

# 2022-5-6 Meeting notes

## Date

06 May 2022

## Attendees

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

## Goals

- Discuss updates to ICDC and define emerging strategies and priorities

## SharePoint Site

<https://nih.sharepoint.com/sites/NCI-CBIIT-FNL-ICDC-ICDCLeadershipGroups>

## Outstanding Action Items

None

## Agenda

Item	Who	Talking Points
DGAB Updates	<a href="#">Kuffel, Gina (NIH/NCI) [C]</a>	<ul style="list-style-type: none"><li>• 33 TB of data are now available in ICDC (five-fold increase since January)</li><li>• UBC01 - Antitumor Activity and Molecular Effects of Vemurafenib in Dogs with BRAF-mutant Bladder Cancer<ul style="list-style-type: none"><li>◦ Adds 170 files (320 GB)</li><li>◦ Released 2-28-22</li><li>◦ Activated multi-study matching</li></ul></li><li>• OSA01 - A Multi-Platform Sequencing Analysis of Canine Appendicular Osteosarcoma<ul style="list-style-type: none"><li>◦ Adds 278 files (6.98 TB)</li><li>◦ Released 4-22-22</li></ul></li><li>• PanCancer data has been copied into an ICDC bucket<ul style="list-style-type: none"><li>◦ Folder containing all submission artifacts for this study can be found <a href="#">here</a></li></ul></li><li>• Candidate publication test case from <a href="#">Candidate Publication List</a><ul style="list-style-type: none"><li>◦ Recommended by DGAB on 11-8-21</li><li>◦ Approved by SAC on 4-19-22</li><li>◦ Clinical metadata was received 3-17-22</li><li>◦ Other Modiano pubs are being reviewed: <a href="#">Other Modiano Publication Considerations.xlsx</a></li></ul></li><li>• CCL01 - A multi-omics analysis of canine cancer cell lines<ul style="list-style-type: none"><li>◦ Data has been received and is being curated for submission</li></ul></li></ul>

BPSC Updates	<a href="#">Kuffel, Gina (NIH/NCI) [C]</a>	<ul style="list-style-type: none"> <li>• <a href="#">2022 BPSC Review Article</a> <ul style="list-style-type: none"> <li>◦ Outline completed</li> <li>◦ Preliminary section assignments have been made</li> </ul> </li> </ul>
April Steering Committee Updates	<a href="#">Unknown User (parchmentr)</a>	<ul style="list-style-type: none"> <li>• Minutes to be posted</li> <li>• Next meeting is Wed May 18th</li> </ul>
ICDC Site Updates	<a href="#">Kuffel, Gina (NIH/NCI) [C]</a>	<ul style="list-style-type: none"> <li>• Presented ICDC at CRDC All Hands Meeting <a href="#">CRDC-Spring2022-All-Hands.pptx</a></li> <li>• ICDC version 3.21.3 was released on April 1st <ul style="list-style-type: none"> <li>◦ Interactive Home Page Demo</li> <li>◦ JBrowse Demo</li> </ul> </li> </ul>
ICDC Next Phase	<a href="#">Unknown User (hechtt)</a>	<ul style="list-style-type: none"> <li>• 2 focus groups met <ul style="list-style-type: none"> <li>◦ <a href="#">Ideas from the ICDC brainstorming sessions final.docx</a></li> </ul> </li> </ul>

## Minutes (Not Verbatim)

Toby - Can canine bladder cancer be a good model for invasive human bladder cancer? Maybe running differential expression in dogs at various stages vs. human data at different stages of disease obtained from the GDC and then comparing expression patterns and gene signatures. Real focus is comparative genomics.

Ralph - Possibly raise as a discussion point to the SC. Does this cancer in both species survive therapy to resist disease using same pathways? Is there biological convergence?

Toby - Look at dogs in ICDC and see what the genes are in dogs that are more resistant to glioma vs. dogs that are not and see if those up or down regulated genes have human homologs.

Toby - Real data in ICDC can now be used to answer real biological questions.

Ralph - Will put use case into SC meeting agenda.

## 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)

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.

## Action items