

“Ghostbusting” at *Blood*

Recently *Blood* received an unsolicited review article authored by a prominent clinical investigator addressing a timely topic. The reviewers described the paper as well-written, informative, and balanced. However, one reviewer noted with concern that a person thanked in the Acknowledgments section was an employee of a pharmaceutical company, without disclosure that the employee worked for the company and without clarifying the role this employee played in the work. The reviewer expressed concern because a product of this company figured prominently in the paper.

When we contacted the author about the role of the company in writing the paper, he indicated he received assistance from the company, which had sponsored an ASH Friday Satellite Symposium with which the author had been involved as a presenter. The company provided the author with meeting abstracts and copies of relevant articles and compiled tables of results of clinical trials, which the author then used to write the review article.

The degree to which the company participated in the creation of the manuscript ought to have been made transparent because of the unambiguous conflicts of interest involved. It is our view that in this instance, the person listed in the Acknowledgments met the standard of a “ghost author.” Consequently, the manuscript was rejected. Once we began to systematically seek clarification of the degree to which a pharmaceutical company had been involved in any aspect of writing, editing, or researching review articles, within 2 weeks we had rejected 2 additional unsolicited manuscripts.

Ghost authorship is defined as the failure to name as an author anyone who made substantial contributions to the research or writing of an article. There have been a number of excellent recent articles and reviews on this topic.¹ Relying on anonymous self-reporting from authors of papers in 6 major peer-reviewed medical journals, which likely resulted in gross underestimation, one older study reported that 13% of research articles and 10% of review articles were ghostwritten.¹ Even sources of information such as the Cochrane reviews, relied on by clinicians and students as a “gold standard” for unbiased analysis of treatment options, are not untouched by this practice.² Potentially more accurate information has been obtained recently by a comparison of names listed as coinvestigators responsible for specific clinical protocols when registered in public clinical trials registries with the names of final authors of papers reporting the results of these clinical protocols.³ There was evidence of ghost authorship in 75% of published trials in this survey. Most disturbingly, transcripts of pharmaceutical and medical education sessions or communication company documents made public as the result of recent lawsuits against pharmaceutical companies provide chilling reading for journal editors, clinicians, and patients, indicating the myriad of ways that pharmaceutical companies may potentially manipulate the biomedical literature.⁴

We strive to ensure that Reviews, Perspectives, and How I Treat articles published in *Blood* are of the highest quality, representing unbiased, timely, and insightful analyses of relevant topics written by authors who have contributed directly to the research process. All authors are asked to complete detailed conflict-of-interest disclosures at the time of submission, but “ghosts,” who by definition are not listed as authors, present a real problem for journals. Conflicts of interest exist when professional judgment may be influenced by secondary interests (financial or otherwise). Still, conflicts of interest and bias are not

synonymous, and disclosure provides a way for readers to judge the likelihood of bias. However, it is very unlikely that *Blood* or any other major biomedical journal would solicit or even accept a review article, including a Perspectives or How I Treat manuscript, authored primarily by a person working for a pharmaceutical company, at least on a topic related to the interests of the author’s employer. *Blood* will continue to search diligently for “ghosts,” preferably before full submission or peer review. Our ability to exorcise ghosts relies on the education of and cooperation from academic authors, who we hope will become proactive in declining to use ghosts and will instead rely on their own research and insights.

Primary research articles represent a different challenge. It is impossible to deny that industry scientists, statisticians, and clinical researchers are central to the design, data collection, and analysis of many important clinical trials today. These persons, if they meet the standards of authorship as defined by the World Association of Medical Writers, should be included as named authors on manuscripts. If a professional writer or researcher is engaged by a company, the GATE principles proposed by Daskalopoulou and Mikhailidis should be followed.⁵ Are the authors guarantors of the article? Was the professional writer advised by the authors before starting the writing assignment? Was there transparency, that is, were the writers and researchers identified appropriately on the authorship line or in the Acknowledgments section? Does the professional writer have the appropriate expertise and background to provide substantive input to the background research or writing of the article? Only if all 4 of these criteria have been met should articles written primarily by professional medical writers be submitted for publication in peer-reviewed journals, with attribution of the writers’ participation included in the Acknowledgments.

It is critical that first and senior academic authors take full responsibility for clinical trial manuscripts. Such authors should insist on input into trial design, access to all data, participation in the analysis of the data, direct influence in the planning of the manuscript before it is written, and substantial editorial input on all drafts. Any authors contemplating accepting “honorary” featured authorship on a paper in which they had no role other than referring several patients should think carefully about the ethics of such participation. If our appeal to better instincts is insufficient, read the *New York Times* account⁴ of the *Annals of Internal Medicine* paper on a Vioxx clinical trial that failed to include the deaths of several patients.⁶ The paper’s first author admitted that “Merck designed the trial, paid for the trial, ran the trial . . . Merck came to me after the study was completed and said, ‘We want your help to work on the paper.’ The initial paper was written at Merck and then it was sent to me for editing.”⁴ Documents made public in court indicated that Merck’s marketing department initiated and managed this trial solely as a mechanism for exposing a wide swath of primary care physicians to the drug, instead of pursuing real research questions.^{7,8}

Blood editors and staff will do everything possible to ensure that our readers receive information from *Blood* articles that is as unbiased as possible, with full disclosure of possible conflicts and acknowledgment of the participation of all writers and researchers. We invite *Blood* readers and ASH members to join us in “ghostbusting” by refusing to serve as authors of papers they did not actually write or to which they did not substantially contribute, and by insisting that important contributions of all participants, whether

from academia or the pharmaceutical and biomedical research industries, be fully acknowledged.

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Authorship

Contribution: C.E.D. conceived and wrote the article, and M.S.T. conceived and edited the article.

Conflict-of-interest disclosure: The authors declare no competing financial interests.

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