ATT-Heart:

An open label, single-centre dose escalation trial, investigating the safety and feasibility of Autologous Thymus derived regulatory T cell treatment for the prevention of cardiac allograft vasculopathy in children receiving Heart transplant.

ATT-Heart

PARENTS / GUARDIANS THYMUS COLLECTION INFORMATION SHEET

Chief Investigator: Professor Michael Burch

We invite your child to take part in a research study:

- We would like to invite your child to take part in a clinical trial (also called a research study).
- This research study plans to test the safety of a potential new medicine containing regulatory T cells (also known as 'Treg treatment'). This is a bespoke medicine made for each child from their own tissue which can be collected at the time of heart transplant surgery.
- Before you decide whether they would like to take part in the trial, it is important for you and for your child to understand why the research is being done and what it would involve for you all.
- Please take time to read the information carefully, and discuss with your family, friends and doctor, if you would like to.
- Please ask us, if anything is not clear, or you would like some more information.

Thank you for taking the time to consider your child taking part in the **ATT-Heart** Study.

How to contact us:
Local Research Team Contact: **Email:** **Telephone Number:**

Key information:

Your child has been invited to participate as he/she is just about to undergo a heart transplant.

Your child does not have to take part; participation is entirely voluntary and you and your child can decide to stop taking part at any time, without giving a reason. If you do not wish to take part, this will not affect the care your child receives from your doctors or other health care professionals.

If you both decide to take part, you can keep this sheet and you will be asked to sign a consent form. Your child may be asked to sign an assent form (age-dependant). By signing these forms, you both will be confirming your willingness to be involved in the ATT-Heart trial.

This will involve collection of some of your child's tissue which can be done at the same time during heart transplant surgery. Using this tissue, the ATT-heart trial team can make a medicine containing regulatory T cells (also called Tregs) for your child to receive later on (after they have recovered from transplant surgery).

This is an information leaflet to highlight the key aspects to this trial and to explain and risks and benefits to enrolling into this trial. After your child's heart surgery, we will provide you with some more information about the study so that you and your child can make a fully informed decision about remaining in the trial.

The study will take place at Great Ormond Street Hospital (GOSH), London.

Research into treatments to improve the lives of children undergoing heart transplant is vital. This study is looking at ways to prevent to an important long-term complication of heart transplant called Cardiac Allograft Vasculopathy (CAV) in children.

By participating in this study, your child will help us build up the knowledge about potential treatment options for CAV.

Why is this study needed?

Heart transplantation is a lifesaving procedure, however after the surgery, the patient must continue to take daily immunosuppressant medication to prevent rejection of the donor heart. Furthermore, attending regular follow up appointments and tests is also essential to remain well after the transplant.

Cardiac Allograft Vasculopathy (also known as CAV) is a disease than can affect the new (donor) heart. All patients after heart transplant surgery continue to be at risk of developing the disease.

CAV happens due to inflammation caused by the transplant recipient's immune system towards the donor heart, which results in a progressive narrowing of blood vessels that supply oxygen and nutrients to the new heart muscle. Eventually, this can result in the weakening of the new heart muscle pump and can affect the quality of the patient's life.

International studies show that 10 years after heart transplantation, approximately a third of children will have signs of CAV on medical tests.

Once CAV has become established, it cannot be reversed using conventional medical or surgical approaches (such as treatments with medicines or stents).

Unfortunately, CAV remains a limitation on long-term survival after heart transplant. Thus, there is a pressing need to learn about new treatments that can prevent the onset of CAV in the first place, to help keep patients who receive a heart transplant healthy for longer.

The ATT-Heart study is looking at a new type of potential treatment to prevent CAV using expanded regulatory T-cells (Tregs) cell therapy.

Who is organising and funding the study?

The study is funded by the British Heart Foundation. The trial is sponsored by Great Ormond Street Hospital.

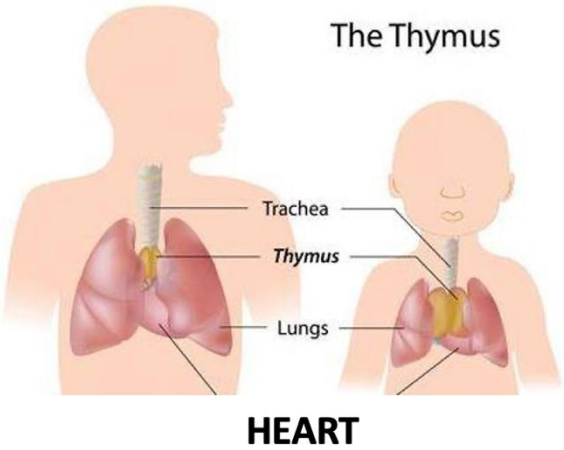
The lead investigator for the study is Professor Michael Burch.

What is the potential therapy being tested?

Regulatory T cells (also called 'Tregs') play an important role in regulating other immune cells in our bodies that can also cause transplant rejection in patients after surgery. Tregs and other T cells (which are a type of white blood cell) are naturally produced in the thymus gland and released into the blood. The thymus is a butterfly shaped tissue as shown in the picture below. The thymus gland's work is mainly done before birth, so once born, babies will have a full complement of T cells that are required for a functioning immune system.

Due to the position of the thymus (in front of the heart and major blood vessels), it is usually necessary for the surgeon to remove most of its tissue at the time of open-heart surgery, including during heart transplant.

If you and your child agree to enter the trial, thymus tissue will be collected during heart transplantation surgery or during the time of having a pump assist device fitted in (which may need to occur before the transplant surgery). This thymus tissue will then be transferred to a specialist laboratory unit at Guy's and St Thomas' NHS Foundation Trust to be processed.



The cells obtained from the thymus of your child are used to create the Treg cell therapy for your own child. Therefore, the Treg cell therapy is unique to each patient and is described as an 'autologous' cell therapy ('*auto*': means, "your own,") where the cell therapy given back to the child consists of *their own* Treg cells.

Tregs that are collected from the thymus are then expanded. This means that the cells will be grown in the laboratory to reach the dose required to make the treatment for your child. It can take up to 23 days to produce enough cells for the infusion. The cells will be kept frozen until they are ready to be used for treatment. The cells will undergo various quality control checks to ensure that they are of good quality. This is in line with process which has been approved by the Medicines and Healthcare products Regulatory Agency (MHRA), who are based in the United Kingdom.

How does the potential therapy work?

Our body has an immune system that works to keep us free of infections using a complex system of barriers (for example: skin), cells (for example: white blood cells) and proteins (for example: antibodies). These parts of the immune system can work together to detect and eliminate infections, when they occur.

When our immune system works as it should, it can tell the difference between our own body ("self") and something that shouldn't be there ("non-self," for example: an infection). In other words, the immune system is designed so that it will not attack our own organs and tissues.

Tregs regulate other cells in the immune system, and can prevent inflammation directed against our own organs. The aim of the study treatment is to use Tregs to regulate your child's immune system to suppress the potential for their immune system to be directed against the transplanted (donor) heart. We hope that this can prevent the development of Cardiac Allograft Vasculopathy (CAV) disease in the donor heart vessels.

Have Tregs been used before in patients?

Early clinical trials have tested Tregs in adult patients with kidney and liver transplants and shown promise in preventing rejection. Several trials have also been done in children and adults with autoimmune disease such as diabetes, which have been shown to be safe with some clinical signs of benefit.

A research group in Spain have recently published a report on giving similar thymus-derived Treg therapy to an infant early after heart transplantation. The injection of the Treg cell therapy was tolerated well, with no adverse effects related to the infusion. They demonstrated that the Treg cell therapy boosted the number of Tregs in the child's blood circulation during the 2 year follow up period during which the child remained well with no signs of rejection. Their clinical trial is currently ongoing with a plan to give Tregs to a total of 10 children.

Data from pre-clinical and animal models have also shown that Tregs play an important role in preventing CAV which suggests that this therapy has a potential to be of clinical benefit in heart transplant recipients.

We have included links to these study findings in the final section for further reading.

Does my child have to take part?

Your child does not have to take part in this study. Participation is entirely voluntary and her/his clinical care will not be affected regardless of the decision.

If you both decide to take part, you will be asked to sign a consent form, and your child may be asked to sign an assent form (age-dependant). By signing these forms, you both will be confirming your interest to take part by allowing the thymus tissue from your child to be transferred across to a specialist lab (to manufacture the Treg therapy treatment which we call 'TR006').

In addition, some blood tests will be taken (can be timed to be done with their next scheduled blood test and during the heart surgery procedure) to check their health and for research purposes to check how their

immune system is working. In addition, if you agree, any leftover clinical samples from their usual post-transplant follow up can also be saved for research purposes for this study.

The study team will provide you with some more information about the study so that you and your child can make a fully informed decision about continuing in the study. This will involve reading some more information about the study and then signing another consent form. Where appropriate, your child may also sign another assent form.

If you decide to continue your child will receive a single dose of TR006 3-6 months after their heart transplant. In the trial, we will begin with a lower dose (1 to 3 million cells per kilogram) to ensure safety, before giving a higher dose (5 to 10 million cells per kilogram) to the next cohort of patients. This dosing strategy has been determined using the dose ranges used in other similar clinical studies with Tregs.

If you both decide to take part, you are still free to withdraw at any time and without giving a reason. Deciding not to take part or withdrawing from the study will not affect the healthcare that your child receives, or their legal rights.

What type of trial is it?

This study is a Phase I (one) clinical trial. It means the Treg cell treatment described above is primarily being tested for safety purposes.

The aims of the study are:

- To confirm that this potential therapy can be safely given to nine children receiving a heart transplant.
- To discover what happens to these cells after they have been given to children.
- To see how the children's immune system reacts to the cells.
- To determine the optimal tolerated dose of the Treg cell infusion to test the biological activity of the treatment.
- To help us design a larger trial to test this potential therapy further.

What are the possible benefits of taking part?

There are no certain benefits to the participants taking part in the study. While we hope that the Treg cells will prevent the onset of CAV in your child (as is suggested in pre-clinical studies and data from other centres around the world), this may not happen as this an early phase clinical trial with Tregs which are given at low doses. Our main aim is to establish safety of this cell therapy in children.

The follow up data is primarily collected for safety purposes but may also establish how well the treatment is working (effectiveness).

Your child may not directly benefit from taking part in this study, but the information gained from their participation may help towards improving the treatment options available for CAV in the future.

What are the possible risks of taking part in the trial?

Risks associated with thymus removal

Due to the position of the thymus gland in front of the heart, it is usually necessary for the surgeon to remove most of the thymus tissue in order to complete your child's heart surgery (such as heart transplant or placement of a heart pump assist device). Because the thymus gland works mainly before birth and your child will have already developed a full complement of T cells, removal of the thymus at this stage will not cause any problems with deficiency of the immune system. In fact, sometimes a small piece of the thymus tissue may be left in place depending on its position and may grow back after surgery. After the transplant surgery, your child will have to take immunosuppressant medication to prevent rejection of the new donor heart. This will be the same treatment schedule whether or not your child is enrolled into ATT-Heart.

Risks associated with the infusion treatment:

This is the first time that these particular expanded Tregs will be tested in children in the UK and so there may be risks we don't know about yet and they could be serious. The safety information we have is based on pre-clinical data and also other clinical trials using expanded Tregs in other conditions.

Your child will be closely monitored for any signs of side effects. If they become seriously unwell following treatment infusion, there are medications that can be used to suppress the action of the Tregs.

The risks of cell administration may be similar to those of a blood transfusion. Allergic reactions to blood transfusions are caused by the body's immune system reacting to proteins or other substances in the donated blood, but they are uncommon. The Treg cells are made from your child's own cells rather than cells from a blood donor, so the risks are likely to be less than for a blood transfusion.

The symptoms of a blood transfusion allergic reaction are usually mild and occur during or shortly after the transfusion. Common symptoms include: a red, itchy skin rash, swelling of the hands, arms, feet, ankles and legs, dizziness and headaches. Less common symptoms include: high temperature, chills and shivering. These types of reactions can usually be managed by slowing down or stopping the transfusion.

Your child will be given paracetamol and anti-histamine medication (such as piriton) before the Treg infusion to reduce the risk of any reaction.

Harm to Unborn Children:

We don't have information about the effects of regulatory T-cells in pregnancy or breast-feeding. Therefore, we need to carry out urine pregnancy tests in any patients of child-bearing potential before receiving the infusion and at various stages during the study, as pregnant or nursing mothers will not be allowed to take part in the trial.

Female participants who could become pregnant during the trial must use an effective method of birth control during the trial. If applicable, the trial doctor will discuss relevant birth control methods with you and your female child.

If your female child becomes pregnant, or thinks she may be pregnant during the trial, please **immediately** contact the trial doctor/team.

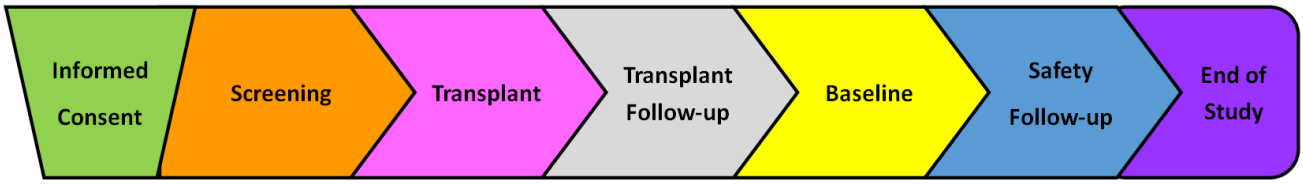
Risks can be associated with procedures (such as: blood tests, cardiac tissue biopsies and cardiac vascular imaging) that form part of the routine care for transplant patients. These procedures are not performed specifically for study purposes alone. However, data from these routine procedures will be used as part of the study. Please refer to the usual information and consent form given by the Clinical Team regarding these procedures for a full explanation of risks involved.

The above information is a brief summary of the potential risks. Further information and references to other clinical Treg studies in children and adults is included in the final section. Please also ask the study doctor if you would like more information or to talk through the risks in more detail.

What would taking part involve?

We have designed our trial visits around the usual transplant pathway appointments that your child would expect to have before, during and after the heart transplant in order to make the visit schedule and investigations as streamlined as possible. The main additional step is the administration of the regulatory T cell infusion, around which we will have to do some extra monitoring and investigation for safety purposes.

Once your child has had their heart transplant, they will be on the study for around 30 months. Here is a summary of the stages of the study:



For details of what would happen during each proposed study visit please refer to the study schedule near the end of this leaflet (from page 10) in section, "Study Schedule."

Joining ATT-Heart vs continuing in standard care?

The below table summarises the difference between taking part in the ATT-Heart study compared to carrying on in standard care. Importantly, all children enrolled to ATT-Heart will receive the same standard care that all patients post-transplant will receive (including the same immunosuppressive drug regime, blood tests and other cardiac investigations: heart biopsies and heart scans).

Each patient enrolled into ATT-Heart will receive a dose of bespoke TR006 containing their own Tregs at 3 - 6 months post-transplant. This will be followed by a structured safety follow-up period which is designed to follow the standard GOSH post-transplant follow-up schedule to minimise any inconvenience to the patient and their family.

ATT-Heart Study	Standard Care
<u>Pre- transplant surgery:</u> Thymus tissue removed at surgery will be transported to the laboratory for processing and production of TR006 dose for your child. <u>Post-transplant treatment:</u> Standard dose of Immunosuppressants and **one** dose TR006 infusion at 3-6 months after transplant. <u>Hospital visits:</u>	<u>Pre-transplant surgery:</u> Any thymus tissue removed at surgery will be discarded. <u>Post-transplant treatment:</u> Standard dose of Immunosuppressants.

Normal standard of care visits . Also, one extra overnight visit (to receive one dose of TR006) and one extra hospital visit (to check everything is okay 14 days after the dose has been given). <u>Clinical samples:</u> Standard clinical blood tests and cardiac biopsies schedule with extra blood tests taken (at the same time as the clinical blood tests) for the research study during some of the visits. <u>Clinical examinations by the doctor and nurse:</u> Standard clinical examinations at hospital visits with extra examinations to be performed around the time of TR006 administration and 14 days after the dose has been infused (to check everything is okay after the treatment has been given).	<u>Hospital visits:</u> Normal standard of care visits. <u>Clinical samples:</u> Standard clinical blood tests and cardiac biopsies schedule <u>Clinical examinations by the doctor and nurse:</u> Standard clinical examinations at hospital visits

What will my child and myself have to do?

You will need to give written informed consent for all study procedures. Where appropriate, your child will also have to provide written informed consent to take part in ATT-Heart (depending on their age). This will include permission for the study team to contact your child's GP to let them know that your child is taking part in the study.

Your child will have to attend the study visits at GOSH for the procedures and tests described in the "Study Schedule" Section (of this Information Sheet). Most of these visits are done at the same time as the usual post-transplant follow up appointments and most of the investigations performed are part of the usual standard of care in these patients.

If your child is a girl who has started her period, a urine pregnancy test will be done routinely (even if they are not sexually active) at multiple time points during the study. This is mainly for safety purposes to exclude the possibility of pregnancy in patients who will receive the cell therapy and also prior to routine investigations such as X-rays which are not recommended during pregnancy. This has been agreed with the Research & Development Team at GOSH who oversee the safety and conduct of all studies carried out within GOSH.

What will happen with my child's samples?

Some of your blood samples collected will be analysed by the local laboratory at GOSH. These samples will be part of the clinical care and will be used to monitor your child's vital functions and identify any potential safety concerns.

The research blood samples and some of the biopsy samples will be transferred to labs at GOSH and/or Guy's Hospital and/or King's College London for analysis and storage. If there are any leftover clinical blood samples,

these also may be sent to labs at GOSH and/or Guy's Hospital and/or King's College London for analysis and storage. If there are any cells remaining from the manufacturing process that makes the dose of the TR006 treatment, these may be retained by the study team members at Guy's Hospital and/or King's College London to further investigate this new type of treatment.

Your child's biological samples will be stored securely in accordance with the Human Tissue Act and according to national and local NHS Research Governance guidelines. Any details that can identify your child will be removed and the samples will be labelled only with a unique study identification number.

An external academic team or commercial company may be involved with the analysis of some of the research samples which will be pseudo-anonymised. This means that the study team will keep a list of people, along with the codes used on the research samples. Only the coded samples will be sent for analysis. The analysis may be carried out outside the UK. The same confidentiality rules will apply to samples sent outside the UK.

Will my child's samples be used for future research?

Leftover samples may be made available for further analysis or for use in future research studies as long as you and your child agree to this. We will prioritise research with investigators who have received the necessary ethical and regulatory approvals. This research could be in or outside the UK, and could be with academic or commercial partners. DNA analysis may be performed on the stored samples. Nobody will know who your child is from your samples because the samples will be pseudo-anonymised (as described above).

What happens if we don't want to carry on with the study?

You and your child are free to withdraw from this study at any time. Your participation is entirely voluntary. This will not affect your future treatment options or the standard of care you receive from your doctors and nurses.

As a study of a potential new therapy, it is important that participants are monitored after dosing and over a longer period of time. We would like to check how your child is feeling after receiving the therapy for up to two years. If your child decides to withdraw after receiving TR006, we will ask them to carry on visiting the hospital for safety visits.

Data or tissue that has already been collected with consent before withdrawal will be retained and used in the study. No further data or tissue would be collected as part of the trial. No further research study procedures would be carried out on your child.

MORE INFORMATION ABOUT TAKING PART IN ATT-HEART

Study Schedule

We have summarised the time line of events you and your child can expect during the trial, in the table below.

Visit	Clinical and Study Procedures
Enrolment / **Screening**	• Enrolment into ATT-Heart. • Medical history review. • Clinical blood tests (including virology testing).
Day of Transplant (When a donor heart becomes available)	• Medical history review. • Medical observations (vital signs, height and weight measured). • Clinical blood tests (including virology testing). • Research blood samples. • Urine pregnancy test.† • **Heart transplant.** • **Thymus taken to laboratory facility to generate cell therapy.** • Potential overnight stay in hospital.
Transplant Day 1 (Day after transplant)	• Medical review (including physical examination). • Medical observations (vital signs measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Research blood samples.
Transplant Follow-up Day 14 (14 days after heart transplant) (+/- 1 week)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Routine cardiac biopsy. • Research blood samples.
Transplant Follow-up 1 Month (1 month after heart transplant) (+/- 1 week)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests.
Transplant Follow-up 2 Month (2 months after heart transplant) (+/- 1 week)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests.
Transplant Follow-up 3 Month (3 months after heart transplant) (+/- 1 week)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG, echocardiogram, intravascular ultrasound* and coronary angiography*). • Clinical blood tests (including virology testing). • Urine pregnancy test.† • Routine cardiac biopsy. • Research blood samples.
Transplant Follow-up 4 Month (4 months after heart transplant) (+/- 3 days) **Visit may not be required if the patient is ready for TR006 after the**	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests (including virology testing). • Urine pregnancy test.† • Research blood samples.

Transplant Follow-up 3 Month study visit.	
Transplant Follow-up 5 Month (5 months after heart transplant) (+/- 3 days) **Visit may not be required if the patient is ready for TR006 after the Transplant Follow-up 3/4 Month study visits.**	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests (including virology testing). • Urine pregnancy test.† • Research blood samples.
Infusion Day: Baseline Day 0 (Day of infusion with TR006; this is 3 to 6 months after the heart transplant)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Urine pregnancy test.† • **Infusion of TR006.** • Overnight stay in hospital.
Baseline Day 1 (Day after the infusion with TR006)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Research blood samples.
Immediate Safety Follow-up (For the 2 to 13 days after infusion with TR006) (+/- 2 days)	• Remote medical review (performed by a daily phone call).
Safety Follow-up Day 14 (14 days after infusion with TR006) (+/- 2 days)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Research blood samples.
Safety Follow-up Day 28 (28 days after infusion with TR006) (+/- 2 days)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Research blood samples.
Safety Follow-up Month 2 (2 months after infusion with TR006) (+/- 1 week)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests (including virology testing).
Safety Follow-up Month 3 (3 months after infusion with TR006) (+/- 1 week)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Urine pregnancy test.† • Cardiac biopsy. • Research blood samples.
Safety Follow-up Month 6 (6 months after infusion with TR006) (+/- 2 weeks)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Research blood samples.
Safety Follow-up Month 9 (9 months after infusion with TR006) (+/- 2 weeks)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured).

	• Cardiac assessments (ECG, echocardiogram, intravascular ultrasound* and coronary angiography*). • Clinical blood tests (including virology testing). • Urine pregnancy test.† • Routine cardiac biopsy. • Research blood samples.
Safety Follow-up Month 12 (12 months after infusion with TR006) (+/- 4 weeks)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Research blood samples.
End of Study Follow-up (24 months after infusion with TR006) (+/- 4 weeks)	• Medical review (including physical examination). • Medical observations (vital signs, height and weight measured). • Cardiac assessments (ECG and echocardiogram). • Clinical blood tests. • Urine pregnancy test.† • Research blood samples.

† Only applicable to female participants who could become pregnant during the trial.
* Only if your child is over 25kg in weight.

Who has reviewed the study?

This research has been reviewed by an independent group of people, called a Research Ethics Committee, to protect your safety, rights, wellbeing and dignity. This study has been reviewed and given a favourable opinion by: XXXXX.

The study has also been reviewed by the UK Regulatory Authority, the MHRA (the Medicines and Healthcare products Regulatory Agency). The MHRA is part of the Department of Health with the responsibility to regulate clinical trials of medicines in the UK.

The families of patients who have previously had heart transplants and a patient group specialising in paediatric heart disease were involved in reviewing and providing feedback on this Patient Information Sheet, the Patient Invitation Letter, Informed Consent Form and study protocol.

Will my child be paid for taking part in this study?

You or your child will not receive any money for taking part in this study. However, a travel fund is available to help reimburse reasonable travel expenses associated with study visits. We will also cover the costs of overnight accommodation for the night of infusion day (Baseline Day 0) if needed.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions [Professor Michael Burch - Telephone number: 020 7405 9200 Extension: 38532 and E-mail: Michael.Burch@gosh.nhs.uk].

If you remain unhappy and wish to complain formally, you can do this through the GOSH Patient Advice and Liaison Service (PALS):
Telephone number: 020 7829 7862
E-mail address: pals@gosh.nhs.uk

In the event that something does go wrong and you are harmed during the research you may have grounds for legal action for compensation against Great Ormond Street Hospital but you may have to pay your legal costs. The normal National Health Service complaints mechanisms will still be available to you (if appropriate).

How will we use information about your child?

We will need to use information from you, your medical records, your child, your child's medical records and your child's GP for this research project.

This information will include your child's name, NHS number, date of birth and contact details. People will use this information to do the research or to check their records to make sure that the research is being done properly.

People who do not need to know who your child is will not be able to see your child's name or contact details. Your child's data will have a code number instead.

GOSH is the sponsor of this research, and is responsible for looking after your child's information. We will keep all information about your child safe and secure.

We may share data about your child outside the UK for research related purposes to:

- Conduct specialist analysis.
- Understand unique results.

If this happens, we will only share the data that is needed. We will also make sure you or your child can't be identified from the data that is shared where possible. This may not be possible under certain circumstances (for instance: if your child has a rare illness, it may still be possible to identify them). If their data is shared outside the UK, it will be with the following sorts of organisations:

- Universities.
- Organisations or companies involved in health and care research.

We will make sure your child's data is protected. Anyone who accesses their data outside the UK must do what we tell them so that your child's data has a similar level of protection as it does under UK law. We will make sure your child's data is safe outside the UK.

Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that no-one can work out that your child took part in the study.

We will keep your child's study data for the minimum period of 25 years (as per GOSH policy). The study data will then be fully anonymised and securely archived or destroyed.

You and your child can stop being part of the study at any time, without giving a reason, but we will keep information about your child that we already have.

You and your child have the right to ask us to remove, change or delete data we hold about you/them for the purposes of the study. We might not always be able to do this if it means we cannot use your child's data to do the research. If so, we will tell you why we cannot do this

You can find out more about how we use your child's information, including the specific mechanism used by us when transferring their personal data out of the UK by:

- Contacting Professor Michael Burch (Email: Michael.Burch@gosh.nhs.uk)
- Contacting the GOSH data protection officer at: your.data@gosh.nhs.uk
- Visiting the GOSH Privacy Policy webpage at: https://www.gosh.nhs.uk/privacy-policy
- Visiting: www.hra.nhs.uk/patientdataandresearch
- Discuss this with the study team if you have any questions.

Useful links for further interest of clinical research in Treg therapy

1. The use of thymus derived Tregs infusion in an infant post heart transplantation:

   Summary article outlining the basic science and other centres in the world investigating this therapy (British Columbia (Canada) and Spain- Madrid):
   https://www.bcchr.ca/news/how-thymus-could-stop-transplant-rejection

   Link to full paper of study conducted in Madrid:
   https://rupress.org/jem/article/220/12/e20231045/276370/First-in-human-therapy-with-Treg-produced-from

2. Review article describing the potential of Treg therapy to prevent Cardiac Allograft Vasculopathy (CAV) in children receiving heart transplants
   Link to review article:
   https://pubmed.ncbi.nlm.nih.gov/39315099/

3. Use of regulatory T cell therapy in children with type 1 diabetes (American study)
   Link to full paper:
   https://www.science.org/doi/10.1126/scitranslmed.adn2404?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed

4. Use of regulatory T cell therapy in children with type 1 diabetes (Poland)
   Link to full paper:
   https://pubmed.ncbi.nlm.nih.gov/24704576/

5. Regulatory T cells therapy in liver transplantation (ThRIL study)
   Link to full paper:
   https://pubmed.ncbi.nlm.nih.gov/31715056/

6. Regulatory T cell therapy in kidney transplantation (ONE study)
   Link to full paper on ONE study
   https://pmc.ncbi.nlm.nih.gov/articles/PMC7613154/

Thank you for taking the time to read this Patient Information Sheet