PBTC-036 – Summary for Patients and Families

Title: PBTC-036, A Molecular Biology and Phase II Study of Imetelstat (GRN163L) in Children with Recurrent High-Grade Glioma, Ependymoma, Medulloblastoma/Primitive Neuroectodermal Tumor and Diffuse Intrinsic Pontine Glioma

This is a brief summary of a clinical trial, a type of therapeutic research study. Clinical trials include only patients who choose, or whose parents permit them to take part in the research study. Participation is entirely voluntary.

Who might be eligible to participate in PBTC-036?
Children, who are between 1 and 21 years old and have a medulloblastoma/PNET, high-grade glioma, ependymoma or diffuse intrinsic pontine glioma (DIPG), which continues to grow or has come back (recurred) after being treated with standard therapies, may be eligible. Patients will also need to have brain tumor tissue available from a prior surgery for laboratory research. Children’s medical and neurological status needs to be stable to be eligible for PBTC-036. This study has two components. Patients who are planning on having surgery can participate in the Molecular Biology component and those who are not having surgery can participate in the Phase II component.

Study participants will need a variety of medical tests to assess whether they can participate in PBTC-036. These tests may include a medical history, physical examination, blood tests and scans (MRI) of the brain and spine. Other tests may be required if doctors believe they are necessary. About 110 children throughout the United States will take part in PBTC-036.

Why is PBTC-036 being done?
In this research study, we are testing an experimental drug called Imetelstat on four types of brain tumors. We are now studying to see how well it works in children with brain tumors. Our hope is that this drug will be a more effective treatment for childhood brain tumors.

Human cancers must maintain their telomere lengths to divide/grow without limitation. Telomeres are the ends of chromosomes, which contain cells’ genetic material. Most human cancers use telomerase to maintain telomere length. Imetelstat works by stopping telomerase from working. Recent research shows that telomerase is active in the majority of pediatric solid tumor cancers. We would like to find out if stopping telomerase from working in children with brain tumors is an effective treatment.

The purposes of this research study are:

1. To find out how effective imetelstat is in the treatment of malignant glioma, diffuse brain stem glioma, medulloblastoma and ependymoma.
2. To learn what side effects may occur when imetelstat is given.
3. To learn how the body processes imetelstat by studying the levels of the drug in the blood.
4. To learn how certain tumors respond to imetelstat by studying the characteristics of these tumors and blood samples in a laboratory.
5. To learn how the tumor responds to imetelstat by using special brain scans.
What is involved in this study?
Imetelstat is an intravenous (IV) medication that is given by infusion given through a tube (catheter) placed in a large vein in the arm or chest. This will be given over a two-hour period. Study participants will receive imetelstat on Day 1 and Day 8 of a 21-day course. Study participants will receive up to 34 courses of therapy.

For patients participating in the molecular biology component of the study, they will have surgery to remove all or part of their brain tumor after receiving one (1) dose of imetelstat. Your child will receive imetelstat prior to and after surgery. There is little experience with giving imetelstat to patients shortly before a major surgical procedure. Your child could experience a surgical complication as a result of receiving imetelstat prior to the surgical procedure. Based on what is currently known about imetelstat, such complications are not anticipated. Some of the removed tumor tissue will be used in the lab to study the effect of imetelstat on brain and or spine tumors. Patients participating in the molecular biology component will NOT be having surgery just to obtain tumor tissue for this study.

What are the risks of participating in PBTC-036?
Doctors watch study participants very carefully for any side effects or other problems. However, doctors do not know all the side effect that may occur. Side effects may be mild or very serious. Other medications may be given to lessen side effects. In some cases, side effects may be long lasting or may never go away. This is also a risk of death. Many side effects go away soon after your child stops taking imetelstat. Some of the side effects of imetelstat may be nausea, constipation, loss of appetite, fatigue and shortness of breath. Other side effects of imetelstat may be fewer red blood cells, white blood cells and platelets. There may also be an abnormality in a test for blood clotting ability. The health care team may give study participants medicines to help lessen side effects.

QUESTIONS ABOUT PBTC-036?
If you would like more information, please contact the PBTC member institution closest to you. You can also contact the doctor in charge of this study:

Maryam Fouladi, MD
Cincinnati Children’s Hospital Medical Center
Department of Hematology / Oncology
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Other information is available through the following:

The National Cancer Institute's (NCI) Cancer Information Service at 1-800-4-CANCER (1-800-422-6237) or through the NCI’s Web site such as www.cancer.gov and www.cancer.gov/clinicaltrials. There is additional accurate and reliable information at www.cancernet.org