

Book Reviews

potency, induction, competence, and regulation were widely used as categories of explanation in this period. Now, when we have the technical means to investigate the inner workings of cells, this heritage is available not as a set of explanations but as a set of problems requiring solution.

Probably no one did more in this vital task than Johannes Holtfreter, who receives extensive coverage in the second half of the book. His *in vitro* isolation experiments and his work on the regional specificity of neural induction particularly helped to define the style and standard of experimental embryology for decades to come.

Hamburger's book really finishes at the Second World War, although one or two later experiments are described. The modern era, starting with Nieuwkoop's discovery of mesoderm induction, is not covered. So this is not really a book for those who want to understand amphibian development, but rather a lucid and interesting account of a critical period in scientific history. It has a special fascination because it is written by a participant who can not only tell us what happened, but also what it felt like at the time.

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TIMOTHY C. JACOBSON, *Making medical doctors: science and medicine at Vanderbilt since Flexner*, Tuscaloosa and London, University of Alabama Press, 1987, 8vo, pp. xiv, 349, illus., \$26.95.

Timothy Jacobson has produced a thoroughly researched and readable account of Vanderbilt University School of Medicine from its reorganization in 1925, following the Flexner Report (1910), and relocation to the University Campus, through to the present day. It examines in intricate detail the interrelationship of three men: James Kirkland, Chancellor of the University; Abraham Flexner, the catalyst and controversial revolutionary of medical education and subsequently its most prolific fund raiser; and G. Canby Robinson, its first Dean, architect, medical visionary—a man seemingly ahead of his time. We learn a great deal in the detailed biographies of these early giants in medical education, but more precisely the “nitty gritty” of building, funding, and staffing a school that had set as its goals those principles heralded by Flexner and the General Education Board—the wedding of science (research) with service (clinical practice) in an educational institution of high quality.

The appeal of this book is not only regional, but extends to those of us interested in the history of medical education, especially in the post-Flexner era. It depicts the struggle of one of the surviving thirty-seven medical schools in the aftermath of the 1910 report and its efforts to establish excellence in medical education and to start anew, using the Johns Hopkins Medical School as a model. The influence of this prototype on Flexner and Robinson is apparent not only in the selection of new faculty, but in such subtleties as the Oslerian flavour and philosophy championed by Robinson and his Hopkins élite.

Woven throughout the book is an account of the constant struggle for financial security as reflected not only in bricks and mortar, but also in the hiring of faculty, and most importantly the funding of research. Here the influence of Flexner, not the critic or inquisitor but the fund-raiser and supporter of his close friend and associate (they had neighbouring summer cottages in Ontario) Chancellor Kirkland, is brought into sharp focus. To quote Jacobson on Flexner, “He did not want to be remembered as a great thinker or a producer of knowledge, but rather more humbly as an opportunist guided by large and unselfish notions of how good could best be done”.

The book also spurs both regional and universal interest in its biographical detail of the early faculty, especially Burwell, Harrison, Morgan, Brooks, Blalock, and Goodpasteur, the latter the most renowned and capable researcher. Lastly, the book discusses in depth the modern evolution of the Vanderbilt Medical School, where the expansion of service (the hospital) has become so enormous as to seem out of place on a university campus, with its research priorities, Vanderbilt is not the only place where these commitments have come into competition.

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