissection to corroborate his conclusions. Equally problematic is Chipman’s reliance upon Sami Hamarneh’s historically flawed analysis regarding capillaries (see p.124).

The differences between physician and pharmacist are also reinforced through comparisons such as those between al-Kühîn al-ʿAṭṭâr and Saladin’s Jewish court physician Ibn Jumay’. In his laconic compendium, Ibn Jumay’ does not present many of the practical descriptions contained in the Minhâj as he was opposed to compiling such comprehensive compendia. Ibn Jumay’ pointed out in his letter to Saladin that comprehensive compendia tempt the reader to become lazy and to ignore the irreplaceable writings of the ancients and the oral guidance of teachers. It is therefore not surprising that Ibn Jumay’ presented only a mere outline of materia medica in his own compendium, which was intended to be supplemented by both experience and erudition. That Ibn Jumay’ was also a practice-orientated physician, especially when it came to drugs, can be seen in his treatises on the medicinal use of the lemon/lime or rhubarb.

While Chipman includes an index of general terms and materia medica, it is unfortunate that she neglects to index Arabic drug names. Therefore, Appendix Two, which lists all the recipes found in the Minhâj, remains of very limited use for scholars seeking these. The translation of drug names is yet another problem as no caveat is presented to remind the
reader that translations and equivalents for mediaeval drug names are problematic, for instance, *al-laymün* is translated as lemon, but lime is equally plausible.

In some places, Chipman suggests that ineffective drugs were not included by al-Kūhīn al-‘Attār and that he added the tag ‘beneficial’ (*nafi‘*) to a remedy whenever he found a drug to be effective. Historians should indicate, however, that their statements about the efficacy of drugs remain problematic as long as we lack reliable research about how drugs were tested and how mediaeval notions compare to modern ideas of ‘effective’ or ‘tested drugs’.

Finally, it has to be said that Brill has done a major disservice to the author and adversely affected the wider dissemination of an important scholarly study. Individuals will be reluctant to purchase a volume that, in addition to being over-priced, has a somewhat displaced cover with a cheap glue binding, reminding the potential buyer of a poor-quality pirated copy of an originally expensive book. The contents of the present volume deserve a much better physical presentation.

Daniel Nicolae,
University of Oxford

Maaike van der Lugt and Charles de Miramon (eds), *L’héritéité entre Moyen Âge et Époque Moderne: Perspectives Historiques*, Micrologus’ Library, 27 (Florence: Sismel – Edizioni del Galluzzo, 2008), pp. vii + 416, €58.00, ISBN: 978-88-8450-309-1.

This book is a collection of essays on the place of heredity in the thought of the Middle Ages. Its core is the clear demonstration by Maaike van der Lugt that the notion of hereditary disease emerged in the thirteenth century, and found a clear expression in the fourteenth. Its roots were in the writings of Arab philosophers and doctors, but what was revolutionary was the metaphoric transfer of the expression ‘hereditary’, previously used to designate goods and properties transmitted through generations, to the domain of medicine.

This book challenges the view that the Renaissance was a revolutionary time for medical and biological thought. The opposite is true: the notion of hereditary disease emerged in the thirteenth century, was not deeply transformed during the Renaissance, and took on increasing importance at the end of the eighteenth century, finally leading to the birth of a scientific theory of heredity in the middle of the nineteenth century.

But this book also challenges the alternative hypothesis: heredity was a central question for thinkers of the Middle Ages. The justification of the power of the nobility by the existence of a ‘noble blood’, the rise of anti-semitism supporting a differentiation between human beings, the efforts made to breed animals of higher quality, the progressive interpretation of original sin in biological terms, the rules established by the Church against consanguinity: all would have contributed to the emergence of an hereditarian vision.

The different contributors show that the situation was much more complex. There was a sharp contrast between the hereditarian functioning of society, with a strict hereditarian transmission of power and charges, and the numerous factors which opposed this hereditarian vision: the conviction, based on the Bible, of the uniqueness of human nature, the emphasis placed on the conditions surrounding conception and pregnancy to explain human characteristics, the importance of the notion of complexion in medicine, a product of nature and local environment, opposed the emergence of a science of heredity. The widely accepted belief in an heredity of acquired characters made the picture even more fuzzy. The rules preventing consanguinity were not justified by a ‘eugenic’ project. The existence of ‘noble’ blood was a popular conception, disconnected from the writings of doctors. The improvement in animal breeding only concerned animals of the nobility, falcons and dogs. The interpretations
of original sin were numerous and contradictory. The consequence was that the list of hereditary diseases included leprosy and gout, but none of the diseases that today would be found in a similar list.

Two interesting lessons emerge from reading this book. The first is the role of interdisciplinarity considered in an extensive way. The emergence of the notion of hereditary disease in the Middle Ages required borrowing the notion of heredity from its use in law. The concept of latency, necessary to explain the transmission of hereditary diseases, has its roots in theology.

The second lesson comes from the comparison with what happened in the nineteenth century. The rise of a science of heredity was made possible by the coalescence, the conjunction of different social, scientific, and epistemic transformations. In particular, the disconnection between the characteristics of organisms, humans included, and the place in which they were living, due to the increasing circulation of plants, animals and humans, as well as the classifications of human beings following colonisation, had very important roles in the rise of a science of heredity. It explains the limits of the hereditarian vision in the Middle Ages.

All the contributions collected in this book are rich in information and offer acute critical perspectives. This book will be of interest not only to those involved in the history of medicine in the Middle Ages, but also to all historians working on the interaction between sociocultural conditions and the growth of scientific knowledge.

Michel Morange,
Ecole Normale Supérieure, Paris

Charles Webster, Paracelsus: Medicine, Magic and Mission at the End of Time (New Haven: Yale University Press, 2008), pp. xiv + 326, £30.00/$40.00, hardback, ISBN: 978-0-300-13911-2.

Controversy has followed Paracelsus. In his lifetime and for a century and a half afterwards his supporters and detractors were strongly opposed. There were those, however, who compromised and accepted some of Paracelsus’ medical and chemical theories, or assimilated them into Galenic medicine whilst rejecting his radical social and religious views. Historians have also been divided, some tending to ignore his influence on medicine, especially as by the beginning of the eighteenth century it became less discernible. Others, German scholars above all, have seen Paracelsus as not only a seminal figure in the attack on elite university-based Galenic medicine, but also as an important player in the reform movement in sixteenth-century Germany.

Charles Webster is amongst the fervent supporters. In this important book he goes beyond Walter Pagel’s path-breaking work which contextualised and explicated Paracelsus’ natural philosophical, medical and chemical ideas. Published some sixty years ago, Pagel’s Paracelsus: An Introduction to Philosophical Medicine in the Era of the Renaissance was a brilliant analytical work that took a broad approach to the history of ideas and did not limit itself to a narrow ‘rationalistic’ perspective.

Today, most students and many historians of medicine find its conceptual scope and deep scholarship difficult, even too difficult. Moreover, the social and many of the religious aspects and contexts to Paracelsus’ work were only very lightly sketched in by Pagel. Webster, by contrast, has written a very lively, readable book which brings together the medical and the social–religious radicalism of Paracelsus and shows that it was of one piece.

Webster portrays Paracelsus, the radical, eagerly waiting for the end of time, which he believed would come in his own lifetime, when the churches would be judged and found wanting, whilst the true believers would be gathered in by God. Paracelsus’ mission was to prepare society, or rather true believers, for the final days through a symbiotically unified critique of society, religion and medicine.
As Webster shows, Paracelsus went beyond the Protestant reformers, yet was prudent enough to avoid persecution and possible execution, as when he did not pursue publishing his *De Septem Punctis Idolatriae Christianae*, whose message echoed that of the peasant leaders. Nevertheless, his social critiques were withering and applied not only to the clergy but also to professions such as medicine and the law. Such critiques are especially well contextualised by Webster, who shows how they related to the maelstrom of religious, social and medical conflicts, ideas and writings of the time.

The theme running through the book is Paracelsus’ rejection of new as well as old elites, whether of the confessional groups, humanists, the professions, etc. Yet a grouping of sorts was in Paracelsus’ mind, the community of the believers or saints leading an ascetic life and enlightened by the light of God could be the true reforming congregation. Such believers would practise the true medicine consisting of philosophy, alchemy and astronomy based upon magic and the kabbalah. Yet this magic was not to be limited to a small elite group possessed of esoteric knowledge. Rather, as Webster points out, it was to be universal knowledge in principle open to all, just as the ‘Radical Reformation’ was to be open to all. The link to Neoplatonism was there but it was transmuted from being the possession of the small group of humanists and put into the service of the new world to come.

There is much to admire in this book. The violent controversies, their tangled dimensions, the world of the *Flugschriften*, are all vividly conveyed and the recent scholarship on Paracelsus is lightly, but with good effect, brought into play. Paracelsus’ ideas are explained with brilliant clarity whether it is the concept of plenitude in the macrocosm and microcosm, disease as part of the contest between good and evil, the link between poisons and medicines, or Paracelsus’ conception of the Light of Nature.

There are a few caveats, sometimes Webster, like Pagel, paraphrases Paracelsus in such a way that it is unclear if we are reading Paracelsus or Webster. But that is because of the emphatic link between Webster and Paracelsus. There is no doubt that Paracelsus, the man and his politics, is a hero figure for Webster. If this book had been written by a conservative historian about a conservative hero-figure it is likely that I and many historians of medicine would have been making critical remarks about outmodish Whig history. But the brilliance, deep scholarship and clarity of this book show that it is possible to write enthusiastically and empathetically about someone and produce a major historical work. The caveat is really about the current values held in common by historians of medicine.

Andrew Wear,
The Wellcome Trust Centre for the History of Medicine at UCL

Antònia Carré (ed.), *Libro llamado el Porque* de Girolamo Manfredi: *Regimen de Salud y Tratado de Fisionomonía*, traducció castellana de Pedro de Ribas (1567), Instituto Biblioteca Hispánica, Serie básica 2, (San Millán de la Cogolla: Cilengua, 2009), pp. 585, paperback, ISBN: 978-84-937654-0-8.

Girolamo Manfredi (c.1430–93), a master of medicine and astrology at the University of Bologna for some thirty years, produced, in the second half of the fifteenth century, a didactic compilation of 568 questions and answers related to two main topics: the human body and the preservation of its health, and causal explanations regarding human behaviour. This encyclopaedic *summa*, dedicated to his patron Giovanni II Bentivoglio and entitled *Liber de Homine* (also known as *Il Perché*) belongs to the genre of *Problems* literature, which has a long history that, in the mediaeval Latin West, starts with the Salernitan questions in the
twelfth century. These were normally produced in Latin, by and for natural philosophers or physicians. Yet targeting a more general readership, Girolamo opted for transmitting his ideas in Italian. In this respect he was not unique: Évrart de Conty (c.1330–1405), the physician of King Charles V of France, produced a French translation of and a commentary on Aristotle’s Problemata almost a century earlier. Girolamo’s Liber de Homine unfolds the dynamics of diffusing medical knowledge to the broader sectors of society, and provides ample evidence for the vernacularisation of scientific knowledge in the fifteenth century. The pressure and drive to reach out to society and expose it to scientific knowledge has thus a long history.

The work is divided into two books. The first is a regimen sanitatis, following the traditional rules of this genre of medical writing with some idiosyncratic touches. The second links man’s bodily composition to various behavioural patterns (de causis in homine circa compositione eius). Though the word physiognomy appears in the text only once (in the title of the first chapter), the present editor, like many historians before, regards it as a physiognomy text-book, the first of its kind to be composed in a vernacular language and structured as a series of questions largely selected from Pseudo-Aristotle’s Problems. The book became a best seller in Italy and was printed there three times in the fifteenth century, and eleven times in the sixteenth century. There are also a further eleven manipulated Italian editions throughout the sixteenth and seventeenth centuries, the latest in 1678 Venice. The first edition from 1474 was one of the first books to be printed in Bologna, and the 1512 Ancona edition is the first book printed in this city. Leonardo had a copy on his bookshelf. All this suggests that Girolamo’s Liber de Homine had a significant and lasting presence in Renaissance and early modern Italy and thus deserves our attention.

The present elegantly produced volume provides an edition of the Zaragoza, 1567 Castilian translation by Pedro de Ribas, accompanied by a lucid and learned introduction that places the original Italian book and its Castilian translation in context. Neither for the regimen of health, nor for the physiognomy is there any attempt by the editor to unearth the sources of the information divulged by Girolamo. The critical apparatus is limited to the relationship between the translation and the original Italian text (even references to uncontested sources such as the Pseudo-Aristotelian Problemata and the Secretum Secretorum are not identified, not to mention Pietro d’Abano’s influential commentary on the Pseudo-Aristotelian Problemata, which was possibly known to the author). For a discussion of the regimen an important and relevant secondary source, Marilyn Nicoud, Les régimes de santé au Moyen Âge: naissance et diffusion d’une écriture médicale en Italie et en France (XIIIe–XVe siècle) (Rome: École française de Rome, 2007) could have enriched the introductory debate and situated the first part of the text in the longer history of this genre of medical writing.

The Castilian translation is an expurgated version of the original Italian text and contains only 494 of the questions. It includes the two letters of dedication by Antonio de Furno, the book-dealer who was behind the project, and the original sixteenth-century alphabetical index of subjects and themes. The editor, Antònia Carré, has added the missing seventy four questions (in the Italian original) in an appendix, enabling us to reconstruct the rationale for omitting the questions and exposing the prudish world-view of Pedro the translator (most questions concerning coitus were omitted) and the general dynamics of self-censorship. In his largely literal and accurate translation, Pedro avoids the use of technical terms, opts for simple language, refrains from excessive references to authorities, and adds simplifying and concluding remarks at the end of more complex responses. This may explain the popularity of the text.

Antònia Carré edited in 2004 the anonymous Catalan translation (Barcelona, 1499) of Liber de Homine, and the two
independent Iberian translations (together with the 1988 edition of the Italian original text) now constitute an important and welcome cluster of texts for anybody interested in the vernacularisation of scientific knowledge, the history of medical books, the emergence of medical terminology in sixteenth-century Iberia, and the complex impact of translations on a core text.

Joseph Ziegler,
University of Haifa

Teresa Huguet-Termes, Jon Arrizabalaga and Harold J. Cook (eds), Health and Medicine in Hapsburg Spain: Agents, Practices, Representations, Medical History Supplement No. 29 (London: The Wellcome Trust Centre for the History of Medicine at UCL, 2009), pp. vi + 158, £35.00/€40.00/$60.00, hardback, ISBN: 978-0-85484-128-8.

Anyone wishing to take the pulse (so to speak) of the history of early modern Spanish medicine would do well to start with this slim but valuable book. Its half-dozen essays provide a well-rounded sample of recent work in a field that, as Harold Cook stresses in his introduction, still remains largely unnoticed in the English-reading world.

María Luz López Terrada opens the collection by reviewing the efforts of various institutions to police the health sector in sixteenth-century Valencia. She highlights the lively diversity of this marketplace, and suggests that competition and confusion among different authorities – city and viceregal governments, guilds, and the Protomedicato, or special royal tribunal – wound up encouraging medical pluralism. That one of the physicians whom King Philip II (1556–98) named Protomédico proved to be a committed Paracelsian leads appropriately to the next chapter, Mar Rey Bueno’s overview of alchemical activities in Philip’s court. She argues that, while the King showed little interest in the occult (unlike his relative Rudolf II), he was certainly willing to employ such chemists for their skills in distilling waters and devising other remedies. From this markedly therapeutic (and Lullian) alchemy one moves on to witches, or rather, the saludadores or folk healers, whose many attributes included the ability to detect witches, along with other innate skills, such as the power to cure rabies with their saliva. María Tausiet has unearthed numerous intriguing references to these ambiguous figures, who, not surprisingly, were often accused of practising the same sort of black magic they claimed to offer protection against.

Teresa Huguet-Termes then focuses on efforts to reorganise the medical sector of Madrid following its designation as capital of the Hispanic empire in 1561. While the runaway growth of the city’s population predictably frustrated these reforms, she joins a larger historiographic consensus in finding little to distinguish Counter-Reformation initiatives in public healthcare from those which prevailed in the Protestant north. Mónica Bolufer also keeps the broader European picture in mind while tracing the changing representations of women within a series of texts which ranged from Juan Huarte de San Juan’s best selling The Examination of Wits of 1575, to the enlightened cleric Benito Feijoo’s essay ‘The Defence of Women’, published in 1726. She discerns a few important shifts amid underlying continuity in views of women within learned culture, and suggests that Iberian discourse on sexual difference evolved closely in tandem with medical writing outside the peninsula. Jon Arrizabalaga closes the volume with a portrait of Rodrigo de Castro (c.1546–1627), a Portuguese physician of Jewish background who re-converted to the faith of his ancestors after moving to Hamburg. There he achieved prominence for two publications, a handbook on female diseases and a weighty guide to medical ethics. Arrizabalaga places particular emphasis on the latter, which he sees as marking an important step forward in the self-
consciousness of the higher ranks of the healing profession, while it defended Jewish (as well as Islamic and Scholastic) contributions to the long-term development of medical knowledge.

The reader of these essays will come away with a strong sense, not only of the dynamism that characterises the small but energetic community of historians of medicine and science in Spain, but also of how, thanks to their efforts, many old clichés are now biting the dust. One certainly bids them well. At the same time, the sympathetic observer may wish that they had taken a few more risks in their analysis, which is heavily outweighed by description. Sacrificing any of the rich empirical detail that is so often found in early modern Spanish documentation would obviously be a mistake. But leavening that detail with a sharper and more sustained analytical effort would help attract greater attention to a sphere of historical research that – as this volume clearly demonstrates – deserves to be much better known.

James S. Amelang,
Universidad Autónoma, Madrid

Rebecca Laroche, Medical Authority and Englishwoman’s Herbal Texts, 1550–1650, Literary and Scientific Cultures of Early Modernity (Farnham: Ashgate, 2009), pp. xii + 196, £55.00, hardback, ISBN: 978-0-7546-6678-3.

Our understanding of the complexities of lay engagement with healthcare and medicine in early modern England has been illuminated in recent years by the investigations of literary scholars in a field formerly the preserve of medical and social historians. The author of the present work brings the techniques of textual analysis and take-no-prisoners style of academic literary studies to bear on her chosen theme with somewhat predictable results. There is a rich seam of fruitful insights buried in this study but readers of weaker constitution may be forgiven for giving up before encountering it.

The central aim of the work is to analyse surviving evidence of female ownership and use of printed vernacular herbals in England in the later sixteenth and seventeenth centuries, to shed light on the place of such products in women’s lives and their relationship with established (male) medical authority. The date range in the title is slightly misleading as these are the approximate outer dates of the herbal publications themselves – from William Turner’s A New Herball (1551) to John Parkinson’s Theatrum Botanicum (1640) – rather than the covering dates of the author’s body of evidence: she helpfully lists the twenty-four individual pieces of evidence of female ownership and use dating from c.1597 to 1689 in an appendix. Principal among these are the well-known memorials of Margaret Hoby, Grace Mildmay and Elizabeth Isham. Laroche’s discussion of these three women’s interaction with the printed herbals in their possession, and that of the other less well-documented female inscribers of printed herbals in her survey, is subtle and suggestive, but in the absence of much supporting evidence there is little she can offer by way of general conclusion, apart from the obvious fact that these interactions were varied, depending as they did on a range of differing personal, social and geographic circumstances.

One cannot avoid feeling that closer engagement with the much larger body of evidence provided by female-authored and inscribed manuscript recipe books of the period would have served the author well here, whilst admitting that this would necessarily have diluted Laroche’s forensic focus.

The last chapter of the book is a discussion of the textual and other influences in the construction of Isabella Whitney’s A Sweet Noscay, or Pleasant Posy (1573), a socioeconomic satire on contemporary London using herbal texts as source material. Laroche’s treatment is again sensitive and, in the view of this reviewer, persuasive in locating the seminal influences in
contemporary cheap print medical texts, and particularly in William Bullein’s *A Dialogue both Pleasaunte and Pietifull* (1564), written a year after the devastating plague of 1563. However, there is perhaps less of direct interest for medical historians here than in earlier chapters and the entire section has the air of an appendix, somewhat detached from the core of the book.

This is a valiant attempt to extract meaning from a range of materials that tantalise and entice, whilst remaining stubbornly resistant to easy interpretation. The author herself concludes her work with an exhortation to others to ferret out further examples of female ownership and use of printed herbals, and this is surely right. It is in the nature of pioneering works to be provisional and open-ended. Few rare books catalogues provide the level of provenance detail that makes identification of female owners or inscribers anything other than serendipitous. Meanwhile, conventional, and no doubt unavoidable demarcations between the management of printed books and manuscript holdings in libraries inevitably militates against seamless access to these resources by scholars. In these circumstances, Rebecca Laroche has made a commendable contribution to establishing foundations for further study in this area.

Richard Aspin,
Wellcome Library, London

Rosemary Poole, *A Truly Happy and Affectionate Family: Life Among the Denmans, Crofts and Baillies 1733–1847* (Sawbridgeworth: privately published, 2008), pp. 144, £15.00, paperback, ISBN: N/A.

*A Truly Happy and Affectionate Family* is an edited collection of personal documents from three eighteenth- and nineteenth-century English families, the Denmans, the Crofts and the Baillies. The editor, Rosemary Poole, who herself is a direct descendent of the Denman–Croft line, focuses especially on the characters of Thomas Denman (1733–1816) and his wife Elizabeth (1747–1833), their twin daughters, Margaret (1771–1847) and Sophia (1771–1845), and their son, Thomas (1779–1854). Poole wished to incorporate ‘as much original writing as possible in order to enlarge an understanding of the conventions that the writers used in their recording of events and not in any way to fictionalise the narrative’ (p. 9). This original material includes extracts from the diary of Elizabeth Denman, the autobiography of Thomas Denman, family correspondence, poems penned by the sons of Margaret Denman, Thomas and Richard Croft, and fourteen illustrations of the family members. The editor intersperses these primary documents with her own editorial comment and narration in an attempt to give the reader as full a picture as possible of the lives of the families under examination. The book has a broadly chronological structure, with eight chapters, some of which concentrate on specific characters, and others on particular primary sources. There are also five appendices, which contain additional primary documents.

As reflected in the title, the book’s most striking feature is the emotional warmth enjoyed between members of the families, and particularly between Elizabeth Denman and her children and grandchildren. ‘[I] felt truly thankful to the Father of all mercies, for permitting me at my advanced age, to enjoy the cheerful sport of my children and my grandchildren and I was highly gratified to see the harmony which subsists amongst them’ (p. 66), is a typical entry in Elizabeth’s diary. Poole writes about the family with empathy, respect, and sensitivity, and displays a real interest in the thoughts and feelings of the central characters. Her expert knowledge of the family history is demonstrated by her clear and detailed descriptions of the events, and her subtle piecing together of the various strands of the family’s complicated history in order to create a coherent overall story. Through this story, the reader gains an insight into the everyday life of an upper-class family, and
encounters a range of historical topics, such as family relationships, medicine and health, death and bereavement, entertainment and leisure, religion and spirituality, and the hazards of travel. Elizabeth Denman’s delight in choosing a ‘Pedlar Doll’ for her little niece Maria Brodie (pp. 99, 100, 105), her ‘perplexity’ and worry about her granddaughter Fanny, who was about to ‘bring forth her first born [child] in a foreign land, far away from her husband’ (p. 103), and her descriptions of the ‘gayeties of the Chimney Sweepers’ during the May Day celebrations of 1832 (p. 92), are just a few of many intriguing glimpses provided by the primary sources. The book would be especially useful to medical historians, since some of the main characters were eminent physicians or surgeons, including Thomas Denman, his sons-in-law Richard Croft (1762–1818) and Matthew Baillie (1761–1823), and his nephew, Sir Benjamin Brodie (1783–1862). Elizabeth Denman frequently refers to her own health and the illnesses of her relatives and friends in her diary. For example, in 1825 she was ‘seized with sickness at dinner’, and ‘did everything that I was ordered’ by the doctors, but still she had ‘a very restless night’ and ‘felt so weak and feeble in the morning, that I could not venture to leave my room the whole day’ (p. 80).

While the book would be useful to historians, it is not actually clear whether this was in fact the editor’s aim. The narrative style, and absence of critical analysis or argument in her commentary, indicates that it may be intended for the interested public rather than for the professional historian. If the book is aimed at historians, it could be improved in various ways. Firstly, the Introduction could be restructured and expanded so that it contains sections on the book’s aims and structure; the nature and limitations of the sources; the key historical issues and themes that emerge in the primary sources; and the social, cultural, medical, and economic context. Secondly, it would be useful if the editorial comment were distinguished more clearly from the primary source extracts in its format, since at the moment it is not immediately obvious where the editor’s voice ends and the primary sources begin. Thirdly, the Index could be organised by theme or subject as well as by name, so that historians could more easily locate the information they require. Finally, the editor might like to consider including a short conclusion to draw out some of the main themes which arise in the primary sources, and to evaluate what these reveal about the emotional character of family relationships in the eighteenth and nineteenth centuries. But even without these alterations, the book will be appreciated by the historical community for its rare and intimate insights into the lives of three very interesting families.

Hannah Newton, University of Exeter

Grégoire Chamayou, Les Corps Vils: Expérimenter sur les êtres Humains aux XVIIIe et XIXe Siècles, Les empecheurs de penser en rond (Paris: La Découverte, 2008), pp. 423, €24.50, paperback, ISBN: 978-2-7071-5646-4.

Grégoire Chamayou’s historical–conceptual study of experimentation on human beings in the eighteenth and nineteenth centuries focuses on the category of ‘vile bodies’, as in the expression experimentum in corpore vili. Vile bodies are categories of experimental subjects who have been judged to be ‘beyond the pale’ and thus can be used at the experimenter’s will. Chief amongst these are criminals condemned to capital punishment: we learn of the raft of Enlightenment arguments justifying the worst forms of experimentation on such prisoners, because they owe a moral debt to society, or because of variations on a utilitarian calculus.

Maupertuis devoted an entire section of his Lettre sur le progrès des sciences to the ‘usefulness’ of experiments on criminals. He had the decency to suggest that if the criminal survives the experiments, he should be pardoned, since he has by a basic calculus
done his part of the bargain. The criminal has to consent to this of his own free will. This kind of calculation – which even Diderot subscribed to, as can be seen in the article ‘Anatomie’ of the Encyclopédie – is still less chilling than Fichte’s entirely formal definition by which a criminal who has been condemned to capital punishment is already a non-person. Chamayou quotes Fichte explaining that once a death sentence has been pronounced on a criminal, he is bürgerlich tot, ‘dead from a civil standpoint’, hence anything that is done to the physical body of the individual does not concern his civil status any longer, including his rights (p. 89). Yet Maupertuis, too, recommends we ‘not be moved by the air of cruelty we might think to find here: a man is nothing compared to the human species; a criminal is even less than nothing’ (p. 81).

Other categories of people who were considered legitimate for experimentation, moving into the second half of the nineteenth century, were the mentally ill and severely retarded, and prostitutes (particularly for inoculation experiments with syphilis). Chamayou quotes one disturbing – and disturbingly illogical – response by a prominent syphilis researcher in Paris, Dr Auzias-Turenne, to an official inquiry in 1853 into whether he could be allowed to inoculate syphilis to a group of prostitutes held at the St Lazare prison. Partly anticipating the notion of consent and treading on it at the same time, Auzias-Turenne explains that the prostitutes must agree to the experiments ‘of their own free will and be subjected to mine [ie. his own will ]’ (p. 287).

This is a heavily Foucauldian work, filled with both the familiar jargon of that school and some of its own, such as the ‘cognitive surplus value’ (p. 179) which is extracted from the bodies of the prisoners. This sounds more Marxist, and indeed Chamayou often refers approvingly to Marx, who himself called attention to the expression corpore vili. Perhaps this marks the difference between Chamayou’s treatment of human experimentation and other, more scholarly treatments, such as those by Anita Guerrini or Andreas-Holger Maehle – his more explicitly political approach. Indeed, Chamayou suggests that the problem does not reduce to a duality of the ‘purely scientific’ versus ‘ethical’ considerations: as is clear in the cases of colonial, racialised medicine (discussed in the last chapters), or the use of prisoners and prostitutes, there is a dimension of power and subjection which is unavoidable in this story. At the same time, as he moves away from the Enlightenment and its aporias toward nineteenth-century experimental subjects, such as soldiers or individuals with wounds which have revealed an organ enabling exceptional in vivo experiments, Chamayou loses some of his theoretical momentum. Rather than extending the analysis all the way until the early twentieth century, it might have been useful to have included even a brief discussion of human experimentation before the early modern period, so we would have a better sense of whether or not the Enlightenment constitutes a ‘break’.

Les corps vils is nicely illustrated (I recommend the reproduction of Hogarth’s Four Stages of Cruelty), elegantly written, if sometimes too enamoured of its own phraseology, and clearly and consistently argued, especially in the political sense mentioned above. It contains numerous vivid quotations from primary sources, often unknown. We can learn a lot about human experimentation in Enlightenment philosophy and medicine (chiefly French, but also German) from this book.

Charles T. Wolfe,
University of Sydney

Marc J. Ratcliff, The Quest for the Invisible: Microscopy in the Enlightenment (Farnham: Ashgate, 2009), pp. xvi + 315, £60.00/$124.95, hardback, ISBN: 978-0-7546-6150-4.
Traditionally, historians of microscopy considered the eighteenth century ‘the lost century’ – Brian J. Ford, Revealing Lens (London: Harrap, 1973) – a time of decline in microscopy research, bookended by a burst of activity in the seventeenth century with the work of Leeuwenhoek, Malpighi, and others, and the rise of microscopy to a position of scientific prominence in the nineteenth century. Historians have attributed the nineteenth-century resurgence to the development of the compound achromatic microscope and the emergence of cell theory in the 1830s, culminating in the era of microbiology in the second half of the century. Using manuscript and printed sources not consulted by others, Marc Ratcliff revises this interpretation, contending that the eighteenth century was a time of serious microscopy research, primarily in the natural sciences. Jutta Schickore made the same point in her recent book, The Microscope and the Eye: A History of Reflections, 1740–1870 (Chicago: University of Chicago Press, 2007), but Ratcliff provides much more detail.

Ratcliff tells his story of eighteenth-century microscopy in three parts. In Part I, 1680–1740, researchers sought to determine what constituted a good microscopical object. At first they focused on animalcules, an approach inherited from the previous century, but these invisible organisms could not provide a shared viewing experience. By the end of this period, investigators had settled on insects and seeds, both visible with the naked eye, but whose viewing could be perfected and enhanced by the use of the microscope. They could also share what they saw and communicate their findings.

From 1740 to the 1760s (Part II) there was a turning point in the history of microscopy, exemplified by the work of Abraham Trembley, whose polyp aroused enthusiasm throughout Europe because of its ability to regenerate itself. Trembley made major contributions to the shared research effort; for example, he developed ways of shipping living organisms for shared viewing. This era also witnessed the development of the experimental research laboratory and the experimental report to which Trembley made important contributions. During these years the modern experimental report became commonplace. According to Ratcliff, Trembley was ‘the major driving force for the 1740’s take-off in microscopical research’ (p. 117).

After the polyp, microscopy research moved into marine zoology and other areas of investigation. By the end of the century (Part III), microscopy researchers took up the ‘quest for the invisible’ by turning their attention to infusoria, objects only visible with the microscope. This new focus posed classification problems, since Linnaeus’ classification system could not easily accommodate infusoria. The Danish researcher, Otto-Friedrich Müller, developed his systematics of infusoria by applying the canons of modern natural history to known microscopic species. Müller’s influence was great: he was the first to classify animalcules according to the Linnean system and in accordance with the extant physiological knowledge. His Animalcula Infusoria provided a foundation for microscopical zoology into the 1820s. Müller’s work allowed a whole community of microscopy researchers to constitute itself around the invisible, now that they had a common language and a systematic model to enable communication.

Overall, Ratcliff de-emphasises social and political explanations commonly used by sociologists and historians to explain science, arguing that communication and cognition were constitutive of eighteenth-century microscopy. Communication was key to the formation of a European-wide research community. Journals were the vehicle, along with scholarly societies, exchanges between individual scholars, letters, handbooks, reports, and specimens.

Ratcliff argues that the ‘the lost century’ was a construction by nineteenth-century microscopy researchers who sought to distance themselves from the ‘amateur’ work of predecessors, conducted on what they considered inferior instruments. These microscopists judged the results of eighteenth-
century research as unsophisticated compared with nineteenth-century advances in cellular theory and pathology.

This book will be indispensable for historians of microscopy and eighteenth-century natural science. Historians of medicine will find the book of interest, although the focus is not on medical microscopy. Two chapters on microscopes in the market-place provide a context for understanding microscopy questions and research. Copious illustrations and tables enhance the reader’s understanding of the eighteenth-century microscopy enterprise. The book has some weaknesses. Sloppy copy-editing detracts from the reader’s experience. Furthermore, Ratcliff may have included too much information: the book is dense. All in all, however, Ratcliff deserves much credit for this fine scholarly monograph.

Ann F. La Berge,
Virginia Tech, Blacksburg

James C. Whorton, *The Arsenic Century: How Victorian Britain was Poisoned at Home, Work, and Play* (Oxford: Oxford University Press, 2010), pp. xxii + 412, £16.99, hardback, ISBN: 978-0-19-957470-4.

No mere chronicle of lives of the great poisoners, *The Arsenic Century: How Victorian Britain was Poisoned at Home, Work, and Play* takes up the broad question of a society’s response to a cheap and lethal substance present in multiple consumer products. Whorton’s twelve chapters range widely across fashion, medicine, and technology, in exploring how arsenic got into Victorian bodies. Beyond purposeful poisoning there were many non- or less-deliberate poisonings from accidents or from chronic exposure in homes, on farms, or in mines or factories. A white powder in some common forms, arsenic was readily mistaken for innocuous white powders. Arsenical compounds brightened candles, and, as Schweinfurt green, dyed dresses and wallpapers, including those of William Morris. Low doses were held to strengthen the heart and beautify the complexion; arsenic was an active ingredient in popular medicines. It was in sheep dip and clung to the shepherd. As a contaminant of sulphur ores, it got into sulphuric acid, and into whatever was made with that industrial mainstay, such as Manchester beer, brewed with sugar rather than malt, the sugar having been refined with such acid. Of course, arsenic’s ubiquity left Victorian murderers and murderesses with ample alibis – she had bought all that arsenic only to kill rats, said one.

For most of the century it was tricky to prove arsenical poisoning, much less identify a culprit. By mid-century, the Marsh and Reinsch tests had helped to consolidate a cadre of forensic experts. But hope of certainty in outing poisoners only spurred ingenuity among defence attorneys – perhaps the arsenic seeped into the buried corpse in the groundwater? Thus arsenic remained a destabilising power within Victorian society – it affected gender roles, relations of master and servant; relations within families; among professions. A series of trials in the late 1840s disclosed a league of lower-middle-class Essex women who pursued mutual improvement via strategic poisoning and were able successfully to hint that local (male) juries would be unwise to convict any of them. The new life insurance industry, particularly in the form of burial clubs, may have served as a stimulus package for arsenic use – there could be a premium on the elimination of an extra child or inconvenient spouse or relation.

Yet much arsenical poisoning was due to frivolousness – fashion over safety – or to institutionalised neglect. Whorton also draws attention to the sort of surplus-extracting bargains between capital and labour (or consumers) that so horrified Karl Marx: at best, the response to regular damage to health of those who mined or refined arsenic ores or prepared wall-papers was minimal mitigation – a handkerchief over the face.
Systemic poisoning was no ground for overthrowing the prevailing view that the market compensated for any harm to health. Britain failed to grapple effectively with arsenic, Whorton believes. In some cases arsenical technologies were superseded, or the glacial pace of public concern (or the quicker one of changing fashion) forced manufacturers to abandon arsenical products, but arsenic scandals kept coming. Noting that continental governments, with stronger traditions of medical police, sometimes acted more energetically in regulating arsenical commerce, Whorton reflects on the sanctity of *caveat emptor* in Victorian culture. Yet in other areas of public health British governments did overcome any principled reluctance to act.

The *Arsenic Century* is a good read, reflecting Whorton’s fine eye for evidence and broad sweep, yet vignettes and grisly tales sometimes get in the way of historical analysis: a book about a Victorian sensation (arsenic was one) does not fully escape the sensationalism of its sources. Like forensic science today, arsenic was a boon to Victorian publishers. Murders thrilled readers; poisoning was the most lurid sort of murder. Adulterated foods, stupid fashions, and industrial victimisation could also draw readers. Medical weeklies like the *Lancet* fed on that sensation at one remove. One may wonder if Victorian Britain’s unwillingness to take arsenic more seriously stemmed from the public’s ambivalence toward its journalism. Some pervasive threats to health do exercise us most fully as occasions for venting or hand-wringing; any effective action would be complicated and highly inconvenient.

My criticisms are equally suggestions for further work. First, a more systematic comparative treatment would clarify any British uniquenesses (Whorton occasionally alludes to European or American practice, but in no sense is this book a comparative treatment). Second, however helpful Whorton’s topical ordering, it obscures change, yet he suggests that there was greater responsiveness by the end of the century. Finally, we need to know more about who the poisoned were and how many. Arsenic mimicked common illnesses, including infectious diseases. If the sensationalists are right, a revision of a received view, in which poisoning is rare and infection common, would be warranted. Or perhaps this is mainly a story of the power of mass media to embellish environmental (and social) danger. With this fine introduction to an overlooked threat to health, Whorton has earned the right to address that question more fully.

Christopher Hamlin,
University of Notre Dame

---

Christoph Gradmann and Jonathan Simon (eds), *Evaluating and Standardizing Therapeutic Agents, 1890–1950* (Basingstoke: Palgrave Macmillan, 2010), pp. xiv + 266, £55.00, hardback, ISBN: 978-0-230-2381–8.

This collection of articles edited by Christoph Gradmann and Jonathan Simon, investigates an important, and timely topic: the history of the standardisation of therapeutic agents, or, to use the term chosen by the volume’s editors, *Wertbestimmung*. This word does not correspond precisely to the English term ‘standardisation’, since it contains also a dimension of ‘evaluation’ and ‘regulation’. The difficulty of defining what exactly standardisation/Wertbestimmung is, and how it unfolds in different sites, is at the very centre of this volume. The final essay by Alberto Cambrosio quotes Samuel Krislov’s apt formulation: ‘there is no standard way to define standards’. On the other hand, if *Evaluating and Standardizing Therapeutic Agents* does not provide a single definition of standardisation/Wertbestimmung, it conveys a good understanding of the importance of this topic and its central role in the development of twentieth-century medicine.

The first part of this collection is composed of seven papers (by Cay-Rüdiger Prüll, Axel Hüntelmann, Anne I. Hardy, Gabriel Gachelin,
Jonathan Simon and Marianna Kaba) which discuss the case of diphtheria serum, the first and exemplary standardisation of a biological drug. Three of the four papers of the second part investigate other biological therapies: Michael Worboys studies Wright’s therapeutic vaccines, Jean-Paul Gaudillière, the manufacture of sex hormones, and Ulrike Linder, polio vaccine. A fourth paper, by Christian Bonah, examines the standardisation of Strophanthin, a drug derived from a plant. The two parts are linked through insightful papers on the Danish State Serum Institution, by Anne Hardy, and on the development of international co-operation in the inter-war era, by Pauline Mazumdar. The latter paper focuses on the politics of standardisation, rather than on the fate of standardised substances. Mazumdar’s study also provides important insights on the development of international co-operation in the inter-war era.

The majority of the papers in this volume are carefully researched case studies that illuminate different aspects of standardisation/Wertbestimmung in context. They point to the role of local scientific cultures of leading institutions (the Pasteur Institute in Paris, the Serology Institute in Copenhagen, St Mary’s Hospital in London), of charismatic individuals (Ehrlich, Roux, Madsen), relationships between researchers and clinicians, organisation of health care, state intervention, and international networks of collaboration and exchange. Papers by Hüntelmann (on the regulation of diphtheria serum in Germany), Gaudillière (on the production of hormones by Schering and Bayer) and Bonah (on standardisation of Strophanthin) dwell also on theoretical aspects of standardisation/Wertbestimmung. They discuss the contrasting roles of administrative and industrial cultures of standardisation; the differences between standardisation in a research laboratory and a production plant; the co-production of a given therapeutic agent, its clinical indications, and the criteria of its efficacy. The final, synthetic essay by Alberto Cambrosio, situates standardisation in a larger framework of regulatory practices in medicine, and argues that the early regulation of therapeutic sera and vaccines set the pattern for the later regulation of all pharmacologically active preparations. Drawing on the pioneering work of Ludwik Fleck, Cambrosio stresses the importance of the slow, meandering initiatives which, crisscrossing between research laboratories, production plants and regulatory instances, gradually led to the stabilisation of new therapies.

A single volume cannot do full justice to a very rich and complex topic. Further studies will teach us more about the strategies of industrialists, the role of clinicians, and methods used to assess the efficacy and risks of therapeutic agents. In the meantime, the volume Evaluating and Standardizing Therapeutic Agents is an excellent introduction to the role of standardisation/Wertbestimmung as a boundary object which links heterogeneous networks and domains of study, and shapes the production of new medical knowledge and practices.

Ilana Löwy,
CERMES, Paris

Laura Salisbury and Andrew Shail (eds), Neurology and Modernity: A Cultural History of Nervous Systems, 1800–1950 (Basingstoke: Palgrave Macmillan, 2010), pp. xiii + 298, £55.00, hardback, ISBN: 978-0-230-23313-3.

This collection of essays starts from the assumption that: ‘to speak of neurology and modernity is to describe a relationship of mutual constitution’ (p. 1). ‘Neurology’ – in the broad sense in which the word is deployed here – is thus the product of the modern world. But doctrines of the nerves have also served to constitute the experience of the modern. Indeed, the editors maintain that: ‘modernity can be thought of as being singularly neurological, determinedly nervous’ (p. 2). The modern self, Salisbury and Shail contend.
in their introduction, has to a considerable degree defined itself in terms of the state of its nerves and, one might add, increasingly identified itself with the pinnacle of that system, the human brain. Neurology thus became: ‘modernity’s representative science of the body’ (p. 33).

The thirteen papers explore various aspects of this ‘symbiotic’ relationship from a variety of viewpoints and with varied success. The contributions tend to be brief and to sketch out themes rather than to explore them in any depth. Some of the topics covered are familiar. Jane A. Thrailkill, however, succeeds in finding new aspects to the well-worn topic of railway spine and the incipient diagnostic category of traumatic neurosis. She sees the discourse that arose around these complaints as productive of a novel ‘forensics of self’ (p. 99). This was in turn, she argues, conducive to a new sense of personhood. Aura Satz provides a stimulating discussion of the relation of the identification of ‘phantom limb syndrome’ in the nineteenth century with the contemporary manifestations of other ethereal bodies in spiritualist séances. Both neurology and spiritualism, she asserts, challenged received notions of the extent and duration of the body. In her account of what aphasiology has to say about the subject of modernity, Laura Salisbury rightly focuses upon the centrality of the neurological reconfiguration of language in initiating a conception of the self as, not only embodied, but also embedded in a perceptual world where the distinction between consciousness and res extensa is effaced.

Overall, this volume is representative of the level of interest that currently exists in writing a cultural history of the nervous system – an interest that is a reflection of the centrality of the ‘neurological’ in contemporary culture. The variety of approaches and materials that these essays draw upon gives an indication of how rich and challenging such a history will be.

Stephen Jacyna,
The Wellcome Trust Centre for the History of Medicine at UCL

---

**Antje Kampf, Mapping Out the Venereal Wilderness: Public Health and STD in New Zealand 1920–1980, Ethik in der Praxis/Practical Ethics Studies, Band 28 (Berlin: LIT Verlag, 2007), pp. iii + 272, €29.90, paperback, ISBN: 978-3-8258-9765-9.**

Do not be deterred by the German publisher’s misspelling of ‘venereal’ on the front cover, for it is catalogued correctly. Nor should you dismiss this careful and intelligent history of the public health response to sexually transmitted diseases in New Zealand as a peripheral study. New Zealand may be geographically remote and was once socially conservative, but its social policy for much of the twentieth century has been distinctive and instructive. It is more egalitarian than its Australian neighbour, and its record on race relations, while far from sufficient, has been vastly better. These are social characteristics that shaped the way doctors, nurses and administrators dealt with the problems of STDs. Finally, this book is not for purist cultural historians of disease: rather it is a careful review of discourses, policy and practice within the government medical service and public health authorities from 1920 to 1980, just as HIV/AIDS was entering public consciousness and health concerns in Australasia.

New Zealand did not have a severe STD problem: the frontier society of ocean wanderers, escaped Australian convicts and adventurers that would have suffered high infection rates was long past by 1920. By then, they had a magic bullet for syphilis, and the practical experience of coping with the high STD rates in overseas servicemen during the First World War. There needed to be a new rational approach: notification, clinics and treatment. None the less, the cultural assumptions remained of individual moral deficiency and of aberrant women (in particular those who hung around the ports) who were a reservoir of infection to entrap males sowing their wild oats. Kampf includes a detailed case study of venereal
disease and the Maori that builds an unexpected (to an outside reader) finding that race was less significant than class in stereotyping or deforming public-health responses.

Military venereal disease is a major focus of the book, in particular the lessons learned from the First World War for the more sensitive management in the Second. Civilian infections and the fears over ‘amateur’ and professional prostitution in wartime are investigated separately. (The long distances from the fronts enabled home populations to be protected from infected soldiers more effectively.) The study is enriched by the attention paid to the patient’s perspective and his or her agency in seeking better treatment.

Post-war, this is largely a story of a medical profession gradually learning to ‘think socially’ rather than ‘morally’: to start to understand how to identify ‘at-risk groups’; to reduce the stigma and fear which might deter the seeking of treatment; to trial more effective sexual education and public health campaigns. As Kampf concludes, by the 1980s, after travelling a ‘rocky and winding’ road, a new generation of sexual health physicians had arrived at a place where their patients were clients, their tools were biomedical and psycho-social and they worked in multi-disciplinary teams. The next phase of the story will be New Zealand’s response to the challenge of HIV/AIDS. This is a book of interest to historians and to sexual health practitioners.

Janet McCalman,
Centre for Health and Society,
University of Melbourne

**Gabriela Soto Laveaga**, *Jungle Laboratories: Mexican Peasants, National Projects, and the Making of the Pill* (Durham, NC: Duke University Press, 2009), pp. xiv + 331, £17.99/$23.95, paperback, ISBN: 978-0-8223-4605-0.

Heralded as one of the world’s key transforming medicines, the oral contraceptive pill has prompted many different histories since its first arrival half a century ago. Some have considered the motivations and difficulties of those who helped finance, synthesise and test the original pill. Others have looked at the impact the medicine has had for women and society as a whole. Few of these histories, however, have examined in detail its history from the perspective of the Mexican peasants who helped gather and process the Mexican wild yam (*barbasco*) necessary for its emergence. Soto Laveaga’s *Jungle Laboratories* provides a vivid account of these Mexican peasants, tracing their involvement back to the rise of the global synthetic steroid hormone industry from the 1940s that helped pave the way to the pill in the 1950s.

Based on archival sources and more than fifty interviews with former *barbasco* pickers, processing plant owners and state officials, *Jungle Laboratories* yields fascinating insights into the social, political and economic consequences of the global search for medicinal plants at a local level within the rural regions of southeast and southwest Mexico. The book particularly highlights the interrelationship between local allegiances and power structures in the development of *barbasco*. These were not static and shifted over time as the plant was converted from a local weed to a highly lucrative international medical commodity, firstly as cortisone, and then as a contraceptive pill.

Soto Laveaga argues that the scientific exploitation of *barbasco* was heavily dependent on the skills of rural Mexicans and their knowledge of soil conditions, growth cycles and ability to distinguish between different yam species. It was a Mexican peasant who helped Russell Marker, the first American chemist to synthesise steroids from *barbasco*, to track down the first plant for his research in 1942. When the *barbasco* plant proved difficult to transplant elsewhere, steroid production continued to rely on the expertise of Mexican peasants. Within eight
years of Marker’s first work on the plant, rural workers were removing several dozen tons of it from the jungle every week, delivering it by boat, horse or on their backs to processing plants. By 1975 more than 100,000 barbasco-picking families were involved in the trade. This included men, women and children.

In focusing on the impact of barbasco production on rural Mexicans, Soto Laveaga shows that these people were not simply a unified or universally exploited group in the process. While payment for extraction of the plant remained very low and conditions for picking and delivery were highly strenuous and hazardous, a lucky picker could rise socially, becoming in his or her turn an employer of other pickers, buyer or processor. For some rural Mexicans, barbasco gave them a new sense of identity as they moved from the position of uninformed root gatherers to that of skilled experts upon whom the wider pharmaceutical industry greatly relied. Within a short space of time they became well versed in the conditions necessary for tracking and extracting high-yielding plants, the science behind the drying and purification of the root, and developed highly tuned skills for negotiating agreements with commercial companies.

Armed with this new power, some of these rural Mexicans, as Soto Laveaga points out, later became articulate political agitators for economic reform of the countryside. From 1974 they were supported in this effort by a populist Mexican government seizing barbasco as a national symbol to promote rural modernisation and Mexican pharmaceutical independence. Setting up a Mexican state-run company, Proquivemex, to oversee the barbasco trade and improve the lot of those helping to gather and process the root, this government effort, however, ultimately failed. In part this reflected the fact that by the 1970s the international steroid industry had already begun successfully to exploit alternative raw materials for steroidal production. Soto Laveaga’s book is a powerful reminder of the complex local and international relationships involved in the production of medicinal drugs and the intricate social, economic and political impact this can have on individuals’ lives.

Lara Marks,
Open University and Cambridge University

Peter Atkins, Liquid Materialities: A History of Milk, Science and the Law, Critical Food Studies (Farnham: Ashgate, 2010), pp. xxii + 334, £65.00, hardback, ISBN: 978-0-7546-7921-9.

What can milk be other than the whitish, opaque and sweet liquid produced by women and female animals as the primary source of nutrition for their offspring? Certainly, we know that the exact components of this liquid vary by species, farming methods, age or nutrition, and that there exist vegetable liquids from soy, rice or almond called milk. One can observe that milk has the tendency to change over time, while for the purposes of consumption these material changes can be put into operation in numerous forms. We are also aware that the highly sensitive substance is not easy to store and transport, and therefore are used to the many hygienic treatments of milk, e.g. pasteurisation, as a preventive measure in the fight against pathogenic microorganisms. Yet, despite all restrictions and well-known technical operations, we tend to identify milk as one of the most natural foodstuffs on our table. Among the plethora of processed food products, milk and dairy products seem to have saved much of their naturalness.

However, there is nothing self-evident in the very nature of milk. Neither the material of milk nor its qualities are timeless, stable and unalterable. Our meanings of milk are instead the result of history; especially the question, why a particular food should be for whatever reason a healthy and desirable one, can be answered in very different ways. Today, the notion of nature fits better with our ideals of a
healthy food than the notion of manipulation and control, which resembles a mass-produced industrial product. Yet this is only one proposition. Quality cannot be taken for granted. The notion of the material quality of food has, in fact, been a long-standing issue of controversies and contests in economics. Such struggles are the starting point of Peter Atkins’ fascinating study of the ‘nature’ of milk in British science, dairy industry and health politics during the nineteenth century.

After the linguistic and visual turns in cultural studies, it sometimes looks as if the material world operates as a last sign for the natural. ‘Can we get our materialism back, please?’ was the polemic phrase of Bruno Latour with which he commented on this tendency. Atkins, too, does not believe in the stability of the material world, yet, at the same time refuses any kind of radical constructionism. While a substance like milk, on close inspection, is fully in the human realm, the material never could be handled without restrictions. Atkins prefers to follow Andrew Pickering and Keith Guzik (eds), Mangle in Practice (Durham, NC: Duke University Press, 2008) as a theoretical framework referring to the ‘dialectics of resistance and accommodation’ (p. 53). Knowledge production is seen as ‘muddling along towards understandings’; in the words of Atkins, science never knew the material qualities of milk, instead it was seeking the natural, and policing the real substance.

Thus, Atkins offers a history of the production of knowledge tools intended to perceive and explain the material nature of a bodily substance in order to transform this substance into a commercial product on increasing food markets. Instead of analysing the power of instruments, laboratories, firms and legal institutions – as classical history of science and technology would have done – Atkins concentrates on the mechanisms or, with reference to Foucault, the ‘dispositifs’ that have generated the expertise and norms produced by these institutions. Many branches of research – for example, milk chemistry – ended up in analysing the composition and properties of the fluid. Many technical procedures acted on and distributed the discursive space in which the meanings of the nature of milk were made. Atkins divides the experimental trials on milk into no less than ten distinct forms; likewise, the expertise, and the disagreements between experts.

All the scientific findings of the period under consideration are nothing but interpretations attributed to the materiality of the body. One could call it an experimental realism. This experimental realism no longer presented bodily materials in a personal, private or individual form, severed from other spheres of life, but as something universal, representing all individual milks. As such, milk became measurable, normative, standardisable. Although different bodies continued to give different substances, these became increasingly comparable in physical properties, ingredients, taste and quality. Yet speaking through the medium of lactometers, etc., scientists offered curious explanations of matter that created new images of milk. The practice of measuring produced in a laboratory was transmitted to the material world and amalgamated with the perceptions of earlier periods. This becomes very clear in relation to the leading themes of earlier periods. Milk adulteration, for instance, as old as the commercial milk trade, was no longer only defined by secret manipulations but also by the adulteration detection tests and their indicating devices. Hence, formulas or scientific notations relate not only to subsequent problems of standardising and homogenising material differences. If they are leaving the world of the laboratory, they become images of the ordinary materials belonging to everyday life and recognised by all. Atkins analyses this shift with respect to the legal procedures of the British food and drugs legislation, demonstrating that the quality of milk is closely related to the practice of common law. Scientific, technological, commercial, moral and, finally, legal influences are hidden behind ‘a blanket of innocent whiteness’ (p. 277).

Milk represents the emergence of a consensus of material ontologies, and it is the
work of the historian to map even some of the involved parties. Atkins does not try to sum things up. He is just describing particular historical persons, methods and events, while rethinking food history and doing a very empirical philosophy. He relates his findings on the material quality of milk to other texts from different fields (epistemology, history of science, history of food) and in so doing finds his own narrative. This is quite radical and thought provoking, arguing that the materiality of milk is not a given. Ontology is a quest of politics, and science is as multiple as reality in general.

Barbara Orland,
University of Basel

Anne Løkke, Patienternes Rigshospital, 1757–2007 (Copenhagen: Gads Forlag, 2007), pp. 119, Kr 229.00, hardback, ISBN: 978-87-12-04219-8.

It is fascinating to consider that Rigshospitalet in Copenhagen, the major hospital in Denmark’s capital, has hosted patients day and night for the past 250 years. It is perhaps even more interesting to realise that glimpses of the four million patients who have used this facility over the centuries still exist in the archives. This unique source material underpins the narrative of Patienternes Rigshospital in which the historian Anne Løkke tells the long and changing history of the hospital, combining an institutional view from above with a patients’ view from below. The book gives a detailed and vivid picture of life at the institution and how medical knowledge, skills and technology transformed it from a hospital that primarily offered shelter, food and care in the eighteenth century to a ‘factory’ that produced effective cures in the twentieth century.

Founded in 1757 by King Frederik V, it was named initially the Royal Frederik’s Hospital. At this time the poorhouses in Copenhagen were overcrowded and produced an increasing number of disabled people who were a charge on the state finances. The main purpose of the new hospital was, therefore, to provide medical and surgical treatment to the poor with the aim of curing them; patients with chronic disorders were not admitted. A maternity hospital and a children’s home adjoined the institution. The people of Copenhagen were impressed by the palace-like façade of the building and the fact that they now had a hospital that matched the best in Europe, not only at an architectural level but also in terms of facilities and care. It also seems likely that the three meals a day, clean beds, and quiet surroundings on offer would have been appreciated by those patients who came from the slums of Copenhagen.

At the core of Løkke’s history lie the case studies of the patients. Løkke chooses a kind of snapshot structure through which she investigates patients admitted to the hospital on 1 April in 1797, 1897 and 1997. Through these histories the reader gets a very fine picture of how diseases and medical care changed over the centuries.

In 1797, a twenty-year-old bricklayer’s apprentice probably had his life and livelihood saved when he was admitted to the hospital with an old wound on his hand that would not heal. Untreated wounds were potentially fatal and made wound care one of the main tasks in the surgical department, whereas operations were rare. At that time, seventy per cent of the patients were poor and entitled to a ‘free place’. The food was of good quality and represented a major expense. In order to stop staff pilfering food, patients were put in charge of the supply. Every ward had scales, which the patients could use to check that the meal contained ‘125 grams of beef’ at lunch or ‘8 grams of butter’ for the bread at dinner. Everyone was made aware of the dietary regulations printed on a poster in the ward.

Although the hospital had ostensibly been set up for the poor, it also took in fee-paying patients who could pay for a number of services that included better food, birth overseen by the chief midwife, exemption from participation in teaching, a private ward
or even a luxury flat that cost a small fortune. The hospital mirrored the class-based society of the period and it is thought provoking to consider that these divisions may once again be on the rise as private health insurance becomes more popular in Denmark, allowing those who can pay to jump the queue.

By 1897, the hospital was outmoded. The buildings were beginning to look worn and did not meet the new standards for hygiene in patient care. The arrangement of having a ‘tea kitchen’ in the ward was symptomatic. The small room served as a space for preparing food, dish-washing, the cleaning of spit cups and urinals, a wardrobe for staff, linen deposit, and privy. The wards were also overcrowded and patients often had to share beds. Still, the hospital was successful in one respect: new ideas about hygiene had revolutionised surgery and minimised puerperal fever. A wonderful photograph, one of many, captures this important change showing six doctors, each dressed in white shirt, waistcoat and tie, scrubbing their hands with soap and nailbrushes in front of a wash-basin.

In 1910, the hospital, now named ‘Rigshospitalet’, moved to a new site outside the old town. The new buildings had water, water closets and electricity. In 1970, these buildings were torn down and replaced by a high-rise block which experienced a short period of fame before the ongoing turmoil in the Danish healthcare system began. Healthcare and health politics became a main issue in the media. The image of the Danish healthcare system as the ‘World’s best’ cracked and patients’ rights became the order of the day. By the turn of the twenty-first century, Rigshospitalet was no longer considered a ‘factory’, but a ‘service company’ in which issues of quality control had become paramount. The hospital was now accredited according to international goals for patient care, including measurements of patient satisfaction and investigations of near-miss situations designed to minimise hospital accidents. Despite the ongoing debate and changes in the structure of the hospital, it was evident that patient care had been revolutionised over the previous hundred years. The average bed-stay was reduced from forty days to five, and the productivity of the hospital had increased fifty-fold. A lot of incurable and dangerous diseases had either been eradicated or their treatment had become routine, and several new treatments, some unthinkable in 1897, had seen the light of the day, for example, heart transplantation and artificial insemination.

Anne Løkke’s very fine book is well written, beautifully illustrated and succeeds in telling a rich and varied history sensitive to the complex character of hospital life. The snapshots from each century seem to be chosen with care and are perfectly combined with descriptions of the different stages of the hospital’s history. Twenty-one tables and figures of statistical information, primarily patient data, are introduced on relevant pages and explained thoroughly in the narrative. The book is a convincing and moving history.

Morten A. Skydsgaard, The Steno Museum, University of Aarhus

Gerald Kutcher, *Contested Medicine: Cancer and the Military* (Chicago: University of Chicago Press, 2009), pp. x + 247, £24.00, hardback ISBN: 978-0-226-464531-9.

*Contested Medicine* brings a fresh perspective to a notorious and important story. Drawing upon his experience as a radiation medicine specialist, the historian Gerald Kutcher examines Eugene Saenger’s 1960s and early 1970s work with total-body irradiation (TBI) at the University of Cincinnati. Saenger and his colleagues traced the metabolic and psychological effects TBI had on patients with advanced cancers; this work was funded by the US Department of Defense, which wanted to know what would happen to the combat performance of American soldiers exposed to radiation. Kutcher uses the TBI story to anchor his consideration of two fundamental and intertwined elements of post-war biomedicine:
the contested nature of therapeutic research amidst new systems of knowledge production (the clinical trial), and the development of biomedical ethics as a form of governance and a set of practices. By examining how Saenger’s work was supported, justified, experienced, rationalised, scrutinised, and judged, Kutcher also helps us reconsider how we make sense of historical medical scandals, both in their initial contexts, and as they have been understood and used by later actors.

The book begins with three short chapters establishing the context for Saenger’s TBI work and the themes of Kutcher’s analysis. The first outlines how the clinical trial came to dominate post-war medical investigation, while the second reviews medical discussions among mid-century medical authorities about what constituted ethical research conduct and how it could be sustained. Kutcher then reviews the melding of military and medical questions in the 1950s discussions of radiotherapy for sick patients, and of radiation injury to healthy soldiers. The bulk of the book’s analysis, though, comes in its middle section, which considers what the TBI studies meant to multiple constituencies, including the doctors and researchers who conducted the studies, and the peer review committees that recast the studies to pass new governmental research regulations. Chapter 5 is especially insightful and original, using one patient’s experience to show what TBI meant to and for those who served unknowingly as ‘proxy soldiers’. Here, Kutcher’s medical expertise enhances his analysis, as he reconstructs patient experience through fine detail and thoughtful speculation. Finally, the book concludes by tracking how Saenger’s work was recast yet again by those criticising it, first in the exposés of the 1970s and then again in the 1990s by a new set of authorities – the bioethicists of the Advisory Commission on Human Radiation Experiments (ACHRE). Kutcher parses the ACHRE’s deliberations to show that bioethicists also found it nearly impossible to determine whether Saenger’s work was medical or military, whether it was motivated primarily by therapeutic concerns or by research questions, and what ethical criteria could be used to judge past conduct. The fluid identity and ever-changing nature of the TBI studies meant they defied historical and ethical attempts to classify them, and ultimately, to deliver a definitive verdict on their moral status. That fluidity is far from unique in biomedicine – which, as Kutcher concludes, means that the prescriptive rules usually offered by bioethics ‘are limited in what they can accomplish’ (p. 211).

In Contested Medicine, Kutcher has produced a book that successfully demonstrates how researchers, institutions, and ethical authorities managed (or failed to manage) the ‘tensions between research imperatives and therapeutic necessities’ (p. 6) characteristic of biomedicine. At times, Kutcher summarises what his sources say when the reader might want to hear more from the source materials themselves, but on the whole, the book is very well written. Contested Medicine will thus be a valuable resource for scholars interested in post-war medicine and science and, though its focus is on an American story, the book’s analytical framework is strong enough to make it of interest to those who work on other national contexts.

Elizabeth Toon,
University of Manchester

James S. Olson, Making Cancer History: Disease and Discovery at the University of Texas MD Anderson Cancer Center (Baltimore: Johns Hopkins University Press, 2009), pp. xiv + 369, £19.00/$35.00, hardback, ISBN: 978-0-8018-9056-7.

This is a book unsure of its audience. Olson is a history professor in Texas, and has written a fine history of cancer for historians and students – Bathsheba’s Breast: Women, Cancer and History (Baltimore: The Johns Hopkins University Press, 2002), and thus one expects good things of an in-depth study of

275
one of the largest and most significant cancer research institutions in the world, the M D Anderson Center in Houston. Yet this book is chiefly a series of personal stories, and these small pieces of its long and diverse history are given little by way of analysis or contextualisation in any wider story of medical research or cancer care. The style of writing is often as one finds in popular histories of science, of The Man Who Changed Everything type, slightly sentimental and over-dramatised.

Making Cancer History does contain some valuable and detailed vignettes of key pieces of research and innovations in care structures ranging from trial design to patient in-hospital shopping facilities. The section discussing developments in on-site and after-care services in the 1970s and 1980s, as patients were increasingly encouraged to approach medical services as consumers, is especially engaging, as Olson traces out the happy marriage between volunteer services and the desires of patients and survivors to have places to shop or receive a beauty treatment within the hospital complex; and the epilogue, the story of Olson’s own long history with cancer, is a fine piece of autobiography that would make excellent study material for any junior doctor.

Yet in many places the writing abruptly changes style, and the inserted stories of personal horror are not connected with the more scholarly case studies – there is no overarching pattern in which to place these patches so as to make sense of vividly described amputations and haemorrhages.

Further, Olson offers one-page histories of a century of surgery, two millennia of theories of cancer, and fifty years of industrial chemical research, juxtaposing these with tales of dying patients who were ill twenty years too early to be saved or who bore excruciating pain to no good effect because they were born in the wrong century – at these points it is not clear whom Olson is addressing or of what he is trying to persuade them. Where analysis is offered of the significance of an innovation in research or approach to treatment, it is often borrowed from other writers who have covered the same ground with as much rigour and more historiographical care, such as John Laszlo, The Cure of Childhood Leukemia: Into the Age of Miracles (New Brunswick: Rutgers University Press, 1996) who is heavily yet incorrectly cited in Olson’s chapter on the rise of medical oncology in the late 1960s – and Peter Keating and Alberto Cambrosio – see, for example, ‘From Screening to Research: The Cure of Leukaemia and the Early Development of the Co-operative Oncology Groups, 1955–1966’, Bulletin of the History of Medicine, 76 (2002), 299–334.

There are pockets of useful information in Making Cancer History, mostly drawn from Olson’s interviews, such as the impact of desegregation on the hospital, and policy makers’ arguments with researchers over the implementation of new legislation in 1971 designed to protect the rights of humans used as experimental subjects, but this is not a book to be read cover to cover, and the reader is offered no satisfactory exploration or explanation of the role of the MD Anderson Cancer Center in international efforts to make cancer history.

Emm Barnes,
Royal Holloway, University of London