

**NATIONAL CANCER INSTITUTE-FREDERICK (NCI-F)**  
**INSTITUTIONAL BIOSAFETY COMMITTEE**  
**MINUTES**

**APRIL 16, 2013**

**CALL TO ORDER / ANNOUNCEMENTS**

The NCI-F Institutional Biosafety Committee was convened at 12:03 pm in Building 549 Executive Board Room with the following members in attendance:

Voting (Quorum = 8)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Michael Baseler     | <input checked="" type="checkbox"/> Sarah Hooper                              |
| <input checked="" type="checkbox"/> Theresa Bell        | <input checked="" type="checkbox"/> Bhargavi Kondragunta (arrived at 12:20pm) |
| <input checked="" type="checkbox"/> Rev. David Betzner  | <input type="checkbox"/> Serguei Kozlov (regrets)                             |
| <input checked="" type="checkbox"/> Stephen Creekmore   | <input checked="" type="checkbox"/> Dan McVicar (Chair)                       |
| <input checked="" type="checkbox"/> Bruce Crise         | <input checked="" type="checkbox"/> Randall Morin                             |
| <input checked="" type="checkbox"/> Eric Freed          | <input type="checkbox"/> Raja Sriperumbudur (regrets)                         |
| <input type="checkbox"/> Melinda Hollingshead (regrets) | <input checked="" type="checkbox"/> Lucien Winegar                            |
| <input checked="" type="checkbox"/> Stephen Hughes      |   |

Non-Voting

- Walter Hubert
- Kim DiGiandomenico

**APPROVAL OF MINUTES FROM MARCH 19, 2012 MEETING**

The minutes from the March 19, 2012 meeting were approved as written. A motion and second were made (For: 10; Against: 0; Abstain: 1 (Lucien Winegar, not present at March meeting))

**ACCIDENT REVIEWS**

An individual's finger was sliced with a razor blade while slicing fixed animal tissue in the histology lab. No hazardous biological materials were involved; however, it was reported to committee due to it being a sharps injury.

An LASP worker was bitten by a rat after an oral gavage procedure. The case is still open until it can be determined if the rat had been genetically modified prior to the procedure.

Lastly, a post-baccalaureate student punctured her middle finger with a needle while shearing DNA. The injury was not reported to Occupational Health until three days later, and at that time the individual had not notified her supervisor of the injury. The case is still open as it is not clear if the injury occurred with a lysate of Hela cells containing transgenes or if it occurred prior to the cells being lysed. NIH/OBA has been notified of the incident but a formal report has not yet been filed because information regarding the incident was still being collected.

**NATIONAL CANCER INSTITUTE-FREDERICK (NCI-F)**  
**INSTITUTIONAL BIOSAFETY COMMITTEE**  
**MINUTES**

APRIL 16, 2013

**REVIEW OF PROTOCOLS**

***NEW REGISTRATIONS***

Tim Greten 13-32: The effect of microbiota on MDSC function For this new registration, germ free mice will be housed under germ free conditions. Mouse cancer cells (either wildtype cells or retrovirally transduced cells, which stably express GM-CSF) will be injected into these mice subcutaneously. The transductions and all in vitro work will be conducted on the Bethesda campus. The primary concern that arose during the pre-review, and which was subsequently addressed, was that germ free mice are more susceptible to complementation with endogenous mouse retroviruses. For that reason, extra caution should be taken with the specimens when they are removed from mice. Dan McVicar moved to approve the registry. Bruce Crise seconded the motion. For: 12; Against: 0; Abstain: 0

Ming Zhou 13-36: Mass spectrometry analysis on clinical and cultured cell line samples It was consensus of the lead reviewers and the committee that not enough information was provided in this registry to clearly determine what materials were being used in the lab and with what procedures. Bruce Crise and Theresa Bell offered to assist the PI with better development of the paperwork. Mike Baseler motioned to defer the registry. Bruce Crise seconded the motion. For: 12; Against: 0; Abstain: 0

Jeff Green 13-43: In vivo expression of GFP and IL12 in a syngeneic murine mammary tumor model using VLP technology A modification to the PI's animal study protocol to inject mice with VLPs prompted this IBC submission. After much discussion, the committee felt the work would be best covered under Stan Kaczmarczyk's IBC registration (12-02), since his lab is generating the VLPs, and requested for the animal work to also be amended to the 12-02 registry. Bruce Crise motioned to defer the registry. The work is to be amended into IBC 12-02, with clarification that the VLP system is all avian origin. Steve Hughes seconded the motion. For: 12; Against: 0; Abstain: 0

**RENEWALS**

Robin Dewar 13-24 (09-40): Virus Isolation Laboratory - Influenza Project The renewal is to continue Influenza serology studies, specifically, to 1.) grow reassortant H5N1XPR8 and seasonal HUMAN INFLUENZA A and B viruses and 2.) perform hemagglutination inhibition and microneutralization assays using these viruses. The group will continue the hemagglutination inhibition (HAI) and microneutralization (MN) assays that will allow them to monitor clinical protocols at the NIH wherein study participants will be vaccinated with H5N1 subunit vaccines. Other than clarifying if the lab recommends or requires the seasonal influenza vaccination, the only other request the committee had was for EHS to conduct an observation of techniques. Steve Hughes moved to approve the registry with the aforementioned requests. Theresa Bell seconded the motion. For: 11; Against: 0; Abstain: 1 (Mike Baseler, PI is direct report)

Joe Kalen 13-28 (10-18): Small Animal Imaging Program / LASP The NCI-Frederick Small Animal Imaging Program-Facility provides NCI-investigators with a state-of-the-art in vivo multimodality imaging facility. For studies requested by PI's, cells will be obtained from the PI. For other studies, cells will be obtained from an approved source. One of the committee members expressed some concerns about SOPs and had some questions about the service request form. Dan McVicar moved to defer back to lead reviewers once the concerns were addressed. If lead review was not satisfied with the responses, then the registry would go back to full committee. Bruce Crise seconded the motion. For: 12; Against: 0; Abstain: 0

**NATIONAL CANCER INSTITUTE-FREDERICK (NCI-F)**

**INSTITUTIONAL BIOSAFETY COMMITTEE**

**MINUTES**

APRIL 16, 2013

Carol Thiele 13-29 (08-14): Propagation of Mouse strains: Identification of Ulip or CASZ1 Knockout genotypes *Breeding Only - Notification to Committee*

Robert Wiltrout 13-30 (10-27): Therapy of Mouse Tumors by Gene-modified Mammalian Cells using Liposome-DNA Complexes, Naked DNA Expression Plasmids or Gene-modified Viral Vectors  
The objective of this renewal is to augment the immune, anti-angiogenic or apoptosis-inducing responses in mice by injecting dendritic cells, tumor cells or fibroblasts that have been modified in vitro to overexpress various tumor antigen, cytokine, chemokine or antiangiogenic genes. The goal is to inject tumor cells or fibroblasts that have had specific immunological genes knocked-down through the use of short hairpin constructs using lentivirally-transduced cells or adenoviral vectors. The two viruses will not be worked on simultaneously. No new materials or experiments are being proposed in this renewal. Theresa Bell moved to approve the registry with clarification on how mice will be injected safely. Eric Freed seconded the motion. For: 12; Against: 0; Abstain: 0 (Note: it was confirmed post-meeting that only one needle is used per mouse injection and that the mice are chemically restrained during injections.)

Robert Wiltrout 13-31 (10-29): Generation of renal and hepatic carcinomas by targeted gene delivery/transfer In this renewal, the lab is utilizing multiple plasmids to elicit the integration of plasmid DNA into the host genome in order to induce tumors in mice. The delivered agents consist of oncogenic genes whose overexpression and/or mutation results in a pro-tumorigenic phenotype. A principal way of doing this is to use Sleeping Beauty transposons, which have shown promise as a non-viral approach for gene therapy and a cost-effective and rapid alternative to traditionally transgenic mouse models. Some studies will also utilize multimodal imaging vectors that will be cloned into transposons for codelivery, and will allow the lab to track cells which take up the genetic material by fluorescent visualization or expression of Gaussia luciferase. The committee requested clarification on the following: one needle per mouse is used for injections and clarify if animals are sedated, will the Plexiglas holder still be used. Steve Hughes moved to approve the registry pending aforementioned clarifications. Bhargavi Kondragunta seconded the motion. For: 12; Against: 0; Abstain: 0 (Note: it was confirmed post-meeting that only one needle is used per mouse injection and that the mice are both physically and chemically restrained during injections.)

Patricia Steeg 13-33 (09-46, 10-03): Models for Breast Cancer Brain Metastases In this renewed proposal, the group plans to investigate the molecular underpinnings of blood-tumor barrier permeability using the three cell lines previously registered under this protocol. The PI sufficiently addressed hazards involved with the research. One of the lead reviewers requested confirmation that the questions asked during the pre-review were received and responses incorporated into the registry (Note: it was confirmed post-meeting that they had been incorporated). Dan McVicar moved to approve the registry pending clarifications on the aforementioned. Mike Baseler seconded the motion. For: 12; Against: 0; Abstain: 0

Karlyne Reilly 13-34 (10-06): Use of knock-out and transgenic mice to study astrocytoma and Neurofibromatosis *Breeding Only - Notification to Committee*

Dominic Esposito 13-35 (09-14): Recombinant Protein expression using baculovirus (BEVS) and mammalian cell culture The Protein Expression Laboratory uses both the BEVS technology and expression in mammalian cell culture to produce recombinant proteins for investigators at Frederick and NIH. The BEVS technology utilizes molecular biology to create recombinant

**NATIONAL CANCER INSTITUTE-FREDERICK (NCI-F)**  
**INSTITUTIONAL BIOSAFETY COMMITTEE**  
**MINUTES**

APRIL 16, 2013

baculoviruses that will result in the expression of recombinant proteins when normal insect cells are infected with the virus. The registry noted potential use of Epstein Barr Virus; however, the committee requested for this to be removed from the current renewal and added in as amendment should the need arise in the future. Bruce Crise moved to approve the registry pending the updates to the registry. Steve Creekmore seconded the motion. For: 12; Against: 0; Abstain: 0

**OUTSTANDING ITEMS**

- None

**AMENDMENTS**

Eighteen amendments were processed and approved between the March and April 2013 IBC meetings. Three remained outstanding as of the meeting day.

**OTHER BUSINESS**

- The observation for Dennis Klinman's IBC renewal (IBC 12-71) was conducted on April 15, 2013. The observation was a condition of his approval. Theresa Bell and Raja Sriperumbudur participated in the visit and had a few suggestions for conducting some of the research in a safer manner. Overall, there were no major concerns with the observed techniques.
- At the March meeting, Theresa Bell notified the committee of a new draft policy announcement on Dual Use Research of Concern (DURC). Walter Hubert had extensive conversation with Craig Reynolds, who serves as the designated institutional official for the NCI-Campus at Frederick and the Frederick National Laboratory. Dr. Reynolds felt that our current practices for assessing DURC potential are sufficient and also congruent with the March 2013 DURC policy. At this time, no further action was requested.

**ADJOURNMENT**

The meeting adjourned at 1:55pm.

***Next meetings:***

***May 21, 2013***

***June 18, 2013***