the list of authors. Dr Frank says that the results of Ms. Bain's research would need further elaboration in the laboratory and that a second paper using the same data and additional studies would be more comprehensive, and that Ms. Jacobs would be included on the second one, too. Dr. Frank insists to Ms. Jacobs that the contributions of all the laboratory members were sufficient to satisfy the ICMJE guidelines for both papers, adding that the idea of a scientist acting as an independent entity is an outdated concept and that those who work around a scientist contribute significantly to helping him or her to function.

Ms. Jacobs tells Dr. Frank that she does not want to be included on Ms. Bain's paper, feeling that she did not contribute adequately. Dr. Seabrook, who follows ICMJE guidelines but was intimidated by Dr. Frank's stature, advises Ms. Jacobs not to rock the boat, to use Dr. Frank's revisions and some of the changes suggested during the laboratory review and to submit the paper to the journal with the authorship he suggested.

Acknowledgement

Annotated Case Study 2: What is Responsible Peer Review?

Dr. John Leonard is one of very few molecular biologists working in a particular field. Dr. Leonard receives a paper to review, about a protein called survivin, which he and a graduate student in his laboratory are researching. The article was submitted by Dr. Mark Morris to Protein Interactions, a medium-impact journal, and the editor asked Dr. Leonard and two other experts in the field to review the paper. The article suggests a new interaction between survivin and the protein GFX and provides evidence for the fact that both proteins are necessary for the full survival-promoting function of survivin in a cell. The article also describes, though that if there is too much survivin inside cells they die.

But the paper is fraught with problems: poor controls, inconsistent data in figures, and alternative explanations are not considered and claims are overstated. Dr. Leonard gives the paper to his graduate student Melissa Zane, who gives it a detailed critique and recommends significant revisions. Ms. Zane has never reviewed an article before, and Dr. Leonard thinks that doing so would be a good educational experience for her. Ms. Zane notes the finding about too much survivin being toxic to cells, a problem she has had working with the protein, and discusses it with Dr. Leonard. Both agree that they should lower the dosage of survivin in her experiments; the cells actually survive for a week, longer than her experience before, and then they die.

Dr. Leonard submits Ms. Zane’s and his own comments about the research to the editor suggesting that the paper be accepted only after a few more experiments are performed to validate some of the conclusions. One of the other reviewers has comments similar to Dr. Leonard’s, and the editor asks Dr. Morris, the author, to make the revisions before he will accept the paper.

But in the next few weeks the interaction between GFX and survivin that is discussed in the paper remains in Dr. Leonard’s mind. GFX was not a line of inquiry that Dr. Leonard and Ms. Zane were following in their research. They were focusing on other stimulatory proteins, but unsuccessfully. Dr. Leonard suggests to Ms. Zane that she add a compound to the cell culture system that stimulates the cell to produce its own GFX, a method that is somewhat different from what was in the paper by Dr. Morris that is under review. The enhancement method works. The cells live for a month.

Ms. Zane and Dr. Leonard draft a paper based on the results, which includes appropriate controls. Science, a prestigious journal, accepts the paper. Several months later, Protein Interactions publishes a revised paper from the laboratory of Dr. Morris. But after Dr. Morris sees the article in Science, he suspects that Dr. Leonard, who was an anonymous peer reviewer on the paper, might have taken some of the ideas for the Science article from his previous work. Dr. Morris knows that Dr. Leonard had been working on GFX because it was hard to purify and deduces that he used material in the unpublished manuscript to stimulate GFX activity.

Acknowledgement
Case Study 1: Share and Share Alike?

Banks is a graduate student in the Department of Sociology. For his thesis, he is focusing on the management of a DNA bank. It would really be a pain to recontact all of those people just for a set of controls.

Acknowledgement

Case Study 2: Who Owns Research Data?

Jessica Banks, a Ph.D. student working with Professor Brian Hayward, a sociologist studying urban sprawl, has recently defended her dissertation and is now ready to file it and leave for her new job. During her second year, when starting research with Hayward, Banks divided her time among three projects. Then, in her third year, after consultation with Hayward, she decided to continue and expand upon one of the three lines of investigation for her dissertation research. This was also the project most closely related to Hayward's grant at the time. Later, Banks's experimental plan and early results were included in Hayward's grant renewal. The other two promising lines of research were left incomplete. Banks's new job is a tenure-track position in a midsize Western liberal arts college.

Shortly before leaving for her job, Banks comes to Hayward's office to make copies of research data stored only on Hayward's computer, using special software, which she also plans to copy. Although her new faculty position will place a heavy emphasis on teaching, she is looking forward to continuing to do some research as well. In particular, she is eager to pick up where she left off with the two incomplete projects she worked on earlier. Hayward comes in as Banks is downloading her material, and asks her what she is doing. She tells him, and he then says to her that she cannot take the data. "They belong to me," he says. Banks is confused. "But I did the work, and I wanted to follow up on it. I can't do that without the data." Hayward is adamant. "I'm sorry, but you should understand this. Our research project was a joint enterprise, and all the work you did was funded by money I brought in via grants. The data do not belong to you or to me, they actually belong to the university, and the work will be continued with other students. I've already talked to one of the new students about working on those projects this fall." Banks, seeing her plans fall apart around her, protests, but Hayward is implacable.

After a few minutes, she stalks away. Later that afternoon, Banks gets together with her classmate Paul Larson, and she tells him about her run-in with Hayward. "Look," Larson says. "Hayward has no right to deny you access to data. You did the work that generated all the data. You knew it. Banks says, "But Hayward wouldn't listen to that argument when I made it." "Here's my suggestion," Larson says after some reflection. "Just stop by his office and copy it sometime during the weekend. I happen to know Hayward will be out of town, so he'll never know. That's the fair thing to do." Banks seems uncertain, but she says she'll think about Larson's suggestion and decide before the weekend.

Acknowledgement

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