Plan Overview

A Data Management Plan created using DMP Tool

Title: Interrogating Anti-Tumor T-Cells To Develop Adoptive Cell Transfer Immunotherapy for Pediatric High-Grade Glioma

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Funder: Digital Curation Centre (dcc.ac.uk)

Funding opportunity number: 34614

Template: Digital Curation Centre

Project abstract:

Investigators on this proposal have extensive experience in single-cell RNAseq and immunotherapy trials for glioma patients. Notably, we described significant heterogeneity of glioma infiltrating myeloid cells. Separately, we demonstrated that, following peptide-based vaccine immunotherapy, reactive T-cells are detectable in the periphery. Additionally, although complete TCR sequences may vary widely between T-cells and patients, it recently has been demonstrated that TCRs with similar peptide specificity can be determined by assessing short stretches of TCR amino acid sequences within CDR3 areas predicted to bind the peptide (8). We therefore hypothesize that scRNAseq technologies can define antitumor T-cell heterogeneity, and TCR sequences isolated from these cells will allow for generation of TCR-transduced T-cell strategies for pedtiatric gliomas.

Last modified: 07-08-2024

Copyright information:

Interrogating Anti-Tumor T-Cells To Develop Adoptive Cell Transfer Immunotherapy for Pediatric High-Grade Glioma

Data Collection

What data will you collect or create?

TCR sequences

5' Gene Expression data in T-cells

How will the data be collected or created?

Data will be generated at the CHP Genomics Core and analysis will be performed by Aaron Diaz at UCSF

Documentation and Metadata

What documentation and metadata will accompany the data?

Patient tumor type

Sample type (Autopsy, Fresh, archival)

Number of cells

Antigen specificity

Data quality

Aquisition date

Provider location

Ethics and Legal Compliance

How will you manage any ethical issues?

All studies will be completed under an approved IRB protocol, or written exemption from the University of Pittsburgh IRB

How will you manage copyright and Intellectual Property Rights (IP/IPR) issues?

The University of Pittsburgh Innovation Institute will be the primary contact for all issues regarding IP/IPRs

Storage and Backup

How will the data be stored and backed up during the research?

Data will be stored on Basecamp.com, backed up on an external hard drive housed at the University of Pittsburgh and stored on network drives at the University of Pittsburgh. Lab notebooks will be kept in the lab at which work was completed. Aaron Diaz at UCSF will be responsible for backup and recovery of data. In case of an incident involving complete loss of data, and absence of possible data recovery, experiments will be repeated.

How will you manage access and security?

basecamp is monitored by Dr. Kohanbash. The external hard drive will be used to back up all data at least 1 time/week. The University of Pittsburgh cloud storage allows for secure sharing of data between investigators.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

All data will be stored for a minimum of 10 years from the time of collection. TCR data may remain off of public serves until approval is received from the University of Pittsburgh Innovation Institute.

What is the long-term preservation plan for the dataset?

As soon as feasible data will be uploaded to ArrayExpress.

Data Sharing

How will you share the data?

Positive and negative date, and protocols, will be shared through publication, presentation at national and international meetings. Additionally, data will be uploaded on ArrayExpress for sharing.

Are any restrictions on data sharing required?

Any data involving IP/IPR will require authorization from the University of Pittsburgh Innovation Institute and a possible CDA.

Responsibilities and Resources

Who will be responsible for data management?

Drs. Diaz and Kohanbash will be primarily responsible for data management. All investigators will also assume responsibility for data management.

What resources will you require to deliver your plan?

Technical expertise to be provided by Dr. Diaz and Dr. Kohanbash