

The Ghosts of Medical Research

Promotional Marketing Haunts Studies Done on Behalf of Big Pharma's Drug Repertoire

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The medical research world has been concerned about the problem of ghostwriting for more than a decade.

Over the past year, the issue has been repeatedly raised in the mainstream media, with U.S. Senator Chuck Grassley seizing upon the issue, and the *New York Times* working to bring pharmaceutical company documents into public view. Most of the commentary has focused on the ethics of academics serving as authors on papers they did not write and on some of the most egregious actions by pharmaceutical companies.

These efforts miss the ways in which Big Pharma has developed new forms of medical research to serve its own interests. It is important to understand the real meaning of ghostwriting campaigns and the ghost management of medical research in general.

Big Pharma firms spend twice as much on promotion as on R&D. But it is worse than that: more and more medical R&D is organized as promotional campaigns to make physicians more aware of products. The bulk of the industry's external funding for research now goes to contract research organizations to produce studies that feed into large numbers of articles submitted to medical journals.

For instance, internal documents from Pfizer, made public in litigation, showed that 85 scientific articles on its antidepressant Zolofit were coordinated by a public relations company. Pfizer itself produced a critical mass of the favorable articles placed among the 211 scientific papers on

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Zolofit in the same period. Internal documents tell similar stories for Merck's Vioxx, GlaxoSmithKline's Paxil, and Wyeth's hormone-replacement drugs.

To promote the now-notorious Vioxx, Merck organized a ghostwriting campaign that involved some 96 scientific articles. Key ones did not mention the death of some patients during clinical trials. Last May, through a class action lawsuit against Vioxx in Australia, it was discovered that Elsevier had created a fake medical journal for Merck—the *Australasian Journal of Joint and Bone Medicine*—and perhaps ten other fake journals for Merck and other Big Pharma companies.

In another example, GlaxoSmithKline organized a ghostwriting program to promote its antidepressant Paxil. According to internal documents made public in 2009, the program was called "Case Study Publication for Peer-Review", or CASPPER, a playful reference to the "friendly ghost".

Such strategies are not exceptions; they are now the norm in the industry. Most new drugs with blockbuster potential are introduced accompanied by 50, 60, or even 100 medical journal articles. Any firm that refused to play this game in the name of ethics would likely lose market share. Profits in the pharmaceutical industry depend on companies' capacity to influence medical knowledge and create market share and market niches for their products.

Just the Facts

In 2008, research showed that pharmaceutical companies had systematically failed to publish negative studies on their SSRIs, the Prozac generation of antidepressants. Of 74 clinical



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cal trials, 38 produced positive results and 36 did not: 94% of the positive studies were published, but only 23% of the negative ones were, and two-thirds of those were spun to make them look more positive.

Physicians reading the scientific literature got a biased view of the benefits of SSRIs. This helps to explain the huge number of antidepressant prescriptions, in spite of the fact that, according to a meta-analysis in *JAMA* in January 2010, for 70% of people taking SSRI antidepressants, the drug did not bring more benefits than a placebo. Compared to placebo, however, SSRI antidepressants can result in serious adverse drug reactions.

Therein, we see one of the problems with the ghost management of medical research and publication. Pharmaceutical companies want upbeat reports on their drugs. They design, write, and publish studies that are likely to show their drugs in positive lights—and there are myriad ways to do so. Ghosts sometimes bend the truth, and sometimes even commit fraud, with grave results.

But if the industry is selling its products by writing thousands of scientific articles per year, the public should be concerned about more than fraud. These studies produce biases that covertly advertise particular drugs, support them scientifically, and set agendas for diagnosis and treatment. Academics are performing a disservice to medical research and to the public as a whole if they sign off on pharmaceutical company articles—even if they firmly believe the claims of those articles.

Why do academics serve as authors on articles they did not write, using research they did not perform? They are rewarded, both by their universities and by their colleagues, for how much they publish and for the prominence of what they publish. Pharmaceutical companies and their agents are very good at placing articles in good journals, and then making them even more prominent by having their armies of sales reps circulate them and talk them up.

Researchers who serve as authors on studies and analyses (perhaps scientifically correct) that are favorable to the industry can expect to see these articles increase their prestige and influence, and possibly even funding.

What happens, however, when a researcher produces studies and analyses (also scientifically correct) showing that some products are dangerous or inefficient, as some did about Vioxx before the scandal broke? Reading Merck's internal e-mails, revealed during the class lawsuit, it was exposed that the company drew up a hit list of "rogue" researchers who needed to be "discredited" or "neutralized"—"seek them out and destroy them where they live," reads one e-mail. Eight Stanford researchers say they received threats from Merck after publishing unfavorable results.

In a report published in February, the U.S. Senate Committee of Finance relays a similar story about how GlaxoSmithKline downplayed the risks in the case of Avandia, a diabetes drug. GSK was reportedly aware, for years, that Avandia

posed possible cardiac risks. Instead of warning patients and the FDA, "GSK executives intimidated independent physicians [and] focused on strategies to minimize findings that Avandia may increase cardiovascular risk."

Corporate Science

In the ghost management of research and publication by drug companies we have a novel model of science. This is corporate science, done by many unseen workers, per-

formed for marketing purposes, and drawing its authority from traditional academic science. The high commercial stakes mean that all of the parties connected with this new corporate science can find reasons or be induced to participate, support, and steadily normalize it. It also biases the available science by pushing favorable results and downplaying negative ones—and sometimes through outright fraud.

As long as pharmaceutical companies hold the purse strings of medical research,

medical knowledge will be selectively constructed, serving to market drugs, not to promote health. And as long as universities grovel for more partnerships with these companies, the door will remain wide open to proceed with the corruption of scientific research. GEN

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