

NATIONAL CANCER INSTITUTE-FREDERICK (NCI-F)
INSTITUTIONAL BIOSAFETY COMMITTEE
MINUTES
AUGUST 20, 2013

CALL TO ORDER / ANNOUNCEMENTS

The NCI-F Institutional Biosafety Committee was convened at 12:04 pm in Building 549 Executive Board Room with the following members in attendance:

Voting (Quorum = 8)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Katalin Baranji | <input checked="" type="checkbox"/> Stephen Hughes |
| <input checked="" type="checkbox"/> Michael Baseler | <input checked="" type="checkbox"/> Sarah Hooper |
| <input checked="" type="checkbox"/> Theresa Bell | <input type="checkbox"/> Serguei Kozlov (regrets) |
| <input checked="" type="checkbox"/> Rev. David Betzner | <input checked="" type="checkbox"/> Dan McVicar (Chair) |
| <input type="checkbox"/> Stephen Creekmore (regrets) | <input checked="" type="checkbox"/> Randall Morin |
| <input checked="" type="checkbox"/> Bruce Crise | <input checked="" type="checkbox"/> Raja Sriperumbudur |
| <input checked="" type="checkbox"/> Eric Freed | <input checked="" type="checkbox"/> Lucien Winegar |
| <input checked="" type="checkbox"/> Melinda Hollingshead | <input checked="" type="checkbox"/> Enrique Zudaire |

Non-Voting

- Walter Hubert
- Kim DiGiandomenico

Other

Two summer interns from Occupational Health

APPROVAL OF MINUTES FROM JULY 16, 2013 MEETING

The minutes from the July 16, 2013 meeting were approved as written. A motion and second were made (For: 14; Against: 0; Abstain: 0)

ACCIDENT REVIEWS - None

REVIEW OF PROTOCOLS

NEW REGISTRATIONS

David Waters 13-68: Clinical Trial Support to the NCI Laboratory of Molecular Biology This laboratory processes whole blood samples from patients who have been pre-screened at NCI/NIH for clinical trial acceptance. The laboratory performs either cell based immunotoxin neutralization assays to qualify patients for treatment or cell based pharmacokinetic assays to determine the in vivo half- life of the immunotoxin during the course of treatment. The laboratory also performs cell-based assays to evaluate the stability and potency of the various immunotoxins. Immunotoxin comparisons are also performed as new immunotoxins become available. There were minor clarifications in the course of the pre-review, but the PI sufficiently addressed any safety concerns in the scope of his SOP. Theresa Bell moved to approve the registry. Eric Freed seconded the motion. For: 14; Against: 0; Abstain: 0

RENEWALS

Dr. Giorgio Trinchieri - 13-63 (07-17): CIP Breeding of Mice and Collection of Normal Tissue in 571
Notification to committee *Breeding only*

NATIONAL CANCER INSTITUTE-FREDERICK (NCI-F)
INSTITUTIONAL BIOSAFETY COMMITTEE
AGENDA
AUGUST 20, 2013

James McMahon 13-64 (08-59): Utilization of rDNA for heterologous expression of bioactive proteins

This group genetically engineers anti-viral proteins in E.coli. After making and purifying the proteins, they are supplied to others, averaging ~10 requests per year. They also supply licensees with these proteins as requested by the NIH OTT. All of these disbursements are done only after NCI Technology Transfer Branch Material Transfer Agreements have been signed by both the NCI and the requesting institution. These agreements specifically prohibit the transfer of these reagents to third parties and also prohibit their use in humans. The group also uses the material for internal MTL projects such as screening assays, ELISA studies etc. The committee had minor clarifications for the category and source of the proteins and further elaboration of the research scope. Bruce Crise moved to approve the registry pending the aforementioned clarifications. Dan McVicar seconded the motion. For: 14; Against: 0; Abstain: 0

Jay Berzofsky 13-65 (08-13): SPF Breeding of Congenic, Transgenic and KO mice Notification to committee *Breeding only*

Lino Tessarollo 13-66 (10-38): Gene expression in mouse primary and established cell lines using Lentiviral and Adenoviral systems This lab focuses on the analysis of murine models relevant to the study of the function of Neurotrophins and their receptors *in vivo*. The protocol includes cloning through standard molecular biology techniques into retroviral vectors that are then used to transduce cells and induce, or block, specific gene expression to study downstream events. Additionally, the lab will use Cre-expressing Adenovirus to transduce cells to study downstream signaling events. The committee requested additional clarification for the hazards of proteins being manipulated, as statements in Part B were contradictory, and also requested a post-approval lab visit to evaluate how materials are being manipulated. Dan McVicar moved to approve the registry pending the aforementioned clarifications and follow-up with post-approval lab visit. Steve Hughes seconded the motion. For: 14; Against: 0; Abstain: 0

Trevor Broadt 13-67 (10-33): Quality control testing of products by the Biopharmaceutical Development Program (BDP) Process Analytics (PA) Group The Biopharmaceutical Development Program (BDP) manufactures and tests novel cancer and other therapeutics and vaccines for use in toxicological studies and clinical trials. Much of the testing by the BDP on many of the manufactured products requires the use of one or more Eukaryotic cell lines. The Process Analytics (PA) Group performs testing of various recombinant, synthetic, cell-based, and other products manufactured or provided by the BDP in routine assays in support of product development, QC testing, and product stability protocols. The PI adequately described the hazards involved with the materials and had extensive SOPs for how the materials would be safely handled. Dan McVicar moved to approve the registry. Mike Baseler seconded the motion. For: 14; Against: 0; Abstain: 0

Chuck Ostermeier 13-70 (10-36): Cryopreservation and assisted reproduction of genetically important mice and rats As a service provided to investigators, this lab will collect and freeze sperm, embryos, and/or ovaries from transgenic, knockout or mutant strains of mice and/or rats. Upon request, pups will be reconstituted from the frozen state and delivered to the investigator. Additionally, assisted reproductive technologies will be utilized to rapidly generate colonies for investigation and to re-derive animals from a contaminated or unknown health status to a specific pathogen free status. The committee expressed concerns with some of the information provided in Section E regarding the 'uncertainties' of some of the materials being received. They requested for the PI to develop a request form, similar to that used in the Transgenic Mouse Core, to assist with determining the hazards involved with the materials being received. Then the registry can refer to the request form. Raja Sriperumbudur moved to approve the registry pending receipt and lead review approval of the requested input form. Melinda Hollingshead seconded the motion. For: 14; Against: 0; Abstain: 0

NATIONAL CANCER INSTITUTE-FREDERICK (NCI-F)
INSTITUTIONAL BIOSAFETY COMMITTEE
AGENDA
AUGUST 20, 2013

Laura Schmidt 13-71 (10-44): Study of inherited kidney cancer syndromes, the causative genes, and mouse models of renal cancer This research is focused on understanding the causes of inherited renal cancer syndromes and identifying renal cancer susceptibility genes through development of mouse models of renal cancer. Conditional mouse knockout and transgenic models enable exploration of the consequences of overexpression or inactivation of these cancer-associated genes. A rat tumor model has been obtained for use in preclinical drug trials. This group no longer has a laboratory in Frederick. All rDNA bench work is performed on the Bethesda campus; therefore this IBC renewal is only for the mouse work being conducted at NCI-F. The committee had no additional concerns with the registry or SOPs. Steve Hughes moved to approve the registry. Dan McVicar seconded the motion. For: 14; Against: 0; Abstain: 0

Jeff Gildersleeve 13-72 (10-42): Carbohydrate Microarray Analysis of Serum Antibodies from Non-Human Primates This group will continue to evaluate levels of anti-carbohydrate antibodies in monkeys before vaccination, after vaccination with an HIV/SIV vaccine, and after challenge with SIV. In addition they will evaluate anti-carbohydrate antibodies in monkeys before and after vaccination with a cancer vaccine. The committee requested clarifications regarding the objective using the cancer vaccine, as this was not done in the original IBC submission. The committee wanted to know if it was a recombinant vaccine and if so what kind; how quickly after receipt the samples are inactivated (statement D9 and the SOP are contradictory); how tubes that have been inactivated are marked to delineate between inactivated samples and new sample batches; if the monkeys are pre-screened for Herpes B prior to receipt of the samples and with what percentage and contact time of bleach are used for disinfection. Melinda Hollingshead moved to approve the registry pending these clarifications. Raja Sriperumbudur seconded the motion. For: 14; Against: 0; Abstain: 0

Jeff Gildersleeve 13-73 (10-41): Carbohydrate Microarray Analysis of Serum Antibodies in Human Sera This group will continue studies to evaluate levels of anti-carbohydrate antibodies in human serum on a carbohydrate microarray. The objective is to identify changes in antibody levels that correlate with diagnosis and/or prognosis of cancer or correlate with a beneficial response to a cancer vaccine. The committee recommended caps to be sealed with parafilm during centrifugation. Otherwise, they had no additional comment. Bruce Crise moved to approve the renewal. Theresa Bell seconded the motion. For: 14; Against: 0; Abstain: 0

Vineet KewalRamani 13-74 (10-43): Cell Culture Models for Retroviral Infection This group is engaged in research studies to better understand the replication of retroviruses, including primate lentiviruses and gammaretroviruses. The primary platform for these studies is transformed human cell lines. The group is interested in the host factor requirements for retroviruses, how they cause disease, and the development of improved cell culture and animal models in which to study retroviral replication. The group does a good job segregating materials as well as restricting staff who can and cannot work with the materials. If there is any doubt with the materials being manipulated, then it goes in the BSL2* lab. Dan McVicar moved to approve the registry as written. Eric Freed seconded the motion. For: 14; Against: 0; Abstain: 0.

OUTSTANDING ITEMS

Bill Kopp 11-28-A2: Add Vaccinia samples (saliva and urine as well as swabs taken from the vaccination site or from pustules distal (>5cm) from the vaccination site (per lead review request) Additional information requested in the SOP at July meeting; as of the August meeting, waiting for PI to respond.

NATIONAL CANCER INSTITUTE-FREDERICK (NCI-F)
INSTITUTIONAL BIOSAFETY COMMITTEE
AGENDA
AUGUST 20, 2013

Dimiter Dimitrov 13-38 (04-04, 08-20): Developing anti-viral vaccines and human antibodies against infectious diseases and cancer antigens by using recombinant membrane proteins of HIV, Nipah, Hendra, Dengue viruses and cancer antigens Committee requested additional clarifications and a Vaccinia-specific SOP as well as a lab visit. Post-meeting, Theresa Bell learned that the lab was relocating and suggested that the space that will be used for the Vaccinia work should not be evaluated until the move has been completed. Ms. Bell moved to approve the registry with the stipulation that no Vaccinia work is to be conducted until the lab relocates and the space has been evaluated by EHS and at least one IBC member for the Vaccinia project. Steve Hughes seconded the motion. For: 14; Against: 0; Abstain: 0 For: 14; Against: 0; Abstain: 0

Miriam Anver 13-40 (09-23): Support Services on the behalf of NCI investigators in PHL (animal) Dan McVicar offered to meet with Dr. Anver to discuss the necessary changes for their input form to capture potential hazards of the materials they are processing. Dr. McVicar provided the committee with the proposed revisions and newly developed grid to assist with where the processing of animal tissues by PHL should occur (BSC versus open bench or necropsy hood). Dan McVicar move to approve the renewal with the inclusion of the new grid and additional questions. Theresa Bell seconded the motion. For: 14; Against: 0; Abstain: 0

John Gilly 13-45 (10-16): Use of HEK 293 Cells for Alphavirus Vaccine Production Approval on hold until site visit is completed. Batch records were provided to lead review, BSO and IBC chair on 06/21/13 for review. Theresa Bell and Steve Hughes conducted site visit on July 23, 2013, and enclosures for WAVE Bioreactor bags were recommended. PI had enclosures engineered for the equipment; however, at the time of the IBC meeting it was not clear if the enclosures were water-tight. Release of approval is pending clarifications. Post-meeting note: Dr. Gilly clarified the following: *This project only involves the expression of recombinant proteins from a fully characterized human cell line. The resulting recombinant proteins are, like most recombinant proteins, noninfectious and are intended for use as vaccine antigens. There is no disinfection as there is not anything infectious but in support of concerns from the IBC, we will plan to treat the process waste fluids with bleach.*

AMENDMENTS

Ten amendments were processed and approved between the July and August IBC meetings.

OTHER BUSINESS

- Invite still extended to the IBC from Jianwei Zhu to visit the BDP
- IBC web registration update – Additional upgrades being made to the system and the PDF if almost fully generated. Anticipated launch date, on small scale, is still slated for September.
- Randall Morin announced the resignation of Kim DiGiandomenico. Mrs. DiGiandomenico has accepted a position as a biosafety specialist with another company and will leave SAIC-F in September.

ADJOURNMENT

The meeting adjourned at 1:45pm.

Next meetings:

September 17, 2013

October 15, 2013