

been informative. In addition, the bibliography contains a significant number of misprints (pp. 199, 203, 206–13).

These blemishes aside, this book accomplishes a great deal in tracing the complex relationships that existed between families and asylums in the Antipodes. Yet Coleborne is right to call for more research. Her book demonstrates that much remains to be done before we can thoroughly understand the family–asylum relationship and what exactly it meant for patients.

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Galina Kichigina, *The Imperial Laboratory: Experimental Physiology and Clinical Medicine in Post-Crimean Russia*, Wellcome Series in the History of Medicine, Clio Medica, 87 (Amsterdam: Rodopi, 2009), pp. vi + 374, €76.00, hardback, ISBN: 978-90-420-2658-2.

Unlike its counterparts in France, Germany, and Britain, nineteenth-century physiology in Russia has attracted little attention from Western historians. Thanks to the pioneering studies of Daniel P. Todes, the life and works of Russia's most famous physiological laboratory of the Nobel Prize winner Ivan Pavlov have been explored in detail. That laboratory, however, did not emerge like Athena from the head of Zeus: it built upon and continued a tradition of experimental physiological research, which had begun after Russia's catastrophic defeat in the Crimean War of 1853–5 as part of far-reaching reforms in all walks of the country's life. Galina Kichigina's *The Imperial Laboratory* sets out to document the emergence and development of this tradition. The book examines the disciplinary development of Russian physiology, focusing on the rise of the laboratory as the preferred site of medical research and education at the country's

premier medical school – the Military–Surgical Academy in St Petersburg.

The Imperial Laboratory is built around a 'collective biography' of five Russian chemists and physicians – Alexander P. Borodin, Sergei P. Botkin, Elie de Cyon, Ivan M. Sechenov, and Nikolai N. Zinin – who, in their capacity as professors, initiated laboratory research and instruction at the Academy. Kichigina suggests that the introduction of the laboratory to Russia was the result of a wholesale 'import' of the German laboratory, ranging from its instruments and research foci, to its pedagogical techniques and social dynamics, by the five protagonists. Borodin, Botkin, Cyon, Sechenov, and Zinin themselves had learned of the advantages of the laboratory during their postgraduate studies under the supervision of the founders of 'experimental medicine' and 'physical–chemical physiology', including Justus von Liebig, Emil du Bois-Reymond, Carl Ludwig, and Rudolf Virchow. Accordingly, the book's first part details the rise of the German physiological laboratory during the 1840s–50s and documents the protagonists' experiences in Berlin, Heidelberg, Vienna, and Leipzig. Surprisingly, one of the five leading protagonists, Cyon, does not appear in this part.

The book's second and longest part depicts the drastic reforms that the Military–Surgical Academy underwent in the aftermath of the Crimean War, demonstrating the commitment of the Academy's administration to emulating the advances of Western medical research and education. Kichigina exemplifies the extent and content of the reforms by tracing the careers of the five protagonists, detailing their individual contributions to, and innovations in the development of laboratory research and teaching under the Academy's auspices during the 1860s and 1870s.

The book's last and the shortest part is devoted in its entirety to the career of Sechenov after he left the Military–Surgical Academy in 1870. Its six very brief (six–eight

pages long each) chapters chronicle Sechenov's appointments to professorial positions at, first, Novorossiisk, then St Petersburg, and finally, Moscow universities, and describe the particular lines of research he pursued at the time.

Historians of science and medicine will find in Kichigina's volume a gold mine of previously unexplored materials on the history of the Military–Surgical Academy, nineteenth-century Russian physiology, and its five leading protagonists. They will likely delight in numerous anecdotes and interesting vignettes, for example, Borodin's dual career as a chemist and a composer, scattered throughout the book. But, familiar with the sophisticated disciplinary histories of physiology in other European settings, as well as the extensive literature on the transnational transfer of scientific ideas, methods, and institutions, they will be disappointed by the lack of a clear analytical focus. This void is already evident in the six-page introduction, the uneven and asymmetrical distribution of the material among the book's three parts, and the complete absence of conclusions. One hopes that *The Imperial Laboratory* will inspire numerous follow-up studies that will supplement the rich depiction of the early history of Russian physiology with an equally rich analysis.

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Meegan Kennedy, *Revising the Clinic: Vision and Representation in Victorian Medical Narrative and the Novel* (Columbus: Ohio State University Press, 2010), pp. x + 261, \$39.99, hardback, ISBN: 978-0-8142-1116-8.

Revising the Clinic is an ambitious work that sweeps through time from the eighteenth-century medical case history, to Freud at the

turn of the twentieth, and integrates analysis of forms of representation in both literary and scientific texts. It is perhaps misleadingly titled, since there is little on clinical case histories between the *Philosophical Transactions* in the eighteenth century, and Freud at the close. The actual focus lies pre-eminently on forms of vision and representation in the Victorian novel.

Whilst there is some discussion of medically related scenes in the novels, the link to science and medicine functions mostly at the level of methodology. Rather than look at specifically medical scenes, Kennedy draws on Lorraine Daston and Peter Galison's *Objectivity* (2007) to establish a model of 'mechanical observation' that she sees as operative in both scientific and literary texts. The readings of George Eliot's *Adam Bede* and *Middlemarch* thus focus on issues concerning vision and perception, and optical metaphors, rather than representations of illness or bodily ailments. The method is fruitful with regard to yielding new insights into the novels, but not entirely convincing with regard to the parallels drawn with 'clinical realism'.

One of the problems is that Daston and Galison's arguments, developed with reference to scientific atlases, do not translate easily into clinical medicine. As Kennedy points out in the *Middlemarch* chapter, the emergence of experimental medicine brought with it a new emphasis on speculation and imagination. 'Mechanical objectivity' or 'observation' does not capture the complexity of nineteenth-century medical practice, whilst the methodology tends to give primacy to the scientific domain, so that the literary is seen as applying or modifying the scientific, rather than evolving alongside in a process of mutual exchange. More emphasis on the nineteenth-century case history, particularly in the emerging sphere of psychiatry, would have helped to make this case, and also ensured that Freud did not emerge at the end as a sudden and complete departure from previous practice.