Author's Commentary on "Post-Doc Blues"

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This case is designed primarily to stimulate discussions about scientific relationships including adviser-graduate student; adviser-post-doc; and post-doc-graduate student. It is further intended to explore the relationship of one lab to another lab in the scientific community. What may not be obvious at first, however, is that this case should also stimulate discussion about intellectual property.

Discussion Questions

1. *Should McGovern accept the position in Wang's lab? Why or why not?*

This question is difficult in that there is no one correct answer. To begin to answer this question, one must first think about McGovern's responsibility to himself. Although McGovern has most likely been invited for interviews at other institutions, it is evident from the case that he is most favorable toward Wang's lab. McGovern's first love is developmental biology, and Wang is well known as the leading developmental biologist in the field due to his frequent publications in prestigious journals. To accept a post-doctoral position in such a lab could prove highly beneficial to McGovern's career.

Since much of the preliminary data has been collected on the protein that Wang has just isolated, and McGovern has already learned about techniques used in such work from Bringham as well as being privy to her experimental data, it seems highly likely that he could finish such a project quickly. McGovern would be able to publish quickly, which would certainly impress Wang. Wang certainly has a wide network of collaborators and scientific friends, all of whom could be potential sources of future employment for McGovern.

Despite all of the positives for McGovern, one must question whether his taking the position is ethical. Although McGovern is not responsible for the fact that Wang and

Bringham may have isolated the same protein, he would be responsible for using Bringham's data at Wang's lab, should he choose to accept the position. Would it be fair for McGovern to capitalize on Bringham's hard work? Alternatively, it appears that Wang has done the same work independently and derived the same results; is it possible that McGovern would have no responsibilities to Bringham after all? There is also a possibility that the two proteins are totally different. Would the situation be easier to resolve if that were the case?

2. *Is it necessary for McGovern to discuss his findings at Wang's lab with Martin? Should he inform Bringham that if he accepts this post-doc position he would be doing the same work she is doing?*

An easy solution to this whole problem seems to be for McGovern to discuss what he has learned at Wang's lab with both Bringham and Martin. All of the issues would then be on the table, and McGovern would be able to determine the feelings of his current lab on the topic. It is important to consider Bringham and Martin's reactions to McGovern's revelation, however. It is quite possible that they may encourage McGovern to accept the position, understanding how such a move could prove to be a positive career decision. Conversely, Bringham may realize that since another lab is conducting the same research as she, it would be in her best interest to work extra hours to ensure that she is the scientist who gets to publish the data first. Martin may even encourage Bringham to follow this strategy. Bringham would then be receiving unfair inside information, which would reflect poorly on McGovern. Would this action be just as unethical as McGovern sharing Bringham's data with Wang's lab?

3. *If you were Martin and McGovern asked you what he should do, what advice might you offer?*

Although Martin is McGovern's adviser and should have McGovern's best interest in mind, it is almost a given that Martin would want to publish the data before any other lab. This goal would certainly cloud any words of wisdom that might come from Martin. Which is more important: Martin's responsibility to McGovern or Martin's responsibility to Bringham and the rest of the lab?

4. *If McGovern takes the position, should he be allowed to use his knowledge of Bringham's data to apply to new research at Wang's lab?*

This question is intended to spark discussion about intellectual property. To whom do the data belong? Are they Bringham's, since she has done most of the work? Are they Martin's, since the research was done in his lab, supported by his grant? Does McGovern have some rights to the data, since he and Bringham have worked together on parts of the project? It is easy to argue the case for each of the persons involved. The decision, however, should be in the hands of the head of the lab, Martin. Since the work has been done in his lab, and supported by his grant, he has the final say in what is done with the data.

Many PIs make it clear to each new lab member upon arrival that all data become and remain the property of the lab. What if Martin took it for granted that Bringham and McGovern knew of this unwritten rule, and therefore never informed either of them that such is the case? Should Martin still have the final say about the data?

5. *If McGovern decides not to take the position in Wang's lab, should he inform Bringham and/or Martin about Wang's data?*

This question was partially discussed following Question 2. If McGovern decides to decline the job offer from Wang, what should he do with the knowledge that someone could be close to scooping Bringham? Is it McGovern's place to inform Bringham? If Bringham learns that another scientist (especially one who is well known and respected) is currently conducting the same research that she is, she will almost certainly rush to publish quickly. Suppose that in doing so she becomes less concerned about accuracy and decides that she needs to do her last few experiments only once. What if her conclusions are altered due to lack of experimental repetition?

As stated earlier, there is no one right or wrong solution to the problem(s) introduced by this case study. However, consider the following as one possible resolution.

Suppose that upon arriving back in Martin's lab, McGovern organizes a meeting with Martin and Bringham and informs them that Wang has presented him with data that look quite similar to Bringham's data. McGovern further states that Wang has offered him a position in which his first project would be the one Bringham is currently working on. McGovern points out that taking a position in the lab of a figure as well respected in the field as Wang could prove to be an important career move. McGovern suggests that the two labs work as collaborators and publish the

data jointly. He suggests that this strategy may allow the labs to publish more than one paper out of the data with a few follow up experiments. Since Wang is a developmental biologist and has isolated this protein as a result of some developmental studies, it is possible that this protein may play a role in the development of the organism. Since Martin's lab has little experience in developmental biology using a model system, and since Wang's lab has little experience in molecular and biochemical studies, it seems ideal that McGovern become the bridge to link the two labs together in a mutually beneficial collaboration.

This solution is certainly not the only solution, nor is it necessarily the best one, but it could provide a platform on which further discussion may be built.