Bendectin's teratogenicity, there was inadequate proof that it caused a particular plaintiff's birth defect. That would have been, for reasons the authors explain, a much stronger position, given the scientific record. Swan's testimony was a rebuttal to Merrell's strategic defense.

In judging experts, the authors aim their critical artillery at plaintiffs' experts. Had they widened their field of vision, they might have fired at some of Merrell's experts as well. One researcher, hired by Merrell to study Bendectin, wrote to Merrell that he hoped that Merrell would provide a more generous contribution to his university if the results of his work were to "save the company large sums of money in California courts."

Sprinkled throughout the book and elaborated on in an appendix is the authors' critical assessment of the entire Bendectin litigation. The epidemiology exonerating Bendectin as a teratogen is quite strong, and the plaintiffs' experts were guilty of many sins. Why was Merrell subjected to this litigation? Even though it has prevailed in all but two cases (both currently on appeal), Merrell spent an estimated $100 million to defend itself.

The answer begins with the lack of scientific evidence at the time the litigation began. The authors advert to it but leave too much unsaid to permit a fair assessment of the Bendectin litigation. When the drug was first marketed in 1957, exclusively for pregnant women, no reproductive toxicity testing had been performed for any of its three ingredients. The only epidemiological study focusing on Bendectin's teratogenicity until the mid-1970s was performed by Merrell employees and was of such poor quality that Merrell ceased relying on it in litigation. Even in 1980, when the Food and Drug Administration held an Advisory Committee meeting on the matter, the evidence on Bendectin was inadequate to rule out a doubling of specific birth defects. Despite that, Bendectin's labeling contained no mention of the possibility of birth defects until 1981, after the drug had been routinely prescribed to millions of pregnant women. Combine that uncertainty with several disreputable episodes in Merrell's past (including criminal convictions in connection with its MER/29 drug), and one begins to understand why plaintiffs and their lawyers targeted Bendectin. Though uncertainty and culpability are not proof of causation, it seems implausible that the litigation ever would have begun if the drug had been adequately tested by Merrell. A lesson that emerges from Bendectin litigation is the significance of adequate safety research.

The authors find another lesson. They emphatically endorse the "gatekeeping" role for judges established by *Daubert*. Central to this argument is the authors' abiding conviction that judges are better able to determine valid science than juries. "Laypeople have trouble understanding statistical arguments," the authors observe. True indeed, but do judges understand them better? The evidence is sparse, but an experimental study by Gary Wells reveals judges having similar difficulties in processing and reasoning about statistical evidence.

Judges in court may have certain advantages over jurors—they are permitted to educate themselves by reference to earlier cases in a way jurors may not. Another promising way to enable judges to do a better job of judging science is to provide them with expert assistance. Two federal judges recently have employed neutral court-appointed experts to assist them in the silicone-gel breast implant litigation. The Federal Judicial Center has been active in studying this promising mechanism. To be sure, we could provide juries the same assistance, but procedurally it is easier and preferable to have these experts assist judges before trial. Though far from a panacea and fraught with difficulties in implementation, at least in large stakes, mass torts such as Bendectin and breast implants, the use of court-appointed experts may be the best route to providing better science in the courtroom.

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Vignette: Press Relations

"This is John Lear, science editor of the *Saturday Review of Literature*, calling from New York." Heavy emphasis on "calling from New York," then a long pause waiting for me to recover from the thrill of hearing from such an important person, in New York, no less. Actually I did know who he was and had often characterized him as the anti-science editor of the *Saturday Review*. He continued: "I read of your recent report of the discovery of radiation belts of the Earth and thought that I would do a piece on this subject. What I found remarkable was that such important work had been done at a midwestern state university." Well, I don't think that I responded with any profanity but I did manage to convey a suggestion as to what he could do with his piece and hung up. The next day, the president of my university, Virgil M. Hancher, called me to report that Mr. Lear had called him to complain about my discourtesy. I then gave a brief explanation of my reaction, at the end of which Hancher replied "I promised Lear that I would call you and you may now consider that I have done so. And, by the way, Van, my congratulations!" I never heard from the matter again. It's great to have a boss like that.

—*James A. Van Allen*, in *Discovery of the Magnetosphere* (C. Stewart Gillmor and John R. Spreiter, Eds.; American Geophysical Union)

Books Received

Function and Dysfunction in the Nervous System. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1997. xxiv, 875 pp., illus. $230, ISBN 0-87969-071-2; paper, $99, ISBN 0-87969-072-0. Cold Spring Harbor Symposia on Quantitative Biology, vol. 61. From a symposium, Cold Spring Harbor, NY.

The Genetics of Cancer. Genes Associated with Cancer Invasion, Metastasis and Cell Proliferation. G. V. Sherbet and M. S. Lakshmi. Academic Press, San Diego, 1997. xviii, 338 pp., illus. $55. ISBN 0-12-639875-5.

Harvesting Wild Species. Implications for Biodiversity Conservation. Curtis H. Freese, Ed. Johns Hopkins University Press, Baltimore, 1997. xiv, 703 pp., illus. $65, ISBN 0-8018-5574-8; paper, $29.95, ISBN 0-8018-5573-x.

Internet Links for Science Education. Student-Scientist Partnerships. Karen C. Cohen, Ed. Plenum, New York, 1997. xx, 260 pp., illus. Paper, $27.50. ISBN 0-306-45558-7. Innovations in Science Education and Technology.

Late Palaeozoic and Early Mesozoic Circum-Pacific Events and Their Global Correlation. J. M. Dickins, Eds. Cambridge University Press, New York, 1997. x, 245 pp., illus. $110. ISBN 0-521-47175-3. World and Regional Geology Series, 10.

Mitochondria and Free Radicals in Neurodegenerative Diseases. M. Flint Beal, Neil Howell, and Iván Bódis-Wollner, Eds. Wiley-Liss, New York, 1997. xii, 610 pp., illus. $79.95. ISBN 0-471-14142-9.

The Neuropathology of Dementia. Margaret M. Esiri and James H. Morris, Eds. Cambridge University Press, New York, 1997. xiv, 440 pp., illus. $120. ISBN 0-521-4331-8.

Occupational Health and Safety in the Care and Use of Research Animals. Committee on Occupational Safety and Health in Research Animal Facilities, National Research Council. National Academy Press, Washington, DC, 1997. xii, 154 pp. Paper, $39.95. ISBN 0-309-05299-8.

Physical Adsorption. Forces and Phenomena. L. W. Bruch, Milton W. Cole, and Eugene Zaremba. Clarendon (Oxford University Press), New York, 1997. xii, 340 pp., illus. $85. ISBN 0-19-855638-1. International Series of Monographs on Chemistry, 33.