NCI-FREDERICK
INSTITUTIONAL BIOSAFETY COMMITTEE
MINUTES
JUNE 21, 2011

CALL TO ORDER / ANNOUNCEMENTS

The NCI-Frederick Institutional Biosafety Committee was convened at 12:05 p.m. in Building 549 Executive Board Room with the following members in attendance:

Voting

- ☒ Michael Baseler
- ☒ Theresa Bell
- ☒ Stephen Creekmore (arrived at 12:20pm)
- ☒ Bruce Crise
- ☐ Eric Freed (regrets)
- ☐ Melinda Hollingshead (regrets)
- ☒ Stephen Hughes
- ☒ Sarah Hooper
- ☒ Scott Jendrek
- ☒ Serguei Kozlov
- ☒ Dan McVicar (Chair)
- ☐ Randall Morin (regrets)
- ☐ Shalini Oberdoerffer (regrets)
- ☒ Raja Sriperumbudur
- ☒ Lucien Winegar
- ☒ Rev. David Betzner

Non-Voting

- ☒ Walter Hubert
- ☒ Kim DiGiandomenico

APPROVAL OF MINUTES FROM MAY 17, 2011 MEETING

The May 17, 2011 meeting minutes were approved as written.
(A motion and second were made. (For: (11) Against: (0) Abstain: (0))

ACCIDENT REVIEWS

Two accidents were reportable between the April and June meetings. The first occurred at the Bethesda campus where occupational health nurses were potentially exposed to a patient who tested positive for tuberculosis. The patient was part of a clinical trail and had a positive skin test but negative x-ray. All nurses involved in the potential exposure have been tested and monitored and to date all have been negative. The second accident occurred at NCI-Frederick and involved a glassware processor. The individual reported to the clinic for a tetanus shot. The shot was given in conjunction with a DTap shot and is believed to have caused an immune response in the patient. Because the patient missed a day of work post-vaccination, it was a reportable incident.

REVIEW OF PROTOCOLS

NEW REGISTRATIONS

Esta Sterneck 11-31: *Assessing role of Fbxw7 and CEBPD in human monocytes* This project is designed to determine whether human monocytes express detectable levels of FBXW7 and their physiological role in the inflammatory responses. RNAi experiments against CEBPD in human primary monocytes and established human monocyte cell lines will also be performed as well as Western blotting and quantitative PCR. Numerous questions were asked and addressed during the pre-review; however, the IBC felt the PI did not sufficiently address the hazards of working with human materials, did not provide adequate description for how Westerns and RNA isolation are conducted (in BSC, how inactivated, etc.) and did not indicate that lab staff specifically have the Bloodborne pathogen training. Mike Baseler motioned to defer the registry to lead reviewers for approval pending the responses provided to the aforementioned concerns. Steve Hughes seconded the motion. (For: 11 Against: 0 Abstain: 0)

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RENEWALS

Howard Young 11-21 (06-06): *Work with Immortalized Human / Mouse Lymphoid Cell Lines* This is a project renewal for the analysis of leukocyte gene expression in response to many different types of stimuli. Immortalized human and mouse cell lines represent the necessary reagents to perform biochemical and molecular studies. The committee expressed concern regarding immortalized cells that the PI stated contain an uncharacterized virus weakly infectious for human cells. Additionally a defective retrovirus which contains the myc and raf oncogenes is also used with this cell line. Although during one *in vivo* experiment, the production of tumors at the injection site or distal sites was not seen by the PI, the committee feels it should *not* be regarded as being non-hazardous. Also, since the lab employs summer interns, some of which may be minors, the PI must restrict them from using not only the virus, which is current practice, but also the resulting transduced cell lines. Scott Jendrek moved to defer the registry so that the safety concerns noted above can be further discussed with and addressed by the PI. Bruce Crise seconded the motion. (For: 11 Against: 0 Abstain: 1)

Glenn Merlino 11-26 (06-106): *Role of receptor tyrosine kinases in melanoma and other cancers: Use of genetically engineered mouse models* This renewal is for the continued generation of mouse models of cutaneous malignant melanoma and to a lesser extent NSCLC and rhabdomyosarcoma, which this group uses to study the role of receptor tyrosine kinase and other signaling pathways in cancer initiation and progression. The viral vector work and transductions are conducted on the Bethesda campus and only transduced cell lines / animal infections are handled by staff in Frederick. During full committee discussion, the IBC was concerned that the PI stated in B8b1 that there were no hazards affiliated with the research; however staff in Frederick will be working with transduced cell lines that contain oncogenes and lines that could potentially produce replication competent virus (from pBabe vectors) which could ultimately be present during necropsy of an animal.

The committee requested the following: recognition of the hazards of the oncogenes listed in the registry; address how the various viral systems are segregated in Bethesda to offer a level of assurity to the LASP staff for the materials they receive; the PI to take into account what could happen to the mice post-infection (i.e. recombination event producing active virus); briefly describe the enhanced safety precautions incorporated into necropsy regarding sharps safety and describe what happens to the excised tissues post-necropsy; and how these aforementioned hazards are communicated to the LASP staff affiliated with this protocol and how the current LASP SOPs are adapted to ensure the safety of the LASP staff. Dan McVicar moved to defer approval of the registry to lead review pending responses to the concerns noted above. Bruce Crise seconded the motion. (For: 12 Against: 0 Abstain: 0)

Ven Natarajan 11-33 (P300101VNA02): *Laboratory of Molecular Cell Biology (LMCB)* This renewal is to continue to detect and/or quantitate HIV1 and HIV2 RNA and DNA from human peripheral blood mononuclear cells, plasma and tissues. The PI sufficiently addressed all safety concerns the committee had; however, they did want confirmation for the amount/volume of positive control that was being generated. Scott Jendrek motioned to approve the registry pending clarification on the volume of positive control generated. David Betzner seconded the motion. (For: 11 Against: 0 Abstain: 1)

OUTSTANDING ITEMS

Robert Blumenthal 11-23 (P110797RBA03): *Mechanism of viral entry and pathogenesis* and 11-24 (P180897RBA01): *Working with Vaccinia recombinants for protein expression and the study of viral entry* The IBC sub-committee conducted their site visit on June 2, 2011, and discussed the life cycle of the work flow for the Vaccinia and Influenza projects with key laboratory staff. A summary of the meeting and safety recommendations was provided to the PI and laboratory staff for comment and for incorporation into their SOPs and to the IBC for review. The committee concurred that the current documents still did not reflect their practices and recommended safety enhancements, and requested another visit to the laboratory to observe an actual experiment from start to finish to ensure what has been recommended by the sub-committee is feasible and if it is not, then rework the procedures to ensure adequate laboratory safety is being achieved. The group who will conduct the observation consists of Dan McVicar, Theresa Bell, and Serguei Kozlov. The committee concurred that the renewals continue to be deferred pending the observation.

Trinchieri/Noer – IBC 10-60_Flow cytometry core lab – see NIH Policy for Cell Sorters discussion below

AMENDMENTS

Twenty amendments were processed and approved between the May and June meetings.

OTHER BUSINESS

XMRV update - Steve Hughes provided recent journal citation and commentaries regarding XMRV. The current literature strongly suggests that XMRV was created during the passage of human prostate cells into nude mice and occurred from a recombination event near the LTR and ENV sites. Dr. Hughes stated that based on the new findings, he is convinced that there is no evidence of xenotropic murine replicating virus in humans.

NIH Policy for Cell Sorters – The NIH has put together a draft policy for users of cell sorters which was brought to the attention of EHS. EHS circulated this to the IBC for comment. Dan McVicar also shared the draft document with other investigators on the NCI-Frederick campus to review and determine the feasibility of its contents with their current operations. If the NIH adopts this policy and also mandates it at the NCI-Frederick, it could have significant cost implications at the NCI-Frederick. Dr. McVicar tasked the IBC for reviewing the draft policy for further discussion at the July IBC meeting and requested special attention to the table that classifies the handling of normal murine cells as BSL2.

Pre/Post approval monitoring of biological laboratories – The committee continued discussions about pre/post approval monitoring of biological laboratories. Several of the IBC members strongly suggested that EHS conduct these visits with at least one IBC representative accompanying them. It was also suggested that a pilot project be conducted to determine the degree of compliance currently upheld in the laboratories (i.e. Is the paperwork reflective of the actual practice?). The pilot project findings would be used to determine if such visits were warranted. Lastly, PI accountability and training were also discussed as another area that should be developed.

BioMaterial Fact Sheet: Adenovirus and Adenoviral Vectors – Kim DiGiandomenico provided the committee with the final version of the BioMaterial Fact Sheet that will be made available to Animal Facility Managers as well as be posted on the IBC webpage.

ADJOURNMENT

The meeting was adjourned at 2:15pm.

Next meetings: ***July 19, 2011*** ***August 16, 2011***