## 2018 Priority-driven Collaborative Cancer Research Scheme

<u>Funding Partners and Research Priorities for 2018 Round-</u> <u>Childhood Cancers of Low Survival Research Priorities</u>



Australian Government









## Cancer Australia (Category A, B, C, D)

#### Cancer Australia's research priorities in childhood cancers of low survival

Towards increasing survival from childhood cancers through a better understanding of the causes of childhood cancers, their improved diagnosis and more effective treatments, Cancer Australia's research priorities in childhood cancers of low survival address the following cancer types and research focus areas:

# Localised and advanced disease for any of the following cancers of low survival in children (0-14 years)\*

- Brain and CNS tumour types astrocytomas, ependymomas and choroid plexus tumours, intracranial/intraspinal embryonal tumours, and other gliomas, such as DIPG;
- Hepatoblastoma;
- Leukaemia type acute myeloid leukaemia;
- Sarcoma types Ewing tumours & related bone sarcomas; fibrosarcomas & other fibrous neoplasms, osteosarcomas; and rhabdomyosarcomas;
- Sympathetic nervous system tumour types neuroblastoma and ganglioneuroblastoma.

**Molecular drivers of childhood cancer** (Common Scientific Outline categories of Biology and Aetiology)

- alterations in chromosomes, oncogenes and tumour suppressor genes, such as fusion oncoproteins;
- endogenous factors in the origin and cause of cancer, such as genes and/or genetic polymorphisms and hereditary predisposition.

**Novel approaches to diagnosis and treatment** (Common Scientific Outline categories of Early Detection, Diagnosis, and Prognosis, and Treatment)

Pre-clinical and trials-based collaborative studies, including;

- genomics-based strategies, such as the use of molecular classification in diagnosis, treatment stratification, and identifying of new therapeutic targets to overcome resistance to conventional treatments;
- development of immune-based therapies, such as adoptive cellular therapies, antibody or antibody-conjugated therapies;
- development of molecular target-based therapies, such as the targeting of fusion oncoproteins.

\* 0-14 years of age is the definition of a child used by the Australian Paediatric Cancer Registry and Cancer Research UK, and is consistent with a definition of <15 years of age used by the American Cancer Society.

## Children's Cancer Foundation (Category D)

The Children's Cancer Foundation will fund bioinformatics research into paediatric cancers of low survival. Projects that utilise bioinformatic analysis or develop bioinformatic tools to better understand the biology of different paediatric cancers and identify potential new targets for therapies are encouraged.

\*Bioinformatics is defined as the analysis of biological information, using computers and statistical techniques, to accelerate and enhance cancer research including research related to genomes, proteomes, three-dimensional modelling of biomolecules and biologic systems.

### Leukaemia Foundation of Australia (Category B)

Leukaemia Foundation of Australia is committed to supporting innovations that drive rapid advancements in treatments and improved quality of life for people living with blood cancer. This will be achieved through the creation of a blood cancer innovation ecosystem that fosters research and collaboration leading to our goal of zero lives lost to blood cancers. The Leukaemia Foundation of Australia invites applications geared towards supporting research in the following priority areas:

- Understanding the biology of haematological malignancies
- Accelerating the adoption of personalised medicine
- New diagnostics
- Novel therapies
- Innovative clinical trials and/or incorporation real world data
- Epidemiology and prevention research

Research will funded under the following priority:

Paediatric Cancers

## My Room (Category B)

My Room will fund clinical or translational research focusing on paediatric cancers of all types.

Projects that investigate clinical applications of treatments or technologies to enhance prevention, diagnosis, and therapies for paediatric cancers will be considered.

## The Kids' Cancer Project (Category A, C)

The Kids' Cancer Project is seeking to support collaborative research which will have the greatest impact on childhood cancer survival. The Kids' Cancer Project defines a child as an individual up to the age of 18 years old

Research will be funded under the following priorities:

#### Priority 1: Improving survival and treatments

Improving treatments for childhood cancer will have a direct impact on survival rates. The Kids' Cancer Project will gain an understanding of best practice and emerging technologies spanning all modalities of treatment. The Kids' Cancer Project will support research with this focus as a top priority.

#### Priority 2: Late effects

Two-thirds of survivors report at least one chronic medical condition and one-third report at least one severe or life threatening medical condition. Long term effects include learning difficulties, organ toxicity, growth and hormonal deficiencies, infertility and secondary cancers. The Kids' Cancer Project places importance on the ongoing quality of life of survivors of childhood cancer and will invest in research to better elucidate this.