BLGSP

Burkitt Lymphoma Genome Sequencing Project

The National Cancer Institute (NCI) has established a collaborative effort with the Foundation for Burkitt Lymphoma Research (FFBLR) to generate genomic data for Burkitt Lymphoma (BL) and make the data available at NCI's Genomic Data Commons. The Burkitt Lymphoma Genome Sequencing Project (BLGSP) will identify genetic changes present in BL tumors, analyze the data to identify diagnostic, prognostic, or therapeutic markers or targets, and publish the results. The ultimate goal of the BLGSP is to uncover ways to improve the detection and treatment of BL.

Project Information

- All subtypes of BL will be studied: sporadic (adult and pediatric), endemic, HIV-associated (**Pediatric BL cases are completed)**
- Sequence of genomes and transcriptomes (mRNA and miRNA) from case-matched tumor-normal pairs from BL patients will be generated
- Associations between clinical parameters and genetic abnormalities will be investigated
- Anticipated project timeline :
  - **Phase 1:** Document development, investigator recruitment, and tissue accrual. *This phase is underway for adult BL cases.*
  - **Phase 2**: Genome sequencing and analysis. *This phase is underway for adult BL cases.*
  - **Phase 3**: Validation of findings in a new population cohort (6 months after the cases are identified)
  - **Phase 4**: Publication (3-6 months after the data are generated). *This phase is complete for pediatric BL cases.*

Institutional Requirements

BLGSP Tissue Source Sites (TSS):

- Must obtain Institutional Review Board (IRB) approval for the BLGSP study and patient consent forms.
- Should follow BLGSP SOPs for tissue collection, storage, and pathology requirements.
- Should provide BLGSP-required clinical data: Enrollment data, 1 and 2 year follow-up data.

TSS investigators have the opportunity to participate in working group meetings as well as co-author the first manuscript generated from BLGSP data.

Tissue Requirements

Participating institutions (Tissue Source Sites, TSSs) should use as much as possible the standard operating procedures (SOPs; https://ocg.cancer.gov/sites/default/files/BLGSP_SOP_manual.pdf) developed by the NCI's Office of Cancer Genomics (OCG) to prospectively collect tissue from BL patients. Retrospective samples will be considered if those tissues meet the project's technical requirements.

Briefly:

- Tumors from untreated patients diagnosed and confirmed by pathology as Burkitt Lymphoma (minimum tumor tissue biopsy size of 10 x 10 x 2 mm)
- Tumor central pathology confirmation requires either an FFPE block or 8-10 unstained slides
- Tumors with a minimum of 50% tumor nuclei and ~80% viable cells
- Case-matched normal tissue or DNA in sufficient quantities such as 10 mL blood, 3 buccal swabs, ~100 mg of normal tissue or 2-3 ug of good quality DNA from those tissues
- In lieu of frozen tissue (tumor or normal), FFPE tissue may be used if it meets the following requirements:
  - At least 10-20 mg of tissue
  - Fixative buffer should have been at neutral pH and noted
  - The date that the tissue was put in FFPEs should be noted
- No prior neo-adjuvant therapy for the submitted tumor type
- No prior diagnosis of a malignant neoplasm

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Cases where tumor tissue is available, but do not meet one or more of the above requirements can still be used in the project as validation cases for the main discovery cohort.