Peer Review

First Principle: Peer review is the researcher's jury system.

Dos and Don'ts:

- Do not review work on which you are not an expert.
- Do not review work on a subject where you are involved in a contentious dispute.
- Do not delay.
- The work is confidential.
- It is a heinous sin to appropriate work from a paper or grant you are reveiwing.

Case C1: Reviewing Research Grant Applications

Don Fletcher is a full professor at a renowned university and has a reputation as an outstanding scientist. His work has had a number of potentially profitable practical applications, which led him to join with some venture capital partners in forming a company to commercialize his inventions. Now several years old, the company is a financial success.

Dr. Fletcher is also a member of a National Institutes of Health (NIH) study section — one of the many peer review groups at the NIH that evaluate the scientific merit of grant applications. Despite the long hours, he is pleased to serve since he recognizes the importance of his contributions to the peer review system. In addition, he believes it is an excellent way of keeping absolutely current with the work done in his and related fields. He is very aware of the importance of confidentiality as reiterated in the statement read before each study section meeting.

Dr. Fletcher just returned from reviewing a fascinating grant application from a scientist working in a closely related area of research. After evaluating the application's preliminary work report, Dr. Fletcher came to realize that much of his own current NIH-funded and corporate research was proceeding down a blind alley. A meeting to review his research team's progress is fast approaching, and he is due at corporate headquarters tomorrow to discuss his company's research and development projects.

- 1. What could Dr. Fletcher report to his research team? To his company?
- 2. Should Dr. Fletcher have proceeded differently in the case of this grant review?
- 3. Some people may have difficulty in segregating ideas that they gain in the course of reviewing grant applications from ideas they develop on their own or glean from nonconfidential sources. If you were in Dr. Fletcher's situation, how would you ensure that you did not benefit inappropriately from information or ideas acquired during the course of your duties as a study section member?

Source: www.research.umn.edu/ethics/curriculum/peer_review.html

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Case C2: Reviewing Submissions to Journals

Anne Baldwin is a postdoctoral fellow working in a highly specialized area of research on lentiviruses and prions. Her boss, Dr. Sam Richardson, recognizes Anne's talents and believes that she is the most promising postdoctoral fellow in his lab.

Anne's contributions have included aiding Dr. Richardson in identifying a rather obscure pathway by which the prion responsible for Cruetzfeldt-Jacob disease, a degenerative brain disorder, emerges from years of latency to initiate active infection.

When Dr. Richardson is asked by a leading neurobiology journal to review an article on the pathology of Creutzfeldt-Jacob disease, he decides to involve Anne because of her skills and specialized experience. He makes a copy of the manuscript and asks Anne to write her own critical review of the piece, just as if she were the actual reviewer. This exercise, he reasons, would afford Anne a good opportunity for exposure to the process of peer review, while putting her in touch with the latest literature on her primary field of research.

- 1. Is Dr. Richardson's idea a good one? Why or why not? Are there other ways for him to involve Anne in reviewing the article?
- 2. Dr. Richardson's motives for having Anne participate in this manner seem well-intended. What might be some negative reasons for involving Anne in this way?
- 3. What concerns might Dr. Richardson's approach pose for the author of the article? What issues are posed for the journal in which the article may appear?
- 4. If Anne feels uncomfortable about Dr. Richardson's request, how might she respond?
- 5. Assume that rather than sharing the paper with Anne, Dr. Richardson distributed it to the laboratory's "journal club" for discussion. What kind of problems does this scenario pose?

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