

INSPIRE

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THE RESEARCH
ECONOMY: VALUE,
IMPACT & RETURN



RESEARCH
AUSTRALIA

Advancing Health
and Medical Research.
Accelerating Innovation.

Making precision medicine available for every child who needs it

Paediatric cancers, rare diseases and neurodevelopmental disorders affect thousands of children in NSW, placing a significant burden on families, communities and the health system, with limited treatment options.

Luminesce Alliance

Luminesce Alliance addresses this by transforming \$45 million in NSW Government funding into \$454.7 million for worldleading precision medicine, tailoring treatments to children's unique genetic profiles.

Paediatric cancers, rare diseases and neurodevelopmental disorders affect thousands of children and young people every year in NSW. The toll on families, communities and the health system is enormous. There's often no known treatment or cure, and because these conditions are so rare it can be difficult to attract research funding through traditional means.

That's where Luminesce Alliance adds so much value. Luminesce Alliance, with the support of NSW Health, drives precision medicine research tailored to children's unique genetic profiles.

By leveraging \$45m funding from the NSW Government into an exceptional \$454.7m research funds since 2019, Luminesce Alliance has enabled world-leading research into precision medicine that tailors treatments to children's unique genetic profiles.

Over the past six years, we have successfully embedded and delivered paediatric precision medicine across NSW. This has transformed outcomes for many children with cancer, rare genetic diseases and neurodevelopmental disorders. We've shown how this approach can be integrated into routine care, with benefits for the health system, NSW's infrastructure and the economy.

Since its inception, this pioneering partnership has united the Children's Cancer Institute, Children's Medical Research Institute, Sydney Children's Hospitals Network,

UNSW Sydney, and University of Sydney to drive paediatric research innovation and translation to clinical care, through the development of critical enabling platforms infrastructure and collaborative networks across functional specialisations.

People are working collaboratively and undertaking truly groundbreaking research in ways that would never have happened without our initial funding.

By supporting people to work together, we achieve much more than any individual entity could alone.

Patients and their families are central to everything we do. They drive our research questions and sometimes take part in the research themselves.

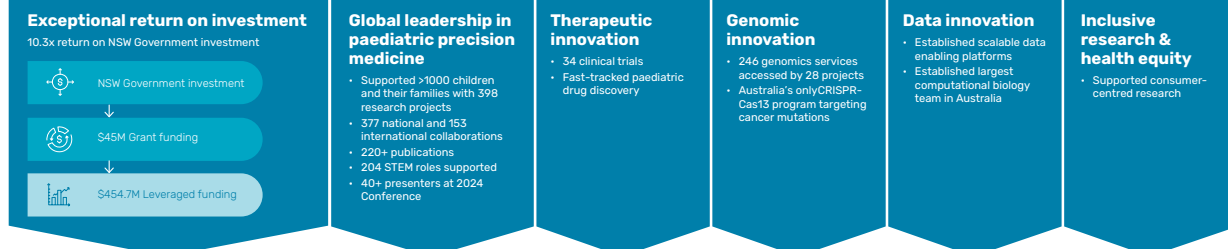
This investment in early treatment can change the trajectory of children's and family's lives, prevent complications, and reduce healthcare costs.

More children and young people are now gaining access to treatment they would not otherwise have.

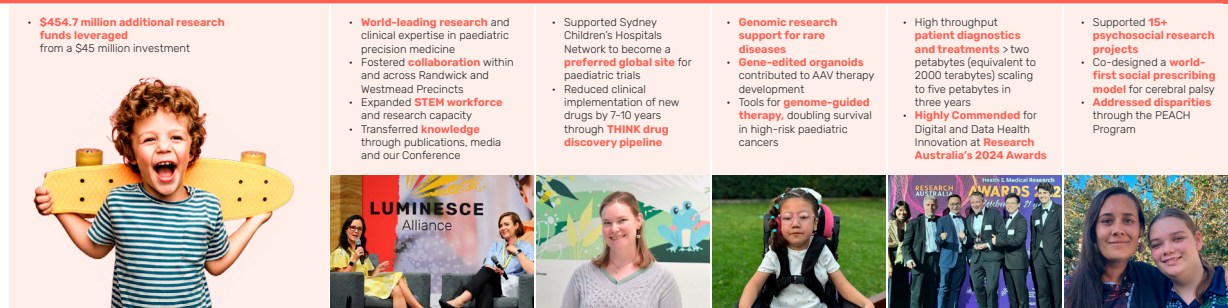
But there's much more to do. Precision medicine should be available to everyone who needs it, regardless of their geography, background, or socioeconomic status. Using precision medicine more widely requires investment, coordination and will.

Delivering impact

Achievements since 2019



Impact for NSW and beyond



The opportunities are endless as technology improves, and our understanding grows.

What is precision medicine?

Precision medicine is a personalised approach to treatment and prevention that uses genomic, lifestyle, and environmental data to guide clinical decisions and improve outcomes. It's especially important for children, as admissions to tertiary paediatric hospitals in NSW are dominated by genetic conditions, while up to 1 in 5 childhood cancers is associated with an underlying genetic predisposition

About Luminesce Alliance

Luminesce Alliance is a not-for-profit cooperative joint venture established with the support of the NSW Government to coordinate and integrate precision medicine research for children with cancer, rare diseases and neurodevelopmental disorders.

Since its inception in 2016, this pioneering partnership has united the Children's Cancer Institute, Children's Medical Research Institute, Sydney Children's Hospitals Network, UNSW Sydney, and University of Sydney to drive paediatric research innovation and translation to clinical care.

