

## RESPONSIBLE CONDUCT OF RESEARCH

### CASE STUDY #2

*Please read and discuss over lunch.*

Jane is a very motivated and bright graduate student who is trying hard to synthesize a metabolically stable small molecule inhibitor of a newly identified brain enzyme. In a series of high-profile publications, the enzyme has been shown to be 1,000-fold overactive in a rare and fatal childhood disease. The field is convinced that if an inhibitory drug could be given to these young patients, a significant medical benefit could be realized.

Despite her perseverance, she meets with failure after failure. Every drug she makes is rapidly metabolized and thus shows no efficacy in her animal models. Finally, she goes to Dr. Jones, who is an internationally recognized investigator in drug metabolism in her department and describes her problem. Dr. Jones is silent for a while and then says, "Don't fret. I'll have something for you to look at tomorrow." The following day when Jane arrives at the lab, she sees an unpublished manuscript on her desk with a Post-it note from Dr. Jones that says: "Jane, read the methods and results sections of this paper. I think they might contain the solution to your problems. But don't tell anybody I gave you this. As soon as you are finished, return the paper to me."

The paper describes a synthetic design that seems exactly suited to solving Jane's problem. Sure enough, and within a few days, Jane synthesized a potent metabolically stable inhibitor using the approach. The drug can now move forward into preclinical testing and ultimately into patients who could truly benefit from its utility. She gleefully reports all this to Dr. Jones and returns the paper. She can't help asking though, "Dr. Jones, I have searched the literature high and low to find a method to help me with my project and found absolutely nothing. Where did you get that manuscript?" to which Dr. Jones obliquely replies, "Oh, don't worry about that; I have many such manuscripts."

*(Modified from a case study reported online)*

#### DISCUSSION:

We have purposefully omitted the origins of the paper that Dr. Jones provided to Jane as therein lies the moral content of the dilemma. Consider each of these possibilities and their implications in the responsible conduct of research.