

EDITORIAL

In this journal, Tereskerz et al.'s article "Prevalence of Industry Support and its Relationship to Research Integrity" reports on an elegant survey of medical researchers who receive support from industry sponsors. Their study reveals important findings about the attitudes and behavior of privately-funded biomedical scientists. Building on previous work of Blumenthal et al. (1986, 1996) and Martinson et al. (2005), the authors provide a lens into the research culture of scientists whose sponsors may exercise an undue influence on the independence and outcome of studies.

In 1986, Blumenthal et al. conducted a survey of over 1200 life sciences faculty, mostly in nonclinical departments, at 40 major U.S. institutions. The Blumenthal et al. surveys of faculty focused primarily on the impact of industry funding on trade secrecy, academic productivity, and choice of research topic.

Blumenthal et al. (1986) found that 23% of the respondents were principal investigators on grants or contracts from industry sources and 8% had equity in companies. Life sciences faculty with industry support were four times as likely as other life sciences faculty to report that trade secrets had resulted from their research. They also found that among faculty with no-industry support, 68% and 53% believed that industry-sponsored research posed a risk of undermining intellectual exchange and unreasonable delays in publication, respectively. The figures were lower (43% and 40%) for scientists who reported having industry funding (Blumenthal et al., 1986, p. 1365).

A decade later, Blumenthal et al. (1996) conducted a follow-up national survey of over 2,000 life sciences faculty members, of whom 63% were from clinical departments, and compared the results to the survey taken a decade before. Industry support of faculty was reported at 28%, a 5% rise from a decade before, whereas 36% of the respondents from clinical departments reported receiving industrial support. Over that ten-year period, the reporting of trade secrets by those with industrial support rose from 12% (1985) to 17% (1995). The authors in the 1995

survey also found that “investigators with industrial support are at least twice as likely to engage in trade secrecy or to withhold research results from colleagues as are investigators without such support” (Blumenthal et al., 1996, p. 1738).

A survey by Martinson et al. in 2005 addressed the issue of whether industry-funded research affects the protocols and outcome of studies (Martinson et al., 2005). The authors surveyed 3,200 randomly sampled scientists including post-doctoral trainees based in the United States and funded by the National Institutes of Health. The survey explored behaviors beyond the standard definition of “scientific misconduct,” namely, falsification, fabrication, and plagiarism. While this study was not directed specifically at corporate sponsorship of research, some of the questions shed light on sponsor influence. When asked whether they ever change the design, methodology, or results of a study in response to pressure from a funding source, 20.5% mid-career scientists and 9.5% of early-career scientists answered affirmatively.

In this journal, Tereskerz et al. reports on a survey of 1,100 clinical faculties obtained from a random sample of departments of medicine in 33 American universities. Compared to Blumenthal et al.’s (1996) results, where 36% of faculty from clinical departments had industry support, Tereskerz et al. found that 66% of their respondents received support from industry sponsors. And compared to Blumenthal et al.’s (1986) findings, which reported 8% of faculty respondents had equity in companies, Tereskerz et al. found that 7% owned an equity interest in a company that supported their research. Their survey also reports that 8% of the respondents revealed that a sponsor asked them to publish results favorable to the sponsor’s product, while Martinson et al. reported twice that number in their combined sample population of mid-career and early-career scientists. Tereskerz et al. also found that 7% of the respondents were asked by an industry sponsor to keep the research results secret, that 54% of respondents with important industry support had first hand knowledge that research initiatives were compromised because individuals were supported by industry and 43% and 39% of the same group had first hand knowledge that publication results and the interpretation of data were compromised.

The survey results of Tereskerz et al. provide new evidence that the funding effect in science (Krimsky, 2003)—the condition

under which the sponsor of a study exercises influence and control of the results—is as strong as or stronger today than it was when author transparency of financial interests was not as prevalent as it is today. Their results also highlight the ethical question of whether and to what extent conflict of interest information should be included in the informed consent forms administered to human subjects. The lawsuit filed against the University of Pennsylvania on behalf of Jessie Gelsinger, who died in 1999 from a gene therapy experiment, was premised in part on the failure of the clinical investigators and the University of Pennsylvania to reveal the nature and extent of their financial interests in the experiment.

The achievement of high standards of scientific integrity and autonomy is not an impossible goal, but it will require more than disclosure of author financial interests. A culture of integrity must be reinstated into the education and practice of scientists, reinforced by norms adopted by government, industry, universities, and journals.

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