Official Title: Anti-SARS Cov-2 T Cell Infusions for COVID 19 (BATIT)

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H-47739- BAT IT: BANKED ANTI-SARS COV-2 T CELL INFUSIONS FOR TREATMENT OF COVID 19

Concise and Focused Presentation

* We ask you to take part in a research study to treat COVID 19.

* You are eligible to take part in this research study because you have tested positive for SARS-CoV2, the agent that causes COVID19, you are currently suffering from COVID19 and have been identified as being at risk for serious complications because of COVID19.

* We want to see if specially designed immune cells called virus-specific T-cells that come from a donor who has previously recovered from COVID19 and who is a partial match to you may reduce the severity of the illness for you.

*To confirm that your 'tissue-type' also known as 'HLA-type' is compatible (i.e. at least partially matches) the tissue-type or HLA-type of an available virus-specific T cell product obtained from a donor who has recovered from COVID19, we will require a sample of blood to identify your HLA-type first.

*This study has 2 parts. The first part of the study will be to determine the maximum tolerated dose of virus-specific T-cells. This is called the dose-escalation phase. The second part of the study is a randomized trial to compare the effectiveness of administering virus-specific T-cells to routine hospital care received for treatment of COVID19.

* If you take part in the dose-escalation phase or are randomized to receive virus-specific T-cells in the second part of the study and we find a virus-specific T cell product that partially matches with you, you will receive an intravenous infusion of the donor T cell product while you are in the hospital and then you will have blood drawn to find out how you respond to the treatment. If you are randomized the standard treatment arm, you will not receive the cells.

* Study participation is 6 months after the infusion of T cells, or 6 months from the date you sign the consent form (standard of care arm).

* Your doctors will follow you after your infusions.

* This study has possible risks
- These T cells might attack other parts of your body and cause graft versus host disease including damage to your blood forming system resulting in the need for transfusion of blood products and/or need for steroid treatments or immunosuppression.
- The T cells might not last long because your immune system might attack them. This means the cells might not treat your virus infection.
- A rare situation may mean you could develop a potentially fatal problem called cytokine release syndrome which can result in death.
- A loss of confidentiality.
- We may not know all the risks.

* Potential benefits:

- The cells may protect you from serious complications like need for mechanical ventilation support, ICU care and death because of COVID19.

You may choose not to take part in this study.

Background

In this consent "you" refers to you. You are invited to take part in a research study. Please read this information and feel free to ask any questions before you agree to take part in the study.

You have an infection with SARS-CoV-2, the virus that causes COVID19 and you have been identified as being at high risk for needing for ICU-level care, mechanical ventilation or death as a consequence of progression of this illness.

SARS-CoV-2 has been shown to invade the lower respiratory tract resulting in a condition known as acute respiratory distress syndrome (ARDS) the complications of which can induce multiorgan failure and death in high risk individuals. Based on published reports on this disease, we have identified that individuals who are older than the age of 65, or who have chronic health illnesses such as obesity, hypertension, diabetes, cancer or are immunosuppressed etc. as being at higher than average risk for developing ARDS and dying from this illness. The reason for this higher risk remains unknown although it has been postulated that the immune system fails to eradicate (clear) the virus in these individuals. Your treating team has identified that you meet criteria for being "at high risk" for complications from COVID19 and thus you are being offered this treatment which aims to restore the immune response to the virus.

In this study, we want to use white blood cells that have been trained to treat SARS-CoV-2, harvested from patients who have recovered from COVID19. In an earlier study we showed that treatment with such specially trained T cells has been successful at treating other viral illnesses such as cytomegalovirus and Epstein-Barr virus in patients who have failed front line treatments and were immunocompromised and unable to mount their own immune responses to these viruses. The administration of previously "banked" virus-specific T cells made from healthy donors with prior exposure to those viruses and given to infected recipients was quite safe while at the same time was able to control the infection.

The SARS-CoV2 specific T cells are an investigational product not approved by the Food and Drug Administration (FDA).

Institutional Conflict of Interest: An Institutional Leader, Dr. Helen Heslop, has a financial interest with Allovir (An ELEVATEBIO Company) and licensed technology being used.

Financial Conflict of Interests: Allovir is providing funding for this research study. Drs. Helen Heslop, Malcolm Brenner and Ann Leen have equity stake in Allovir. Bambi Grilley, BS, RPh, RAC, CIP, CCRC, CCRP owns a consulting company, QB Regulatory Consulting, LLC that develops, implements and conducts protocols for external sponsors and is consulting for Allovir.

This research study is sponsored by Baylor College of Medicine. This research study is funded by AlloVir.

A description of this clinical trial will be available on http://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.

Purpose

This study will be done in 2 parts.

The purpose of the first part of the study is to determine a safe dose of virus-specific T cells to use for treatment of COVID19. We want to see how long these cells last in your body and if there are any unexpected side effects from the infusion.

The second part of the study will be to compare treatment with virus-specific T cells to routine hospital care for patients with COVID19. The purpose of this portion of the study is to confirm the safety of administering these T cells to patients and if administration of T cells reduces the risk for complications from COVID, such as needing ICU care, ventilators or dying from the illness.

Procedures

The research will be conducted at the following location(s):
Baylor College of Medicine and TMH: The Methodist Hospital.

A total of 87 patients will be approached to participate on this trial. If you agree to take part in this study, you will be asked to donate blood to identify your tissue-type to see if we have a partially HLA-matched donor SARS-CoV2-specific T cell product available in our bank.

The SARS-CoV2-specific T cell lines have been made at Baylor College of Medicine from healthy donors who have made a full recovery from COVID19. All donors have been screened with the standard blood bank donor questionnaire, medical history and testing for infectious disease by a doctor who is experienced in screening blood donors. Only donors who have cleared this process and were deemed to be eligible provided blood for SARS-CoV2-specific T cell generation.

The lines were made using a special process. To make the SARS-CoV2-specific T cells we mixed donor cells with small pieces of proteins, called peptides that come from SARS-CoV-2 components called peptides. These peptides stimulate donor T cells and train the donor T cells to kill cells that are infected with SARS-CoV-2. Once we made sufficient numbers of SARS-CoV2-specific T cells, we tested them to make sure they respond to the virus. Then we froze the cells.

This study will be done in 2 parts. Your doctor will tell you which part of the study is open for enrollment. The first part of the study is called the 'dose-escalation' phase. In the first part of this study, once a T cell product is identified it will be thawed and injected into your intravenous line. You will receive one dose of the T cell product. Patients enrolled to this part of the study will first receive a dose of 10 million T cells. If proven to be safe at this dose, it will be escalated to 20 million cells and finally to 40 million T cells.

After the completion of the 'dose-escalation' phase patients will be enrolled to the 'randomized' phase of the study. In this phase, we expect to enroll 40 patients, 20 of whom will randomly be selected (like the flip of a coin) to either receive the T cell product on the 'T cell arm', or continue to receive standard of care treatment on the 'standard treatment arm'. The objective of this portion of the study is to confirm the safety of administering these T cells to patients but also to see if administration of T cells reduces the risk for complications from COVID, such as needing ICU care, Ventilators or dying from the illness. The chance of being assigned to either arm is 50%.

To prevent an allergic reaction if you had a prior reaction to blood products like blood transfusions or platelets, prior to receiving the SARS-CoV-2 T cells you may be given diphenhydramine (Benadryl) and acetaminophen (Tylenol).

All participants on the 'randomized phase' of the study who are on the T cell treatment arm will be infused with the same number (dose) of cells and you will be monitored by the treatment team for side effects of the SARS-CoV-2 T cell infusions for 6 months.

You will continue to be followed by your doctors after the injection for 6 months. To learn more about the way the SARS-CoV-2 T cells are working in your body, up to an extra 30-40 ml (6-8 teaspoons) of blood may be taken before the infusion and then up to daily for 14 days or until you get discharged from hospital. We also may collect samples at later timepoints (2, 3 and 6 months after infusion) but these are optional.

Participants randomized to the 'standard treatment arm' will continue to receive routine inpatient care. Additional blood (6-8 teaspoons) may be collected during routine blood draws to monitor clinical and laboratory responses.

Any leftover samples of blood may be used to help future research. The specimens may be kept for a long time. These specimens and information about your circumstances may be shared with other researchers. Although there will be a record identifying under what circumstances these specimens were obtained, under all circumstances your identity will be kept confidential.

Study Duration: Your participation in the study will last 6 months.

If you decide to withdraw at any time during the study both samples and data collected during your participation will be maintained.

Clinically Relevant Research Results

Summary results of this investigation will be reported to www.clinicaltrials.gov. Research findings will be reported publicly in the form of presentations and publication in a peer reviewed journal upon completion of this trial.

Sharing and Future Research Studies with Identifiable Private Information

Information that identifies you may be removed from your identifiable private information collected as part of this research, and after such removal, your information may be used for future research studies or distributed to another investigator for future research studies without additional consent/authorization from you.

Sharing and Future Research Studies with Identifiable Biospecimens

Information that identifies you may be removed from your identifiable biospecimens collected as part of this research, and after such removal, your biospecimens may be used for future research studies or distributed to another investigator for future research studies without additional consent/authorization from you.

Research related health information

Authorization to Use or Disclose (Release) Health Information that Identifies You for a Research Study

If you sign this document, you give permission to people who give medical care and ensure quality from Baylor College of Medicine and TMH: The Methodist Hospital to use or disclose (release) your health information that identifies you for the research study described in this document.

The health information that we may use or disclose (release) for this research includes:

- Information from health records such as diagnoses, progress notes, medications, lab or radiology findings, etc.
- Specific information concerning HIV
- Demographic information (name, D.O.B., age, gender, race, etc.)

The health information listed above may be used by and or disclosed (released) to researchers, their staff and their collaborators on this research project, the Institutional Review Board, Baylor College of Medicine, TMH: The Methodist Hospital, and ALLOVIR (AN ELEVATEBIO COMPANY) and their representatives.

Agents of the U.S. Food and Drug Administration may inspect the research records including your health information. Agents of regulatory agencies such as the U.S. Department of Health and Human Services will be permitted to inspect the research records including your health information.

A Data and Safety Monitoring Board will have access to the research records including your health information.

Use or Disclosure Required by Law

Your health information will be used or disclosed when required by law.

Your health information may be shared with a public health authority that is authorized by law to collect or

receive such information for the purpose of preventing or controlling disease, injury, or disability and conducting public health surveillance, investigations or interventions.

Baylor College of Medicine and TMH: The Methodist Hospital are required by law to protect your health information. By signing this document, you authorize Baylor College of Medicine and TMH: The Methodist Hospital to use and/or disclose (release) your health information for this research. Those persons who receive your health information may not be required by Federal privacy laws (such as the Privacy rule) to protect it and may share your information with others without your permission, if permitted by laws governing them.

Please note that the research involves treatment. You do not have to sign this Authorization, but if you do not, you may not receive research-related treatment. To maintain the integrity of this research study, you generally will not have access to your personal health information related to this research until the study is complete. However, your health information that is necessary to your care will be provided to you or your physician. At the conclusion of the research and at your request, you generally will have access to your health information that Baylor College of Medicine and TMH: The Methodist Hospital maintain in a designated record set, which means a set of data that includes medical information or billing records used in whole or in part by your doctors or other health care providers at Baylor College of Medicine and TMH: The Methodist Hospital to make decisions about individuals. Access to your health information in a designated record set is described in the Notice of Privacy Practices provided to you by representatives of the specific institution where you are being enrolled into this research study which are: Baylor College of Medicine and TMH: The Methodist Hospital.

Please note that you may change your mind and revoke (take back) this Authorization at any time. Even if you revoke this Authorization, researchers, their staff and their collaborators on this research project, the Institutional Review Board, ALLOVIR (AN ELEVATEBIO COMPANY) and their representatives, regulatory agencies such as the U.S. Department of Health and Human Services, FDA, Baylor College of Medicine, Data and Safety Monitoring Board, and TMH: The Methodist Hospital may still use or disclose health information they already have obtained about you as necessary to maintain the integrity or reliability of the current research. If you revoke this Authorization, you may no longer be allowed to participate in the research described in this Authorization.

To revoke this Authorization, you must write to: Premal Lulla, MD
Baylor College of Medicine
One Baylor Plaza MS: BCM505
Houston TX 77030

This authorization does not have an expiration date. If all information that does or can identify you is removed from your health information, the remaining information will no longer be subject to this authorization and may be used or disclosed for other purposes.

No publication or public presentation about the research described above will reveal your identity without another authorization from you.

Potential Risks and Discomforts

Potential Risks and Discomforts of receiving T cells:
Similar types of T cells have been given to over 100 patients to prevent lymphoma after transplant. We have also given similar cells to over 60 patients to prevent or treat these viral infections post transplant. Most patients had no side effects. In some patients who were treated because they had EBV infection that caused large tumors, the cells have caused inflammation leading to fever and flu-like symptoms as well as swelling at the tumor site. This swelling could be potentially dangerous and even life threatening depending on the site. There is a possibility that body organs like the liver or kidney could be damaged if the cells cause inflammation. Possible warning symptoms include yellowing of the skin or decreases in urine output.

There is also a possibility that these T cells might try to attack other parts of your body and cause graft versus host disease (GVHD). GVHD occurs when cells from someone else (like a healthy donor) recognize that your body tissues (host) are different from those of the donor. When this happens, cells in the graft may attack the host's skin, liver, bone marrow (blood forming organ) and intestines and cause symptoms including rashes and other skin changes, loss of normal blood production resulting in need for transfusions and/or a bone marrow transplant, yellowing of the skin and/or diarrhea. If you have GVHD after the SARS-CoV-2 T cells have been given, we will treat you appropriately. Sometimes though GVHD can be hard to treat and does not respond to treatment. It can even cause death.

There is also a possibility that the cells may not last very long because they are not completely matched and your immune system may be able to see they are foreign and kill them. In this case the infused cells may not be effective in treating the virus infection.

Another potential hazard is that some of the ingredients used to train the T cells (called peptides) may be present in the T cells we give you. We do not think these will cause you any risk because peptides made in a similar way have been directly injected into patients with no side effects. We cannot be sure that there is no risk to you receiving the peptides.

A small percentage of patients that receive this type of therapy develop a life threatening complication known as cytokine release syndrome (CRS). This complication causes high body temperature, increased heart rate, and low blood pressure. This complication can be life threatening, but you will be monitored carefully for development of this complication. There are treatments for this complication. In your case we expect the risk of developing CRS to be very high because CRS is a known complication of COVID19 even without administration of donor SARS-CoV-2 T cells. We will closely monitor for this complication and treat with approved medications as per standard guidelines if required.

Neurotoxicity is a group of symptoms involving the brain and spinal cord. Most patients will have at least some of the symptoms listed below. Severe or life-threatening cases have occurred in approximately 25% of subjects. Specific symptoms have included confusion, difficulty speaking or understanding speech, prolonged or pronounced sleepiness, tremors (shaky hand or other body part), facial droop,

seizures which may be prolonged, inability to control bladder or bowel, weakness in arms and/or legs, difficulty or inability to walk, anxiety and dizziness. Neurotoxicity can also lead to difficulty breathing and low oxygen levels, requiring insertion of a breathing tube and placement on a ventilator (breathing machine) to assist with breathing and may be potentially life-threatening.

Possible side effects from drawing blood may include pain or bruising at the site of the needle puncture if you do not have a line. There is a very small risk of an infection at the site of the needle puncture or of your line. Also, it is possible that a person mayfaint when blood is drawn. Care will be taken to clean the site well and therefore decrease the risk of infection.

Acetaminophen (Tylenol): Rarely large doses or long term usage can cause liver damage, rash, itching, fever, lowered blood sugar. These side effects are unlikely at the doses being used for this study.

Risks of Benadryl include drowsiness, dizziness, headache, irritability, stomach upset, vision changes (e.g., blurred vision), decreased coordination, or dry mouth/nose/throat may occur.

Because of potential or unknown effects of the study on a fetus, if you are a woman of child-bearing potential, you must have a negative serum pregnancy test prior to entry into this study, unless you recently received full dose chemotherapy as part of your bone marrow transplant.

You have been informed that either you or your partner(s) must utilize one of the more effective birth control methods during the study and for six months after the study is concluded. These consist of total abstinence, oral contraceptives, an intrauterine device and, contraceptive implants under the skin or contraceptive injections. If one of these methods cannot be used, contraceptive foam with a condom is allowed. In addition, the male partner should use a condom.

There is a potential loss of confidentiality with this type of study and the researchers will do everything possible to maintain confidentiality.

Since this is a research study, there may be risks that are currently unknown. We will watch you very carefully for any side effects. If you encounter any of the outlined symptoms in particular if you have any shortness of breath, yellowing of the skin, high fevers, new rashes, dizziness, new or worsening diarrhea or any other symptoms that you feel are concerning or may be related to the treatment, please seek medical attention immediately and contact study staff or the Principal Investigator.

There may be unknown risks or discomforts involved. Study staff will update you in a timely way on any new information that may affect your decision to stay in the study. There is a small risk for the loss of confidentiality. However, the study personnel will make every effort to minimize these risks.

Potential Benefits

The benefits of participating in this study may be: that these cells may protect your body from serious complications of COVID19 such as ARDS, need for ICU care, mechanical ventilation and death. Additionally, your participation may help the investigators find out if these cells can be used instead of

medications.

Potential Benefits of being on the standard of care arm
While on the standard of care arm, you will have the same follow up schedule as detailed above which will contribute invaluable information on the outcomes of patients with COVID with current standard treatments. This can be used to compare outcomes with the 'T cell treatment' arm. However, you may receive no benefit from participating.

Alternatives
The following alternative procedures or treatments are available if you choose not to participate in this study: You may receive standard supportive therapy or other therapies that may get FDA approval or are available through and expanded use authorization (FDA-EUA) by the time you are asked to participate in this study. Additionally, these alternatives are available if you are not responding to the therapy. Except for FDA approved or EUA drugs, you will not be allowed to participate on any other treatment trials for COVID19. Treatment options as well as the risks and benefits of those options will be discussed with you with emphasis on the specifics of your medical condition.

Subject Costs and Payments

You will not be charged for the manufacture or preparation of the SARS-CoV-2 T cell product or any study related research tests. If indicated, a pregnancy test will be performed and you will not be charged for the pregnancy test. You or your insurance company may be charged for any tests or treatments that are being done as standard treatment for COVID19.

You will have an opportunity to discuss any financial concerns with a financial counselor.

You will not be paid for taking part in this study.

This institution may use your biospecimens (even if identifiers are removed) for commercial profit, however, the institution does not plan to pay royalties (share with you in the commercial profit) to you if a commercial product is developed from any biospecimens (blood or tissue) obtained from you during this study.

Research Related Injury

If you are injured as part of your participation in this study, there are no plans to pay you.

Research personnel will try to reduce, control, and treat any complications from this research. If you are injured because of this study, you will receive medical care that you or your insurance will have to pay for just like any other medical care.

Subject's Rights
Your signature on this consent form means that you have received the information about this study and that you agree to volunteer for this research study.

You will be given a copy of this signed form to keep. You are not giving up any of your rights by signing this form. Even after you have signed this form, you may change your mind at any time. Please contact the study staff if you decide to stop taking part in this study.

If you choose not to take part in the research or if you decide to stop taking part later, your benefits and services will stay the same as before this study was discussed with you. You will not lose these benefits, services, or rights.

The investigator, PREMAL LULLA, and/or someone he/she appoints in his/her place will try to answer all of your questions. If you have questions or concerns at any time, or if you need to report an injury related to the research, you may speak with a member of the study staff: PREMAL LULLA at 832 824-4847 during the day and after hours.

Members of the Institutional Review Board for Baylor College of Medicine and Affiliated Hospitals (IRB) can also answer your questions and concerns about your rights as a research subject. The IRB office number is (713) 798-6970. Call the IRB office if you would like to speak to a person independent of the investigator and research staff for complaints about the research, if you cannot reach the research staff, or if you wish to talk to someone other than the research staff.

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Signing this consent form indicates that you have read this consent form (or have had it read to you), that your questions have been answered to your satisfaction, and that you voluntarily agree to participate in this research study. You will receive a copy of this signed consent form.

Subject	Date
Legally Authorized Representative - Adult	Date
Investigator or Designee Obtaining Consent	Date
Witness (if applicable)	Date
Translator (if applicable)	Date