There has been increasing attention paid to marketing by pharmaceutical companies and their relationships to physicians. The lay press and the web have been full of articles about alleged misdeeds of big Pharma in relation to Vioxx, Celebrex, and cisapride. There have been many articles and letters to the editor in major journals and a special issue of the British Medical Journal was devoted to the subject in 2003. There have also been a number of excellent recent books looking at all aspects of the issue including: “The Truth About the Drug Companies: How They Deceive Us and What to Do About It,” by Marcia Angell, “On The Take: How Medicine’s Complicity with Big Business Can Endanger Your Health,” by Jerome Kassirer, “The $800 Million Pill: The Truth behind the Cost of New Drugs” by Merrill Goozner, “Powerful Medicines: The Benefits, Risks, and Costs of Prescription Drugs” by Jerry Avorn, and “Protecting America’s Health: The FDA, Business, and One Hundred Years of Regulation,” by Philip Hilts.

After reading these many articles and books one might come to the false opinion that big Pharma is evil and that conclusion is clearly not the case. Pharmaceutical companies are businesses whose products happen to be drugs. They are responsible for getting these compounds to market and must compete with other companies in order to earn profits so as to remain in business and to reward their shareholders. While some may quibble the focus of the research and development component of many pharmaceutical companies may stress “me too” drugs instead of truly new and more effective treatments, few would wish to curtail their efforts to bring better health to the population. The marketing arm of Pharma is in the business of turning the products of research and development into profits. Long ago they recognized that “opinion leader” physicians could be used to assist in this endeavor. The marketing budgets of big Pharma are huge, allowing them to “support” many functions, societies, and opinion leaders. Support is always given with the knowledge that there will generally be a payback. To do otherwise would be irresponsible for a company.

Marketing research is designed to identify competitive advantages however small or contrived. Greenhalgh listed ten tips for the pharmaceutical companies to present their data in the best light (Table 1) which in reality simply enumerates many of the methods being used to help sell individual drugs (1). Minimal differences between drugs may appear more credible or important if the authors are opinion leaders. Pharmaceutical companies have become masters at getting opinion leaders to accept ownership of their studies and thus “front” for their marketing efforts. There are many methods by which physicians become willing or even unsuspecting participants in marketing efforts. One common approach is to superficially involve the physician “advisor” in the planning of a trial, do the study, and if some results support the marketing claim, they show that data to the physician advisors, have a commercial company prepare the manuscript paper, which is then reviewed by the “responsible” clinicians and then submitted for presentation at a national meeting and for publication. Other approaches include doing the study and then showing data (e.g., favorable results of a review of insurance claims) to a potential “front” for his/her opinion. The

(continued on page 43)
clinician advisor may make a few minor changes and after review accept ownership becoming the lead if not the only author. The study then is referred to as the “authors name” study and the authors seems to actually believe that what is often a study with significant flaws is the product of their research.

National meetings of various medical societies are full of these marketing studies disguised as original investigator initiated research. I previously wrote to the leadership of DDW and the ACG asking that meaningful disclosures be made, and that these presentation be separated from the main program. I recommended that such submission be specifically identified and categorized (see examples in Tables 2 and 3) to help the listener understand whether they are hearing a marketing message from Pharma and whether they are hearing original research. That effort was generally unsuccessful at DDW, but resulted in a change in the abstract submission process for the annual meeting of the ACG.

Marketing studies have become big business and support many “for-profit” professional writing companies, new small “throw-away” journals, groups that do meta-analyses, and those who put on “scientific” and educational meetings. Some of these for-profit companies are owned by opinion leaders who reap extremely rich financial rewards and at the same time sit on the governing boards of our professional societies. Jerome Kassirer’s book clearly shows how effective this style of marketing is as well as showing that those who are “on the take” are unable to write an unbiased editorial or similar piece. Few who receive large sums annually either directly from big Pharma or from for-profit companies working on contract from big Pharma can be truly objective; humans have a tremendous capacity to delude themselves. There are solutions to counter the effects of marketing by big Pharma. Many ideas as well as data regarding their effectiveness are presented by Avorn in “Powerful Medicines: The Benefits, Risks, and Costs of Prescription Drugs.” This book should be required reading for all physicians and for members of congress.

Neither Pharma nor the physicians who “front” for them, wittingly or unwittingly, are bad. Pharma is competing with other companies using the same techniques and not to do so might jeopardize the very existence of a company. There will always be physicians who put a low price on their reputation and those who actually believe that the marketing studies they present or accept authorship on are actually “their” studies. One then wonders, how one deals with the responsibility after one accepted responsibility for a study that is subsequently deemed greatly flawed or even fraudulent?

Until, and possibly even after, recommendations such as Jerry Avorn’s as listed in Powerful Medicines are enacted, we should expect to continue to see more marketing studies often identifiable as single author studies with many thousands of patients, large database insurance claim analyses that the authors could

Table 1
Ten Tips for the Pharmaceutical Industry: How to Present Your Product in the Best Light (1)

- Think up a plausible physiological mechanism as to why the drug works and become slick at presenting it. Preferably, find a surrogate end-point that is heavily influenced by the drug, though it may not be strictly valid.
- When designing clinical trials, select a patient population, clinical features, and trial length that reflect the maximum possible response to the drug.
- If possible, compare you product only with placebos. If you must compare it with a competitor, make sure the latter is given at a subtherapeutic dose.
- Include the results of pilot studies in your figures for definitive studies (“Russian doll publication”), so it looks like more patients have been randomized than is actually the case.
- Omit mention of any trial that had a fatality or serious adverse drug reaction in the treatment group. If possible, don’t publish such studies.
- Get your graphics department to maximize the visual impact of your message. It helps not to label the axes of graphs or say whether scales are linear or logarithmic. Make sure you do not show individual patient data or confidence intervals.
- Become master of the hanging comparative (“better” but better than what?).
- Invert the standard hierarchy of evidence so that anecdote takes precedence over randomized trials and meta-analyses.
- Name at least three local opinion leaders who use the drug and offer “starter packs” for the doctor to try.
- Present a “cost-effectiveness” analysis that shows that your product, even if more expensive than its competitor, “actually works out cheaper.”
not possibly conduct or analyze, studies of a high-dose of drug A compared to a low-dose of drug B, or clearly research that was done under contract.

What we should demand now is for our professional societies to take the high road and for the leadership to be as free as possible of influence by big Pharma. The rules and procedures to accomplish this goal should be published along with full disclosure including relationships to for profit companies serving Pharma. The process and the effects must be transparent. I suggested that as a start the President and President-elect divest themselves from all association with Pharma and device makers during the terms of office and the year after (Letter to GI societies). The initial responses from the societies have not been supportive.

Although each society has an ethnics committee and weak guidelines for conflict of interest that are designed to meet the CME requirements, neither is able to address the issues discussed here.

I also recognize that to divest from big Pharma, from device manufacturers, and from for-profit companies serving Pharma would impose a “in the pocketbook” hardship to some leaders as they would need to forgo hundreds of thousands of dollars, international trips, etc. It would also cause some hardship to big Pharma who delights in being able to bring the President, President-elect, or Past President of a major society to a meeting designed to sell their drugs here and abroad. Few would accept the hypothesis that a leader of a society can receive many thousands of dollars directly or indirectly from Pharma and also represent the societies’ interests. Is there a maximum amount? I vote for none. I believe that it is time to demand our professional societies address these issues in an open and transparent manner with full and not abridged disclosures. I have been asked, “if we did that, who would serve” and I respond, “those who are qualified to represent us.” The problem will not simply go away.

References