**IACUC Training Exercise #3- 2018**

*The following exercise may be useful in stimulating discussion regarding compliance with PHS Policy and VA Handbook 1200.07. To facilitate discussion, page 1 of the exercise may be distributed to the IACUC members prior to a meeting. After a few minutes of discussion about the exercise during the meeting, the remaining pages of the exercise may be distributed to provide ideas for the committee’s consideration.*

At the Hometown VAMC, several investigators have figured out that it is a good idea to ask Ann Marie, the IACUC Coordinator, to perform an “unofficial” pre-review of their ACORPs. Dr. Harvey Miller, a radiation oncologist, frequently asks for a little help. Today, he wanted Ann Marie’s assistance with item B – Description of Relevance and Harm Benefit; one of the ACORP sections that he finds most challenging. Dr. Miller’s draft item B is shown below.

**Proposal Overview**

B. **Description of Relevance and Harm/Benefit Analysis.** Using non-technical (lay) language that a senior high school student would understand, briefly describe how this research project is intended to improve the health of people and/or other animals, or otherwise to serve the good of society. and explain how these benefits outweigh the pain or distress that may be caused in the animals that are to be used for this protocol.

Hepatocellular cancer (HCC) is one of the top five causes of cancer death. The current treatments have limited effectiveness; we will investigate a new combination therapy. Our strategy involves the use of high-fidelity radiofrequency ablation (RFA), an FDA-

approved multi-tyrosine kinase receptor inhibitor, as well as, an investigational new drug (IND)- nanoparticle/ceramide formulation, which may significantly suppress tumor growth in HCC. We will use a rat model of HCC to evaluate the efficacy of our combined therapy; the potential benefit to HCC patients outweighs the pain and distress that the rats may experience.

What do you think about Dr. Miller’s draft item B?

Here’s what Ann Marie (aka Joan Richerson) had to say about Dr. Miller’s item B.

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Ann Marie helped Dr. Miller improve the narrative of item B; the final version is shown below:

Hepatocellular carcinoma (HCC) is cancer of the liver and is a major cause of cancer death worldwide. U.S. Veterans are diagnosed with liver cancer at a rate about five times greater than that of the general U.S. population. Currently liver cancer treatments include surgery to remove the tumor, radiation to kill cancer cells, and drug therapy to prevent the cancer cells from growing; however, even in combination, these treatments do not work well and cancer often spreads to other parts of the body. The five-year survival rate for liver cancer is only 15%. One of the main challenges is how to get the therapeutic drug(s) into the cancer cell so the cancer cell is destroyed. Our approach is to combined radiation treatment with a new FDA-approved drug called D-123 that inhibits part of the cancer cell's growth cycle, and a new drug delivery system that uses very tiny particles containing a fat-soluble material called a ceramide-based nanoparticle formulation that readily enters and kills liver cancer cells. We will treat rats with a toxic chemical, which will cause the rats to develop liver cancer. Once the liver tumors develop, we will determine if the new combined therapy is more effective and improves survival. Anesthetics and analgesics will be used to reduce the pain and distress experienced by the rats. Rats will be closely monitored and will be promptly euthanized when established humane endpoints are met. If the proposed combination therapy for the liver cancer is proven to be effective, it will provide a far more effective treatment option and improve the prognosis for liver cancer patients.

The main points to remember when preparing a “Description of Relevance and Harm Benefit” are:

* Use lay language that the public would understand – be prepared for a FOIA request.
* Provide enough facts about the disease or condition that it is clear why it is a problem and how it affects people and particularly Veterans.
* In general, what is the scientific objective? What will it achieve (the benefit)?
* What will happen to the animals used (the potential harm/risk)? Describe how potential pain and distress will be minimized.

Sources:

<http://www.usmedicine.com/agencies/department-of-veterans-affairs/fast-tracking-va-liver-cancer-patients-interarterial-therapy-up-tenfold-in-chicago/><https://www.cancer.gov/publications/dictionaries/cancer-drug/def/ceramide-nanoliposome>