Physics 596 – Fall 2021

Scientific Ethics Case Study #6*

Rashad was just months away from finishing his senior thesis when he realized that something was seriously amiss with the work of a fellow undergraduate student, Jimmy. Peter was convinced that Jimmy was not actually making the measurements he claimed to be making. They shared the same lab, but Jimmy rarely seemed to be there. Sometimes Rashad saw research materials thrown away unopened. The results Jimmy was turning in to their common thesis adviser seemed too clean to be real.

Rashad knew that he would soon need to ask his thesis adviser for a letter of recommendation for graduate school applications and a National Science Foundation Graduate Research Fellowship application. If he raised the issue with his adviser now, he was sure that it would affect the letter of recommendation. Jimmy was a favorite of his adviser, who had often helped Jimmy before when his project ran into problems.

Yet Rashad also knew that if he waited to raise the issue, the question would inevitably arise as to when he first suspected problems. Both Rashad and his thesis adviser were using Jimmy's results in their own research. If Jimmy's data were inaccurate, they both needed to know as soon as possible.

1. What kind of evidence should Rashad have to be able to go to his adviser?
2. Should Rashad first try to talk with Jimmy, with his adviser, or with someone else entirely?
3. What other resources can Rashad turn to for information that could help him decide what to do?

*Before discussing the case:** Identify people in the group for the following presentation duties: (i) A person to present the 'case' in their own words to the rest of the class; (ii) a person to present one point of view in this study; (iii) a person to present the opposing point of view; and (iv) a person to lead a class discussion of the case. Feel free to take notes as necessary to present your discussions to the class.

Discuss this case study with your team and prepare to relate your discussions to the rest of the class.

Adapted from *On Being a Scientist: A Guide to Responsible Conduct in Research*, 3rd ed. (Washington DC, National Academies Press, 2009), p. 22.