

**CAROLINAS HEALTHCARE SYSTEM
CONSENT TO PARTICIPATE IN A RESEARCH STUDY**

A Phase II Study using CliniMACS® Devise for CD34⁺ cell Selection and T cell Depletion for Graft-Versus-Host Disease Prophylaxis in Alternative Donor Stem Cell Transplant Recipients

Adult and Parents of Minor PBSC Donors

When we say “you” in this consent form, we mean you or your child; “we” means the doctors and other staff.

INTRODUCTION

Dr. Andrew Gilman and his associates are asking you to participate in this research study that is being conducted at Levine Children’s Hospital (LCH)/Carolinas Medical Center (CMC)/Carolinas HealthCare System (CHS).

You are being asked to take part because you are a possible donor for someone who has a disease for which a stem cell transplant (transfer of healthy immature blood-forming cells) is needed but no closely matched related donor (person giving the stem cells) is available. Blood tests will be performed on possible donors. It is possible that you will be chosen as the preferred donor.

One source of bone marrow (soft tissue inside of bones) stem cells is the blood, which circulates throughout the body in arteries and veins. In addition to red cells (carry oxygen from the lungs), white cells (fight infections) and platelets (stop bleeding), blood contains small numbers of bone marrow stem cells. It is known that when normal people are treated with a chemical normally made in small amounts in the body called G-CSF (granulocyte colony stimulating factor), increased numbers of peripheral (blood in your vein) blood stem cells (PBSC) leave the marrow and enter the blood stream. These cells can be collected along with other white cells by a process called leukapheresis. During this process, blood is removed from a vein in your arm, neck or groin (upper part of your leg), passed through a machine, which removes the white cell part containing the stem cells, and is returned to the body. When in the machine, the blood is separated and the part that has the stem cells is removed (like taking cream off of milk). Leukapheresis is a standard procedure in blood banks for collecting platelets and white cells from healthy donors.

The purpose of the study on which the person receiving your PBSC is being treated is to evaluate the benefits and safety of using the CliniMACS® device to select for CD34⁺ (early bone marrow stem cells have this protein) cells and deplete (reduce the number of) T cells (cells that fight infections) from blood stem cells to reduce graft versus host disease (GVHD). When T cells from a donor attack the person having a transplant, it is called GVHD. This is an investigational treatment which means that it has not been approved by the U.S. Food and Drug Administration (FDA) for this indication. The CliniMACS® CD34+ Reagent System from Miltenyi Biotec, Inc. was approved by the FDA in January, 2014 as a Humanitarian Use Device for the processing of PBSC to obtain a CD34-enriched stem cell collection for adults with acute myeloid leukemia in first complete remission undergoing PBSC transplant from a matched related donor without the needs for medications to prevent GVHD.

Approximately 90 patients will take part in this study at Levine Children's Hospital/Carolinas Medical Center.

HOW THE STUDY WORKS

If you agree to participate in this study, you will have testing to see if there are reasons why you should not donate PBSC. If you can donate for your family member, you will be given G-CSF shots under the skin. You will then have the leukapheresis procedure. This evaluation and treatment are not investigational. It is all explained in detail in a separate consent that will be explained to you and which you will sign entitled "Levine Children's Hospital Information and Consent for Peripheral Blood Stem Cell Donation."

Length of Study

If you agree to donate peripheral blood stem cells (PBSC), your time at the hospital will be approximately 1 to 4 days for the leukapheresis procedure. This will not require staying in the hospital overnight. You will have 4 days of injections of G-CSF before collection of your PBSC.

RISKS

This study has several risks:

PBSC collection

As discussed above, the evaluation and treatment for PBSC donation are not investigational. The risks are explained in detail in a separate consent that you will sign.

Blood Drawing

Risks associated with blood drawing may include pain, bruising, and infection. Rarely, a person faints.

To decrease the chance of graft failure, a large dose of PBSC is given to the recipient. It is possible that not enough PBSC will be obtained from your collection. If this happens, there is a small chance that your PBSC will never be given to the patient.

RESEARCH TESTING (OPTIONAL)

There will be an optional research test as part of this study. You can choose to participate for this test but it is okay if you don't.

If you participate, you will be tested for a protein known as Killer Immunoglobulin-like Receptor or 'KIR'. KIR is a protein found on the surface of Natural Killer (NK) cells. Natural Killer cells are part of the immune system. They help to fight infections and cancerous cells in the body.

The research blood test is to see if the outcome of this type of transplant will be affected by the donor KIR type. This test has not been approved by the Food and Drug Administration (FDA) except for use in research studies. KIR typing may not be performed on donors for all transplant recipients. Your blood will not be drawn if KIR typing will not be done.

The research blood sample will be 20 mL (4 teaspoons). Information from these tests will be provided to the patient's doctor, who may use it to select a donor if the patient has leukemia.

_____ Yes, I consent to a blood test that will find out what KIR are on my natural killer (NK) cells.

_____ No, I do not consent to a blood test that will find out what KIR are on my natural killer (NK) cells.

EXCLUSION CRITERIA

You should not participate in this study if you are pregnant, or have Human Immunodeficiency Virus (HIV) or active hepatitis.

BENEFITS

There will be no medical benefit to you from participation in this procedure. The information gained from this study may benefit others needing a PBSC transplant.

ALTERNATIVE PROCEDURES/TREATMENTS

You do not have to participate in this research study. You may decide not to donate stem cells, in which case another donor will be found.

ADDITIONAL COSTS

The transplant patient's family and their insurance carrier are responsible for payment of all charges associated with the transplant, including the leukapheresis and any complications of the leukapheresis. There will be no cost to you.

COMPENSATION

In the event that you are harmed as a result of your participation in this study, we will provide or arrange for treatment as necessary. This treatment, as well as other medical expenses, will be billed to the transplant family and their insurance carrier in the usual manner.

No other form of compensation has been set aside. However, by signing this form, you do not waive any of your legal rights.

You will not be paid for your participation in this study.

WITHDRAWAL

Your participation in this study is completely voluntary. You should feel under no pressure to be in the study. If you decide not to be in the study, it will not in any way harm your relations with your doctors or with Carolinas HealthCare System. You are free to stop being in the study if you change your mind after entering it. This would not harm your relations with your doctors or Carolinas HealthCare System.

The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, have failed to follow instructions, or because the entire study has been stopped.

We will tell you about new medical findings that may affect your willingness to continue in the study.

CONFIDENTIALITY

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a patient. Your record for this study may, however, be reviewed and/or photocopied by Miltenyi Biotec, Inc., the manufacturer of the CliniMACS® device used to process the stem cells, by Carolinas HealthCare System, or by representatives of the Food and Drug Administration or other government agencies. To that extent, confidentiality is not absolute.

A description of this clinical trial will be available on www.ClinicalTrials.gov, as required by U.S. law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

AUTHORIZATION

If you wish to take part in this clinical study, you will be asked to sign this consent form. It allows the study sponsor and the study investigator to collect, process and pass on to the sponsor organizations any relevant personal health information collected from you during the study. These are activities routinely carried out during all clinical studies.

You have been told that personal information about you (including sensitive personal health information, such as your medical history and your racial/ethnic origin if relevant to the study) will be reviewed, collected on a computer database, stored in electronic or manual files, audited, and/or otherwise processed by:

- the clinical study investigator, Dr. Gilman, and research staff,
- Miltenyi Biotech, Inc.,
- regulatory or other governmental authorities of the United States and other countries,
- Carolinas HealthCare System employees,
- other persons or agencies as required by law or allowed by federal regulations.

You have been told that your personal data are being collected and processed to:

- check your suitability to take part in the study,
- compare and pool treatment results with those of other subjects in clinical studies,

You have been told that your personal information may be processed within the U.S. or elsewhere in the world or transferred to or from the U.S. for review, processing and/or storage by an associated company or a carefully selected third-party organization. By signing this document, you explicitly consent to the transfer of your personal information, including sensitive personal information, collected during this clinical study, for review, processing and/or storage. Your personal health information may be further shared by the groups above. If shared by them, the information will no longer be covered by the Privacy Rule. However, the groups are committed to keeping your personal health confidential.

You may refuse this authorization to transfer your personal information. If you choose not to agree to this authorization, you might be ineligible to participate in the study. If you decide not to sign this authorization, that will not harm your relations with your doctors or with Carolinas HealthCare System.

You have the right to inspect your medical record at any time. Your research record may be unavailable until the conclusion of the study. At that point, it will be available. Please speak with the study doctor if you desire to access your record.

You have been told whenever your personal information is processed, it will be kept confidential and secure, to the best of our ability. It will be used only for the purpose for which it was collected.

This authorization does not have an expiration date. You have been told that according to the guidelines for good clinical practice, the study investigator and sponsor will keep your personal information for at least 6 years. If you do not withdraw this authorization in writing, it will remain in effect indefinitely. If you wish to revoke authorization to use your personal information, you will notify the study doctor in writing at:

Andrew Gilman, MD
Director, Pediatric Blood and Marrow Transplantation
Levine Children's Hospital
Carolinas Medical Center
PO Box 32861
Charlotte, NC 28232-2861
Ph: (704) 381-6800

Some of the data obtained from your record prior to your revocation may still be used if considered necessary for the study.

FINANCIAL INTERESTS OF THE INVESTIGATOR

The doctors will receive no benefits in any form from the company that manufactures the investigational device being tested in this study.

QUESTIONS

The researchers doing the study at LCH/CMC are Dr. Gilman and his associates. You may ask them any questions you have now. If you have questions later, you may contact them at (704) 381-6800.

The Institutional Review Board is a group of people who review the research to protect your rights. If you have questions about the conduct of this study or about your rights as a research subject, you may call the chairperson of the Institutional Review Board of Carolinas HealthCare System for information regarding patients' rights in a research study. You can obtain the name and number of this person by calling (704) 355-3158.

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CONSENT

I have read the above information. I have asked any questions I had, and those questions have been answered. I agree to be in this study and provide authorization for use of my personal health information. Dr. Gilman, one of his associates, or their designee will give me a copy of this form.

Patient (Representative*) Print Name **Date** **Time**

Patient (Representative*) Signature **Date** **Time**

Signature of Person Obtaining Consent **Date** **Time**

Investigator Signature **Date** **Time**

*Identity of representative:

_____ Next of Kin

_____ Parent/Guardian

_____ Healthcare Power of Attorney