

NATIONAL CANCER INSTITUTE AT FREDERICK (NCI@F)
INSTITUTIONAL BIOSAFETY COMMITTEE
MINUTES
MAY 19, 2015

CALL TO ORDER / ANNOUNCEMENTS

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

Voting (Quorum = 8)

Michael Baseler
 Theresa Bell
 Rev. David Betzner
 Stephen Creekmore
 Bruce Crise
 Eric Freed (*regrets*)
 Melinda Hollingshead
 Stephen Hughes (*regrets*)

Sarah Hooper
 Serguei Kozlov
 Dan McVicar (*regrets*)
 Raja Sriperumbudur
 Lucien Winegar
 Sharon Altmann
 Patti Labbe (*regrets*)

Non-Voting

Walter Hubert (*regrets*)
 Karen Barber

Visitors

Sam Denny
Bob Farahpour
Ted Witte

APPROVAL OF MINUTES FROM THE MARCH 17TH MEETING

The minutes from the April 21, 2015 meeting were approved. A motion to approve and a second was made. (For: 10; Against: 0; Abstain: 1)

ACCIDENT REVIEWS :

- None

REVIEW OF PROTOCOLS

NEW REGISTRATIONS

- ❖ 15-20 – Perwez Hussain: Tumorigenicity of NR3C2 – expressing pancreatic cancer cell lines. The goal of this study is to investigate the role of nuclear receptor subfamily 3, group C, member 2 (NR3C2) gene in pancreatic cancer. Our investigation using human pancreatic tumor clinical samples have shown that a high level of NR3C2 is associated with increased survival of patients with pancreatic cancer. Furthermore, mechanistic study revealed that NR3C2 inhibits proliferation,

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colonogenicity, migration and invasion of pancreatic cancer cells and is a potent inhibitor of epithelial-to-mesenchymal transition. We propose to test the hypothesis that NR3C2 overexpression suppresses tumorigenicity of pancreatic cancer cells in immune-deficient mice. A motion to approve was made by Sharon Altmann and seconded by Melinda Hollingshead. (For: 11; Against: 0; Abstain: 0)

- ❖ 15-22 – Esta Sterneck: Tet-On-Inducible C/EBP expression. The goal of the study is to express human C/EBPdelta into human cell lines using Tet-ON Inducible system. Recent studies from our laboratory have illustrated that C/EBPdelta can act as tumor suppressor or tumor promoter in part depending on cell type and context. To analyze the role of C/EBPdelta at different stages of tumor progression and to identify the cell-type specific functions of C/EBPdelta, we have generated a sub-line of tumor cell lines with inducible expression C/EBPdelta. These cell lines are being characterized molecularly in cell culture assays. In addition, we plan to inject the cell lines into host mice to compare tumor growth and metastasis to the lungs and gene/protein expression. These studies will provide further insight into cell-type specific functions of C/EBPdelta in mammary tumorigenesis. A motion to approve pending clarifications was made by Steve Creekmore and seconded by Bruce Crise. (For: 11; Against: 0; Abstain: 0)
- ❖ 15-23 – Jeffrey Gildersleeve : Development of Anti Glycan Antibodies. The goal of this project is to develop carbohydrate-binding antibodies for applications in cancer research and cancer therapy. The project involves cloning, expressing, purifying, and characterizing existing anti-glycan antibodies as well as introduction of mutations and other variations to optimize binding properties. Antibodies may also be isolated from human or animal B cells. A motion to approve was made by Sharon Altmann and seconded by Mike Baseler. (For: 11; Against: 0; Abstain: 0)
- ❖ 15-24 – Frank Maldarelli: Studies of HIV replication in vivo. We are studying replication of HIV in samples obtained from infected patients. We are interested in the genetics of HIV populations, the sources of HIV persistence, and the development of HIV drug resistance. We study cells and plasma from infected individuals and detect and quantify HIV nucleic acid species. We conduct clinical studies at the NIH Clinical Center and obtain clinical samples for analysis in the laboratory. A motion to approve was made to defer to the June meeting by Bruce Crise and seconded by Mike Baseler. (For: 11; Against: 0; Abstain: 0)

RENEWAL REGISTRATIONS

- ❖ 15-21 – Joost Oppenheim: Chemoattractant and chemoattractant receptor structure/function studies. The goal of our research is to better understand the role of chemoattractants in the initiation and prevention of diseases, specifically cancer and autoimmunity. Construction and expression on prokaryote and eukaryote expression vectors will be undertaken to express human and mouse chemoattractant and/or chemoattractant receptors in common cell lines. These vectors will be expressed in prokaryote or eukaryote cell lines for functional studies in vitro. pcDNA based constructs that demonstrate expression and function may be injected into mice by electroporation or direct injection for evaluation as preventatives. In order to evaluate signaling between cellular

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receptors primary mouse fibroblasts from commercially produced Tg or KO mouse strains will be immortalized using standard procedures. Currently we utilize commercially available or previously produced Tg or KO mouse strains and do not plan to produce our own. A motion to approve was made to defer to the June meeting.

- ❖ Cheryl Winkler – 15-06 (10-17): Genetics of Complex Diseases. We use RNA, DNA, and human samples to identify genes and variation associated with human diseases. Deferred to June meeting for more information.
- ❖ Dianne Newton – 15-16 (11-29): Preparation of mixed tumor cultures and fibroblasts from patient derived material. To isolate/purify and characterize mixed tumor cell cultures and fibroblasts derived from human patient biopsies/resections received from NIH Clinical Center and IRB approved Comprehensive Cancer Centers across the USA. A motion to approve pending clarifications was made by Sharon Altmann and seconded by Serguei Kozlov. (For: 11; Against: 0; Abstain: 0)
- ❖ Drs. Pavlakis and Felber – 15-12 (10-58): Gene Transfer and Expression of Cellular and Viral DNA's – This registration focuses on (A) the identification of mechanisms controlling gene expression and (B) the role of molecular adjuvants in optimization of DNA vaccines and of immunotherapeutic agents for cancer therapy. Deferred to June meeting for more information.
- ❖ Peter Gorelick – 14-26 (08-27): Serological diagnostic testing of non-human primates for the presence of potentially adventitious viruses - Diagnostic serological testing for routine health monitoring of NHPs. Deferred in August, 2015 for further clarification. A motion to approve was made by Theresa Bell and seconded by David Betzner. (For: 11; Against: 0; Abstain: 0)

OUTSTANDING ITEMS

- ❖ Stephen Lockett – 14-22 (08-46): Ras project 3 and CCR support. Discovery methods to directly target oncogenic Ras protein, and live and fixed cell fluorescence labeling in support of CCR research. (Zudaire/Hughes/Altmann) Deferred to full committee in August. Awaiting additional documentation. ***This registration has been on hold since October 14, 2014. On May 15, 2015, the registration was re-submitted. Awaiting SOP submittal.***
- ❖ 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. No Vaccinia work is being performed at this time. **Approved. Need to visit lab space once moved for Vaccinia work. PI has notified the IBC that the lab does not plan to do any vaccinia work in the next year. No vaccinia will be performed until the lab has been evaluated by EHS and one committee member.**

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- ❖ Ji Ming Wang – 14-46: The role of mouse mFPR2 in the pathogenesis of Helicobacter Pylori.
H.pylori infects human stomach to cause inflammation and sometime h.pylori produces peptides that activate a G-protein coupled receptor FPR2 in human and mFPR2 (in mouse, also termed Fpr2) to induce migration of neutrophils and monocytes, therefore may establish a basis for inflammation. The purpose of this proposal is to use mice deficient in Fpr2 to examine their susceptibility to H.Pylori-induced stomach inflammation and potential cancer. A motion to approve with the clarification that a mock observation is to be performed before work begins. **PI has put this observation on hold until June 2015 due to new staffing.**

AMENDMENTS

Twenty amendments were processed and approved between April and May IBC meetings.

OTHER BUSINESS

ADJOURNMENT

The meeting adjourned at 2:25 pm.

Next meetings: June 16, 2015 July 21, 2015