

An AACR Special Conference in Cancer Research

Advances in Pediatric Cancer Research

In association with the AACR Pediatric Cancer Working Group (PCWG)

September 5-8, 2024 | Sheraton Centre Toronto Hotel | Toronto, Ontario, Canada

CONFERENCE PROGRAM

CONFERENCE COCHAIRS:

Alejandro Gutierrez, St. Jude Children's Research Hospital, Memphis, Tennessee

Cynthia E. Hawkins, The Hospital for Sick Children, Toronto, Ontario, Canada

Andrea A. Hayes-Dixon, Howard University College of Medicine, Washington, DC

Gilles Vassal, Institut Gustave Roussy, Villejuif, France

Thursday, September 5, 2024

Opening Plenary Session

5:00-7:00 p.m. | Osgood East & West | CME-Eligible

5:00-5:50

Keynote Speaker

Navigating the pediatric cancer genomic frontier: From terrain mapping to targeted therapy

Kimberly Stegmaier, Dana-Farber Cancer Institute, Boston, Massachusetts

5:50-6:00

Discussion/Q&A

6:00-6:50

AACR-St. Baldrick's Foundation Pediatric Cancer Research Fellowship Awardee Lecture:

Clinical implementation of molecular tumor profiling for children with cancer

Alanna J. Church, Boston Children's Hospital, Boston, Massachusetts

6:50-7:00

Discussion/Q&A

Opening Reception

7:00-8:30 p.m. | Sheraton Hall D | Not CME-eligible

Friday, September 6, 2024

Continental Breakfast

7:00-8:00 a.m. | Sheraton Hall C | Not CME-eligible

Plenary Session 1: Cancer Predisposition and the Causes of Cancer

8:00-10:00 a.m. | Osgood East & West | CME-Eligible

Session Chair: Uri Y. Tabori, SickKids, Toronto, Ontario, Canada

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- 8:00-8:20 **Insights from replication repair deficient cancers on cancer initiation and vulnerability**
Uri Y. Tabori, SickKids, Toronto, Ontario, Canada
- 8:20-8:30 Discussion/Q&A
- 8:30-8:50 **Genetic predisposition to pediatric cancer: The long way from discovery to surveillance guidelines**
Franck Bourdeaut, Institute Curie, Paris, France
- 8:50-9:00 Discussion/Q&A
- 9:00-9:20 **Risk of therapy-related subsequent cancers in individuals with germline TP53 variants**
Anita Villani, SickKids, Toronto, Ontario, Canada
- 9:20-9:30 Discussion/Q&A
- 9:30-9:40 **Somatic genetic development of Wilms tumor via normal kidneys in predisposed children***
Anna Wenger, Wellcome Sanger Institute, Cambridge, United Kingdom
- 9:40-9:45 Discussion/Q&A

Break

10:00-10:30 a.m. | Sheraton Hall C Foyer

Plenary Session 2: Precision Medicine for Pediatric Cancer: Beyond Sequencing

10:30 a.m.-12:30 p.m. | Osgood East & West | CME-Eligible

Session Chair: Jean-Pierre Bourquin, University Children's Hospital Zurich, Zürich, Switzerland

- 10:30-10:50 **RNA-based platform as a diagnostic aid for childhood cancer**
Adam Shlien, SickKids, Toronto, Ontario, Canada
- 10:50-11:00 Discussion/Q&A
- 11:00-11:20 **Epigenetic mechanisms controlling human leukemia stem cells and therapy resistance**
Alex Kentsis, Memorial Sloan Kettering Cancer Center, New York, New York
- 11:20-11:30 Discussion/Q&A
- 11:30-11:50 **A federated functional precision initiative for relapsed refractory ALL**
Jean-Pierre Bourquin, University Children's Hospital Zurich, Zürich, Switzerland
- 11:50-12:00 Discussion/Q&A

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- 12:00-12:10 **Canada's path towards proteome guided therapies and advanced molecular pathology in pediatric precision oncology***
Philipp F. Lange, University of British Columbia, Vancouver, British Columbia, Canada
- 12:10-12:15 Discussion/Q&A
- 12:15-12:25 **Next generation pediatric precision oncology: Functional profiling of patient-derived viable tumor material to link genotype and phenotype***
Eleonora J. Looze, Princess Maxima Center for Pediatric Oncology, Utrecht, Netherlands
- 12:25-12:30 Discussion/Q&A

Lunch Break (lunch on your own)

12:30-2:30 p.m.

Plenary Session 3: Overcoming Barriers in Pediatric Cancer Therapeutic Discovery

Organized by Cancer Research Horizons and LifeArc

2:30-4:30 p.m. | Osgood East & West | Not CME-Eligible

Tony Hickson, Chief Business Officer, Cancer Research Horizons. London, United Kingdom
David Jenkinson, Head of Childhood Cancer, LifeArc. London, United Kingdom
Abbe Panucci, Patient Advocate, Alice's Arc US Inc., Berkeley, California
Stacey Adam, Vice President, Science Partnerships, Foundation for the National Institutes of Health, North Bethesda, Maryland
Michele Cleary, Life Sciences and Drug Discovery Leader, Advantium Health Network, Princeton, New Jersey

Poster Session A (with light refreshments)

4:30-6:30 p.m. | Sheraton Hall D and E | Not CME-Eligible

Saturday, September 7, 2024

Continental Breakfast

7:00-8:00 a.m. | Sheraton Hall C | Not CME-eligible

Plenary Session 4: Circulating DNA and Other Novel Early Relapse Detection Tools

8:00-10:00 a.m. | Osgood East & West | CME-Eligible

Session Chair: Cynthia E. Hawkins, SickKids, Toronto, Ontario, Canada

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- 8:00-8:20 **A methodical journey towards clinical application of ctDNA and new liquid biopsy adventures**
Brian D. Crompton, Dana-Farber Cancer Institute, Boston, Massachusetts
- 8:20-8:30 Discussion/Q&A
- 8:30-8:50 **Liquid biopsy for pediatric cancer**
Cynthia E. Hawkins, SickKids, Toronto, Ontario, Canada
- 8:50-9:00 Discussion/Q&A
- 9:00-9:20 **Opportunities and challenges for liquid biopsies in pediatric oncology**
Gudrun Schleiermacher, Institut Curie, Paris, France
- 9:20-9:30 Discussion/Q&A
- 9:30-9:40 **A toolbox for the use of cfDNA in pediatric cancer patients***
Godelieve Tytgat, Prinses Maxima Center, Utrecht, Netherlands
- 9:40-9:45 Discussion/Q&A
- 9:45-9:55 **Liquid biopsy enables identification of mechanisms of tumor evolution in patients with newly diagnosed high-risk neuroblastoma: A report from the Children's Oncology Group***
Gabriela Virdzekova, Dana-Farber Cancer Institute, Boston, Massachusetts
- 9:55-10:00 Discussion/Q&A

Break

10:00-10:30 a.m. | Sheraton Hall C Foyer

Plenary Session 5: Pediatric Cancer Disparities

10:30 a.m.-12:30 p.m. | Osgood East & West | CME-Eligible

Session Chair: Lena Winestone, University of California San Francisco, San Francisco, California

- 10:30-10:50 **Disparities in access to pediatric cancer care**
Lena Winestone, University of California San Francisco, San Francisco, California
- 10:50-11:00 Discussion/Q&A
- 11:00-11:20 **Disparities in childhood cancer outcomes: Can we move from describing to intervening?**
Sumit Gupta, SickKids, Toronto, Ontario, Canada
- 11:20-11:30 Discussion/Q&A
- 11:30-11:50 **Increasing diversity in pediatric cancer clinical trials: Challenges and opportunities**

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- 11:50-12:00 Paula Aristizabal, University of California, San Diego, California
Discussion/Q&A
- 12:00-12:10 **Persistent poverty is associated with risk of early mortality among children with cancer: An analysis of SEER data***
Emma Hymel, University of Nebraska Medical Center, Omaha, Nebraska
- 12:10-12:15 Discussion/Q&A
- 12:15-12:25 **The impact of social determinants and neuropsychological factors on healthcare transition readiness among adolescent and young adult childhood cancer survivors***
Gayeong Kim, Emory University, Atlanta, Georgia
- 12:25-12:30 Discussion/Q&A

Lunch Break (lunch on your own)

12:30-2:15 p.m.

Plenary Session 6: Immunotherapy and Immunology

2:15-4:15 p.m. | Osgood East & West | CME-Eligible

Session Chair: Rayne H. Rouse, Baylor College of Medicine, Houston, Texas

- 2:15-2:35 **CAR T-cells for T-cell malignancies: Challenges and opportunities**
Rayne H. Rouse, Baylor College of Medicine, Houston, Texas
- 2:35-2:45 Discussion/Q&A
- 2:45-3:05 **GD2-specific CAR T cell therapies for pediatric solid cancers**
Claudia Rossig, University Children's Hospital Münster, Muenster, Germany
- 3:05-3:15 Discussion/Q&A
- 3:15-3:35 **Mapping microglia – tumor crosstalk in pediatric brain cancer**
Florent Ginhoux, Gustave Roussy, Villejuif, France
- 3:35-3:45 Discussion/Q&A
- 3:45-3:55 **Functional inhibition of natural killer cells enables surgery-induced accelerated neuroblastoma tumor growth in a mouse model***
Brian T. Craig, Medical College of Wisconsin, Milwaukee, Wisconsin
- 3:55-4:00 Discussion/Q&A
- 4:00-4:10 **Developing a safe and potent tumor-targeting gated CAR-T cell therapy for DIPG: A deadly pediatric brain tumor***

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Sujatha Venkataraman, University of Colorado, Anschutz Medical Campus,
Aurora, Colorado

4:10-4:15 Discussion/Q&A

Plenary Session 7: Novel Breakthroughs in Pediatric Hematology Research

Organized by the AACR Pediatric Cancer Working Group (PCWG)

4:30-6:00 p.m. | Osgood East & West | CME-Eligible

Session Chair: Kathrin Maria Bernt, Children's Hospital of Philadelphia, Merion Station, Pennsylvania

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| 4:30-4:35 | Introduction
Kathrin Maria Bernt, Children's Hospital of Philadelphia, Merion Station, Pennsylvania |
| 4:35-4:55 | New insights into the biology and treatment of T-ALL and T-LL
David T. Teachey, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania |
| 4:55-5:15 | Understanding cellular predictors of relapse in B cell acute lymphoblastic leukemia
Kara L. Davis, Stanford University, Stanford, California |
| 5:15-5:35 | Transcriptional dysregulation in pediatric leukemias
Kathrin Maria Bernt, Children's Hospital of Philadelphia, Merion Station, Pennsylvania |
| 5:35-6:00 | Panel discussion |

Poster Session B (with light refreshments)

6:00-8:00 p.m. | Sheraton Hall D and E | Not CME-Eligible

Sunday, September 8, 2024

Continental Breakfast

7:00-8:00 a.m. | Sheraton Hall C | Not CME-eligible

Plenary Session 8: Emerging Therapies and Drug Resistance

8:00-10:00 a.m. | Osgood East & West | CME-Eligible

Session Chair: Scott A. Armstrong, Dana-Farber Cancer Institute, Boston, Massachusetts

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- 8:00-8:20 **Targeting chromatin complexes in cancer**
Scott A. Armstrong, Dana-Farber Cancer Institute, Boston, Massachusetts
- 8:20-8:30 Discussion/Q&A
- 8:30-8:50 **Neogenes induced by oncogenic chimeric transcription factors as potential targets for therapy**
Olivier Delattre, Institut Curie, Paris, France
- 8:50-9:00 Discussion/Q&A
- 9:00-9:20 **A methyltransferase-independent role for METTL1 in tRNA aminoacylation and oncogenic transformation**
Alejandro Gutierrez, St. Jude Children's Research Hospital, Memphis, Tennessee
- 9:20-9:30 Discussion/Q&A
- 9:30-9:40 **Alectinib in children and adolescents with solid or CNS tumors harboring ALK-fusions: Updated data from the iMATRIX Alectinib phase I/II open-label, multi-center study***
Francis Mussai, F. Hoffmann-La Roche Ltd, Welwyn Garden City, United Kingdom
- 9:40-9:45 Discussion/Q&A
- 9:45-9:55 **MYOD1L122R induces chemoresistance and elevates cancer stem cell programs through WNT11-ROR2-VANGL2 signaling in aggressive rhabdomyosarcoma***
Yun Wei, Harvard Medical School, Boston, Massachusetts
- 9:55-10:00 Discussion/Q&A

Break

10:00-10:30 a.m. | Sheraton Hall C Foyer

Plenary Session 9: New Strategies for Early Phase Clinical Trials

10:30 a.m.-12:30 p.m. | Osgood East & West | CME-Eligible

Session Chair: Andrea A. Hayes-Dixon, Howard University Hospital, Washington, District of Columbia

- 10:30-10:50 **How novel clinical research informs pediatric clinical trials**
Andrea A. Hayes-Dixon, Howard University Hospital, Washington, District of Columbia
- 10:50-11:00 Discussion/Q&A
- 11:00-11:20 **Trial designs to find early signals of efficacy in rare pediatric cancers**

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- 11:20-11:30 Katherine A. Janeway, Dana-Farber Cancer Institute, Boston, Massachusetts
Discussion/Q&A
- 11:30-11:50 **Are we ready to accelerate the development of new safe and effective anticancer medicines for children and adolescents?**
Gilles Vassal, Gustave Roussy, Villejuif, France
- 11:50-12:00 Discussion/Q&A
- 12:00-12:30 Panel Discussion

Closing Remarks

12:30-12:45 p.m. | Osgood East & West | Not CME-Eligible

Alejandro Gutierrez, St. Jude Children's Research Hospital, Memphis, Tennessee
Cynthia E. Hawkins, The Hospital for Sick Children, Toronto, Ontario, Canada
Andrea A. Hayes-Dixon, Howard University College of Medicine, Washington, DC
Gilles Vassal, Institut Gustave Roussy, Villejuif, France