



**NCI-FREDERICK
INSTITUTIONAL BIOSAFETY COMMITTEE**

Minutes
November 18, 2008
NCI-Frederick

The NCI-Frederick Institutional Biosafety Committee was convened at 12:07 p.m. in the Building 549 Board Room with the following members in attendance:

Dr. Randall Morin, Chair	Dr. Dan McVicar
Dr. Bruce Crise	Ms. Alberta Peugeot
Ms. Renee Kahn, IBC Coordinator	Dr. Michael Baseler
Ms. Theresa Bell, Secretary and Biosafety Officer	Dr. David Garfinkel

Members not in attendance: Mr. Scott Jendrek, Dr. David Derse, Dr. Stephen Creekmore, Dr. Eric Freed, Dr. Stephen Hughes, Dr. Serguei Kozlov, Dr. Henry Hearn, Mr. Lucien Winegar, Ms. Dianna Conrad, Dr. Hollingshead

Others in attendance: Dr. Ray Harris, Ms. Lotta Andersson, Dr. Scott Keimig, Dr. Robert Thomas

MINUTES

Theresa Bell reported that the October 2008 meeting minutes would be distributed for full committee review and approval by e-mail on Friday, November 21, 2008.

NEW BUSINESS

Ms. Renee Kahn joined the meeting to serve as the new IBC administrator. Ms. Bell made a motion to vote Ms. Kahn into the committee as an official member, Dr. Crise seconded and all were in favor.

REVIEW OF PROTOCOLS

NEW IBC REGISTRATIONS

08-68 (Dr. Hu) *Role of IKK α in Cancer and Inflammation*

Dr. Hu is studying the effects of cancer in melanoma using adenovirus to deliver IKKalpha. There are several questions that will require a response or clarification from the PI:

- Has this lab worked with adenoviruses in the past? Expand on question A1 and clarify what specific work activities will be performed.
 - A2-needs more detail on where the viral constructs come from and the source of the mice. What adenoviral system is being used here?
 - A3-is a statement of why the Adenovirus is being used rather than addressing the hazards. This needs to be fixed to include the hazards of adenovirus and the transgenes.
 - A4: It is noted that needles will not be recapped and then they say they will – please clarify that needles are not recapped and are disposed of in an approved sharps container.
 - A6a- “cells are transported to the animal facility” - clarify why/for what purpose and how this is done safely (i.e. using primary and secondary sealed leakproof containers with absorbent).
 - B3-Need information regarding the source of the Adeno system.
 - B5 in general needs more information
 - B5a-Needs more detail about what is planned
 - B5d-should be whole virus used, even though these are replication incompetent.
 - B5e1-needs more information- I guess she is using mouse but don't know for sure.
 - B5h1-says only capped centrifuge tubes and a BSC
 - B6a-has no mention of reversion to replication competence. Is any percentage of the defective adenovirus capable of reverting to wild type virus?
 - What is the possibility of viral recombination resulting in an infectious adenovirus with modified tropisms?
 - B6b should include 293
 - B6c-now mentions Cre as well as IKKalpha, what is being done with Cre?
 - B8b1-no hazard because it did not happen before.
 - B10a needs to be filled out.
- Part B with transgenic animals:
- B5 refers to the promoters-not sure this is needed if there are no viral promoters.
- Part C-Adenoviral vectors
- C5-should this be yes due to possible RCA?
 - C6 should be NO; C6 is answered yes that work will produce a toxin but C7 indicates no toxin is being used – please clarify.
 - C8: the maximum volume is indicated as 40 uL but the usual volume is listed as 200 uL. These values are inconsistent as the usual volume exceeds the maximum volume.
 - C9 should be NO
 - C10 should be filled out for Adenovirus
 - C12a1 how to do concentration safely- “use screw-cap tubes”
 - C13-needs more
- Part D-Human material
- D2 (is it fresh) should be NO
 - D3a-reference to blood is unclear- what is done with blood cells? Used mouse blood as a reference, need to know if they are transporting the cells and to where for what purpose.
 - I think 293T cells are screened, this should be included here.
- Part E-Animals

-E8a-suggests that infected cells will be reintroduced into the mice. Is this the case? It is unclear from the descriptions? Are any adenovirus infections occurring in live mice?
-E9-refers to potential injection with adenovirus. Will adenovirus go into the mice?
-SOPs do not address working with or handling Adeno. There is no description of quality control or checking for Replication Competent Adenovirus. The Adenoviral system is not described well.

Dr. McVicar made a motion to defer approval, Dr. Crise second, and all were in favor.

08-70 (Dr. Wiltout) Analysis of inflammatory mediators in human tumors

Summary: Dr. Wiltout will be looking at cell lines using blood and blood products. The lab will be separating animal work from human work. They have the appropriate kind of PPE listed and the lab is approved for this type of work.

The following questions need to be addressed:

- Room 31-52 was listed as a work area, but on the room summary log, this room is listed as an equipment room. Please clarify what is going in this room.
- Dr. McVicar believes that homogenization is going on in that area and it is not clear whether it is done in a BSC or on the bench top.
- Dr. Baseler recommended a SOP on handling blood that is a little more elaborate, to include specific PPE to be worn.
- On SOP: More detail is needed to go into point #10 “Spill Detail” and disinfection (chemical, contact time, etc) procedures. Write this process out to include exact directions as oppose to referring a “Safety Gram”.
- Obtain signatures and lead reviewer would like to review final SOP prior to issuing approval memo.

Dr. Baseler made a motion to approve with edits, Dr. Crise seconded and all were in favor.

****Ms. Bell recommend that we have a handout on “How to write an SOP” to ensure the key points needed in a laboratory-specific SOP are identified and communicated to the Principal Investigators. Additional guidance, perhaps to include a list of questions to be answered within the SOP, would be useful in creating sop documents for laboratory-related safety issues. The Committee recommended that the SOP practices be checked during normal routine lab inspections.**

RENEWALS

08-67 (Keller) Murine Retroviruses

The committee had the following comments/questions requiring clarification:

- B5F1 Modification made to original: the construct does have a PSI vector present, potentially hazardous, but highly unlikely.

- E6e: Changed to NO- added comment about PSI package
- There was a question about how injections would be performed, but the answer was addressed in the ASP section.
- Page 4 - what kind of FACS or cell sorter would be used to run assays? Ms. Bell responded that they have proper PPE in place during running of the machines and they have a mechanism to capture any aerosols, should they be sorting live material instead of fixed material.
- A comment was made regarding the type of respirator to be worn during live sorts? The use of N95 or N100 was erring on the side of safety and an option left up to the research group.
- There was a question regarding the retrovirus and it was determined to be murine in origin, posing negligible risk to humans.
- A volunteer listed on the employee roster. He wanted to confirm that they had gone through the same OHS program that everyone else went to. It was noted that to get a volunteer cleared with paperwork and all testing, it usually takes 8 weeks to get an employee clear of all paper.
- Ms. Bell reported that both Drs. Kozlov and Hughes agreed to the minor changes.

Ms. Bell made a motion to approve this IBC. Dr. Crise seconded it and all were in favor

08-69 (Harris) Filtration and filling of infectious purified bulk virus material

Summary: Dr. Harris would like to modify the current procedure of filtration. Currently, they filter blood product through a series of filters. The housing for the pump and valve is covered with a plastic bag to avoid a major spill/spray if one of the filters clogged or dislodged, pressure suddenly increased or other catastrophic event occurred. Dr. Harris noted that the current procedure with the bag in place (secondary containment inside the BSC) interferes with the ability to access the valve for manipulations and venting procedures, possibly causing damage to his filter because it restricts the vents on the sides of the equipment. This causes the motor to over heat and the motor does not function properly. Dr. Harris noted that because he is removing the secondary containment bag, he is upgrading his PPE to include N95 or N100 respirators. Dr. Harris also noted other safeguards included on his set up. There is an in-line pressure gauge that does not exceed greater than 15 PSI.

-The IBC was initially resistant to the change and recommended it stay the same. However, it was determined that the additional PPE and the fact the operation would stay inside of a BSC at all times addressed the proper precautions needed to ensure the safety of the operator.

-Dr. Harris noted certain safeguards on his piece of equipment.:

- safeguard on machine that the does not go past 15 PSI pressure with our shutting down.
- The lab itself has an excellent track record.
- PPE that was added (N95 or N100) seems to be sufficient.

- The IBC requested that the modifications to the procedure be observed prior to approval.
- Provide clarification on B5H: Are the cells infected with Adenovirus or with only an adenoviral vector?

-Clarification was requested regarding the pressure monitors. He wanted to know if they have an automatic shut off when they hit 15 PSI or is it manual. Dr. Harris responded that it is manual. The Technician watches the monitors during the filtration.

-What is done in the event of a pressure spike? Dr. Harris responded the pump is turned off quickly, and vents on the filter that lead to a waste container of bleach are opened.

Dr. Crise made a motion to approve the protocol after process observation, Dr. McVicar seconded and the motion and all were in favor.

AMENDMENTS

06-49 (Young) Effect of modifying intestinal flora on the development, progression and treatment of inflammatory bowel disease and colon cancer

Summary: Dr. Young would like to infect mice with murine norovirus and then feed lactobacillus to the mice. The committee had the following questions:

- How is this an amendment of the original? This should probably be a new IBC registration.
- The animals that he plans on using will be housed in an area that is Norovirus positive. How will the control mice be kept separate?
- The strain of Norovirus is unclear. Ensure this is murine norovirus and not a human strain.
- Are there individuals (such as immunocompromised or pregnant workers) that should not work with Norovirus?
- How do we normally handle norovirus positive colonies?
 - 1) There is no room number listed as to where the lab work (PCR) is to be performed.
 - 2) Will the concentrated form be in the lab and if so, how much?

The Committee recommended that this registration be deferred, Dr. Crise seconded and all were in favor.

OUTSTANDING ITEMS

- Amendment of 07-09 (Wolff): Waiting on responses from PI.
- 08-31 (Whitby): Waiting on responses from PI.
- 08-57 (S. Ruscetti): PI still working with subcommittee for approval.

-Amendment of 06-78 (Williams/Anver): PI to make changes to the service request forms. The Committee would like more information requested on the forms. If the box is checked "yes" for IBC, then the IBC registration number needs to be included and documentation attached with the sample submission. If the box is left unanswered,

and/or IBC documents are not attached at the time the service is requested, the service is not to be performed.

Dr. McVicar made a motion to approve, Dr. Hughes seconded and all were in favor.

OTHER BUSINESS

BBP Compliance: 97%

HIV and other medical surveillance programs. This program was implemented 3-4 months ago. Tests for HIV 1 and 2 and HTLV 1 and 2, SIV are offered to those enrolled in these surveillance programs and OHS adopted the NIH program for surveillance.

Up to 6 months ago, no one was tested for SIV, now there is a commercially available test. SIV testing is now offered to all employees who are working with it.

Dr. Baseler asked: Do we offer these surveillance programs to all employees who work with blood or everyone? He is concerned about finding random positives that are not work-related.

Questions asked included:

- What do you do if you get a positive test result?
- Do you treat or counsel the employee?

If workers are working with blood products they are offered Blood Borne Pathogen training. The program is set up so that people who work with HIV, HTLV or SIV are on a surveillance program.

Summary: Need to figure out the cost benefit versus the work practice benefit. This should be decided by upper level management. Alberta Peugeot, Manager OHS, will be responsible for following up on these issues and providing the IBC members with responses at a later date.

Human Pathogen Screening:

LMT at Tollhouse will no longer perform this testing service. Alternative testing facilities are being researched, in addition to the pathogens of interest. The following pathogens are being considered by the IBC to be required for screening:

HIV-1, HIV-2, EBV, CMV, HTLV-1/2, HCV, HBV, SIV, SV40, HPV, HSV, MoLuV.

A risk benefit analysis should be conducted to fully understand the hazards posed to laboratory workers by each of the above identified human pathogens.

The committee will look to outsource this screening to a private company, but will also pursue internal options within the NCI as well. Dr. Crise suggested going to the CDC for guidance.

Informed consent:

Ms. Bell noted that a lot of the IBC registrations are being conditionally approved as long as there is an informed consent included with the signature page.

Ms. Bell recommended the committee to consider if the informed consent document/statement be included in Part G of every registration. The members were requested to provide input on this issue.

Suggestions for what the form should include:

- 1) reiterate the important details
- 2) include the summary on the signature page
- 3) Provide a second identifier so that the person can be traced (employee #)

Recording meeting minutes for purposes of transcription only.

The IBC Secretary would like to request permission from the committee to record meeting minutes for the purposes of catching all salient points and for ease of transcribing minutes. Consider this and provide feedback so that we may start this process early in 2009 if permissible.

Meeting was adjourned at 2:00 p.m.

Theresa D. Bell, MPH, CBSP
IBC Secretary
Biological Safety Officer, EHS

Mrs. Ren'ee Kahn
IBC Coordinator
Sr. Safety Specialist, EHS

APPROVED:

Randall S. Morin, Dr. P.H.
Chairman, NCI-Frederick IBC
Director, EHS

Date

xc: Dr. Reynolds
Mr. Wheatley
Dr. Arthur
Mr. Butfer