CONSENT TO TAKE PART IN A RESEARCH STUDY
(14+ years of age, or LAR)
For participants ≥ 66 lbs. (30 kg) – Cohort A

STUDY TITLE: Hybrid Closed Loop Therapy and Verapamil for Beta Cell Preservation in New Onset Type 1 Diabetes (CLVer)

STUDY DOCTOR'S INFORMATION
Name: Dr. Bruce Buckingham
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Study Coordinator Name/Contact: Eliana Frank/650-793-0406

SUMMARY
In this form, unless otherwise noted, when it says "you" it is referring to you as the participant if you are a teen (14 years or older), or to the person under your care who would be in the study if you are a legally authorized representative (LAR). Please see the next section called "Legally Authorized Representative (LAR)" for more information about who can be a LAR. This would be like a parent reviewing the information for their child to be in the study. In this case, "you" would mean "your child."

This consent form will give you important information about this study. It will help you decide if you would like to take part in the study. You do not have to be in this study. You can stop being in the study at any time. You should read and discuss all the information in this consent form with the study doctor.

- **The study is being done in children who were recently diagnosed with type 1 diabetes (T1D). We want to find out if keeping the blood sugar very close to normal will help pancreas cells that make insulin stay alive longer. The study also is testing whether a drug called verapamil can keep these cells healthy.**

- **You will be in the study for about 12 months. The study will first involve tests to make sure you are eligible. If eligible, you can be in the study.**

- **Your blood sugars will be managed one of two ways:**
  - **One way will be the treatment of someone who recently developed T1D usually receives. We will refer to this as "Usual Care." This will include receiving insulin either by injections or with an insulin pump. It also will include using a device called a continuous glucose monitor or CGM. The CGM has a small needle inserted under the skin. It measures the sugar level every 5 minutes.**

  - **The other way will be a treatment that is more intensive than usual care. We will refer to this as "Intensive Care." The goal will be to try to keep the sugar levels as close to normal as possible. This will take a lot of effort for you. This will include using a device**

called a closed loop system. You might have heard of this type of device. It is sometimes called an artificial pancreas or automated insulin delivery system. The closed loop system includes an insulin pump, a CGM, and a computer program. The CGM measures your sugar level. It sends this information to the insulin pump. A computer program on the insulin pump decides how much insulin should be given. Usually, if your sugar level is going up, the insulin pump will increase the amount of insulin you get. And, if your sugar level is going down, it will decrease the amount of insulin you get. In addition to using the closed loop system, you will have very frequent contact with the clinic staff and extra focus on your diet.

- **In addition to getting one of these two treatment approaches, you will take one half to three tablets by mouth once a day. The tablet will either contain verapamil (a blood pressure medication) or it will be a placebo tablet. A placebo tablet looks the same as the drug tablet but does not contain any medicine. We will refer to the verapamil and the placebo as the "study drug".**

- **The study will involve multiple office visits. At the visits you will have testing done and blood draws.**

- **The closed loop systems being used in the study have not been approved by the Food and Drug Administration (FDA). They can only be used in research studies. Verapamil is a drug prescribed for heart conditions and high blood pressure. However, it is not approved by the FDA to treat T1D in children. For this reason, both the closed loop systems and verapamil are considered experimental in this study.**

- **The most likely risks to you are pain, bruising, redness and temporary discomfort from blood draws, CGM sensor insertions, or infusion set insertions (if you are using a study insulin pump). Although unlikely, if you are using a closed loop system, it is possible that the system could deliver too much or too little insulin. This could result in low blood sugar or high blood sugar. In rare cases, this could be serious. Possible side effects of Verapamil are constipation, tiredness, dizziness, nausea, swelling of hands and feet, gum thickening, and headaches. Uncommonly, verapamil can have an effect on the pulse rate, blood pressure, or the heartbeat. It also can affect how the liver works. You will have frequent checks to see if any of these are happening. If they do happen, the study drug may be stopped.**

- **The possible benefits are that the life of your insulin producing cells may be lengthened. This is what we are trying to find out. Also, you may get a better understanding of your diabetes or how to manage your diabetes. The research may help people with T1D in the future.**

- **If you do not take part in the study, you may continue your current diabetes treatment or talk with your doctor about other forms of diabetes management.**

LEGALLY AUTHORIZED REPRESENTATIVE (LAR)

A "minor" is a person under the age of 18. A LAR for a minor is a natural or adoptive parent, a legal custodian, or a legal guardian. In this form, we will refer to a LAR as the 'parent.'

WHAT IS INFORMED CONSENT?

You are being asked to take part in this research study because you have newly diagnosed type 1 diabetes (T1D). T1D is a condition in which your body does not make enough insulin to help control your blood glucose (sugar) levels. The goal of this study is to learn things that may help people with T1D.

Your study doctor will be talking with you about this study and this form. You can take as much time as you need to think about whether or not you want to be in this study. You can also take a copy of this form with you to discuss with friends, family, or other doctors to help you decide. Please read this document carefully. Do not agree to be in this study unless all of your questions have been answered.

You do not have to be in this study. If you decide not to be in this study, you will not be treated differently as a person just because you didn't want to be in this study. Also, your regular care will not be impacted.

WHO IS DOING THE STUDY?

This study is being coordinated by the Jaeb Center for Health Research in Tampa, Florida and the University of Minnesota. It is being paid for by the Juvenile Diabetes Research Foundation (JDRF). The Jaeb Center for Health Research will use the funding to organize the study. Your study doctor and clinic staff will use the funding to carry out this study. The name of the study doctor and the doctor's contact information is listed on the first page of this form. If one of the study doctors gets money or benefits from a company that makes the drug or devices in this study, then they have to tell the Jaeb Center.

WHY IS THIS STUDY BEING DONE?

The purpose of this study is to find out whether keeping blood sugar levels as close to normal as possible or verapamil can help the cells in the pancreas that make insulin stay alive longer. We expect about 131 children will take part in this study at six different clinical centers in the United States.

WHO CAN PARTICIPATE IN THIS STUDY?

In general, to take part in this study, you **must**:

- have newly diagnosed type 1 diabetes
- be at least 7 years old and less than 18 years old
- have antibodies related to the pancreas in the blood
- be able to swallow pills

- have no need for acetaminophen (such as Tylenol or drugs containing Tylenol) on a regular basis during the study and have no problems taking ibuprofen (such as Advil or Motrin)

During the study, you must be willing to not use:

- any medication other than insulin to lower blood sugar
- any closed loop system other than one provided by the study

Also, you **must not**:

- be currently taking any steroids by mouth or injection
- be pregnant, breastfeeding, or plan to become pregnant during the study if you are female
  - For females who are or plan to be sexually active, you must agree to use birth control

Your study doctor and staff will review more study requirements with you.

WHAT WILL HAPPEN IN THIS STUDY?

If you take part in this study, it will take about 12 months to complete. The following sections describe the procedures of the study.

Screening Visit

If you decide to take part in the study and you sign this consent form, we will ask you questions and do tests to find out if you qualify for the study. The screening visit will last approximately two hours. It may occur on more than one day over a week.

A complete physical exam and a blood draw will be done. The physical exam will include pulse, blood pressure, height, weight and an assessment of your stage of puberty. Blood testing will be done to see if you have antibodies that relate to the pancreas. Antibodies are an indication that your immune system has been attacking the pancreas cells. If the antibody test is negative, you will not be able to be part of the study. A blood test also will be done to make sure your kidneys and liver are normal. If the antibodies test, kidney test, liver test, or assessment of your stage of puberty have been done recently, they may not need to be repeated.

A pregnancy test will be done for females who may be able to get pregnant. You also will have an electrocardiogram (EKG) test (heart tracing).

Treatment Group Assignment

Study Treatments

If you are eligible to be in this study and want to continue, the next step will be to determine your treatment group. This will be done with a computer program by a process similar to pulling a name out of a hat. No one can choose which treatment group you are assigned to. The study doctor also cannot choose the treatment group.

You will have a 50/50 chance of being assigned to either intensive care (use of a closed loop system and frequent contacts by clinic staff) or usual care. You also will have a 50/50 chance of receiving either verapamil or placebo.

Putting these together, there are four possible treatment groups:

(1) Intensive care and verapamil
(2) Intensive care and placebo
(3) Usual care and verapamil
(4) Usual care and placebo

Intensive Care

Intensive Care will include use of a closed loop system and frequent contacts from the study staff. The purpose of the contacts will be to adjust how you are using the closed loop system and managing your diabetes.

The closed loop systems are made up of three parts: (1) a continuous glucose monitor (CGM) that measures sugar levels; (2) an insulin pump that delivers insulin; and (3) a computer program on the insulin pump that uses the sugar information from the CGM to tell the pump how much insulin to give you. When the closed loop feature is turned on, the computer program automatically adjusts your insulin to keep your sugar levels in range as much as possible.

The CGM sensor has a thin needle that is inserted just under the skin. It measures sugar in the fluid under the skin and shows this information on the insulin pump every five minutes. The sensor needs to be changed about every 7-10 days. The insulin pump has a catheter that is inserted under the skin. It needs to be changed about every three days.

There are two different closed loop systems that will be used in this study:

- One system includes a pump made by Tandem Diabetes Care (Tandem t:slim X2 with Control-IQ) and a CGM made by Dexcom, Inc. (Dexcom G6).
- One system includes a pump made by Medtronic MiniMed, Inc. (Medtronic 670G 4.0 AHCL) and a CGM made by Medtronic MiniMed, Inc. (Medtronic Guardian Sensor 3).

The system you get will be decided by a computer program.

These systems are experimental and can only be used for research. The U.S. Food and Drug Administration (FDA) has approved their use in this research study.

You will be trained on how to use the closed loop system. We will give you a blood ketone meter, with instructions on when to use it. You will be asked to upload data from your devices at home throughout the study. The study team will review this to make changes to your care. You also will meet with a dietician.

Usual Care

If you are in the Usual Care group, you will have your diabetes managed by your primary diabetes team. If you use injections for insulin, you will be asked to keep a log of how much insulin you are using a

few days before each visit. You will be given a Dexcom G6 CGM to be used as part of your diabetes management. How to use the CGM will be explained to you.

Study Drug

You will be assigned to take either verapamil or a placebo. The placebo looks like verapamil but does not have any medication in it. Verapamil is a commonly prescribed drug for heart conditions and high blood pressure. However, verapamil is not approved by the Food and Drug Administration (FDA) to treat T1D. For this reason, it is called experimental in this study. One half to three pills will be taken every day, depending on how much you weigh. We will give you instructions on how the pills should be taken. You will get a pill splitter to cut some pills in half. Neither you nor your study doctor will know whether you are receiving the verapamil or placebo. This information will be given in the event of an emergency. You will have your blood pressure and pulse checked about one week after the start of study drug and anytime there is a dose change. You will be asked to keep track of dose changes on a study drug calendar.

Other Procedures

Some blood testing will be done the day you get your treatment group assignment. The blood testing will include measurement of HbA1c. HbA1c is a measure of how high your blood sugar has been over the last 3 months. Blood tests will be done to measure the health of your pancreas cells that make insulin, and this may include genetic testing.

A pregnancy test will be done for females who may be able to get pregnant.

A test called a mixed meal tolerance test (MMTT) will be done. This test measures how well the pancreas is producing insulin. You can't eat or drink anything overnight the night before or the morning of this test (except water). In the clinic, you will drink a liquid called Boost. Blood will be drawn several times over two hours.

> **Optional Sample Collection and Storage –** With permission, some of the leftover samples may be stored and used for future research. Also, we will ask to draw extra blood (~14 ml or about 3 teaspoons) to use for future research. The leftover and extra blood samples may be stored at Indiana University and the University of Minnesota. Researchers might use the blood samples to look at causes of T1D, its complications, or how to improve treatment. The samples will not identify participants. The leftover and extra samples collected may be used for genetic tests, but not whole genome sequencing. This would be like looking for genetic markers that could help identify causes of diabetes. These genetic tests will not be used to identify who participants are. Also, you will not be told about any results of the genetic testing. There is no end date to the use of these samples.
>
> Allowing your extra blood sample to be collected and stored for future research is optional. If you decide not to let the samples be used, you will not be treated differently as a person, and you can still be in this study. Your regular care outside of the study will not be impacted. If you change your mind later, we may not be able to get the samples back. This is because we will not be saving any identifiable information with the samples, so we wouldn't know which samples came from which person.

Follow Up Visits

Follow-up visits will occur 6 weeks after your treatment group assignment and 13 weeks, 26 weeks, 39 weeks and 52 weeks after you were diagnosed with T1D. You may have between 3-6 additional visits scheduled, depending on your treatment group, weight, and how you are doing.

If you are getting the intensive treatment, you will meet with a dietician at each visit. Also, you will have a visit about seven days after the treatment group assignment visit. This visit will include more training on the closed loop system for the participant and a parent. This is when you will start closed loop mode. The parent(s) who have been trained on the study devices should be present at night with the participant, as much as possible. You may get a baby monitor to help the parent(s) hear alarms at night. You also will receive phone calls, texts, or emails from the study staff every 1-3 days for the first 2 weeks, at least twice a week for the second 2 weeks and then every 1-2 weeks for the rest of the 52 weeks.

You should bring your study drug bottle(s) (whether empty, full, or partially full) to every visit. You should also bring all of your diabetes devices to every visit.

At all follow-up visits, a physical exam and a pregnancy test (as appropriate) will be done. Your diabetes devices will be downloaded.

At the 13, 26, 39, and 52 week visits, blood will be drawn to measure HbA1c. Blood tests will be done to measure the health of your pancreas cells that make insulin, and this may include genetic testing. A MMTT will be done. You can't eat or drink anything overnight the night before or the morning of each of these visits (except water).

You will have an EKG at some visits. Each follow-up visit that includes a MMTT will take about 3 hours.

Optional Sample Collection and Storage

With permission, we would like to save and use any leftover samples and we also will ask to draw extra blood (~14 ml or about 3 teaspoons) to use for further research at the 26-week and 52-week visits, like at the Treatment Group Assignment Visit.

You also will have your blood pressure and pulse checked one week after starting the study drug and after each dose increase of study drug, either in clinic or with a telehealth visit at home using a machine provided by the study. This will happen at least 2-5 times, depending on your weight. Telehealth visits will not be recorded.

The table below shows what will happen at each visit.

	Screening Visit	Treatment Group Assignment*	6-Wk Visit	13-Wk Visit	26-Wk Visit	39-Wk Visit	52-Wk Visit
Medical History	X						
Physical Exam**	X		X	X	X	X	X
Pregnancy Test (as appropriate)	X	X	X	X	X	X	X
MMTT		X		X	X	X	X
Blood Tests	X	X	X	X	X	X	X
Dietitian Consult (Intensive Care Groups only)		X	X	X	X	X	X
Device Downloads			X	X	X	X	X
EKG	X		X		X		X

About additional visits:
***You will receive a treatment group assignment if you are eligible after all testing has been completed at Screening. This assignment, some blood tests, and the MMTT will likely be on a different day than the Screening Visit. If assigned to Intensive Care, you will be trained on how to use the closed loop system and will return about 7 days later for more training on the system.**
****Blood pressure and pulse also checked 1 week after starting study drug and after each dose increase of study drug. This will happen at least 2-5 times, depending on your weight.**

If you stop using a CGM to manage your diabetes (or are wearing it less than recommended) at any time during the study, you will need to wear a sensor in blinded mode (where you cannot see the values) for about 10 days before or after each follow-up visit. You may be asked to wear it for another 10 days at certain visits, if there is not enough data. The sensor may be placed in the clinic or you may be given instructions on how to place it yourself. You may be asked to return the sensor by mail after you wear it.

After the 52-week visit, you will return to usual care management of your diabetes as determined by your doctors. You will have to return any study devices that can only be used for research.

WHAT ARE THE RISKS OF THIS STUDY?

If you choose to take part in this study, you need to know that there are some side effects or risks of being in this study.

Risks of Closed Loop System

There is a risk of diabetic ketoacidosis (DKA; high blood sugar) and severe hypoglycemia (low blood sugar) in anyone with T1D. Using a closed loop system is not expected to increase that risk. However, there is still a risk that parts of the closed loop system may not work right. Part of the insulin infusion system may not work correctly. Or, the wrong amount of insulin could be delivered by the system. It is possible that the system could lead to hyperglycemia or hypoglycemia. This could happen during manual mode when the pump is helping to calculate a meal bolus. This could also happen during hybrid closed loop mode when the pump is automatically calculating a bolus amount.

Sensor glucose is populated in the closed loop system. Sensor glucose is different from blood glucose. Sensor performance may vary from sensor to sensor and in different situations for a sensor, such as on the first day of use.

- If a sensor glucose reads much lower than your actual blood sugar, less insulin than needed may be delivered. This could lead to hyperglycemia.
- If a sensor glucose reads much higher than your actual blood sugar, more insulin than needed may be delivered. This could lead to hypoglycemia.

The CGM auto bolus feature is investigational and uses sensor glucose values, which may be less accurate than your blood sugar values. The auto bolus feature can give you a bolus without asking you first. The bolus calculator does not use glucose trend information from the CGM to determine insulin doses.

Note: If you feel low but the glucose reading on your sensor is not low, you should do a blood sugar check with the meter.

Risks Associated with Acetaminophen Use

You should not use any medicines that contain acetaminophen if you are assigned to the Medtronic system. Acetaminophen could cause false elevation of sensor glucose readings. The level of inaccuracy depends on the amount of acetaminophen active in your body and may be different for each person.

Other Risks of Continuous Glucose Monitor (CGM) and Insulin Pump

It is possible that skin irritation or redness, infection, pain or discomfort, bruising, edema, rash, bleeding, induration of skin, and allergic reaction to adhesives may occur.

On rare occasions, the CGM sensor may break and leave a small portion of the sensor under the skin that may cause redness, swelling or pain at the insertion site. You should notify the study staff immediately if this occurs.

Risks of Verapamil

The most common side effect of verapamil is constipation. Less common side effects are dizziness, tiredness, nausea, swelling of hands and feet, gum thickening, and headaches. Uncommonly, verapamil can have an effect on the pulse rate, blood pressure, or the heartbeat. It also can affect how the liver works. You will have frequent checks to see if any of these are happening. If they do happen, the study drug may be stopped. **Please be sure to talk to other people that may need to know about these symptoms and risks like coaches and gym teachers.**

Risks of Fingersticks

You may have fingersticks. It may hurt when your finger is pricked, but not for long. In about one in ten cases, a small amount of bleeding under the skin will cause a bruise. A small scar may last for several weeks. The risk of infection is less than one in 1,000. This study is not expected to increase this risk because fingersticks are part of the usual care for people with diabetes.

Risks of Blood Draw and MMTT

Blood draws, including during the MMTT, can cause pain, bruising, or redness at the sampling site. Less common reactions include bleeding from the sampling site, formation of a small blood clot or swelling of the vein and surrounding tissues, and fainting. These risks are possible but unlikely, and usually mild.

The Boost drink required for the MMTT contains milk and soy ingredients. People with severe allergies to these could have a reaction. If you have a known allergy to milk or soy, please let the study staff know before you agree to participate in this study.

Unknown Risks

It is always possible that anyone taking a drug or using a device for the first time may have an allergic reaction. Also, there may be additional risks from the drug or device or the study procedures that are not known. If we find out that there are any new risks, you will be told about them. You will be able to decide if you want to continue in the study based on this new information.

Risks to Confidentiality

This study will be capturing some information about you that includes identifiable, personal information, like your date of birth. The study has procedures in place to protect that information. There is a chance that a loss of that protection could occur. This would be a loss of confidentiality. Please see the "How will my information be protected and kept confidential" section below for more information.

Unsecure Text or Email Messaging

The study doctor and staff may use your contact information to call, text or email you during the study. They may do this to send things like appointment reminders. Your study doctor and staff may also use text and email to discuss things like your device settings and changes in insulin. They should only do this if you are okay with it. Texts and emails are not secure. This means that there is a risk that a message may be seen by someone that is not supposed to see it, like when an email gets hacked. Your name, phone number, and/or email address will likely be in the text or email. If you text or send a regular email to the study doctor's office, it is unsecure and what is put in the text or email is not protected.

You can ask to only be contacted by phone. If you think that the study doctor's office has texted or emailed information that they should not have, please contact the Jaeb Center at 813-975-8690 and ask to speak to the IRB Administrator.

Genetic Information

The study may collect and use your blood samples to learn more about how diseases occur more in some families than in other families. They may also be used to learn about why some medicines work better or have more side effects in some people than in other people. It is possible that others could misuse this information.

A federal law called the Genetic Information Nondiscrimination Act (GINA), generally makes it illegal for health insurance companies, group health plans, and most employers to discriminate against you based on your genetic information. Be aware that this federal law does not protect you against genetic discrimination by companies that sell life insurance, disability insurance, or long-term care insurance. GINA also does not protect you against discrimination if you have already been diagnosed with the genetic disease being tested.

The study will not perform whole genome sequencing on any blood samples. Allowing your extra blood sample to be collected and stored for future research is optional.

Risks for Unborn Babies

The risks of the study drug and closed loop system on an unborn baby are unknown. For this reason, anyone who is pregnant cannot be in this study. Anyone who becomes pregnant during the study will stop being in the study. We will continue to collect information on the outcome of the pregnancy until your pregnancy is over. Pregnancy tests are done as part of this study for anyone that is considered to be able to get pregnant. For example, anyone who has started having menstrual periods, or is still having menstrual periods, will have pregnancy tests no matter how young or old they are. They also will be asked about how they plan to make sure that they do not become pregnant while in the study (like if they use birth control). The study doctors are required to do this even if someone thinks there is no possibility of pregnancy.

For teens 14 years and older: If you are uncomfortable with any of the following, then you should not participate:

- Getting information about pregnancy
- Discussing pregnancy with your parent and the study doctor
- Having pregnancy tests
- Giving permission to share results of pregnancy tests

For minors younger than 14 years old, the results of a pregnancy test will only be told to the parent if the minor has given permission by signing an Assent form. Minors will be told about the pregnancy tests in the Assent form. If the parent is not comfortable with any of the following, then the parent should not allow the minor to participate:

- The minor getting information about pregnancy
- The minor discussing pregnancy with the parent and the study doctor
- The minor having pregnancy tests
- The minor giving permission to share results of pregnancy tests

Other

Data downloaded from diabetes devices will be collected for the study. Some people may be uncomfortable with the researchers having such detailed information about their daily diabetes habits.

Please discuss the risks with your study doctor or any other health care provider.

WHAT ARE THE BENEFITS OF TAKING PART IN THIS STUDY?

The possible benefits are that the life of your insulin producing cells may be lengthened. This is what we are trying to find out. Also, you may get a better understanding of your diabetes and how to manage your diabetes. The information gained from the study may help people with type 1 diabetes in the future.

ARE THERE OTHER OPTIONS THAN BEING IN THIS STUDY?

If you do not take part in this study, you may choose to continue your current diabetes management plan, change to another form of management, take part in other research studies or you may choose not to do anything. Your study doctor will discuss these choices with you.

CAN I STOP BEING IN THE STUDY?

You can stop being in the study at any time. If you decide to stop being in this study, you will not be treated differently as a person. Also, your regular care will not be impacted. Please talk to your study doctor or staff so they know why you are stopping the study and can help you do so safely.

If we find out that there is any important new information about the study, you will be told about it. You will be able to decide if you want to continue in the study based on this new information.

The study may stop or the study doctor may decide to take you out of the study at any time. You do not have to give permission for the study to stop or for the study doctor to remove you from the study. You will be told if this happens.

Some reasons why you may be removed from the study include:

- The doctors feel that it is in your best interest
- The doctors think that being in the study may cause you harm
- If you experience an injury related to the study
- If you need additional or different medication
- If you do not follow the study instructions

If you withdraw, are removed from the study, or the study is stopped, you may continue to receive care like you normally would if you were not in this study. You will have to return any study devices that can only be used for research.

ARE THERE COSTS RELATED TO TAKING PART IN THE STUDY?

If you participate in this study, the study will pay for those services, supplies, procedures, and care associated with the study that are not a part of your routine medical care. However, there may be additional costs to you. These include basic expenses like transportation and the personal time it will take to come to the study visits. You and/or your health insurance must pay for services, supplies, procedures, and care that are required during this study for routine medical care. You will also be responsible for any co-payments and/or deductibles as required by your insurance. Participation in this study is not a substitute for health insurance.

IS THERE PAYMENT FOR TAKING PART IN THIS STUDY?

If you take part in the study, you will receive up to $750 for your participation, depending on the number of study visits you need to complete. These payments will be paid as follows: $50 for completing the Screening visit, $50 for completing the 6-week visit, $100 for each visit that includes the mixed meal tolerance test (Treatment Group Assignment visit, 13-week visit, 26-week visit, 39-week visit, and 52-week visit). Participants will also receive the following payments, as applicable: $25 for the additional training visit, if completed in clinic (1 week after starting intensive treatment) and $25 for each study drug visit (checking of blood pressure and pulse) that is completed in clinic (1 week after starting study drug and after each dose increase; number of visits varies by participant). *If any visit overlaps with another, you will receive a single payment for the higher amount visit.* In order to pay you, we will need your social security number. A form will be provided to write down this information.

This compensation is to help with travel and other visit-related expenses. You may be compensated if there are additional expenses related to travel. If you withdraw from the study, you will still be paid for the visits that you have completed. You will not receive extra payments for visits that are required as part of your normal care or for visits that are for treating an illness or injury.

The use of your samples may result in commercial profit. You will not be compensated for the use of your samples, other than what is described in this consent form.

Because payments made to you for your participation in this study may be reported to the IRS as income, you may need to provide your social security number or a Form W-9 to your study doctor's office. These will not be shared outside of your doctor's office, other than as required by the IRS.

WHAT HAPPENS IF I HAVE AN ILLNESS OR INJURY FROM BEING IN THE STUDY?

All forms of medical diagnosis and treatment – whether routine or experimental – involve some risk of injury. In spite of all precautions, you might develop medical complications from participating in this study. If such complications arise, the Protocol Director and the research study staff will assist you in obtaining appropriate medical treatment. In the event that you have an injury or illness that is directly caused by your participation in this study, reimbursement for all related costs of care first will be sought from your insurer, managed care plan, or other benefits program. **You will be responsible for any associated co-payments or deductibles as required by your insurance.**

If costs of care related to such an injury are not covered by your insurer, managed care plan or other benefits program, you may be responsible for these costs. If you are unable to pay for such costs, the Protocol Director will assist you in applying for supplemental benefits and explain how to apply for patient financial assistance from the hospital.

You do not waive any liability rights for personal injury by signing this form.

CONTACT INFORMATION FOR QUESTIONS OR PROBLEMS

If you have questions about this study, have a research illness or injury, or have concerns, suggestions or questions about the study, contact your study doctor using the contact information on the first page of this form.

Contact the Jaeb Center for Health Research Institutional Review Board (IRB) Office at 813-975-8690 or irb@jaeb.org if you:

- Have questions about your rights as a research participant
- Wish to talk about your concerns or suggestions about the research
- Want additional information about the research, or
- Want to provide comments about the research.

HOW WILL MY INFORMATION BE PROTECTED AND KEPT CONFIDENTIAL?

Authorization To Use Your Health Information For Research Purposes

Because information about you and your health is personal and private, it generally cannot be used in this research study without your written authorization. If you sign this form, it will provide that authorization. The form is intended to inform you about how your health information will be used or disclosed in the study. Your information will only be used in accordance with this authorization form and the informed consent form and as required or allowed by law. Please read it carefully before signing it.

What is the purpose of this research study and how will my health information be utilized in the study?

This study is being done to find out whether keeping blood sugar levels as close to normal as possible or verapamil, a blood pressure medication, can help the cells in the pancreas that make insulin stay alive longer.

It is possible that people outside of this doctor's office and the Jaeb Center may need to see or receive your information from this study. Some examples include government agencies (such as the Food and Drug Administration), committees that monitor safety, other sites in the study, companies that are providing either funding or supplies for the

study, laboratories. In most cases the information will have a code number with it instead of your name, address, telephone number, or social security number.

There are some situations where the information will not have a code number but may include your name, address, telephone number, or social security number (PHI). Once PHI is disclosed by your study doctor and the clinic staff, it may no longer be covered by the privacy laws. Everyone who needs to see your information will be told it is confidential, but we cannot guarantee full confidentiality once it leaves the doctor's office.

Medtronic CareLink® System
This system allows your device to send information over the internet using a telecommunication network (such as a cellular network, wireless network, etc.). The information available from the Medtronic CareLink system is the same information the study team would collect from your device during an in-person office visit. Medtronic will receive your coded (de-identified) device data from CareLink®.

Medtronic takes steps to protect the privacy of the health information sent to the Medtronic CareLink Network over the internet. However, Medtronic cannot guarantee the health information is protected against unauthorized interception.

Do I have to sign this authorization form?
You do not have to sign this authorization form. But if you do not, you will not be able to participate in this research study including receiving any research-related treatment. Signing the form is not a condition for receiving any medical care outside the study.

If I sign, can I revoke it or withdraw from the research later?
If you decide to participate, you are free to withdraw your authorization regarding the use and disclosure of your health information (and to discontinue any other participation in the study) at any time. After any revocation, your health information will no longer be used or disclosed in the study, except to the extent that the law allows us to continue using your information (e.g., necessary to maintain integrity of research). If you wish to revoke your authorization for the research use or disclosure of your health information in this study, you must write to Dr. Bruce Buckingham, 780 Welch Rd, Palo Alto, CA 94304. You can also email him at buckingham@stanford.edu or call at 650-725-6549.

What Personal Information Will Be Obtained, Used or Disclosed?
Your health information related to this study, may be used or disclosed in connection with this research study, including, but not limited to, name, address, email, phone number, date of birth, history of diabetes or chronic illnesses, information needed to review inclusion/exclusion criteria, history and physicals, results of procedures, blood work lab results, EKG results, demographics information (i.e., race, ethnicity, gender, age), questionnaires, and study related data gathered during study visits. The parents or legal guardians will only be disclosing their names and contact information.

Who May Use or Disclose the Information?
The following parties are authorized to use and/or disclose your health information in connection with this research study:

- The Protocol Director Dr. Bruce Buckingham
- The Stanford University Administrative Panel on Human Subjects in Medical Research and any other unit of Stanford University as necessary
- Research Staff

Who May Receive or Use the Information?
The parties listed in the preceding paragraph may disclose your health information to the following persons and organizations for their use in connection with this research study:

- The Office for Human Research Protections in the U.S. Department of Health and Human Services
- Jaeb Center for Health Research (JAEB) and its IRB
- Juvenile Diabetes Research Foundation (JDRF), who is providing funding for the study
- Tandem Diabetes Care, Medtronic MiniMed Inc, and Dexcom Inc, companies that are providing financial support or products for the study
- The Food and Drug Administration
- Data Safety Monitoring Board (DSMB) or any other committees that monitor safety
- Any laboratory that is receiving samples for the study

Your information may be re-disclosed by the recipients described above, if they are not required by law to protect the privacy of the information.

When will my authorization expire?
Your authorization for the use and/or disclosure of your health information will end on December 31, 2070 or when the research project ends, whichever is earlier.

Will access to my medical record be limited during the study?
To maintain the integrity of this research study, you may not have access to any health information developed as part of this study until it is completed. At that point, you would have access to such health information if it was used to make a medical or billing decision about you (e.g., if included in your official medical record).

_____ Participant Signature (only if 14 years or older)	_____ Date
_____ Print Name of Participant (only if 14 years or older)	

_____ Signature of Legally Authorized Representative (LAR) (e.g., parent, guardian or conservator)	_____ Date
_____ Print Name of LAR	
_____ LAR's Authority to Act for Participant (e.g., parent, guardian or conservator)	

Other Considerations
The information and samples collected in the study may be used in future studies without additional permission from you. This may include research done by other researchers. The information that may be shared will not contain any information that could identify you. There may still be a chance that someone could identify you, but this is not likely. A copy of the information collected as part of the study will be made public in a dataset. This will be done after the study ends. This dataset will not contain any PHI. The study results will also be made public. These results will not have any information that could identify you.

A limited dataset that contains some PHI may be provided to certain researchers. This PHI will not include things like your name, address, identifying pictures, or medical record numbers. Any researcher would need to sign an agreement to protect your PHI before getting this dataset as required by law.

Study results without the identifiable information may be shared in medical journals and at scientific meetings. Your records will be confidential. No one will share your identity in a medical journal or at a scientific meeting.

After the study is completed, you will be told if you received verapamil or placebo. We will also share results of some blood tests conducted during the study. Overall study results will be shared with you once the data is public.

Clinical Trial Reporting
A description of this clinical trial will be available on *http://www.ClinicalTrials.gov*, as required by 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. A copy of one of the study consent form templates will also have to be posted on a federal Web site.

Some of your information from this study may be stored separately from or added to your medical record. You may not be able to see this information until the study ends. If your regular doctors require it for your care, they will be able to view it.

CALIFORNIA EXPERIMENTAL SUBJECTS BILL OF RIGHTS

As a research participant, you have the following rights. These rights include but are not limited to the participant's right to:

- be informed of the nature and purpose of the experiment;
- be given an explanation of the procedures to be followed in the medical experiment, and any drug or device to be utilized;
- be given a description of any attendant discomforts and risks reasonably to be expected;
- be given an explanation of any benefits to the subject reasonably to be expected, if applicable;
- be given a disclosure of any appropriate alternatives, drugs or devices that might be advantageous to the subject, their relative risks and benefits;
- be informed of the avenues of medical treatment, if any available to the subject after the experiment if complications should arise;
- be given an opportunity to ask questions concerning the experiment or the procedures involved;
- be instructed that consent to participate in the medical experiment may be withdrawn at any time and the subject may discontinue participation without prejudice;
- be given a copy of the signed and dated consent form; and be given the opportunity to decide to consent or not to consent to a medical experiment without the intervention of any element of force, fraud, deceit, duress, coercion or undue influence on the subject's decision.

IF THE PARTICIPANT IS YOUNGER THAN 14 YEARS OLD, SKIP THIS PAGE.

Teen Participant's Full Name (printed) _____

Teen Study Participation

By signing below, you agree to take part in this study. Your signature means that:

- you have read this informed consent form
- you have been given the chance to discuss the study and to ask questions to your satisfaction
- you freely choose to participate and you can withdraw at any time
- you will receive a copy of this consent form
- if you are a female, you are okay with having pregnancy tests and with the study doctor talking to you and your parents about the test results
- if your parent agrees, your leftover blood or extra blood samples may be stored for future research
- if your parent agrees, we will also draw extra blood (about 3 teaspoons) to use for future research

_____ _____

Participant's Signature Date

Minor's Full Name (printed)**:** _____

Minor's Legally Authorized Representatives (LARs) Permission

I, _____ (print name of LAR) attest that I am one of the following individuals authorized to provide consent for the child named above as I am one of the following LARs (checkbox):
☐ Natural or Adoptive Parent; ☐ Legal Custodian; or ☐ Legal Guardian

By signing below, you agree to allow your child to take part in this study. Your signature means that:

- you have read this informed consent form
- you have been given the chance to discuss the study and to ask questions to your satisfaction
- you freely choose to allow your child to participate, you and your child can withdraw your child at any time, and you will receive a copy of this consent form

_____ _____
LAR Signature Date

_____ _____
(If available) Second LAR Signature Date

_____
Second LAR Printed Name

_____
Authority to Act for Participant

Additional Blood Collection and Storage for Future Research

As part of this study, the researchers would like to store any leftover blood samples already collected for future research. Also, the researchers would like to ask for additional blood samples for future research as described in the consent form. Your child can still be in this study if you do not provide this permission. These samples will not be used to identify your child. You and your child will not be told about the results of the future research. Once stored, we may not be able to take the samples back because the lab won't know which samples belong to which participant.

☐ I ***do*** give my permission to allow for the ***leftover*** samples to be stored and used for future research.

☐ I ***do not*** give my permission to allow for the ***leftover*** samples to be stored and used for future research.

☐ I ***do*** give my permission to allow for the ***extra sample*** collection, storage, maintenance, and use of my child's additional blood samples.

☐ I ***do not*** give my permission to allow for the ***extra sample*** collection, storage, maintenance, and use of my child's additional blood samples.

_____ _____

LAR Signature Date

_____ _____

(If available) Second LAR Signature Date

_____

Second LAR Printed Name

_____

Authority to Act for Participant

Investigator's Certification

I certify that to the best of my knowledge the participant/LAR understands the nature, demands, risks, and benefits involved in the participation of this study.

Note: Please ensure the participant/LARs signature was obtained on the separate HIPAA signature lines on page 18 above.

Investigator's Printed Name	Investigator's Signature	Date