INTRODUCTION
Your doctor has asked you to consider participating in a laboratory research study, as you are infected with the human immunodeficiency virus (HIV). HIV is the cause of acquired immunodeficiency syndrome (AIDS), which leads to a progressive loss of body defenses against infections. White blood cells (WBCs), especially lymphocytes, are responsible for the coordination of body defenses.

Data from a patient in Germany suggest that Chemotherapy may affect pockets in the body where HIV usually hides. Thus the study will recruit persons who have completed multiple cycles of chemotherapy for either Hodgkins or non-Hodgkins lymphoma while receiving antiretroviral therapy and who currently are without any evidence of lymphoma. Persons not receiving chemotherapy but who are currently on a stable antiretroviral regimen will also be enrolled.

Before you decide to participate, it is important that you know the reasons you are being asked to give your WBCs by leukapheresis.

You are being asked to give your WBCs (including lymphocytes) by continuous blood flow cell separation. The isolation of WBC from the other components of the blood is called leukapheresis. The leukapheresis procedure involves a machine able to collect WBCs. Less than 2% of your blood lymphocytes will be collected during this procedure. It is well known that 98% of your total lymphocytes are not in blood but in the lymphatic compartments (lymph nodes, spleen, small bowel) and will not be collected. Your risk of developing an infection due to the temporary decrease of lymphocytes in your blood is extremely low.

This is a consent form. It gives you information about this study. Before you decide to give your WBC by leukapheresis, we ask that you read this form carefully in its entirety and that you ask as many questions as you need to fully understand the study. This form explains the procedure, potential risks and discomforts as well as benefits of undergoing leukapheresis. If you agree to take part in this study, you will be asked to sign this consent form. You will get a copy to keep.

WHY IS THIS STUDY BEING DONE?
The reason for collecting WBCs by leukapheresis is to obtain as large a number of cells as possible, which would otherwise be impossible to collect by smaller blood samples. This study has two purposes: 1) to develop standardized techniques to measure the size of the HIV reservoir that can be used by investigators at the University of Pennsylvania in future studies involving HIV/AIDS; and 2) to evaluate the possibility that chemotherapy effects the size of the HIV reservoir (places in the body where HIV can hide) in persons on therapy.
WHAT DO I HAVE TO DO IF I AM IN THIS STUDY?
If you agree to participate in this study, you will come to the Hospital of the University of Pennsylvania for 2 visits.

**Screening Visit**
You will be seen in the MacGregor clinic on 3 Silverstein for this visit.

At this screening visit, you will be asked to read and sign this consent form that explains the study and what will be expected of you. After that you will have about 4 teaspoons of blood drawn for blood tests including an HIV viral load, hematology, CD4 count and a pregnancy test.

In addition, you will have a brief physical exam, including vital signs, and will give a detailed medical history, including any medicines you have taken in the past or are now taking.

**Leukapheresis Visit**
If the screening visit results show that you still qualify for the study, you will come to the Apheresis and Blood Donation Center on 3 Ravdin for this visit.

Leukapheresis is conducted with an automatic machine that is capable of collecting WBC by continuous flow cell centrifuge. The procedure removes blood from a vein, usually in your arm. The blood is then passed through a centrifuge instrument, where WBC’s kept and stored and the rest of the blood is returned to you in another vein. The equipment used is sterile and never re-used. The procedure requires a needle to be placed in both arms, i.e. two needles. During the procedure, you will receive two solutions, saline and a low dose of an anticoagulant, through your vein. You will sign a separate consent before you have the procedure. It will take up to three hours. A doctor will be available on call in the hospital and a nurse will be in attendance and in charge of your immediate medical care.

In addition, 100 ml of plasma will be saved.

This entire procedure will take place only once.

**Other**
If you agree, any leftover blood and apheresis samples may be stored (with no information that will identify you) and used for future HIV-related research. No genetic research will be conducted. These samples may be stored for an indefinite period of time. Results of testing performed on these samples may not be given to you.

Please indicate now if you agree to have leftover samples be used for future HIV-related research. You may change your mind at any time and your samples will be destroyed.

_______ YES  ________ NO

**HOW MANY PEOPLE WILL TAKE PART IN THIS STUDY?**
20 people will take part in this study: 10 will be on chemotherapy and 10 will be controls (HIV+, suppressed viral load and on HAART). The University of Pennsylvania is the only study center.
HOW LONG WILL I BE IN THIS STUDY?
You will be in the study for about 30 days, during which you will be seen for the two visits described above.

WHY WOULD THE DOCTOR TAKE ME OFF THIS STUDY EARLY?
This study may also be stopped at any time by your physician, NIH (the study Sponsor), or the Food and Drug Administration (FDA) without your consent because:

- The Primary Investigator feels it is necessary for your health or safety. Such an action would not require your consent, but you will be informed if such a decision is made and the reason for this decision.
- You have not followed study instructions.
- The Sponsor, the study Principal Investigator, or the Food and Drug Administration (FDA) has decided to stop the study.

If you decide not to participate, you are free to leave the study at anytime. Withdrawal will not interfere with your future care at the University of Pennsylvania Health System.

WHAT ARE THE RISKS OF THE STUDY?

Blood Draw
Occasionally, bruising, swelling, redness or tenderness at the blood drawing site and lightheadedness (fainting) or infection could occur.

Leukapheresis
Leukapheresis is commonly used to treat patients with certain blood diseases, as well as to collect cells and plasma in healthy donors at the University of Pennsylvania or at the Red Cross.

Leukapheresis is considered safe, but some discomforts may occur during the procedure. These include discomfort and bleeding at the site where the needles are inserted, headache, muscle cramping, feeling of anxiety, rarely hypotension (decrease in blood pressure), chills, nausea, vomiting, dizziness, and fainting. There may also be a slight increased bleeding tendency for up to twenty minutes after the procedure due to the temporary presence of the anticoagulant. There is also a risk of infection at the site. If a severe discomfort should occur during leukapheresis, the procedure will be stopped immediately and you will be monitored until you are ready to go home.

Reproductive risk:
If you are a woman able to become pregnant, you must use an acceptable form of birth control to prevent pregnancy. Appropriate forms of contraception include oral contraceptive pills (OCPs) with other hormonal contraceptives like (vaginal products, skin patches, or implanted or injectable products) or mechanical products such as intrauterine device or barrier methods (diaphragm, condoms, spermicides) to prevent pregnancy.

ARE THERE BENEFITS TO TAKING PART IN THIS STUDY?
No benefit is foreseen to you. However, your participation may contribute to a better understanding of HIV reservoirs with HIV on chemotherapy. Ultimately, the knowledge gained through this study may be useful to you and to other persons infected with HIV.
WHAT OTHER CHOICES DO I HAVE BESIDES THIS STUDY?
The alternative is not to participate in this study.

HIPAA Authorization

WHAT INFORMATION ABOUT ME MAY BE COLLECTED, USED OR SHARED WITH OTHERS?
Results of laboratory tests and clinical procedures will be placed in your medical record and may be accessible to employees of the health system that are not part of the research team. This information may also be viewed by your insurance company during routine audits.

We will do our best to make sure that the personal information in your medical record will be kept private. However, we cannot guarantee total privacy. Your personal information may be given out if required by law. If information from this study is published or presented at scientific meetings, your name and other personal information will not be used. If this study is being overseen by the Food and Drug Administration (FDA), they may review your research records.

The following personal health information will be collected, used for research, and may be disclosed during your involvement with this research study:

- Name, address, telephone number, date of birth
- Personal and family medical history
- Current and past medications or therapies
- Results of tests and procedures you will undergo during this research study
- Social Security Number

WHY IS MY INFORMATION BEING USED?
Your information is used by the research team to contact you during the study. Your information and results of tests and procedures are used to:

- do the research
- oversee the research
- to see if the research was done right.

WHO MAY USE AND SHARE INFORMATION ABOUT ME?
The following individuals may use or share your information for this research study:

- The investigator for the study and the study team
- Other authorized personnel at Penn

WHO, OUTSIDE OF THE SCHOOL OF MEDICINE, MIGHT RECEIVE MY INFORMATION?
As part of the study, the Principal Investigator, the study team and others listed above, may disclose your personal health information, including the results of the research study tests and procedures. This information may be disclosed to those listed below:

Individuals or organizations responsible for administering the study:

- Government Agencies: Data from this study will be made available to the National Institutes of Health/Division of AIDS (DAIDS)/National Institute for Allergy and Infectious Disease (NIAID), for them to evaluate the safety and efficacy of the treatments being used in this study.
UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM

Consent Form for Leukapheresis and Chemotherapy Study

Regulatory and safety oversight organizations

• The Office of Human Research Protections

Once your personal health information is disclosed to others outside the School of Medicine, it may no longer be covered by federal privacy protection regulations.

The Principal Investigator or study staff will inform you if there are any additions to the list above during your active participation in the trial. Any additions will be subject to University of Pennsylvania procedures developed to protect your privacy.

HOW LONG MAY THE SCHOOL OF MEDICINE USE OR DISCLOSE MY PERSONAL HEALTH INFORMATION?

Your authorization for use of your personal health information for this specific study does not expire.

Your information may be held in a research database. However, the School of Medicine may not re-use or re-disclose information collected in this study for a purpose other than this study unless:

• You have given written authorization
• The University of Pennsylvania’s Institutional Review Board grants permission
• As permitted by law

CAN I CHANGE MY MIND ABOUT GIVING PERMISSION FOR USE OF MY INFORMATION?

Yes. You may withdraw or take away your permission to use and disclose your health information at any time. You do this by sending written notice to the investigator for the study. If you withdraw your permission, you will not be able to stay in this study.

WHAT IF I DECIDE NOT TO GIVE PERMISSION TO USE AND GIVE OUT MY HEALTH INFORMATION?

Then you will not be able to be in this research study.

You will be given a copy of this Research Subject HIPAA Authorization describing your confidentiality and privacy rights for this study.

By signing this document you are permitting the School of Medicine to use and disclose personal health information collected about you for research purposes as described above.

WHAT ARE THE COSTS TO ME?

There will be no cost to you for participating in this study. All clinical and professional services, diagnosis and laboratory works that are part of this research will be provided at no cost to you.

WILL I RECEIVE ANY PAYMENT?

You will receive $250 compensation for time, transportation cost and meals for participating in this study. You will receive $50 for the screening visit and $200 for the leukopheresis visit.

WHAT HAPPENS IF I AM INJURED?

We will offer you the care needed to treat injuries directly resulting from taking part in this research. We may bill your insurance company or other third parties, if appropriate, for the costs of the care you get for the injury, but you may also be responsible for some of them.
There are no plans for the University of Pennsylvania to pay you or give you other compensation for the injury. You do not give up your legal rights by signing this form.

If you think you have been injured as a result of taking part in this research study, tell the person in charge of the research study as soon as possible. The researcher's name and phone number are listed in the consent form.

WHAT ARE MY RIGHTS AS A RESEARCH SUBJECT?
Taking part in this study is completely voluntary. You may choose not to take part in this study or leave this study at any time. You will be treated the same no matter what you decide.

We will tell you about new information from this or other studies that may affect your health, welfare, or willingness to stay in this study. If you would like the results of the study, let the study staff know.

WHAT DO I DO IF I HAVE QUESTIONS OR PROBLEMS?
For questions about this study or a research-related injury, contact:

- Pablo Tebas, MD
- telephone number 215-349-8092

For questions about your rights as a research subject, contact:

- Director of Regulatory Affairs at the University of Pennsylvania by phoning (215) 898-2614

When you sign this form, you are agreeing to take part in this research study. This means that you have read the consent form, your questions have been answered, and you have decided to volunteer. Your signature also means that you are permitting the University of Pennsylvania Health System and the School of Medicine to use your personal health information collected about you for research purposes within our institution. You are also allowing the University of Pennsylvania Health System and the School of Medicine to disclose that personal health information to outside organizations or people involved with the operations of this study.

If you have read this consent form (or had it explained to you), all your questions have been answered and you agree to take part in this study, please sign your name below.

Participant’s Name (print)  Participant’s Signature and Date

Study Staff Conducting Consent Discussion (print)  Study Staff Signature and Date

IRB Approved: From: 24-Apr-2014 To: 17-Feb-2015