BOOK REVIEW

Peter Shanks, editor. **Human Genetic Engineering: A Guide for Activists, Skeptics and The Very Perplexed.**New York: Nation Books, An Imprint of Avalon Publishing Group, 2005. 327 pages. Price: \$16.95.

Pete Shanks, a California-based writer and grassroots political activist, has a distinct point of view that regular readers of *Fertility and Sterility* might well consider to be an "attitude problem." At the outset of the book, readers are informed that, although our knowledge of genes and how they work is still in its infancy, we can "swap genes in and out of completely unrelated species." The examples that follow include creating bunnies that glow in the dark, salmon that give birth to trout, and herbicide-resistant crops. Notably absent from the list are recombinant DNA products with any medical relevance or benefit. Lay readers might well be led to believe that gene tinkering is mere folly if not outright scary.

Further clues to the author's perspective are found in the selected reading lists that follow each chapter. Prominent here are articles from the Council for Responsible Genetics, Jeremy Rifkin, and the Center for Genetics and Society—all organizations that, in my view, have focused Klieg lights on the risks or potential risks of biomedical technology while largely leaving the benefits in shadow. In the larger national discussion, these voices are heard along with those of scientists and advocacy groups that highlight, and sometimes over-hype, the benefits of science and technology. However, writings and websites providing alternative points of view are conspicuously absent from Shanks' suggested readings.

Readers who accept or even embrace the author's point of view might, nonetheless, be frustrated by the book's lack of precision and clarity. Although there are numerous factual errors sprinkled through out the book, more troubling are representations that, though not wholly inaccurate, are nonetheless misleading. For example, the discussion of cloning moves from cloning human embryos to cloning human babies without so much as a parenthetical comment about why one might want to clone an embryo for reasons other than as an intermediate step toward reproductive cloning. Through selective emphases in the description of a number of technologies, the author brings to the fore every possible negative outcome while giving only the rare mention to positive impacts of biotechnology and the hope, curiosity, and beneficence that motivate most researchers.

This curiously distorted emphasis also is found in the policy discussions. For example, Shanks ominously states that cloning is not illegal in most of the United States. Only after two dozen pages of expounding on the dangers created by this policy gap does the author acknowledge that the U.S. Food and Drug Administration has a "de facto moratorium" on human cloning. So perhaps the risk of reproductive clon-

ing in the United States is not so great? And though the author laments that we have not enacted a statutory ban, he fails to describe the cause of the current policy paralysis—an omission that will leave activists ill-equipped and the perplexed even more perplexed.

Many scientists and physicians might stop reading before the book's spine is even creased, but I suspect the author will not be particularly troubled, because this book is not "for" them. It is, as the title states, for skeptics, activists, and the perplexed. Early on, the author makes clear his disdain for biomedical politics being dominated by the elites: the scientists, the bioethicists, the theologians. His plea is that the future of these technologies affects all of us and thus, in the body politic, we should have a voice in shaping that future. The author also strikes a decisive blow at the notion that only the cognoscenti know enough to have an opinion worth listening to. Indeed, the mewling scientist at the podium proclaiming the public's "scientific illiteracy" as a rationale for discounting those citizens' views and values has become too commonplace in the national discussion of these issues. Regrettably, those most in need of hearing Shanks' message and supporting arguments about the legitimate and necessary role of the public in shaping science and technology policy are unlikely to discover this buried treasure in the book.

The book draws to a close with a chapter filled with unflattering vignettes of ethicists, philanthropists, and scientists who, we are led to believe, are scoundrels or worse. For example, Irv Weissman, an outspoken stem cell advocate, is pilloried because he has financial interests in a stem cell company. The Weissman vignette closes with "The dictionary definition of 'disingenuous' is not straightforward or candid; crafty." After being given examples illustrating that ethicists are bad, scientists are bad, and people who make money are bad, readers will be left wondering: Where are the good guys? The next chapter brings the answer with a virtual advertisement for a nonprofit organization that has been listed in the suggested reading and cited so many times that readers will have memorized the web address. Interestingly, it is not until the closing pages of the book that the author shares with us that he has "done contract work for them, including research for their excellent website." What was that definition of disingenuous? Shanks portrays a scientific house of horrors and minimizes the protective policies currently in place to be provocative. I am all for provocation, but provocation must be rooted in intellectual honesty, not created from whole cloth to suit one's ends.

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