THE AMERICAN JOURNAL of MEDICINE®

Ghostwriting: Research Misconduct, Plagiarism, or Fool's Gold?

Traditionally, personal integrity and professional accountability have guaranteed appropriate authorship of biomedical journal articles. However, recent controversies, including exposés of ghostwriting and guest authorship, have shown the fallibility of this trust.

Ghostwriting, the practice whereby individuals make significant contributions to writing a manuscript but are not named as authors, invariably goes hand-in-hand with guest or honorary authorship, whereby named authors have not contributed sufficiently to a manuscript to merit authorship. Although ghostwriting and guest authorship are prevalent, and remain as common today as they were a decade ago,[1] the actual extent of ghostwriting in biomedical journals remains unknown.[2]

These practices are thought predominantly to occur when academic investigators collaborate with industry. However, they also occur within purely academic collaborations when, for example, senior academics supervising or supporting research are included as authors, regardless of their contributions, or when junior academics are asked to draft articles for senior academics, who are then listed as first author. Increasingly, academics also are using external medical writers to facilitate manuscript writing and preparation.[3]

Nevertheless, more typically, an industry-employed or contracted writer prepares a complete draft of a review or research article for an academic partner, usually an expert in his or her field. The academic then submits the manuscript, perhaps after editing, and in turn receives an honorarium for his or her time and effort. Of note, the named academic authors rarely have access to actual clinical data for independent analysis and only participate once the manuscript has been drafted, after key decisions have already been made, including which analyses to conduct and which findings to disseminate.

WHY GHOSTWRITE?

Many incentives can lead academic investigators, trial sponsors in industry and elsewhere, and medical writers to engage in ghostwriting and guest authorship. For professional medical writers, these practices mean employment and remuneration for services that, they argue, improve clarity, provide balance and objectivity, and reduce the time of manuscript production.[4]

For academic investigators, these practices are opportunities to enhance their professional standing. Not only does academic tenure frequently depend on multiple publications, preferably in high-impact journals as first or senior author, but also collaboration with industry in itself heightens prestige and often results in additional grant support.

For industry sponsors, these practices are part of global publication strategies for product promotion. Strategically planned and placed ghostwritten manuscripts provide an aura of objectivity around clinical research and conceal conflict of interest.[2] Such planning is notable not only because the broad ambition is to manage and shape the medical literature, but also because the narrow intention is for the article to convey a positive, promotional message. Litigation against several different companies has exposed these practices as part of larger efforts to develop relationships with academics, fight competition and build market share, and promote pharmaceutical products.

FOOL'S GOLD

Although clearly economically profitable for all parties, ghostwriting flourishes because it is perceived as a slight, easily comprehensible moral failing, rather than as unethical.[5] As one deputy editor of the *Journal of the American Medical Association* remarked: "They should be disgraced totally, but they aren't. People just think it's a bit naughty."[6] Furthermore, even those exposed for having engaged in these practices have, for the most part, suffered minimal shame or academic consequences.

Funding: This project was not directly supported by any external grants or funds. Dr Ross is currently supported by the National Institute on Aging (K08AG032886) and the American Federation of Aging Research through the Paul B. Beeson Career Development Award Program, as well as by a research grant from Medtronic, Inc.

Conflict of Interest: Dr Bosch has no conflicts of interest to disclose. Dr Ross was previously a paid consultant at the request of plaintiffs in litigation against Merck and Co, Inc, related to rofecoxib in the United States; is currently an unpaid consultant at the request of plaintiffs in litigation against Pfizer, Inc, related to gabapentin in the United States; and is a member of the scientific advisory board for FAIR Health, Inc, in the United States.

Authorship: All authors had access to the data and played a role in writing this manuscript.

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0002-9343/$ -see front matter
doi:10.1016/j.amjmed.2011.07.015

In this culture, ghostwriting and guest authorship are fool's gold, an unspoken permission to fatten curricula with redundant reviews and, predominantly, lower-impact clinical research studies. However, patients and physicians suffer from these practices, as the clinical research process and authorship integrity are devalued in an attempt to promote products. Even worse, the evidence-base for the practice medicine is distorted through the selective reporting of results[2,7] and disease mongering[8] that often accompany ghostwritten articles.

PLAGIARISM

Fool's gold has a price, and in this case, occasionally those engaged in ghostwriting and guest authorship have been accused of plagiarism, a serious accusation. The Office of Research Integrity (ORI) considers plagiarism to include both the theft or misappropriation of intellectual property and the substantial, unattributed, textual copying of another's work, which materially misleads ordinary readers regarding author contributions.

Guest authorship approximates plagiarism because an individual's naming implies credit for work done by others, but is the same true for ghostwriting? Both keep hidden the name of the actual author. However, a plagiarist copies text without consent, whereas a ghostwriter intentionally and willingly creates text for attribution to others. As such, ghostwriters appear not to be engaged in plagiarism.

RESEARCH MISCONDUCT

Although plagiarism is classified unreservedly as research misconduct by the ORI, what should we make of ghostwriting and guest authorship? Ghostwriting meets neither the strict definition of plagiarism nor the current definitions of fabrication and falsification. Fabrication is limited to "making up data or results and recording or reporting them," and falsification is limited to "manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record." The ORI further broadens these definitions to include fabrication or falsification of credentials, but limits the scope to degrees and positions, rather than to naming of authors and authorship contributions.[9]

Although both ghostwriting and guest authorship clearly perpetuate a fraud on an unsuspecting public and profession, ghostwriting currently seems to lie outside ORI jurisdiction, despite recent condemnation by the director of the National Institutes of Health after discovering ghostwriting among National Institutes of Health grantees.[10]

CLEANING OUT THE ATTIC

Ghostwriting and guest authorship are acts of research misconduct and deserve such widespread indignation because they entail maintaining secrecy, falsifying credentials, and fabricating the attribution of writing to another, representing an intentional and significant departure from accepted practices within the research community. The ORI should further broaden its definition of fabrication and falsification of credentials, and thus of research misconduct, to explicitly include ghostwriting and guest authorship. This action would signal a change of professional culture that investigators would increasingly abide by as the norm. In addition, the ORI actions against individuals, and their affiliated institutions, have significant potential to effect change. Conviction can lead to exclusion from receiving federal funds through grants and contracts, prohibition from serving on Public Health Service advisory and peer-review committees, imposition of supervision by the institution, and requirements for retraction of published articles. Furthermore, both the individual and the institution face a more severe loss to their reputation when an inquiry or charge of misconduct is made by the ORI, larger than any that would be expected from a similar charge made by a journal editor. The challenge remains that for the ORI, any allegation must be proven by a preponderance of evidence, and evidence of ghostwriting and guest authorship is deliberately hidden, suggesting large investments of time and effort to establish cases against investigators.

Furthermore, because the ORI rules were created to protect Federal research dollars, and industry-employed researchers are the least likely to come under the ORI's auspices, additional strategies also are needed. For instance, non-federal research institutions, including industry, should strongly enforce policies for research and employee misconduct that emulate the ORI's. In addition, the National Institutes of Health and academic centers could similarly announce the seriousness with which they intend to examine future allegations and the ramifications of convictions. The profession, our institutions, and medical journal editors must remain increasingly vigilant, enforcing the highest ethical standards to protect the integrity of clinical research, improve care for patients, and restore trust in the medical profession.

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