Children’s Cancer Institute

**Zero Childhood Cancer (ZERO)**

DATA ACCESS APPLICATION FORM

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*Version 2.1 – 02 November 2020*

Prepared by the ZERO Childhood Cancer Research Committee

(ZERO RC)

### Zero Childhood Cancer (ZERO) Data Access Application Form

### Background

* 1. **Zero Childhood Cancer**

The Zero Childhood Cancer Program (ZERO) is a joint study of the Children’s Cancer Institute (CCI) and Kids Cancer Centre (KCC) at the Sydney Children’s Hospital, Randwick. Children diagnosed with high risk cancers (<30% chance of 5-year survival, with an impending expansion to include all children and young people with cancer by 2023) are recruited to the study and their tumours subjected to a range of molecular profiling-:

* **Targeted sequencing**

Comprehensive Cancer Panel (v2.0) (386 cancer related genes, custom designed) run on the Illumina NextSeq500 at the Peter MacCallum Cancer Centre (PMCC), Melbourne, run in parallel to matched germline tissue. Tumour samples (n=222) were sequenced to 400x depth with variants analysed by PathOS application developed by PMCC. Panel sequencing is no longer routinely performed.

* **Whole genome sequencing (WGS)**

Illumina HiSeq X sequencers at the Kinghorn Centre for Clinical Genomics (KCCG), Garvan Institute of Medical Research Sydney, Australia; ISO15189 accredited; 90-120x depth; matched germline to 30-40x depth. Reads are aligned to the hs37d5 reference genome using BWA; variant files generated using best practice pipelines

* **RNA sequencing (RNASeq)**

80M read pairs (40M read pairs for a small cohort) is performed on the Illumina NextSeq500 platform at Murdoch Children’s Research Institute (MCRI), Melbourne. Associated bioinformatics analysis for fusion transcripts and global gene expression using custom pipelines developed at MCRI and CCI.

* **DNA methylation profiling**

Illumina Infinium Human Methylation EPIC BeadChip is performed on the Illumina iScan at Australian Genome Research Facility (AGRF). The EPIC BeadChip assesses methylation at over 850,000 CpGs throughout the human genome.

* **Aggregate base clinical information** from (up to) 400 children with high risk cancer of various tissue origins

Clinicians and researchers are invited to complete this **Data Access Application** **(DAA)** to gain access to comprehensive omics together with minimal clinical information to support high-level integrative analysis. This application is based on the exacting standards of the [European Genome-Phenome Archive](https://www.ebi.ac.uk/ega/home). VCF, BAM, FASTQ, TXT and BED data are available.

* 1. **Data Access Policy**

To maximize the utility of the rich data within the ZERO cohort without compromising participant privacy and confidentiality, we have deployed a controlled access data management system. This system enables sharing of de-identified, minimal clinical information, together with individual omics data either in a processed (VCF or TXT) or unprocessed (FASTQ or BAM) data format, conditional to the justification provided by requesting applicants.

Completion of the ZERO DAA (Section 2) and execution of the Data Transfer Agreement (DTA) (Sections 3 & 4) is required before access to Controlled Data can be granted. The ZERO Research Committee will review completed applications within 6 weeks of receipt. The named investigator of each application will be notified in writing the outcome of their application.

* 1. **File Access**

Once downloaded, minimum protection measures are required to protect all ZERO data. Data can be held in unencrypted files on an institutional computer system, with the equivalent of UNIX user group read/write access for one or more appropriate groups but not UNIX world read/write access behind a secure firewall. Laptops holding this data should have password protected logins and screen locks (set to lock after 5 min of inactivity). If held on USB keys or other portable hard drives, the data ***must*** be encrypted.

### Data Access Application

|  |
| --- |
| Researcher  Clinician |

* 1. **Project/Request Overview**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of data required**   |  |  |  |  | | --- | --- | --- | --- | | WGS Tumour | ☐ | Minimal Clinical information |  | | WGS Germline |  | Genomic Processed |  | | RNASeq Tumour |  | Genomic Unprocessed |  | | Methylation Tumour |  | Targeted-Seq Tumour |  | | Targeted-Seq Germline |  |  |  | |
| **Provide a brief overview of the proposed project/clinical request, with specific emphasis on what type of information is being requested and how ZCC data will be used, as well as the proposed timeframe for the project (500 words maximum).** |
| Click or tap here to enter text. |

* 1. **Omics**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Select the ZERO data format required for the proposed project/clinical request. HTS data will be supplied via Microsoft Office file formats** | | | | |
| Germline WGS SNV+indel (Haplotype Caller) | VCF |  | gVCF |  |
| Germline WGS BAM (BWA MEM vs b37d5 + GATK indel realign) | BAM |  |  |  |
| Germline WGS FASTQ | FASTQ.GZ |  |  |  |
| Somatic WGS SNV+indel (Strelka) | VCF |  |  |  |
| Somatic WGS CNV (PURPLE) | TSV |  |  |  |
| Somatic WGS SV (GRIDSS) | VCF |  |  |  |
| Somatic WGS BAM (BWA MEM vs b37d5 + GATK indel realign) | BAM |  |  |  |
| Somatic FASTQ | FASTQ.GZ |  |  |  |
| Tumour RNA FASTQ | FASTQ.GZ |  |  |  |
| Tumour RNA BAM | BAM |  |  |  |
| Tumour RNA expression | TXT |  |  |  |
| Tumour Methylation | iDAT |  |  |  |
|  | | | | |
| **Should BAM/ FASTQ data be requested – provide appropriate justification as to why this format (unprocessed rather than processed) is necessary for the purpose of the proposed project/clinical request.** | | | | |
| Click or tap here to enter text. | | | | |
|  | | | | |
| **Provide detail as to how ZERO data will be stored and what security measures are in place to ensure conformity with the conditions stipulated in Section 1.3** | | | | |
| Click or tap here to enter text. | | | | |
|  | | | | |
| **Provide the name of the human research ethics committee approving the research and the approval number and expiry date. For Researchers Only** *Please attach the relevant ethics approval letter as supporting documentation.* | | | | |
| HREC/IRB/ERB/REB Committee: Click or tap here to enter text.  Approval Number: Click or tap here to enter text.  Expiry Date: Click or tap here to enter text. | | | | |

* 1. **Clinical Information for Researchers**

|  |
| --- |
| **Clinical data (Controlled Access) for ZERO are listed below – select the data required for the proposed project.** |
| |  |  |  |  | | --- | --- | --- | --- | | Diagnosis |  | Disease |  | | Sex |  | Clinical History |  | | Age at diagnosis |  |  |  | |

* 1. **Recipient Institution (“Recipient”)**

Institution Name: Click or tap here to enter text.

Address: Click or tap here to enter text.

Phone: Click or tap here to enter text.

* 1. **Principal Investigator (“Recipient Investigator”)**

Name: Click or tap here to enter text.

Address: Click or tap here to enter text.

Phone: Click or tap here to enter text.

Email: Click or tap here to enter text.

* 1. **Authorised Personnel**

(Personnel at the Recipient Institution to be granted access to the Data).

|  |  |  |  |
| --- | --- | --- | --- |
| ***Name*** | ***Position/***  ***Job Title*** | ***Department/***  ***Division*** | ***Email/***  ***Phone*** |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
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### Agreement Statement and Signatures

By signing this document, I confirm that:

1. the information in this application is correct in all the details provided;
2. I have read and will comply with the Terms and Conditions of use of ZERO Data;
3. adequate financial support is available for this project.
4. I will acknowledge the ZERO Program and appropriate staff in all publications and presentations resulting from Data supplied;
5. (Institutional Head only) I am authorised to execute this agreement on behalf of the Recipient Institution.

|  |  |
| --- | --- |
| **Principal Investigator:** | Click or tap here to enter text. |
|  | Signature |
|  | Click or tap here to enter text. |
|  | Name |
|  | Click or tap here to enter text. |
|  | Date |
|  |  |
| **Co-investigator (duplicate as needed):** | Click or tap here to enter text. |
|  | Signature |
|  | Click or tap here to enter text. |
|  | Name |
|  | Click or tap here to enter text. |
|  | Date |
| **SIGNED on behalf of INSTITUTION**  **by its authorised representative:** | Click or tap here to enter text. |
|  | Signature |
|  | Click or tap here to enter text. |
|  | Name |
|  | Click or tap here to enter text. |
|  | Date |

**Please return the completed Application to ZERO@ccia.org.au**

### Approval

This application is approved subject to the attached Terms and Conditions.

|  |  |
| --- | --- |
| **SIGNED on behalf of ZERO CHILDHOOD CANCER RESEARCH COMMITTEE:** | Click or tap here to enter text. |
|  | Signature |
|  | **Children’s Cancer Institute Australia,**  as administrator of the ZERO Childhood Cancer Program |
|  | Click or tap here to enter text. |
|  | Name |
|  | Click or tap here to enter text. |
|  | Date |

**Terms and Conditions for Use of ZERO Data**

The ZERO Research Committee (**ZERO RC**) has been established by the organisations jointly leading the Zero Childhood Cancer Personalised Medicine Program, Kids Cancer Centre, Sydney Children’s Hospital Network and Children’s Cancer Institute (**CCI**)

The ZERO Research Committee has approved provision of Data to the Recipient strictly subject to these Terms and Conditions. CCI is authorised to give effect to this Agreement on behalf of ZERO. If the Recipient fails to comply with these Terms and Conditions, CCI may terminate this approval and require immediate return or destruction of any Data supplied.

# Definitions

***Agreement*** means the Form, these Terms and Conditions and any Special Conditions noted in the schedule (as amended from time to time) and ***approve*** means execution of this Agreement by CCI.

***Authorised Personnel*** means the persons identified in the Form.

***Commercial Purposes*** means the sale, lease license, disposal or other transfer of the Data to a for-profit organisation. Commercial Purposes also includes uses of the Data by any organisation, including the Recipient, to perform contract research, to screen compound libraries, to produce or manufacture products for general sale, to conduct research activities that result in any sale, lease, license, disposal or transfer of the Data to a for-profit organisation, or any other activity of any kind directed to financial gain or reward.

***Confidential Information*** means any information including information about or in connection with ZERO or which CCI designates as confidential or that is by its nature confidential including but not limited to the Data, but does not include information which:

1. is or becomes part of the public domain unless it came into the public domain by a breach of confidentiality;
2. is obtained lawfully from a third party without any breach of confidentiality;
3. is already known by the Recipient before the date of disclosure to it; or
4. is independently developed by the Recipient without knowledge of the disclosure under this Agreement.

***Data***means the managed access datasets to which the Recipient has requested access as specified in the Form.

***Form*** means the Data Access Application Form executed by the parties to which these Terms and Conditions are attached.

***Intellectual Property*** means all intellectual and industrial property whether registrable or not, throughout the world, including, without limitation:

1. patents, trademarks, service marks, copyright, registered designs, trade names, symbols and logos;
2. patent applications and applications to register trademarks, service marks and designs;
3. all formulae, methods, plans, data, drawings, specifications, characteristics, equipment, designs, inventions, discoveries, improvements, know-how, experience, software products, trade secrets, and other information used by a party in the course of its business; and
4. all copyright works (as that term is understood under the *Copyright Act 1968* (Cth) and related legislation around the world) owned by a party not otherwise covered by this definition.

***Permitted Purpose*** means the purpose specified in the Project Summary in the Form, as amended in the Special Conditions if applicable.

***Project***means the project described in the Form.

***Provider*** means the Children’s Cancer Institute Australia.

***Recipient*** means the Recipient Institution named in the Form.

***Recipient Investigator*** means the Investigator or Investigators named in the Form.

***Research Participant*** means an individual whose data form part of the Data.

***Results*** means all experimental data and results obtained by the Recipient arising from the use of the Data as part of the Project.

***Schedule*** means the schedule to this Agreement, if any, and includes amended Schedules attached to this Agreement with the agreement of CCI and the Recipient from time to time.

***Special Conditions*** means any special conditions varying this Agreement attached as a Schedule*.*

***ZERO*** means the Zero Childhood Cancer Personalised Medicine Program.

***ZERO Partners*** means the research and clinical partners participating in ZERO.

# Use

* 1. CCI authorises the Recipient to use the Data solely for the Permitted Purpose. The Recipient must ensure that only the Recipient Investigator and the Authorised Personnel have access to the Data unless expressly agreed in writing by CCI. CCI may require any proposed recipient of the Data to obtain separate approval from the ZERO RC.
  2. Other than as specifically provided in these Terms and Conditions, no right, title or interest in and to the Data is granted or implied to the Recipient.
  3. The Recipient must:
     1. not use and must not permit the use of the Data for Commercial Purposes;
     2. not attempt to identify or reidentify any Research Participant from the Data, link or combine the Data to other information or archived data available in a way that could re-identify the Research Participants, even if access to that data has been formally granted to the Recipient Institution or is freely available without restriction, nor to obtain any other ZERO patient information other than through a request to the ZERO Research Committee;
     3. ensure the security of the Data at all times by keeping the Data secure in accordance with its policies and procedures and must not give access to the Data, in whole or in part, or any material derived from the Data, to any person who is not the Recipient’s personnel working under the direct supervision of the Recipient Investigator without the prior written consent of CCI. If CCI consents to distribution of the Data to any other persons or entities (“third parties”), the Recipient will remain liable for the conduct of the third parties and must ensure that the third parties are under a legal obligation to treat the Data as though they were a party to this Agreement;
     4. use the Data in compliance with all applicable law, statutes and regulations in the places where the Recipient carries out the research and experimentation and all applicable ethics approvals;
     5. notify CCI within 30 days of any changes to or departures of Authorised Personnel.
     6. implement all appropriate technical and organisational measures against unauthorised or unlawful use of the Data, and against accidental loss, alteration or destruction of, or damage to, the Data;
     7. promptly notify CCI if it becomes aware of or suspects any use of the Data which is inconsistent with the terms of this Agreement, and take all reasonable steps CCI may require in relation to such unauthorised use of the Data, and, if required, provide all reasonable assistance to CCI in order to assist CCI to comply with its obligations under applicable privacy laws ;
     8. notify CCI in writing as soon as reasonably practicable once the project has been completed or terminated; and
     9. pay the cost of transferring the Data within 30 days of receipt of a tax invoice.
  4. The Recipient Institution agrees to destroy or discard the Data once it is no longer required for use in the Project, unless obliged to retain the Data for archival purposes in conformity with audit or legal requirements.
  5. The Recipient Institution accepts that it may be necessary for CCI to alter the terms of this Agreement from time to time. In the event that changes are required, CCI will notify the Recipient Institution of the changes and the Recipient Institution may elect to accept the changes or terminate the agreement by written notice to CCI.
  6. If requested, the Recipient Institution will allow its data security and documentation to be inspected by an agent of CCI to verify that it is complying with the terms of this agreement.

# Rights in Data

* 1. None of the ZERO Partners will have any right, title or interest in any Intellectual Property that is developed, created or invented in the course of the Project unless one or more of the ZERO Partners has contributed to its development, creation or invention. If that is the case the Intellectual Property will be jointly owned by the contributing parties as tenants in common in shares proportionate to their respective intellectual contribution to the development, creation or invention of that Intellectual Property. The joint owners will in good faith consult and decide on measures to be taken to protect and exploit that IP.
  2. The Recipient must notify CCI of any patent application filed in respect of the Project at the time of filing, and provide CCI (or its nominee) with sufficient information to determine whether there has been a breach of clause **Error! Reference source not found.**. If this clause is breached then the Recipient must amend its patent application to eliminate the breach or withdraw the application. The information provided to CCI pursuant to this clause will be treated as confidential to the Recipient.

# Disclosure of Results

* 1. The Recipient must promptly and fully disclose to CCI all Results no later than sixty (60) days after the completion of the Project.
  2. The Recipient agrees that CCI is authorised to disclose the Results to the ZERO Partners for academic and research purposes only on terms of confidentiality as recipients equivalent to the obligations of the Recipient under these Terms and Conditions.

# Publication

* 1. The Recipient must not publish or disclose any information based on or derived from the Results without:
     1. giving CCI an advance copy of the relevant article, presentation, publication, or other proposed form of public disclosure by the Recipient (“Publication”) not less than thirty (30) days prior to submission or disclosure of the Publication; and
     2. receiving consent from CCI to the public disclosure of the Publication. Such consent must not be unreasonably withheld. If CCI does not notify its consent or objection within 14 days of the proposed publication date, the Recipient may proceed with the publication.
  2. If CCI reasonably believes that the Publication might damage the integrity of CCI, ZERO, the Data or Materials, might disclose Confidential Information or might in any way cause reputational harm to CCI or ZERO, CCI must notify the Recipient within the timeframe in clause 1.1(b). CCI and Recipient will then consult and negotiate in good faith the best means of resolving CCI’s concerns while ensuring that the Publication is not delayed by more than 120 days.
  3. The Recipient must appropriately acknowledge ZERO as the source of the Data in any publication permitted under this clause 5. An example of an appropriate acknowledgement is:

"The results <published or shown> here are/were in whole or part based upon data generated by the Zero Childhood Cancer Program.”

* 1. The Recipient agrees to protect the confidentiality of Research Participants in any research paper or publication that is prepared using the Data by taking all reasonable care to limit the possibility of identification.

# Confidentiality

* 1. Except where disclosure is required by law or otherwise permitted under these Terms and Conditions, the Recipient agrees not to disclose Confidential Information without the prior consent of CCI. For the sake of clarity, Recipient may disclose Confidential Information to its legal advisors and members of its scientific and/or institutional advisory boards, provided that such advisors and members are obligated to keep information confidential consistent with these Terms and Conditions.
  2. Notwithstanding the termination of these Terms and Conditions, the Recipient’s obligations under clause 6.1 continue for 10 years from the date this Agreement is executed.

# Liability

* 1. CCI makes no representations and extends no warranties of any kind to the Recipient in relation to the Data or use of the Data. To the maximum extent permitted by law, the Provide excludes any warranties in relation to the Data that would otherwise be implied, including warranties of merchantability or fitness for a particular purpose.
  2. CCI will not be liable for any loss, claim or demand arising in any way whatsoever from the Recipient’s use of the Data or from the unavailability of or break in access to the Data for any reason.