firms at the expense of Third World countries. (The situation of American biotech firms, Muraskin makes clear, was too financially precarious for them to be direct sponsors of the initiative.) Muraskin does a masterly job both in describing the American system of vaccine production (the so-called two-tier approach) and in portraying the resentments of the world community toward that system. Moreover, he has captured some of the critical disparities between public service ideals and and corporate values in America that ultimately prevented the CVI from ever collaborating effectively with the private sector.

Unable to attract the interest of leading American pharmaceutical manufacturers, the CVI did achieve some modest but measurable results as its Vaccine Supply and Quality Unit began concentrating on improving foreign vaccine production, raising the standards for quality control, and making accurate forecasts of the vaccination requirements of producing countries. The CVI’s focus on vaccine quality and supply issues, however, was widely regarded as a strategic error, undermining its ultimate goal of creating new and better vaccines and vaccine delivery systems. The leaders of the CVI had envisioned fostering technological innovation, not merely improving the production of old vaccines.

With its intensely detailed renderings of the real stuff of history—ambiguous statements, turf battles, subtle tensions, organizational blunders, tactical brilliance, and strategic error—this book is an important work in its field. Indeed, it should be required reading for anyone at the Kennedy School of Government. It is, however, a very frustrating work to read. Muraskin has an irritating tendency to summarize important points in parentheses while repeatedly letting his narrative get ahead of his story. He does not give his readers any sense of time, perspective, or chronology. Although in the first chapters he devotes a lot of space to introducing players and events, in the end he fails to connect many of the dots, and in some cases we discover that things did not come out the way Muraskin implies they would. At first, for example, we are led to assume that E. G. Russell headed the CVI; it is only on page 137 that we learn he never did. And what about James Grant, executive director of UNICEF, whose commitment to moving UNICEF into scientific research initially raised hopes that the CVI could operate independently of the World Health Organization (WHO)? Not until page 96 are we told that support from UNICEF never materialized.

But despite its flaws, this book may do more to boost and clarify the worthy goals of the CVI than the CVI itself has been able to do, given its multiorganizational tensions, leadership problems, and limited initiatives. And medical historians with a broader perspective on international vaccination efforts than Muraskin will be able to pare down his account of the CVI to its essentials. As the CVI is currently subsumed under the WHO’s risk-averse bureaucracy, its future looks bleak. By documenting the CVI’s failures, Muraskin has made it possible for others to study and learn from the mistakes it has made while nevertheless preserving its ideals and moving toward its defining objective: to modernize vaccination around the world.

Suzanne White Junod


When I undertook to review The Antidepressant Era, I had some foreboding that it would be a hackle-raising antidrug diatribe. It is nothing of the sort. As a psychopharmacologist whose career began at the start of the antidepressant era, I was the ideal audience for the lucid, balanced, and often witty prose of the psychohistorian David Healy.

The book looks critically at a number of interrelated issues, using depression as its focal point. It rapidly becomes clear that depression is not and never has been a single unifying concept. For some individuals it is a reflection of the general human condition of unhappiness that almost everyone experiences some of the time. For others it is a bona fide medical illness, less well understood but nonetheless analogous to bacterial infections, that afflicts a substantial minority of the population and requires identification and elimination by the medical profession. Over the past forty-plus years the discovery and development of antidepressant drugs have played major roles in shaping these views of depression, roles that Healy explores from every perspective. Before antidepressants, depression was apparently uncommon and only the severest forms were identified as such. In one sense, the availability of an effective treatment quite appropriately focuses more attention on an illness and leads to better recognition, diagnosis, and management. But is it also possible that an illness could be created or redefined for reasons based primarily on profit rather than science? Who hasn’t heard the quip that perhaps Prozac should
be added to the water supply? Healy explores thoroughly and critically, for better and worse, the subtle and not-so-subtle influences of the pharmaceutical industry on consumers and professionals that involve not only the marketing of drugs but also the marketing of an illness. He makes the somewhat disturbing comment that “knowledge in psychopharmacology doesn’t become knowledge unless it has a certain commercial value” (p. 176).

The role of government in protecting or overprotecting the populace gets some well-deserved attention here. It took medical disasters such as those produced by elixir of sulfanilamide in 1937 (numerous deaths from liver and kidney toxicity) and thalidomide in the late 1950s and early 1960s to give the United States Food and Drug Administration (FDA) the teeth to insist that pharmaceuticals be shown to be both safe and efficacious before they were marketed. As the antidepressant era evolved, drug development became progressively more standardized, and the process of bringing a product to market became more time consuming and expensive (perhaps too much so). Regulatory battles continue to be strange mixes of science and politics, as exemplified today by the controversies surrounding herbal medicine.

A particularly enjoyable aspect of Healy’s writing is his ability to breathe life into his characters. All the major players are represented here, and it is obvious that Healy spent considerable time with them or with those who knew them well to present an accurate portrayal of the movers and shakers of the antidepressant era. Relationships were not always harmonious, but one likes to believe that even disharmony was in the service of the greater good.

In the end Healy proposes that we should approach depression and its treatment from a broad bio-psycho-social perspective, paying more attention to the nonspecific aspects of patient care and less to what he perceives to be the unwarranted oversell of drug efficacy and safety by the pharmaceutical industry. He goes so far as to suggest that individuals with illnesses take greater control over their medical destinies and that antidepressants (and other prescription drugs) might be utilized better if they were available over the counter.

This book is well worth reading. Although Healy’s focus is on depression and antidepressant drugs, the concepts and controversies he describes have implications and applications that extend to all of psychiatry and to medicine in general. Further, Healy’s lively and flowing style gives his work a palatability that is all too often lacking in historical studies.

JAMES W. JEFFERSON

Jay Fishman; David Sachs; Rashid Shaikh (Editors). Xenotransplantation: Scientific Frontiers and Public Policy. (Annals of the New York Academy of Science, 862.) xxii + 250 pp., illus., figs., tables, index. New York: New York Academy of Sciences, 1998. $100 (paper).

This volume is a collection of papers presented at a 1998 workshop on xenotransplantation sponsored by the Organization for Economic Cooperation and Development (OECD) and the New York Academy of Sciences. The papers in the first half report on scientific developments related to the problems of immunology and infection associated with cross-species transplantation. The papers in the second half review the status of national and international policies aimed at promoting scientific research while also protecting the public health.

The staggering array of obstacles to successful grafting across species does not diminish the certainty of conference participants that xenotransplantation will proceed to clinical trials and eventually contribute to the solution of the organ shortage. Nor do the contributors express any doubt that science, combined with appropriate governmental regulations, will overcome the risk of infectious agents jumping species as a result of xenotransplants—a process known as zoonosis. There were no serious dissenters at this workshop, none who would challenge the goal of this rapidly developing field, which is, in the words of the German scientist Claus Hammer, “to outwit evolution” (p. 26).

The chapters on the scientific aspects of this topic indicate an emerging consensus on several matters. First, it is clear that future work in xenotransplantation will focus on pigs rather than nonhuman primates as source animals. The decision to use pigs is not so much a concession to objections from animal rights advocates as an accommodation to certain physical conditions: there is a greater threat of zoonoses between evolutionarily related species, and there are various practical difficulties involved in primate breeding programs. Second, there is a clear awareness of the need for source animals to be bred under strict hygienic conditions and to be tested for all known pathogens. The discovery of previously unrecognized porcine retroviruses, and experimental evidence that they are capable of infecting human tissue, has apparently chastened in-