

# Spring 2020 Symposium & Workshop

## Scientific Drivers for Informatics, Data Science, and Care in Pediatric, Adolescent, and Young Adult (AYA) Cancer

### Event-At-A-Glance

The Spring 2020 Symposium is our 15th organized NCI & Community Cancer Center Informatics Symposium. For this conference, we will focus on how research in pediatric and AYA cancers is evolving and increasingly dependent upon data science and informatics to provide insights into biology and potential therapies. Participants will hear about scientific advances in the understanding of pediatric and AYA cancers, and how lessons learned in these domains can impact adult cancer research and care.

Pediatric and AYA cancers are collectively considered rare diseases because there are so few cases diagnosed each year, particularly when compared with cancers diagnosed in older populations. This fact does not change the devastating effect of cancer on every individual patient and family, and survivors of childhood and AYA cancers are steadily increasing. A focused, unified approach to data science for these cancers is imperative to ensure data from every patient are available for analysis as an integrated whole. The incorporation of data science and informatics into pediatric and AYA research is necessary to advance our understanding of cancer etiology, identify new approaches for cancer prevention and early detection, improve cancer patient outcomes, and enhance cancer care delivery throughout the community. There is a growing focus on data collection within the cancer research community alongside increasing utilization of cloud-based repositories and digital tools for analysis. Opportunities exist to improve survivorship and ultimately reduce the burden of cancer on patients and their families through: a) focus on data generation to fill key knowledge gaps, b) creating linkages among existing data repositories, and c) development of new, nationwide registries and cohorts to provide the power to discover novel treatments for pediatric and AYA cancers.

The Spring 2020 Ci4CC conference will cover topics such as:

- NCI research programs focused on pediatric and AYA cancers
- Emerging scientific discoveries in immunotherapy, precision medicine, and rare tumors
- Data repositories and how to facilitate interoperability through use of standards and applying data harmonization
- Registries specifically focusing on childhood cancers and how to effectively capture data
- Recent Health Services Research revelations about childhood and AYA cancers and strategies to address these findings

Participants will also hear updates on NCI's Childhood Cancer Data Initiative and what advocacy groups and foundations are doing to support research, patients, and caregivers, and how the community can better serve the

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Monday, April 20, 2020	
7:00 – 8:00 AM	Breakfast
8:00 – 8:15 AM	Spring 2020 Conference Welcome <b>Warren Kibbe and Sorena Nadaf</b>
8:15 – 8:30 AM	Spring 2020 Conference Chairs Introduction & Kick-off <b>Tony Kerlavage and Anne Kirchhoff</b>
8:30 – 9:00 AM	Understanding the Differences Between Childhood and Adult Cancer: Outcomes, Genetics, and Impact on Research and Data Science ( <b>Richard Aplenc</b> )
9:00 – 9:30 AM	NCI Support for Childhood Cancer Data Initiative <ul style="list-style-type: none"> <li>• CCDI Overview &amp; Data Sharing Policies for CCDI (<b>Jaime Guidry Auvil</b>)</li> <li>• Cancer Research Data Commons Support for Pediatric Cancer (<b>Tony Kerlavage</b>)</li> </ul>
9:30 – 9:45 AM	Break
9:45 – 11:45 AM	Scientific Innovation in Childhood Cancer Programs <ul style="list-style-type: none"> <li>• Pediatric Immunotherapy Discovery and Development Network (PIDDN) (<b>Kara Davis</b>)</li> <li>• Fusion Oncoproteins in Childhood Cancers (FusOnC2) Consortium (TBD)</li> <li>• Pediatric MATCH (PedMATCH) (Speaker TBD)</li> <li>• MyPART: My Pediatric and Adult Rare Tumor Network – Engaging Patients and Advocates for Comprehensive Analysis of Rare Solid Tumors - (<b>Karlyne Reilly</b>)</li> <li>• Pre-clinical Models of Pediatric Cancer (TBD)</li> <li>• Molecular Targets for Pediatric Cancer (TBD)</li> </ul>
11:45 AM – 12:45 PM	Lunch
12:45 – 1:15 PM	Sponsored Keynote (TBF)
1:15 – 2:30 PM	Pediatric and AYA Cohorts <ul style="list-style-type: none"> <li>• Project: EveryChild (<b>Todd Alonzo</b>)</li> <li>• Pediatric Oncology Group of Ontario &amp; AYA Cohorts (<b>Paul Nathan</b>)</li> <li>• Consented Cohort (<b>Jen Poynter</b>)</li> </ul>
2:30 – 2:45 PM	Break
2:45 – 4:30 PM	<ul style="list-style-type: none"> <li>• Childhood Cancer Survivor Study (<b>Greg Armstrong</b>)</li> <li>• Utah Data Initiative (<b>Anne Kirchhoff</b>)</li> <li>• AYA Survivorship (<b>Erin Hahn</b>)</li> <li>• Claims Data / End-of-life Care (<b>Karen Wernli</b>)</li> </ul>
5:30 – 7:30 PM	Reception, Poster Session, & Networking

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Tuesday, April 21, 2020	
7:00 – 8:30 AM	Breakfast
8:30 – 9:30 AM	Cancer Center Director Keynote - <b>Michael A. Teitell (UCLA)</b>
9:30 – 11:00 AM	Pediatric Registries <ul style="list-style-type: none"> <li>A National Childhood Cancer Registry (<b>Lynne Penberthy</b>)</li> <li>Emerging Technology to Advance Population-based Childhood Cancer Research (<b>Dennis Deapen/Amie Hwang</b>)</li> <li>Virtual Tumor Registry (<b>Eric Durbin</b>)</li> <li>NLP for Data Extraction (<b>Sara Gallatto</b>)</li> </ul>
11:00 – 11:15 AM	Break
11:15 AM – 1:00 PM	Pediatric Data Resources & Integration <ul style="list-style-type: none"> <li>Pediatric Cancer Data Harmonization (<b>Sam Volchenboum</b>)</li> <li>Pediatric Cell Atlas (<b>Bruce Aranow</b>)</li> <li>Treehouse / California Kids Comparison Study (TBD)</li> <li>Kids First Data Resource Center (<b>Allison Heath</b>)</li> <li>St. Jude Cloud (<b>Jinghui Zhang</b>)</li> </ul>
1:00 – 2:00 PM	Lunch
2:00 – 2:30 PM	Sponsor Keynote
2:30 – 4:00 PM	Foundations, Collaborations, and Advocacy in Fueling Innovation in Data Science <ul style="list-style-type: none"> <li>Powering Science in Pediatric Cancer (<b>Adam Resnick</b>)</li> <li>Alex’s Lemonade Stand / Childhood Cancer Data Lab (<b>Casey Greene</b>)</li> </ul>
4:00 – 4:15	Break
4:15 – 4:45	Closing (Co-chairs)
4:45 – 5:00	Meeting Adjourned. Fall 2020 Announcements ( <b>Kibbe / Nadaf</b> )

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**CI4CC Spring 2020 – Confirmed Speakers**

- Todd Alonzo, PhD - University of Southern California, Keck School of Medicine
- Richard Aplenc, MD, PhD – Children's Hospital of Philadelphia
- Bruce Aranow, PhD - Cincinnati Children's Hospital
- Greg Armstrong, PhD – St. Jude Children's Research Hospital
- Kara Davis, DO – Stanford Child Health Research Institute
- Dennis Deapen, PhD - University of Southern California, Keck School of Medicine
- Eric Durbin, DrPH, MS - University of Kentucky, Markey Cancer Center
- Sara L. Gallatto, MS – Mass General Hospital
- Casey Greene, PhD – University of Pennsylvania
- Jaime Guidry Auvil, PhD – National Cancer Institute
- Erin Hahn, PhD, MPH – Kaiser Permanente Department of Research and Evaluation
- Allison Heath, PhD – Children's Hospital of Philadelphia
- Annie Hwang, PhD – University of Southern California, Keck School of Medicine
- Anthony Kerlavage, PhD – National Cancer Institute
- Anne Kirchhoff, PhD, MPH - Huntsman Cancer Institute and University of Utah, School of Medicine
- Paul Nathan, MD, MSC – The Hospital for Sick Children
- Lynne Penberthy, PhD – National Cancer Institute
- Jen Poynter, PhD, MPH – University of Minnesota, Masonic Cancer Center
- Karlyne Reilley, PhD – National Cancer Institute
- Adam Resnick, PhD – Children's Hospital of Philadelphia
- Michael Teitell, MD, PhD – UCLA Jonsson Comprehensive Cancer Center
- Sam Volchenboum, MD, PhD – University of Chicago
- Karen Wernli, PhD - Kaiser Permanente Washington Health Research Institute
- Jinghui Zhang, PhD – St. Jude Children's Research Hospital

**Spring CI4CC Co-chairs:**

- Anne Kirchhoff, PhD, MPH – Huntsman Cancer Institute and University of Utah, School of Medicine
- Anthony Kerlavage, PhD – National Cancer Institute

**CI4CC Co-founders:**

- Warren Kibbe, PhD - Duke
- Sorena Nadaf, MS, MMI – City of Hope