

2022-2-4 Meeting notes

Date

04 Feb 2022

Attendees

Committee Member	Present	Absent
Kuffel, Gina (NIH/NCI) [C]	X	
Pihl, Todd (NIH/NCI) [C]		X
Unknown User (leblancak)		
Otridge, John (NIH/NCI) [C]	X	
Kim, Erika (NIH/NCI) [E]	X	
Sommers, Connie (NIH/NCI) [E]	X	
Debbie Knapp	X	
Toby Hecht	X	
Unknown User (parchmentr)		

Goals

- Discuss updates to ICDC and define emerging strategies and priorities

Box Folder

<https://nih.box.com/s/5wmrgl85z6fxpo3ldhanxzmqq3ekfy7>

Relevant Links for Today's Meeting

1. [Candidate Publication List](#)
2. [Submission Folder for 1st Candidate Publication](#)
3. [Submission Folder for PanCancer Study](#)
4. [Data Transfer Agreement](#)
5. [Data Use Guidelines](#)

Outstanding Action Items

- ☒ Kim, Erika (NIH/NCI) [E] to send out Data Use Guidelines to Office of Data Sharing
- ☒ Kuffel, Gina (NIH/NCI) [C] to send official list of participants for ICDC Next Phase Focus Group to Toby

Discussion items

Item	Who	Talking Points
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DGAB Updates	Kuffel, Gina (NIH/NCI) [C]	<ul style="list-style-type: none"> • UBC02 - Basal and Luminal Molecular Subtypes in Naturally-Occurring Canine Urothelial Carcinoma Are Associated With Tumor Immune Signatures and Dog Breed - Released to production on 1/11/22, adds 122 files (349.5 GB) • UBC01 - A clinical for Vemurafenib treatment in canine bladder cancer - targeting release to production next week • PanCancer data is being copied into an ICDC bucket (~120 hours remain) <ul style="list-style-type: none"> ◦ Folder containing all submission artifacts for this study can be found here • Communications with authors of first candidate publication test case from Candidate Publication List <ul style="list-style-type: none"> ◦ Data Submission Request was completed on their behalf ◦ Email was sent by Warren Kibbe on behalf of DGAB on 11/24/21 ◦ Acknowledgment email sent by Gina 12/2/21 ◦ Follow-up email sent by Gina 1/6/22 ◦ Follow-up email sent by Gina 1/24/22 ◦ Folder containing all submission artifacts for this test case can be found here
ICDC Next Phase Focus Groups	Unknown User (hechtt)	<ul style="list-style-type: none"> • 2 focus groups - 1 happened last Wed, next one is next Tues. <ul style="list-style-type: none"> ◦ Discussions so far have been about the types of projects we would be interested in:
Data Use Guidelines	Kuffel, Gina (NIH/NCI) [C]	<ul style="list-style-type: none"> • Received feedback from Office of Communications • Sent to Jason Cristofaro for final review of proposed revisions • Link to draft document can be found here
Refresh and revisit of Canine Grantees Master List	Kuffel, Gina (NIH/NCI) [C] Sommers, Connie (NIH/NCI) [E]	<ul style="list-style-type: none"> • Link to updated master list
User Research for ICDC by the Office of Communications and Public Liaison (OCPL)	Kuffel, Gina (NIH/NCI) [C]	<ul style="list-style-type: none"> • Usability sessions with volunteers are in progress
ICDC Site Updates	Kuffel, Gina (NIH/NCI) [C]	<ul style="list-style-type: none"> • Work now in progress to integrate JBrowse a genomic file viewer • Next software release targets the end of March
Steering Committee Meeting Updates from 1/26	Unknown User (parchmentr)	<ul style="list-style-type: none"> • Minutes to be posted • Next meeting is Wed 2/23

Minutes (Not Verbatim)

Toby - Regarding the Focus Group Discussions so far, parallel data between canine and humans from the same treatment, cell sub-types before and after treatment, environmental insults in canines vs. humans (exposures for humans cause cancer, canines subjected to same exposures), urothelial cancers in human vs. canine (Knapp lab has studied this), looking for data beyond genomics data.

Debbie - Lots of groups showing interest, proteomic data coming, others will mine the data we are generating.

Toby - Adverse events in canines in clinical trials, important for comparison to human. Warren brought up flea and tick medications and this can be absorbed by their human companions and be linked to cancer. Connie suggested looking at raw flow cytometry data, this data can be used to make predictions. The NanoString data will be coming and will introduce data model expansions. Potential to involve pharma.

Connie - Possibly the aging study, involves all breeds.

Toby - Waiting to hear from Dan Promislow and to determine if he has had communications with the Aging Institute will co-fund with the NCI looking at canine tumors and conducting sequencing. Need to secure this before the end of the fiscal year in order to use the funding.

Toby - Genomics Working group and the Imaging Working group is part of the BPSC, Data Governance Advisory Board is separate led by Warren Kibbe.

Previous ICDC Use Cases from Steering Committee

1. Genomic correlates across platforms (DNA, RNA, protein).
2. Correlating multi-omics data with clinical annotation and phenotypes, particularly outcomes.
3. Comparative analyses of canine and human. Examples include:

1. Search for conserved mutations between canine and human tumors

2. Disease diagnosis (e.g. cancer type) and classification mapping between canines and humans
5. Gene expression changes and mutational profiles associated with therapeutic response and outcome
6. How do sporadic tumors in non-human mammals compare to sporadic human tumors?
7. Correlations and model building from radiomic and pathomic features extracted from medical and histopathologic images with outcomes and genomics, as is currently being widely done with human images
8. Develop biomarkers of response and resistance in humans by analyzing the responses and genomic signatures in dogs.

Previous Meeting Minutes (Not Verbatim)

TH- If you find differences, this can be compared with human data to compare the prevalence.

EK- Potential extra credit question

TH- Should include some human aspect.

EK- Scope of this exercise is limited to ICDC portal

TH- Emphasize the downstream possibilities.

DK- There is a group at Purdue utilizing brain cancer data in ICDC to ask new questions, one thing they have done is to acquire true normals, what is in ICDC now are adjacent normals. These new controls provide new insights. They are looking at astros vs. oligos. It might help to have the normals available.

TH- Range of expertise is needed to form a committee for the future phase of ICDC. We have to know how can we make sense of the data and develop new hypothesis. Very few people have volunteered.

CS- Dan Regan, Nikki, and Cheryl volunteered.

AL- Happy to volunteer as well.

TH- Will organize something early February for a formal brainstorming session. This will be used to inform the case proposed to Ned Sharpless. I would like to get Warren Kibbe on this panel. As head of the DGAB it would be appropriate.

DK- Happy to volunteer as well.

TH- Thinking through some ideas myself. Outside the box ideas are welcome as well.

RP- From precision medicine, what is the dog model for the human disease I am studying, what are the considerations for differences in dosing ideas

TH- Come up with a statement for a precision medicine use case

AL- Harmonizing theme is we need data that helps to inform the molecular landscape of various cancers with an emphasis on targeted drug development. On Osteo we have discovered a gene signature that clusters and this holds true in humans as well. Opens up ideas of drug therapies.

RP- Body of knowledge available if there is translational research is being conducted.

TH- Longitudinal studies would be preferential.

RP- Clinical agents that have performed well in canine that have never been tried in human.

TH- Is it useful for PD group to hear about ICDC?

RP- I think so, we are in the process of coming up with some use cases for possible data submission, I think people don't ask questions because it is not part of their daily work life at this moment. Use case: where is LINE3 expressed in the dog

AL- Many people have FFPE samples of canine cancers available, trouble is validated tissue expression, don't have good IHC antibodies.

TH- Immunology field in canines is way behind that of human.

Action items