



CANCER
GENOMICS
CONSORTIUM

CGC 25th Annual Meeting

August 4 – 7, 2024
St. Louis, MO



Cancer Genomics Consortium, 15th Annual Meeting

August 4-7, 2024

Hyatt Regency at the Arch, St. Louis, Missouri

SATURDAY, AUGUST 3, 2024

In-Person Unconference

Unconference participation incurs an additional registration fee.

9:00 AM – 5:00 PM **In-Person VICC/CGC/CiViC/ClinGen Cancer Variant Curation and Coding Unconference**

Presenters TBA

SUNDAY, AUGUST 4, 2024

Pre-Meeting Workshops

Workshop participation incurs an additional registration fee.

9:00 – 10:30 AM **Leadership Workshop**
Moderators: Xiaoyu Qu, *Fred Hutchinson Cancer Center* and Teresa Smolarek, *Cincinnati Children's Hospital Medical Center*
Presenter:
Michael Johnson, *University of Washington*

10:30 – 10:45 AM **Coffee Break for Workshop Attendees**

10:45 AM – 12:15 PM **Bioinformatics Workshop**
Moderator: Alex Wagner, *Nationwide Children's Hospital*
Presenters:
Malachi Griffith, *Washington University in St. Louis School of Medicine*
Alan Rubin, *Walter and Eliza Hall Institute*
Sumaiya Iqbal, *Broad Institute*

Opening of the 15th Annual Cancer Genomics Consortium

1:00 – 1:05 PM

Welcome

Jane Houldsworth, *Icahn School of Medicine at Mount Sinai*

1:05 - 1:15 PM

Presidential Address

Rashmi Kanagal-Shamanna, *MD Anderson Cancer Center*

1:15 – 2:15 PM

Keynote Presentation

Enabling clinical translation of high-throughput functional assay data

Alan Rubin, *Walter and Eliza Hall Institute*

Introduction: Wesley Goar, *Nationwide Children's Hospital*

2:15 – 3:00 PM

Speed Abstracts Session I: Precise genetic diagnosis of hematological and other malignancies

Moderators: Zhenya Tang, *University of Nebraska Medical Center* and Xinyan Lu, *Northwestern University Feinberg School of Medicine*

Enrichment of Hodgkin and Reed-Sternberg (HRS) cells using size-based microfiltration

Brianna Munnich, *Washington University in St. Louis School of Medicine*

Technologist Award

Diagnostic next generation sequencing to Detect MYD88 L265P in lymphoplasmacytic lymphoma compared to ddPCR

Lauren Wainman, *Dartmouth-Hitchcock Medical Center*

Interplatform comparison of Stratys and Saphyr: Preliminary results of OGM clinical verification in hematologic cancers

Eric McGinnis, *Vancouver General Hospital*

The clinical implementation of technologies utilized for macrogenomic event detection in solid tumors

Lisa Lansdon, *Children's Mercy Kansas City & UMKC - School of Medicine*

Implementation of automatic slide processing for aneuploidy FISH test

Wenhua Zhou, *ARUP Laboratories*

3:00 – 3:30 PM

Exhibitor Showcase: Illumina

(No CME or CEUs available)

3:30 – 4:15 PM

Coffee Break

Science Café Presentations

4:15 – 5:15 PM

Session 1: Diagnostic and prognostic impact of molecular profiling across hematological neoplasms

Moderators: Amanda Dixon-McIver, *IGENZ* and Laveniya

Satgunaseelan, *Royal Prince Alfred Hospital*

Hot-spot D816 KIT has different clinical outcome compared to non-D816 KIT variants in myeloid neoplasms

Barina Aqil, *Northwestern University Feinberg School of Medicine*

Implementation and utility of gene expression profile (GEP)-based classification of pediatric b-lymphoblastic leukemia

Gordana Raca, *Children's Hospital Los Angeles*

Reduced subclone diversity in clonal cytopenia of undetermined significance compared to myelodysplastic syndrome

Sridhar Nonavinkere Srivatsan, *Washington University School of Medicine in St Louis*

Best practices for testing and reporting of FISH studies in multiple myeloma: Recommendations from the CGC working group

Xinyan Lu, *Northwestern University Feinberg School of Medicine*

5:15 – 5:45 PM

Speed Abstracts Session II: Standardization, bioinformatics workflows, and data integration for personalized healthcare

Moderators: Angela Lager, *University of Chicago* and Nathan Kopp, *Medical College of Wisconsin*

Standardizing fusion calls in a computable format with FUSOR for downstream clinical assessment

Jeremy Arbesfeld, *The Ohio State University*

Developing a robust bioinformatics workflow to support personalized neoantigen vaccine clinical trials

Kartik Singhal, *Washington University in St Louis*

Contextualizing clinical significance using FDA label supplemented DGI data

Matthew Cannon, *Nationwide Children's Hospital*

Trainee Award

AmpliconSuite: Analyzing focal amplifications in cancer genomes

Bhargavi Dameracharla, *University of California, San Diego*

5:45 - 8:00 PM

Welcome Reception

CGC Exhibit Hall, Grand Ballroom ABCD

MONDAY, AUGUST 5, 2024

8:30 – 9:30 AM

Keynote Presentation

Melissa B. Davis, *Morehouse School of Medicine*

Introduction: Thuy Phung, *University of South Alabama*

9:30 – 10:15 AM

Session 2: Genomic equity and inclusivity: Bridging the gap in diagnostics and personalized care across diverse populations

Moderator: Rashmi Kanagal-Shamanna, *MD Anderson Cancer Center*

Ethnic and molecular disparities in prostate adenocarcinoma incidence: data from 19 cohort studies

Amy Brady, *SUNY Upstate Medical University*

Trainee Award

Clinical impact of in-house molecular testing for underserved cancer patients in southern Alabama

Thuy Phung, *University of South Alabama*

An evaluation of clinical significance of the TP53 polyadenylation signal-disrupting variant rs78378222-G

Dayo Shittu, *NIH/National Human Genome Research Institute*

10:15 – 10:45 AM

Panel Discussion

Moderator: Rashmi Kanagal-Shamanna, *MD Anderson Cancer Center*

10:45 – 11:30 AM

Coffee Break with Exhibitors

Science Café Presentations

11:30 AM – 12:00 PM

Exhibitor Showcase: Guardant

(No CME or CEUs available)

12:00 – 12:30 PM

Invited Speaker Presentation

Current and Future Integrations of Genomics and AI

Chad Vanderbilt, *Memorial Sloan Kettering Cancer Center*

Introduction: Chuan Gao, *Memorial Sloan Kettering Cancer Center*

12:30 – 1:00 PM

Speed Abstracts Session III: Integrated sample processing and genomic analysis approaches that improve diagnostic yield for hematologic malignancies

Moderators: Xiaoyu Qu, *Fred Hutchinson Cancer Center* and Xinrui Shi, *University of Virginia*

Intrachromosomal amplification of chromosome 21 as the sole chromosomal aberration in a primary AML patient

Leila Youssefian, *University of California, Los Angeles*

Tumor specific cell sorting improves sensitivity of FISH: Implications for patients with hematologic malignancies

Luise Hartmann, *Hematologics Inc.*

High resolution cytogenomic analysis reveals characterizing abnormalities in APL-like leukemia

Shivaprasad Sathyanarayana, *Dartmouth Hitchcock Medical Center*

FIP1L1::KIT fusion in a case of peripheral T-cell lymphoproliferative neoplasm responsive to tyrosine kinase inhibitor

Kristin Deeb, *Emory University*

1:00 – 1:15 PM

CGC Updates

Rashmi Kanagal-Shamanna, *MD Anderson Cancer Center*

(No CME or CEUs available)

- 1:15 – 2:15 PM** **Buffet Lunch**
Exhibit Hall and Foyer
- 2:15 – 3:15 PM** **Session 3: Advances in molecular profiling for tumor risk assessment and management**
Moderators: Lynne Abruzzo, *Medical University of South Carolina* and Kristin Deeb, *Emory University School of Medicine*
- Methylation profiling more accurately predicts recurrence risk in meningiomas compared to current WHO grading criteria**
Lucas Santana dos Santos, *Northwestern University*
- Advancing personalized prostate cancer care: Utilizing miRNA profiling and machine learning for metastasis prediction**
Gobi Thillainadesan, *Sunnybrook Research Institute*
- Detection of somatic tumor mutations in circulating plasma DNA of patients with sellar and skull base tumors**
Mallory Tucker, *University of Washington*
- Methylation sequencing enhances interpretation of clonal hematopoiesis dynamics**
Alyssa Parker, *Vanderbilt University*
Trainee Award
- 3:15 – 3:45 PM** **Panel Discussion**
Moderators: Lynne Abruzzo, *Medical University of South Carolina* and Kristin Deeb, *Emory University School of Medicine*
- 3:45 – 4:00 PM** **Exhibitor Showcase**
(No CME or CEUs available)
- 4:00 – 4:15 PM** **Exhibitor Showcase**
(No CME or CEUs available)
- 4:15 – 5:00 PM** **Coffee Break with Exhibitors**
Science Café Presentations
- 5:00 – 5:30 PM** **Invited Speaker Presentation**
Interpretable and context-free deconvolution of multi-scale transcriptomic lung cancer data
Robert Sebra, *Icahn School of Medicine at Mount Sinai*
Introduction: Huan Mo, *NHGRI*
- 5:30 – 6:30 PM** **Session 4: Global initiatives in enhancing interpretation of the somatic genome**
Moderators: Avinash Dharmadhikari, *Children's Hospital Los Angeles/ University of Southern California Keck School of Medicine* and Leila Youssefian, *University of California, Los Angeles*
- Enhancing precision oncology: the value of open-source knowledgebase integration**

Cameron Grisdale, *Canada's Michael Smith Genome Sciences Centre*

Classifying the oncogenicity of 100 variants from pediatric cancer patients using a standardized assessment framework

Wesley Goar, *Nationwide Children's Hospital*

Somatic genomic testing and variant curation practices in Australian and New Zealand diagnostic testing laboratories

Grace Pendlebury, *Australian Genomics & QIMRB Berghofer*

Addition of non-gene features to the CIViC data model

Arpad Danos, *Washington University in St. Louis*

6:30 – 8:00 PM

Early Career Social

For attendees in training or recently out of training

Park View Room, Fourth Floor

TUESDAY, AUGUST 6, 2024

8:30 – 9:00 AM

Invited Speaker Presentation

TBA pending approval from the FDA

9:00 – 9:30 AM

Invited Speaker Presentation

To a carpenter, every problem is a nail: The FDA brings a hammer to diagnostic medicine

Dara Aisner, *University of Colorado Anschutz Medical Campus*

Introduction: Fady Mikhail, *University of Alabama at Birmingham*

9:30 – 10:15 AM

Session 5: Development of resources for the reimbursement and clinical reporting standardization of cancer genomic testing

Moderators: Fady Mikhail, *University of Alabama at Birmingham* and Niroshi Senaratne, *University of California Los Angeles*

Reimbursement for molecular pathology testing for neoplasia: The 2024 update

Xiaoyu Qu, *Fred Hutchinson Cancer Center*

Current next generation sequencing reporting practices: a GOAL Consortium report

Celeste Eno, *Cedars-Sinai Medical Center*

A cross-consortia initiative for aligning the definitions and descriptions of gene fusions

Alex Wagner, *Nationwide Children's Hospital*

10:15 – 10:45 AM

Panel Discussion

Moderator: Yasmine Akkari, *Nationwide Children's Hospital*
(No CME or CEUs available)

- 10:45 – 11:30 AM** **Coffee Break with Exhibitors**
Science Café Presentations
- 11:30 – 11:45 AM** **Exhibitor Showcase**
(No CME or CEUs available)
- 11:45 AM – 12:00 PM** **Exhibitor Showcase**
(No CME or CEUs available)
- 12:00 – 12:30 PM** **Invited Speaker Presentation**
Cell-free DNA and AI technology for liquid biopsy detection of cancer early and prediction of cancer treatment response
Adel Chaudhuri, *Mayo Clinic*
Introduction: Trevor Pugh, *University of Toronto*
- 12:30 – 2:00 PM** **In-Person Round Table Discussions with Lunch**
Table topic selection was during conference registration.
Hyatt Regency Fourth Floor Foyer and Mills Meeting Rooms
- 2:00 – 2:30 PM** **Speed Abstract Session IV: Innovative tools and challenges in genetic variant analysis**
Moderators: Chuan Gao, *Memorial Sloan Kettering Cancer Center* and Xinming Zhuo, *Columbia University*
- pVACsplice: A computational tool for predicting and prioritizing alternative splicing neoantigens**
My Hoang, *Washington University School of Medicine in St. Louis*
- Customize your variant interpretation workflow with OpenCRAVAT**
Rachel Karchin, *Johns Hopkins University*
- Identifying challenges in variant normalization**
Anastasia Bratulin, *The Ohio State University*
- 2:30 – 2:45 PM** **Exhibitor Showcase**
(No CME or CEUs available)
- 2:45 – 3:30 PM** **Coffee Break with Exhibitors**
Science Café Presentations
- 3:30 – 4:30 PM** **Keynote Presentation**
Precision interception in multiple myeloma and it's precursor conditions
Irene Ghobrial, *Dana Farber Cancer Institute*
Introduction: Linda Baughn, *Mayo Clinic*
- 4:30 – 6:00 PM** **Poster Session**
CGC Exhibit Hall, Grand Ballroom ABCD

5:45 – 9:00 PM

Departure for Pre-Registered Social Activities

On-site registration may be available – please check with the meeting registration desk if you are interested in attending one of these events. Participants pick up tickets at the CGC 2024 Registration Desk.

- **St. Louis Riverboat Cruise:**

Meet at 5:30 PM in the Hyatt Regency Lobby to walk to the river entrance on the far side of the arch. Boat loads at 5:45 PM and departs promptly at 6:00 PM. Cruise is one hour in length.

- **St. Louis Cardinals vs. Tampa Bay Rays:**

Meet at 6:00 PM in Hyatt Regency Lobby to walk to the event together or join the group at Busch Stadium. Game starts at 6:45PM.

- **Bowling:**

Meet at 6:00 PM in Hyatt Regency Lobby to get to the event together or join the group at Flamingo Bowl. Reservations at 6:30PM.

WEDNESDAY, AUGUST 7, 2024

9:00 – 10:00 AM

Session 6: Genomic analyses of solid tumors: Arrays, sequencing and developing a gene list

Moderators: Teresa Smolarek, *Cincinnati Children's Hospital Medical Center* and Rebecca Smith, *Vanderbilt University Medical Center*

Integrated comprehensive genomic profiling of meningiomas: A single institutional study

Mohana Priya Jayavel, *Northwestern Memorial Hospital*

Technologist Award

Significant copy number variants and loss of heterozygosity in Wilms tumor: Insights from Nationwide Pediatric Oncology

Melanie Babcock, *Nationwide Children's Hospital and The Ohio State University*

The clinical utility of the TSO500 clinically-verified test in patients with solid tumors - The Mayo Clinic experience

Hussam Al Kateb, *Mayo Clinic*

Formation of a tumor-specific gene list: the Central Nervous System (CNS) tumor taskforce experience

Madina Sukhanova, *Feinberg School of Medicine Northwestern University*

10:00 – 11:00 AM

Session 7: Updates in oncogenicity guidelines and classification rules for prioritizing variants in somatic disease

Moderators: Wahab Khan, *Dartmouth Hitchcock Medical Center*, and Michael Babcock, *Dahl-Chase Diagnostic Services*

Modifying cancer variant interpretation guidelines for the curation of histone H3 variants - the 'next step' of the CI

Laveniya Satgunaseelan, *Royal Prince Alfred Hospital*

Prioritization of defining and supportive diagnostic variants in pediatric tumors

Laura Corson, *Oncology Consultant*

Step 2 updates for the oncogenic assessment of FLT3 variants by the ClinGen FLT3 Somatic Cancer Variant Curation expert

Nathan Kopp, *Medical College of Wisconsin*

Piloting NTRK fusion-specific oncogenicity guidelines: Lessons learned

Jason Saliba, *Washington University School of Medicine*

11:00 – 11:30 AM

Coffee Break with Exhibitors

11:30 AM – 12:30 PM

Session 8: Advancements in cancer-adjacent genetic diagnostics: Guidelines, assays, and case studies

Moderators: Alex Wagner, *Nationwide Children's Hospital and the Ohio State University College of Medicine* and Grace Pendlebury, *Australian Genomics & QIMR Berghofer MRI*

Challenges of classifying variants associated with disorders of somatic mosaicism and guideline creation

Alexa Dickson, *Washington University in St Louis*

UMI-based expanded NGS panel in precision molecular diagnosis of vascular anomalies: Early results

Avinash Dharmadhikari, *Children's Hospital Los Angeles*

Examining potential candidate genes within deletions of 3p14.2 to 3p14.1 in two cases of autism and developmental delay

Rebecca Smith, *Vanderbilt University Medical Center*

Clinical SNP-array adds value to diagnosis and surveillance of bone marrow failure syndromes

Lucilla Pizzo, *University of Utah, ARUP Laboratories*

12:30 – 1:00 PM

CGC 2024 Business Meeting