

## RCR Casebook: A Disturbing Lab Protocol

<p>This role play involves a post-doc who is questioning a laboratory procedure. The post-doc recently started working in the laboratory and finds one particular procedure on mice to be morally disturbing. The post-doc decides to confer with another, more senior post-doc to understand why this procedure is being used since other labs have conformed to newer procedures that mitigate harm on research animals. Unsatisfied with the outcome of this discussion, she approaches the principal investigator of the lab in an effort to change the procedure.</p> <p><b>Roles</b></p> <ul style="list-style-type: none"><li>• New Post-Doc</li><li>• Veteran Post-Doc</li><li>• Principal Investigator</li></ul> <p><b>Scenarios</b></p> <ul style="list-style-type: none"><li>• Scenario One: New post-doc discussion with veteran post-doc</li><li>• Scenario Two: New post-doc discussion with Principal Investigator</li></ul>	<p><b>Role Play Tips</b></p> <ul style="list-style-type: none"><li>• Detailed role descriptions and prompts are provided to guide the role play. This is not a strict script. Encourage role players to familiarize themselves with their characters and get creative!</li><li>• Encourage role players to use their actual names in place of character names.</li><li>• Experiment with changing the prompts to inject some variability in role play dynamics (e.g., have a character offer a conciliatory opening line or a belligerent opening line to see how that changes the course of the role play).</li><li>• Run a role play more than once, changing role players.</li></ul>
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### Role Play: New Post-Doc Role Guide

#### Character Description: New Post-Doc

You are a new post-doc working on the pharmacokinetics of an investigative new compound. You are familiar with animal research, having done similar work on metabolites as a graduate student. When presented with the protocol for the experiment, you notice that it calls specifically for retro-orbital bleeds for the mice at regular intervals. The protocol does not mention anesthesia. You double-check the current standard for unanesthetized bleeds and find that the submandibular (check) bleed not only produces purer samples, but also is less stressful on the animals. Even though you believe that the method you're being asked to use is outdated at best and unethical at worst, you've heard that the Principal Investigator loathes to change any aspect of procedures they've used for such a long time in the lab. You decide to approach another post-doc who's been there much longer than you.

## **Role Play: Veteran Post-Doc (Trusted Other) Role Guide**

### **Character Description: Veteran Post-Doc**

You have been working in a pharmacokinetics lab for two years and are in your final year of your second post-doc fellowship. A new post-doc has recently been hired to learn about the ongoing projects and to take over your research as you are applying for positions as an Assistant Professor elsewhere. You have learned quickly when it's appropriate to ask questions and when it's better to let sleeping dogs lie. You have noticed that the new post-doc seems troubled by a couple of the research procedures on mice, but figure that just like you once questioned certain methods, she will eventually adhere to the lab processes without complaint, even doing retro-orbital bleeds on mice without anesthesia. Certainly, s/he has grasped that the anesthesia, which is now customary, will interact with the pharmacokinetics of the compound that they are studying and inhibit the uptake of the compound, which makes anesthesia not possible.

The following are the kinds of questions a trusted colleague (veteran post-doc) might ask:

- How did you do it in your other lab?
- Do you have evidence that there is an acceptable practice for performing a different technique?
- Have you considered how much goes into designing our protocols?
- Have you adequately familiarized yourself with the compound and how its composition is easily interfered with by other agents?

## **Role Play: Principal Investigator Role Guide**

### **Character Description of the Role: Principal Investigator**

You are a senior researcher at the university and are well-known in your field. Not only do you run an animal laboratory with several doctoral students and two post-docs but you also continue to see patients three times a week in the clinic. You rely on the lab manager and post-docs to keep research projects moving forward and trust that they follow laboratory methods according to best practices accepted in the field. You hold a weekly lab meeting to discuss progress on a variety of projects including a significant project that your recently hired post-doc will manage once your veteran post-doc completes his/her fellowship. You've had little time to meet with the new post-doc due to scheduling conflicts and clinic hours, but so far you've heard a couple of individuals in the lab suggest that s/he objects to certain techniques established in the lab protocol. One doctoral student has even complained via email to you about his/her noncompliance. You understand that s/he will require some time to adopt the different procedures in your lab and hope to meet with him/her soon to address any problems. Although you rely on individuals in the lab to carry out the research, you have little tolerance for defiance especially when the lab procedures have been assembled meticulously over many years.

### **Scenario One**

The New Post-doc pays a visit to the Veteran Post-doc to ask about lab procedures.

### **Prompt**

*New Post-doc:* "Hey, got a minute?"

*Veteran Post-doc:* "Sure, what's up?"

*New Post-doc:* "I'm not sure about this protocol. It calls for retro-orbital bleeds but doesn't say anything about anesthesia for the mice."

*Veteran Post-doc:* What do you say?

## **Scenario Two**

The New Post-doc stops by the office of the Principal Investigator. The New Post-doc's goal is to get permission to change the protocol and use anesthesia for retro-orbital bleeds.

### **Prompt**

*Principal Investigator:* "Now, what's all this I hear about you refusing to follow my laboratory's protocol for the retro-orbital bleeds on the mice? I guess I'm curious to hear why you have a problem with the protocol—but in the end, if you can't follow our lab protocols, you probably don't belong working in this lab."

*New Post-doc:* What do you say?

### **Take Away Point**

- When you suspect a possible case of research misconduct, it is important to take a step back and carefully consider how to proceed. The Bioethics Research Center recommends you use the [SMART approach](#):
  1. Seek Help
  2. Manage your Emotions
  3. Anticipate Consequences
  4. Recognize Rules and Context
  5. Test your Assumptions and Motives

Had the new postdoc used the SMART approach, she could have sought immediate help to get an unbiased, objective opinion. She could have taken a "time out" to calm and manage her emotions, which would have prevented her from sowing the seeds of discord. She could have considered the consequences of various choices for herself and others, such as immediately voicing her concerns directly to the principal investigator, rather than indirectly objecting to lab procedures that have been meticulously developed over the years. These steps could have led her to realize the rules and context of the situation, such as the fact that retro-orbital bleeds with anesthesia are not possible due to the interaction with the pharmacokinetics of the compound that they are studying and inhibition of the uptake of the compound. Lastly, she could have paused to question her assumptions about the ethicality of this procedure. These strategies are related and overlapping, and together would have likely led the new postdoc to feeling confident in her eventual, much-deliberated decision, placing her in a better position when broaching the subject to her principal investigator.