Jan Mason is a PhD student in Professor Bonnie Conlin’s lab. The Conlin lab is a large and well-known lab that works on a variety of cancer-related models, and Jan is about to graduate. Jan recently attended a seminar on campus where the presenter spoke persuasively about the importance of cell line authentication and good cell culture practices (GCCP), and specifically about the need for cancer researchers to discontinue the use of “Chang Liver” cells as a model of liver cancer, due to the overwhelming evidence that “Chang Liver” cells are simply misidentified HeLa cells. She also learned that it’s critical to authenticate all cell lines, lest they be misidentified or contaminated.

Jan’s thesis project has used Chang Liver cells. And just last year, a postdoc from the lab published a manuscript from a small project that had used Chang Liver cells. Additionally, Jan was the only person from her lab at that cell line authentication seminar, so she feels strongly that she must talk with her PI about her own project, how the lab is using Chang Liver cells in other projects, so that they can consider how those cells are being represented, what assumptions are being made, and if authentication practices in the lab need to be improved. This will be a delicate conversation because Jan does not want to imply that her PI nor anyone else in the lab has been engaged in counterproductive research practices.

So, how should Jan approach this conversation?

- Jan may need to convince her PI that there’s a problem with the Chang cells. Which of the three persuasive approaches should she take with her PI?
- The discussion Jan is planning to have with Dr. Conlin appears to have several goals. How should Jan use the GROW model to structure her approach?
- Especially in a big operation like Dr Conlin’s, is it a trainee’s job to point out potentially problematic practices? Why or why not? What are the potential benefits and pitfalls?
- Last year, Dr. Conlin’s lab published a study using Chang Liver cells. What should the lab do with regard to this studies, now that the cells are known to be from the HeLa line?
SCENARIO 2
Influencing Best Practices, from the Bottom Up
Graduate Student Conversation in Lab Meeting

Shelly Lee is a 5th year PhD student in the Assistant Professor Shaun Johnson’s lab. About to graduate, Shelly has attained a high level of respect in the lab…she is not only Shaun’s first (and therefore the most senior) graduate student, but last month she just published her thesis project as a first-author paper in the journal Nature.

Recently, an article in BioTechniques caught Shelly’s eye. BioTechniques published the results of a survey supported by the Global Biological Standards Institute (GBSI) where hundreds of cell culturists were asked to report on their cell line authentication practices. For a variety of reasons related to the funding for her own study, Shelly had been required to authenticate the cell lines used in her Nature paper, so while this process added time and cost to her study, she presumed that authentication was basic, good cell culture practice. However, Shelly was surprised to learn that in fact, more than half of the BioTechniques survey respondents “never” perform authentication on the cell lines used in their experiments, and from Nature’s own website she learned that only 19% of published papers carried out cell line authentication. Perhaps this is why each of her Nature paper’s reviewers specifically noted that her study was more credible for the careful GCCP efforts.

This process led Shelly to realize that her own lab had no consistent cell line authentication policy. So, she planned to initiate a general discussion about authentication practices at the next lab meeting; her goal was to try to influence practices that would insure the quality of research being generated in the Johnson lab.

• How should Shelly bring up this topic in lab meeting? Which two of the three persuasive approaches would help her make the most persuasive argument for establishing rapport with the group? How should she employ these approaches for the most persuasive benefit?
• Which of the Interaction Management steps would be most useful in creating an outline for this discussion?
• Is lab meeting the best place for a student to bring up an issue like GCCP? Why or why not?