

Author's Commentary on "Patent Authorship: Whose DNA Is It Anyway?"

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Patent Authorship: Whose DNA Is It Anyway?

This case highlights two important issues that often arise in academic research. On the surface, the case concerns the ownership of ideas and assignment of credit to specific individuals for work performed in a group situation. But the deeper and more fundamental issue regards the adviser-student relationship and the unequal power distribution among members of the research laboratory.

We can surmise from this case that the professor, Glen, and the student, Sarah, have different views on how authorship and inventorship are determined. In fact, clear conventions in these areas currently are being debated. The majority of biomedical journals have adopted guidelines for authorship put forth by the International Committee of Medical Journal Editors (ICMJE), which state:

All persons designated as authors should qualify for authorship. . . . Authorship credit should be based only on substantial contributions to 1) conception and design, or analysis and interpretation of data; and to 2) drafting the article or revising it critically for important intellectual content; and on 3) final approval of the version to be published. Conditions 1, 2, and 3 must all be met.[\(1\)](#)

In contrast, laws regarding inventorship on patents, as described in the U. S. code and related case law, present substantially different and arguably looser qualifications for coinventor status, declaring that:

Inventors may apply for a patent jointly even though 1) they did not physically work together or at the same time, 2) each did not make the same type or amount of contribution, or 3) each did not make a contribution to the subject matter of every claim in the patent.[\(2\)](#)

The comparison between authorship and inventorship has recently been argued eloquently by Ducor⁽³⁾ and several others (see the published debate responses at www.sciencemag.org), and it is likely to remain a volatile issue for the foreseeable future.

What concerns us most in this case is that it appears that Sarah and Glen never communicated their expectations to each other. When we read that Sarah told all her friends about her first patent, we can see that she certainly expected to be named as a coinventor in addition to being listed as an author on the forthcoming manuscript. While Glen's expectations are less apparent, judging from his defensive comment accusing Sarah of misappropriating his work, he certainly never considered making Sarah a coinventor.

Both Sarah and Glen exhibit morally questionable behavior. As Sarah's thesis adviser, Glen should have reviewed with her the policies of the laboratory and the university regarding manuscript authorship and patent inventorship. Assuming Glen, who holds the rank of tenured professor, has advised students previously, he should have anticipated Sarah's unfamiliarity with standard policy and guided her, rather than coming across as naïve himself.

Sarah must also accept some responsibility for failing to enunciate her expectations for assignment of credit. Since Sarah has been in Glen's laboratory for over three years, one would expect that the two would have established some communication, even if only on a professional level.

In addition to Sarah and Glen, the governing body of the university is partially to blame for this situation, as it does not appear that the university had any sort of checks and balances to ensure that graduate students were informed and therefore protected. This situation is all too common in the scientific research community today. A single individual, the adviser, has almost total power over the professional career of his or her student. The faculty member and the student, however, will almost always have different needs and obligations, which pits them against each other.

- ⁽¹⁾International Committee of Medical Journal Editors (ICMJE). *Annals of Internal Medicine* 126 (1997): 36.
- ⁽²⁾35 US Code 116.
- ⁽³⁾Ducor, Philippe. "Coauthorship and Coinventorship," *Science* 289 (2000):

873-75.