

# Children's Cancer Institute

Based in Sydney, Australia, we are the largest paediatric cancer research organisation in the Southern Hemisphere

- The Institute has a **national and international reputation** for precision medicine and scientific excellence in childhood cancer.
- **World-class expertise across high-need paediatric cancers**, including leukemias, neuroblastoma, sarcomas, and brain cancers, with deep knowledge critical for advancing drug development and clinical trials.
- Best known for leading **Zero Childhood Cancer**, Australia's child cancer national precision medicine program.
- Proven track record in **translating research into clinical outcomes**, creating clear opportunities for industry to commercialise new diagnostics, therapies, and technologies.

## Strategic Partnership Opportunities

- ✓ Efficient national-level patient identification for biomarker-driven trials
- ✓ Multi-omics and clinical datasets on >3300 paediatric cancer patients
  - ✓ Preclinical modelling and testing
  - ✓ New target identification and validation
  - ✓ Drug discovery and development
- ✓ Data analysis for target relevance, drug combinations, mutation prevalence and relevant indications in paediatric cancer
  - ✓ Drug response and resistance mechanisms
    - ✓ Data for Paediatric Study Plans
    - ✓ Clinical research translation
  - ✓ Sponsored PhD and Postdoctoral Scientists program



**Minderoo  
Children's  
Comprehensive  
Cancer Centre**

Landmark collaboration between  
Children's Cancer Institute,  
Sydney Children's Hospital and UNSW Sydney



- World class facility delivering research-driven clinical care, bringing together up to 900 scientists, clinicians and support staff - first of its kind in Australia
- Offering industry partners access to leading expertise, patient cohorts, and clinical trial networks in a single, integrated ecosystem

# ZERO Childhood Cancer Precision Medicine Program



The world's most comprehensive national child cancer precision medicine program, co-led by Children's Cancer Institute and Kids Cancer Centre, Sydney Children's Hospital.

- Enrolled over **3,300** children and young people with cancer to date
- **Comprehensive molecular profiling** to report findings and issue treatment recommendations
- **Changed the model of care** for children with high-risk cancer in Australia.
- Led to over 20 clinical trials
- ZERO has generated one of the **world's largest paediatric cancer precision medicine datasets and biospecimen collections** linked to clinical outcomes, which is driving world-class research and new opportunities for partnerships
- **Demonstrated clinical benefit** for children receiving personalised treatment recommendations (Lau et al. Nature Medicine 2024)
- **Now open to all Australian children and young people with cancer**, regardless of risk, stage or tumour type (since late 2023)
- A generous **\$112.6 million** Australian Government investment, announced in early 2025, will support the program's continued delivery and enable its expansion to adolescents and young adults (**aged 19–25**) with paediatric-type cancers through to June 2028

## Sequencing data files

>3300 patients



Whole genome sequencing (WGS)



Whole transcriptome sequencing (RNAseq)



Methylation

## Preclinical drug response database



Patient-derived xenograft (PDX)



High-throughput screening (HTS)

## Biospecimens



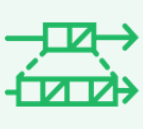
Tissue samples, cell lines, >200 PDX models

## Clinical data



From enrolment to 5-year follow up

Childhood Cancer Knowledgebase



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**ZeroDash**

Unique and proprietary data platform