CIViC

Clinical Interpretation of Variants in Cancer

VICC
Variant Interpretation
for Cancer Consortium

ClinGen
Clinical Genome Resource

Knowledgebase Hackathon & Curation Jamboree

at the

Cancer Genomic Consortium
Annual Meeting, 2023

Hyatt Regency St. Louis
at the Arch

Saturday, August 12th
8am to 5pm

Precision medicine refers to the use of prevention and treatment strategies that are tailored to the unique features of each individual and their disease. In the context of cancer this might involve the identification of specific mutations shown to predict response to a targeted therapy. The biomedical literature describing these associations is large and growing rapidly. Currently these interpretations exist largely in private or encumbered databases resulting in extensive repetition of effort. Realizing precision medicine will require this information to be centralized, debated and interpreted for application in the clinic. Open access, open source, community-driven resources are needed to support cancer variant curation and interpretation in a disease-specific context.

VICC - The Variant Interpretation for Cancer Consortium (cancervariants.org) is a Driver Project of the Global Alliance for Genomics and Health. VICC's mission is to standardize the curation, representation, and interpretation of clinically-relevant evidence associated with genomic variation in cancers.

CIViC - The Clinical Interpretation of Variants in Cancer knowledgebase (civicdb.org) aims to enable precision medicine by providing an educational forum for curation and dissemination of knowledge with active discussion of the clinical significance of cancer genome alterations.

ClinGen Somatic - The ClinGen Somatic Cancer Clinical Domain Working Group (clinicalgenome. org/working-groups/clinical-domain/somatic-cancer-cdwg) facilitates the development of data curation guidelines and standards to determine the clinical actionability of somatic alterations in cancer, thereby enhancing their usability, dissemination, and implementation.

A hackathon and curation jamboree will be held as a pre-meeting of the Cancer Genomics Consortium (CGC) Annual Meeting, lead by VICC, in collaboration with the CIViC project team and ClinGen Somatic.

The focus of this meeting will be to continue developing community consensus on data standards for interpretation of variants in cancer, engage software developers for improved variant

interpretation software and data visualizations, and engage clinical experts for curation of content and enhance integration and interoperability of resources. Additional related topics will be proposed by meeting participants.

Meeting Goals
The goals of the Curation Jamboree and Knowledge Hackathon include, but are not limited to:

- Establish community standards and best practices for general and domain specific curation and representation of clinically actionable and driver variants in cancer.

- Promote formation of a collaborative network for community-based development of precision medicine resources.

- Enhance integration and interoperability of resources through entity standardization, API improvements, and ontology usage.

- Develop best practices for data visualizations.

- Improve drug normalization in variant interpretation knowledgebases.

- Further develop text-mining strategies for identifying evidence of clinically actionable variants.

- Examine ways to incentivize the curation community.

- Teach participants how to use CIViC 2.0 UI & APIs.

- Explore additional meeting topics proposed by meeting participants (see below).

Propose a Topic of Interest
To submit a topic not covered above, participants may create an issue describing a proposed topic and apply the 'hackathon' or 'curation' label at: github.com/griffithlab/civic-meeting

Meeting Format
The Cancer Variant Interpretation hackathon and jamboree will take the form of an unconference with minimal presentations and an emphasis on hands-on activities, breakout sessions to discuss emerging standards, learning to curate variants, or work on tools for variant interpretation or site optimization. Participants will self-form into groups to tackle domain-specific variant or disease curation (jamboree), programmatic data querying (hackathon), the problem of motivating public resource curation, or

other topics proposed by meeting participants.
Prerequisites: Participants should bring their own laptop in order to participate.

Hackathon Target Audience
Software developers, engineers, computational biologists, and bioinformaticians interested in learning how to interact with CIViC 2.0 or related tools to facilitate variant interpretation and resource automation and optimization.
Prerequisites: Familiarity with Ruby, Wiki syntax, and/or Python would be beneficial.

Curation Jamboree Target Audience
Laboratory geneticists, pathologists and oncologists, genome scientists, and those interested in the problem of sequence and structural variant interpretation for cancer precision medicine or promotion of public biocuration resources.
Prerequisites: Basic understanding of the genetic basis of cancer.

Bug Reports and Feature Requests
For CIViC, please create an issue in CIViC's github repository: github.com/griffithlab/civic-v2/issues

Curation Help
For questions or assistance with the CIViC curation interface, please email: help@civicdb.org

ORGANIZING COMMITTEE (*WUSTL, **NCH)

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AGENDA

Saturday, August 12th

Hyatt Regency St. Louis at the Arch

Time	Event
08:00 - 08:30	Registration with Coffee and a Light Breakfast
08:30 - 08:35	Introduction to the Conference, and a Welcome from the Hosts Obi Griffith
08:35 - 08:40	Curation and Hackathon Expectations, Goals, Topics Kori Kuzma
08:40 - 09:20	Elevator Pitches from Organizers and Attendees with Topic Proposals Arpad Danos, Wes Goar, Jeremy Arbesfeld & others
09:20 - 09:30	**Break Out into Jamboree & Hackathon Groups** Morning snacks will be provided.
09:30 - 12:00	**Curation Jamboree & Hackathon** Parallel Sessions
12:00 - 13:00	**Catered Lunch**
13:00 - 15:00	**Curation Jamboree & Hackathon** Parallel Sessions Continue, Nominate Group Representatives, Prepare to Present
15:00 - 15:15	**Regroup for Coffee & Cookies**
15:15 - 16:45	Presentations from Group Representatives
16:45 - 16:55	GA4GH 101
16:55 - 17:00	Concluding Remarks Alex Wagner
17:00 - 18:00	Travel to Networking Social
18:00 - 21:00	GA4GH Networking Social (cocktail reception) at **360° STL Rooftop Bar and Restaurant** One South Broadway, St. Louis 63102 T: +1 314 241 8439

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NIH NATIONAL CANCER INSTITUTE — ClinGen Clinical Genome Resource — VICC — CANCER GENOMICS CONSORTIUM — Global Alliance for Genomics & Health — Collaborate. Innovate. Accelerate.

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www.civicdb.org