with the update of practical knowledge such as pharmacology by adding information taken from books composed by authors contemporary with him including ibn Wafid (see Bos' introduction, pp. xvii–xxii).

This short analysis illustrates the importance of publishing the Arabic texts of Maimonides' medical works, when we explore the history of medicine. Bos has made a great contribution to the scholarship by providing this critical material.

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Colleen Derkatch, *Bounding Biomedicine: Evidence and Rhetoric in the New Science of Alternative Medicine* (Chicago, IL, and London: University of Chicago Press, 2016) pp. xi, 238, $41.80, hardback, ISBN-13:978-0-226-34584-0.

This unique analysis of medical rhetoric expands the recognised conflict between biomedical care and CAM (complementary and alternative medicine) to present related history, boundaries, biases and research standards and to consider recent discourse about different approaches to patient care and research.

Bounding Biomedicine summarises recent history related to CAM's relationship with traditional medicine in the United States. This historic review is grounded in the 1990 Eisenberg survey, the 1998 *JAMA-Archives* CAM-themed issues and the 2002 United States media's coverage (specifically via one issue of *Newsweek*) of CAM as a 'new science'. In addition, Derkatch explains how medical treatments are proven to be safe and effective, considering the role of evidence and research design in a biomedicine framework and analysing how biomedicine (as a category of healthcare and also individuals who practice) considers CAM. (CAM as defined in *Bounding Biomedicine* includes alternative health care practices that include traditional Chinese medicine, chiropractic medicine, herbal medicine, meditation and prayer, homeopathy and naturopathy (p. 1).) Derkatch's research for this book encompasses textual analysis of the nine *JAMA-Archives* issues, five interviews with related CAM and biomedical practitioners and researchers, and an analysis of the *Newsweek* article about CAM. She creates a strong rhetorical framework, focusing on the 'boundaries' of traditional medicine as it is rooted in basic sciences, and then moves through the perspective of evidence and rhetoric, the established boundaries of medicine and peer review to build credibility, the scientific methods required for biomedicine versus the standards in CAM, and the media's perspective of CAM and biomedicine. Throughout the book, she presents diverse perspectives to support her arguments.

She explains how biomedicine and CAM differ; for example, biomedicine is established in scientific research and uses evidence-based heuristics, whereas CAM is established in traditional procedures and allows practitioners to personalise standard treatments to meet their patients' needs. The history of evidence-based medicine and how science came to require evidence of safety and efficacy also explain why biomedical practitioners, in response, created uniform standards of practice and care based on scientific research. In contrast to standardised care, Derkatch presents CAM's standards: 'This emphasis on uniqueness means that [CAM] treatments can be difficult to standardise in experimental settings...CAM practitioners...typically aim to address all symptoms together' (p. 39). The holistic approach taken by practitioners of CAM contradicts the scientific and evidence-based focus of biomedicine, as medical practitioners tend to focus on symptoms that support one diagnosis and then offer a similarly focused treatment. In other words, medical

research focuses on evidence found through methods that are biased toward standardised, 'blind'-able methods to collect data by aggregating human participants. These methods do not allow CAM practitioners to evaluate humans as individuals with unique histories, practices, health experiences, and cultural and religious backgrounds and expectations, all of which can influence a subject's response to treatment.

For the *JAMA–Archives* issues that focus on CAM, these and other differences related to assessment were overlooked: CAM manuscripts were peer reviewed by the same review standards as scientific and biomedical manuscripts. Therefore, for the *JAMA–Archives* issues, the journal was metaphorically forcing a square peg (CAM) into a round hole (biomedicine); CAM does not fit randomised, controlled, blinded methods for trials that create evidence-based medicine well if at all.

Bounding Biomedicine left me examining my own perspective on biomedicine and CAM as well as on evidence-based research and medicine and on research methods that require blinding, randomisation, control, placebos and aggregation. At times, I struggled with in-text references to authors whom I did not know, and at other times, the creative approach to reporting seemed to create redundancy. But the author kept me engaged with her logical progression and analysis. At one point, I wrote a note in the margin: 'Derkatch is asking questions that anyone assessing medicine, research, and rhetoric should be asking.' She encourages the reader's critical thinking with her tone; she prods her readers to define 'medicine' and thus expand their own perspective on care, wellness, illness, disease, evidence and medical rhetoric. Perhaps by transparently addressing the pre-existing boundaries of biomedicine, practitioners can bridge the differences and build respect and resolution between the overlapping fields of biomedicine and CAM.

My copy of the book currently has 100 sticky notes in the margins with questions, comments and notes. I anticipate that I will reread this book again and again before I reflect and answer my own questions. I am also using the full and well-rounded bibliography to find related readings for myself and my students. The text should be introduced to graduate students as well as researchers and practitioners in science and the humanities. Like Segal's *Health and the Rhetoric of Medicine* and Mol's *The Body Multiple*, Derkatch's *Bounding Biomedicine* is destined to become a muse for medical and scientific rhetoricians.

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Miguel García-Sancho, *Biology, Computing, and the History of Molecular Sequencing: From Proteins to DNA, 1945–2000* (Science, Technology and Medicine in Modern History) xv + 242 pp., illus., apps., bibl., index (New York: Palgrave Macmillan, 2012), and paperback in 2015. $35.00, ISBN: 1137543329.

This review is of the newly published paperback edition of the book, which was originally published in hardback in 2012. Miguel García-Sancho traces the history of molecular sequencing by primarily following the path of Frederic Sanger's work on protein, RNA and DNA sequencing and its subsequent use and alteration in DNA sequencing machines. García-Sancho traces the work on linear sequences through the historical contexts of biochemistry, molecular biology, the human genome project and biocomputing.

García-Sancho utilises – and occasionally critiques – previous work on the history of molecular biology, eg. by Horace Judson and Michel Morange; the specific British work of Soraya de Chadarevian; the human genome project by Robert Cook-Deegan;