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UNIVERSITY HOSPITALS CLEVELAND MEDICAL CENTER
CONSENT FOR INVESTIGATIONAL STUDIES

Project Title: A Phase I, Single Center, Open Label, Single Dose, Dose Escalation Study Assessing the Safety and Tolerability of Allogenei**C** M**E**senchym**A**l **S**tem C**E**ll Infusion in Adults with **C**ystic **F**ibrosis–CEASE CF [CF-MSC-01]

Principal Investigator: Erica Roesch, M.D.

Consent Form for Patients with Cystic Fibrosis

Introduction
You are being asked to participate in this research because you are a patient who has cystic fibrosis (CF). Important information about this research study is explained below. Taking part in a research study is a choice. Details about this study are included in this consent form. It is important that you understand this information so that you can make an informed choice about whether or not you will be in this research study. You will be given a copy of this consent form to keep.

Please ask questions if any statements or descriptions in this consent form are not clear to you. Also, take your time to make your decision about whether or not to participate.

Study Purpose
This study is being done to test if it is safe to give **adult stem cells** to patients with CF. The kind of stem cells we are studying are called allogeneic human mesenchymal stem cells or MSCs. MSCs are cells in the body that can grow into different types of cells. For example, stem cells can grow into bone cells or lung tissue cells or a variety of other types of cells. Allogeneic means the cells come from another person (a donor).

This study is only looking at whether or not it is safe to give the stem cells to adults with CF and how the infusion is tolerated. In the future, other studies may be done to see if stem cells can be a new therapeutic treatment for CF.

Stem cells, like other medical products that are intended to treat, cure or prevent disease, generally require approval from the U.S. Food and Drug Administration (FDA) before they can be marketed. The FDA has not approved any stem cell-based products for usual medical care, other than some specific blood forming stem cells for certain indications.

This research is registered with the FDA, but again, the stem cell infusion in this study is not an approved treatment for CF. The stem cell infusions that will be done for this study are only being done for research purposes.

If you participate in this study, you will also have the option to give a sample of your own stem cells to be used for other research studies. You can be in the main study regardless of whether you say “yes” or “no” to the optional stem cell donation.

This study will enroll about 15 patients with CF who are 18 years old and above. We will

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also be enrolling 1 or more healthy volunteers who will donate their stem cells. The stem cells from the healthy volunteers will undergo purification and other processes to prepare them to enter another body. All of the cells required for the infusions could potentially come from just one donation from one healthy volunteer, or we may need to collect cells from additional volunteers. It will depend on whether or not the cells are able to be used and how the cells grow in the laboratory.

The Cystic Fibrosis Foundation Therapeutics (CFFT) is paying the costs necessary for the study staff to conduct the study at this site. The study doctors, or other study staff, do not hold a direct financial interest in the outcome of the study.

Study Procedures

If you agree to be in the study and sign this consent form, the study staff will review your medical history, ask you about your health and use of medications, and perform some tests to determine whether you can or cannot participate in the study. We will let you know if you qualify.

The study involves 7 study visits and 4 phone call visits over the course of about one year. Additional study visits or phone calls may be scheduled if needed for safety purposes. There is one extra visit if you agree to the optional stem cell collection. Most of the visits will take place in the Cystic Fibrosis Center at Rainbow Babies and Children's Hospital. The infusion of the stem cells will take place in the Dahms Clinical Research Unit (DCRU) on the 6th floor of Lakeside and requires an overnight stay. If you participate in the optional stem cell collection, that also takes place in the DCRU.

The amount of stem cells you receive will depend on your body weight and on when you enroll in the study. There are 4 dosing groups. After all the subjects in a group have received the infusion, safety will be assessed before moving on to the next dose level.

Group 1 – First 3 subjects will receive the lowest dose

Group 2 – Next 3 subjects will receive a higher dose

Group 3 – Next 3 subjects will receive the highest dose

Group 4 – Next 6 subjects will receive the highest dose that was tolerated in the previous groups

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The table below shows the schedule of study visits along with the estimated length of time needed for each visit.

Visit Name	Time Point	Approximate Length
Visit 1 - Screening	10 to 42 days before Day 1	2 hours
Visit 2 – Baseline	Days 1-2	30 hours
Phone Call #1	Day 4 or Day 5	15 minutes
Visit 3	Day 7	3 hours
Visit 4	Day 14	2 hours
Phone Call #2	Day 21	15 minutes
Visit 5	Day 28	3 hours
Phone Call #3	Day 56	15 minutes
Visit 6	Month 3	2 hours
Visit 7	Month 6	2 hours
Phone Call #4	Month 12	15 minutes

If you have an Acute Illness Visit or an Early Termination Visit, the visit will last approximately 2 hours and study staff will tell you which procedures will be completed.

The study team will tell you the exact dates and times of your visits. Each study visit may include SOME or ALL of the following tests/procedures:

Physical exam and other measurements: You will be checked by a doctor for full physical exams and by other qualified medical staff for abbreviated physical exams. Your height and weight will be measured.

Vital signs: We will measure your heart rate, blood pressure, body temperature, and breathing rate.

Oximetry: A pulse oximetry instrument that attaches briefly to your finger or earlobe will be used to measure the amount of oxygen in your blood.

Blood collection: Blood will be drawn from your vein using a needle for routine safety tests and pregnancy testing (if applicable). Your blood will also be tested for the Vitamin D level and for inflammation markers. The amount of blood that will be collected in total over the course of the entire study is about 150 milliliters (or 10 tablespoons).

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Urine collection: You will be asked to void (urinate) into a cup for routine safety tests and pregnancy testing (if applicable).

Spirometry: Spirometry is a test to measure how your lungs are working. Another name for this test is a Pulmonary Function Test or PFT. You will take deep breaths and blow out as fast as possible into a tube attached to a machine that measures your airflow. The test requires at least 3 deep breaths and lasts about 15 minutes.

Sputum collection: You will be asked to cough up sputum from your lungs. If you are unable to cough up sputum, you will complete an induced sputum procedure with hypertonic saline. Hypertonic saline is extra-salty water that is sterile (has no germs in it). You will take 2 puffs of albuterol from an inhaler and then perform a breathing test (PFT). (Albuterol is an FDA-approved medication and is used for this procedure to reduce the side effects from breathing in the salt water.) You will breathe in a mist of hypertonic saline over a 12-15 minute period and cough up mucus from your lungs. You will be monitored and the procedure will be stopped if you are having difficulties. Your sputum will be sent to a laboratory to count the cells, determine what bacteria are present and to measure inflammation.

Stem cell infusion: You will receive a one-time infusion of stem cells through an IV (an IV is a tube connected to a needle that is placed (usually) in the arm). The amount of stem cells you will receive will depend on your body weight and which group you are in (as described earlier). The infusion of the stem cells will take about 10-15 minutes, followed by saline through the IV for 4 hours. You will stay in the hospital overnight for 24 hours of monitoring following the infusion.

Questionnaire: You will be asked to answer questions about your respiratory symptoms for a questionnaire called the Respiratory Signs and Symptoms Questionnaire (RSSQ). The questionnaire takes about 15 minutes and will be administered at the scheduled study visits in the clinic and over the phone. It may also be completed at any unscheduled visits or phone calls as needed.

Study Diary: You will be asked to complete the Cystic Fibrosis Respiratory Symptom Diary (CFRSD) five times, at Visits 2-5 and once at home between Visits 4 and 5. You will also complete the diary if you have an Acute Illness Visit or an Early Termination Visit before Visit 5 happens. In the diary, you will answer questions about how you have felt

and about your activities in the last 24 hours. This will take about 15 minutes or less to complete. The Study Diary will be reviewed by study staff at Visits 2-5 and during Phone Call #2.

The study team will review your health, medications, and any new symptoms you are having on an ongoing basis during the study. There are certain medications that are not permitted during this study. Study staff will review whether and how this will affect you.

Withdrawal

If you sign this consent form, you can change your mind and stop your participation in this research at any time. The study doctor can also remove you from the study at any time if it is decided to be in the best interest for you or the study. If you decide to withdraw your consent, please inform the Principal Investigator (see Contact Information section) or any member of the study staff. You may be asked to complete an Early Termination Visit. Any data already collected may still be used for the study but no further data will be collected after your withdrawal is complete. Any samples already being analyzed will be completed and any stored samples that are still identifiable will be destroyed.

Risks

Your participation in this study may involve the risks and discomforts described below.

Stem cell infusion: You may experience a fever. There is also a risk of infection. To prevent infection, the cells are handled under sterile conditions before your infusion. The donors must pass screening interviews and blood testing for infectious diseases before their cells will be used for this research. Despite these precautions, there remains a chance of disease transmission.

There is a risk of allergic reaction. If you have a very serious allergic reaction, you may be at risk of death. Some symptoms of allergic reactions are: rash, hives, sweating, a fast pulse that may be irregular, swelling around the mouth, throat or eyes, dizziness and fainting, wheezing and difficulty breathing.

You will be monitored for any reactions for 24 hours after the infusion.

In general, stem cell infusions in humans have been well tolerated. It is estimated that tens of thousands of subjects have received stem cells in over 500 studies. This will be

the first study infusing stem cells into subjects with CF.

Recipients of stem cells potentially are at an increased risk for infection.

You may experience a temporary garlic taste due to a preserving agent (called dimethylsulforoxide or DMSO) if it was used to freeze the stem cells before they were used for your infusion. This may only apply in some cases if cells need to be frozen. Other short-term side effects of DMSO might include: fever or chills, shortness of breath, hives, chest tightness, low blood pressure, coughing, chest pain, less urine output, and feeling weak. These side effects are rare and usually mild.

The following are potential stem cell infusion risks (in theory) but have not been reported: decreased immune function (immunosuppression), an immune reaction against one's own tissues (autoimmunity), cancer, significant lung damage, severe infection, or creation of tissue in an abnormal location (significant ectopic tissue formation).

Needle (or IV/catheter) for the stem cell infusion and to draw blood: The insertion of the needle is painful; however, this discomfort is brief. For most people, the needle puncture does not cause any serious problems; however, it may cause bleeding, bruising, discomfort, infection, dizziness, or fainting. The study staff will keep the blood draw area clear and clean.

Spirometry: You may cough, wheeze or feel short of breath. You might feel dizzy or get a headache, but this should be temporary.

Sputum collection: If you have the sputum induction procedure, breathing in saline may leave a salty aftertaste in the mouth. There is also a risk of sore throat, light-headedness, nausea, and headache. These are usually mild and short-lived. In some instances, breathing in saline has been associated with wheezing and shortness of breath. These are typically mild. You will be monitored closely for symptoms and the procedure will be stopped if needed. The albuterol used for the procedure can cause nausea, vomiting, heartburn, shakiness, nervousness, dizziness, headaches, hyperactivity, and a non-harmful increase in heart rate. If such symptoms occur, they usually stop in a short period and do not require additional medications.

Pregnancy: The effect of a stem cell infusion on pregnancy and a fetus is not known. For

that reason, if you are pregnant or nursing a child you may not participate in this study. Before you enter the study, you will have a pregnancy test. If you are a woman of childbearing potential, you may participate only if you use a reliable method of birth control (if applicable) from the Screening Visit until the Day 56 Phone Call #3. The study staff will discuss appropriate birth control measures with you.

If you become pregnant or suspect being pregnant during the study (from the Baseline Visit until the Day 56 Phone Call #3), you must inform the study team immediately. We will ask to medically follow your pregnancy until delivery to monitor you and your child's safety. Relevant health information from your pregnancy and its outcome will be recorded. Information collected may include: medical history including all medications, birth control, pregnancy risk factors and history, family history of birth complications and hereditary disorders, prenatal test results, any pregnancy complications, pregnancy outcome, the condition of the infant at birth (type of delivery, date of birth, gestational age, sex, weight, size, Apgar score, any abnormalities) and any significant medical issues for you or the infant. This list may not cover every piece of information that will be collected, however any other information would be similar in nature to what is described here. Any information collected would be treated confidentially like the other information collected for this research study.

Being in any research study has the risk of loss of privacy or confidentiality. The study team will try hard to protect your information.

We cannot predict all risks or potential side effects. However, if any new risks become known in the future, you will be informed of them.

Optional Stem Cell Donation

You have the option to participate in a one-time stem cell donation. You can say "yes" or "no" to this optional procedure and still participate in the main study. There are no benefits to this stem cell donation. Your stem cells will be stored at University Hospitals Cleveland Medical Center and/or Case Western Reserve University and may be used for this study and for future laboratory research (your cells will not be infused into another human). Your cells may be grown and multiplied for research purposes. You will not directly receive the results of any future research.

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Procedures and Risks:
The procedure will require some screening procedures which may be combined with the Screening Visit (Visit 1) for the main study. The stem cell collection would be scheduled as an extra visit called Visit 1A.

At Visit 1, you will be asked questions about your health history. We will collect 10 milliliters (2 teaspoons) of blood to be tested for infectious disease markers including HIV, hepatitis B and C and syphilis. Part of the blood drawn for the main study will also be tested for pregnancy (if applicable). You cannot participate in the stem cell donation if you are pregnant.

If any laboratory tests results are positive, you will be notified and you will not be able to donate stem cells. You will be instructed to follow-up with your primary care physician or be given a referral if needed. Any positive test results must also be reported to the Ohio Department of Health. You may also be contacted for re-testing in the event of accidental exposure to your cells or their derivatives by study staff.

If you pass the screening steps, the stem cell collection procedure will be scheduled as an extra visit called Visit 1A, at least 2 weeks prior to your stem cell infusion (Study Day 1). Visit 1A will take about 1 ½ hours.

At Visit 1A, you will have a physical exam by a study doctor. We will measure your vital signs: heart rate, blood pressure, body temperature, and breathing rate. You will have a urine pregnancy test (if applicable). You cannot participate in the stem cell donation if you are pregnant.

We will determine if you are eligible for the stem cell collection procedure.
The stem cell collection procedure is called **bone marrow aspiration** and will take less than an hour. Bone marrow is the tissue inside the bone where blood cells are made. About 5-20 milliliters (1-4 teaspoons) of bone marrow will be removed from inside your hip bone through a needle. The procedure will take about 5-10 minutes. The collection will be performed by a trained physician who has experience with this procedure. An anesthetic called lidocaine (given through a needle) will be used to minimize pain. Bupivacaine 0.25% and morphine are other drugs that may be used to minimize pain if needed. The study staff will explain how each drug is administered, either as an injection or through an IV (a thin tube connected to a needle inserted into your arm). You may also

be given lorazepam (also known as Ativan) as an oral pill to reduce anxiety if needed. A pressure dressing will be applied and you will rest after the procedure before standing up. Study staff will call you the day after the procedure to check on how you are doing.

The potential risks of the blood draw and the bone marrow aspiration include pain, infection, bleeding and temporary bruising at the site of the needle insertion. These risks will be minimized by using sterile technique. There is also a risk of feeling lightheaded or fainting due to what is called a “vasovagal” reaction. You will be asked to rest for a few minutes after the procedure before standing.

During the aspiration procedure, when the doctor pulls on the syringe, some people have an “electric shock” type of feeling (like when you hit your “funny bone”). This is very brief and goes away immediately.

Xylocaine (lidocaine) can cause redness of the skin, small red or purple spots on the skin, swelling at the site of application, and unusually warm skin. You must inform the study staff prior to the procedure if you have any known allergies to lidocaine or similar local anesthetics.

Bupivacaine can cause the following: bloating or swelling of face, arms, hands, lower legs, feet; blurred vision; confusion; dizziness, faintness, or light-headedness when getting up suddenly; fast, pounding, or irregular heartbeat or pulse; fever; pale skin; sweating; tingling hands/feet; troubled breathing with exertion; unusual tiredness or weakness.

Morphine can cause drowsiness, dizziness, constipation, stomach pain, nausea, vomiting; headache, tired feeling, slower breathing, anxiety, or mild itching.

Lorazepam (Ativan) can cause drowsiness, sleepiness, and relaxed/calm feelings.

Any drug can potentially cause an allergic reaction. Some signs of an allergic reaction are hives, difficulty breathing, and swelling of your face, lips, tongue, or throat. You must inform the study staff prior to the procedure if you have any known allergies to any of the drugs listed here or similar drugs.

If you have any symptoms following the procedure, even after you leave the clinic, you

should contact the study staff.

Please indicate whether or not you would like to participate in the optional stem cell collection.

Please check and initial one of the choices below:

☐ No, I do not want to participate in stem cell collection. _____

☐ Yes, I want to participate in stem cell collection. _____

Optional Collection and Use of Cystic Fibrosis Foundation Registry Identification Number

The Cystic Fibrosis Therapeutics Development Network (CF TDN) has created a secure data storage system for data from clinical research studies called the "Data Archive." The data from clinical studies in the Data Archive will be used for future research about CF. These studies may help us understand CF better and help us take better care of people who have CF. The data may also be used to help design other research studies in CF.

If you have previously given your permission for information about your clinical care to be included in the Cystic Fibrosis Foundation's (CFF) Patient Registry database, a unique identification number was assigned to label your registry data.

In this study, you have the option of sharing your CFF Registry Identification (ID) Number. You can choose not to share your CFF Registry ID number and still be in the study.

The identification number will let the CF TDN link your data from this research study with the data in the registry database. The CFF Registry ID will also allow the CF TDN to link clinical data across all studies where you are (or will be) enrolled and you have given permission for use of your CFF Registry ID.

Researchers using data from the Data Archive will not be able to identify you. If a

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researcher wants to use your data, the researcher must have approval from the Institutional Review Board (IRB) at their institution and the Cystic Fibrosis Foundation. Upon approval, the study data will be linked at the CF TDN and upon completion of the linkage, all identifying information in the study data will be removed for the remainder of the project.

Because we do not know what studies your data will be used in, you will be unable to learn about the studies in which the data was used. Results from research studies using data from the Data Archive may be published in medical journals or presented at scientific meetings, but your name will not be used.

Please indicate whether or not you would like to share your CFF Registry ID Number.

Please check and initial one of the choices below:

☐ I agree to allow my CFF Registry ID Number to be linked with the study data and stored indefinitely in the CF TDN Data Archive for future research about CF. The stored data will not be identified by my name or any personal identification. _____

☐ I do NOT want to allow my CFF Registry ID Number to be stored for future CF research. _____

Optional Specimen Banking

Storing samples/specimens for future research use is called “banking.” The reason for banking specimens is to use them for later research studies of the study team or to share them with other researchers. In this study, you have the option of storing or “banking” your leftover blood and sputum specimens for future research use. You can choose not to have your specimens banked and still be in the study.

The samples in the bank will be used for future research studies to learn more about CF. However, the research study in which your specimens may be used has not yet been determined.

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The samples will be stored at University Hospitals Cleveland Medical Center and/or Case Western Reserve University. They will be kept until they are used up or they will be destroyed if not used. They will be labelled with a number, not your name or other information that might identify you. The Principal Investigator keeps a list that links the number on the specimen to your identity. This list is kept in a separate secure location in a locked room or on a password-protected computer. No one looking at the samples can identify you. We will share your blood sample/s with researchers who have approval to use them. Your sample/s or information will be used in future research on CF. We would not be able to give you the results from research that is done using your samples. Your samples could be used to make new products, tests or findings. These may have value and may be developed and owned by the research team and/or others. If this happens, there are no plans to provide any money to you.

Please indicate whether or not you would like to participate in the optional specimen banking.

Please check and initial one of the choices below:

☐ I agree to allow my leftover blood and sputum specimens to be stored for future research about CF. _____

☐ I do NOT want to allow my leftover blood and sputum specimens to be stored for future CF research. _____

Benefits

Participating in this study is not expected to provide benefit to you. The information from this study may benefit others who have CF in the future. We will learn more about the safety of stem cell infusion in patients with CF.

Alternatives to Study Participation

This study is not designed to treat your cystic fibrosis. Your alternative is to not participate in this study and to continue to use available CF therapies.

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Financial Information

You and your insurance company will not be billed for your participation in this research. For your time and inconvenience related to your participation in this study, you will be paid for each study visit. The table below shows the payment that you will receive for each completed visit. If you do not complete the study, for any reason, or if the study ends early you will be paid for the study visits you do complete.

Visit Name	Payment
Visit 1 - Screening	$50.00
Visit 2 – Baseline	$375.00
Phone Call #1	$10.00
Visit 3	$75.00
Visit 4	$50.00
Phone Call #2	$10.00
Visit 5	$75.00
Phone Call #3	$10.00
Visit 6	$50.00
Visit 7	$50.00
Phone Call #4	$10.00

Total	$765.00

If you are asked to come to the study center for any extra visits, for any repeated tests or safety assessments, you will be compensated for those visits as well, $25-$50 depending on the procedures. If you have an Acute Illness Visit or an Early Termination Visit, you will receive $50.00.

If you participate in the optional stem cell donation procedures, you will be paid according to the table below. If you do not complete all of the procedures, for any reason, you will be paid for the study procedures you do complete.

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Visit Name	Procedures	Payment
Visit 1A	Physical exam	$ 25.00
Visit 1A	Bone marrow aspiration (stem cell collection)	$ 75.00
	Total	$ 100.00

You will receive a parking voucher for each study visit. If you are coming to the clinic for the study visit only, and it is not on the same day as your regular clinic visit, you will be reimbursed for automobile mileage (at the current federal rate).

To receive payment you must agree to complete a W-9 form which requires you to provide an address and social security number to the accounting department. This payment to you may be considered taxable income by the IRS. If you receive payment of $600 or more in one year for research studies, you will be issued a 1099-Misc form.

Please note that if you are receiving Social Security Income, Medicaid or Medicare low-income subsidies, accepting payments for study participation may affect your continued eligibility for these benefits.

Research-related Injury

If injury occurs as a result of your involvement in this research, medical treatment is available from University Hospitals or another medical facility but you/your medical insurance will be responsible for the cost of this treatment. A research injury is an injury that happens as a result of taking part in this research study. If you are injured by a medical treatment or procedure that you would have received even if you weren't in the study, that is not considered a "research injury". There are no plans for payment of medical expenses or other payments, including lost wages, for any research related injury. To help avoid injury, it is very important to follow all study directions.

Confidentiality

Making sure that information about you remains confidential is important to us. To protect your information in this research study:

- We will keep records identifying you in locked areas with access restricted to

people who are working on this research study.

- We will use a study number to identify your research information and not your name.
- Your study information will be coded with your study ID.
- Only the Principal Investigator and other designated members of the study team will hold the information that allows your study ID to be linked to your name.
- Electronic databases will be password protected.

The Stem Cell Facility will record your personal information and handle your cells. Since the Stem Cell Facility is in part funded by the National Cancer Institute and regulated by the Ohio Department of Health, representatives from these bodies as well as representatives from the Food and Drug Administration (FDA) and the Cystic Fibrosis Foundation Therapeutics (the study's funding source), the Cystic Fibrosis Foundation, and other authorized agencies may have access to medical and study records which contain your identity.

Student/Employee Rights

If you are a student or employee of University Hospitals Cleveland Medical Center or Case Western Reserve University (or your parent is a student/employee), choosing not to participate or withdrawing from this study will not affect your (or your parent's) employment or class standing. Your study information will not be shared with your (or your parent's) supervisor (unless that supervisor is a member of the research team).

Information about Genetic Testing

(Note—this section is included because we will record your genotype from your medical record for this research. No genetic testing is being done in this study.)

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. This law generally will protect you in the following ways:

- Health insurance companies and group health plans may not request your genetic information that we get from this research

- Health insurance companies and group health plans may not use your genetic information when making decisions regarding your eligibility or premiums.

- Employers with 15 or more employees may not use your genetic information that we get from this research when making a decision to hire, promote, or fire you or when setting the terms of your employment.

All health insurance companies and group health plans and all employers with 15 or more employees must follow this law. 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.

Privacy of Protected Health Information

The Health Insurance Portability & Accountability Act (HIPAA) is a Federal law that helps to protect the privacy of your health information and to whom this information may be shared within and outside of University Hospitals. This section of the consent form will tell you what health information (called Protected Health Information or PHI) will be collected for this research study, who will see your PHI and in what ways they can use the information. In order for the Principal Investigator, Dr. Roesch, and the research study staff to collect and use your PHI, you must sign this authorization form. You will receive a copy of this signed Authorization for your records. If you do not sign this form, you may not join this study. Your decision to allow the use and disclosure of your PHI is voluntary and will have no impact on your treatment at University Hospitals. By signing this form, you are allowing the researchers for this study to use and disclose your PHI in the
manner described below.

Generally the Principal Investigator and study staff at University Hospitals and Case Western Reserve University who are working on this research project will know that you are in a research study and will see and use your PHI. The researchers working on this study will collect the following PHI about you: your name, date of birth, social security number, demographic information such as gender, race, ethnicity, etc., medical history including genotype and other test results, information from your study visits, including all test and questionnaire results. This PHI may be used to study the safety and tolerability of stem cell infusions in cystic fibrosis. Your access to your PHI may be limited during the study to protect the study results.

UNIVERSITY HOSPITALS CLEVELAND MEDICAL CENTER
CONSENT FOR INVESTIGATIONAL STUDIES

Project Title: A Phase I, Single Center, Open Label, Single Dose, Dose Escalation Study Assessing the Safety and Tolerability of Allogenei**C** M**E**senchym**A**l **S**tem C**E**ll Infusion in Adults with **C**ystic **F**ibrosis–CEASE CF [CF-MSC-01]

Principal Investigator: Erica Roesch, M.D.

Consent Form for Patients with Cystic Fibrosis

Your PHI may also be shared with the following groups/persons associated with this research study or involved in the review of research: the Cystic Fibrosis Foundation/ Cystic Fibrosis Foundation Therapeutics; other staff from the Principal Investigator's medical practice group and research group from Case Western Reserve University and the other departments working with the PI for this study; University Hospitals, including the Clinical Research Center and the Law Department; Government representatives or Federal agencies, when required by law.

Your permission to use and disclose your PHI does not expire. However, you have the right to change your mind at any time and revoke your authorization. If you revoke your authorization, the researchers will continue to use the information that they previously collected, but they will not collect any additional information. Also, if you revoke your authorization you may no longer be able to participate in the research study. To revoke your permission, you must do so in writing by sending a letter to Erica A. Roesch, M.D., Rainbow Babies and Children's Hospital, Pediatric Pulmonary Division Rm. 3001, 11100 Euclid Avenue, Cleveland, OH, 44106; If you have a complaint or concerns about the privacy of your health information, you may also write to the UH Privacy Officer, Management Service Center, 3605 Warrensville Center, MSC 9105, Shaker Heights, OH 44122 or to the Federal Department of Health and Human Services (DHHS) at DHHS Regional Manager, Office of Civil Rights, US Department of Health and Human Services Government Center, JF Kennedy Federal Building, Room 1875, Boston, MA 02203. Complaints should be sent within 180 days of finding out about the problem.

The researchers and staff agree to protect your health information by using and disclosing it only as permitted by you in this Authorization and as directed by state and Federal law. University Hospitals is committed to protecting your confidentiality. Please understand that once your PHI has been disclosed to anyone outside of University Hospitals, there is a risk that your PHI may no longer be protected; however other Federal and State laws may provide continued protection of your information.

Summary of your rights as a participant in a research study

Your participation in this research study is voluntary. Refusing to participate will not alter your usual health care or involve any penalty or loss of benefits to which you are otherwise entitled. If you decide to join the study, you may withdraw at any time and for any reason without penalty or loss of benefits. If information generated from this study is published or presented, your identity will not be revealed. In the event new information

becomes available that may affect the risks or benefits associated with this study or your willingness to participate in it, you will be notified so that you can decide whether or not to continue participating. If you experience physical injury or illness as a result of participating in this research study, medical care is available at University Hospitals Cleveland Medical Center (UHCMC) or elsewhere; however, UHCMC has no plans to provide free care or compensation for lost wages.

Disclosure of your study records

Efforts will be made to keep the personal information in your research record private and confidential, but absolute confidentiality cannot be guaranteed. The University Hospitals Cleveland Medical Center Institutional Review Board may review your study records. If this study is regulated by the Food and Drug Administration (FDA), there is a possibility that the FDA might inspect your records. In addition, for treatment studies, the study sponsor and possibly foreign regulatory agencies may also review your records. If your records are reviewed your identity could become known.

Contact information

_____has described to you what is going to be done, the risks, hazards, and benefits involved. The Principal Investigator [Erica A. Roesch, M.D.] can also be contacted at (216) 844-3267. If you have any questions, concerns or complaints about the study in the future, you may also contact them later.

If the researchers cannot be reached, or if you would like to talk to someone other than the researcher(s) about; concerns regarding the study; research participant's rights; research- related injury; or other human subject issues, please call the University Hospitals Cleveland Medical Center's Research Subject Rights phone line at (216) 983-4979 or write to: The Associate Chief Scientific Officer, the Clinical Research Center, University Hospitals Cleveland Medical Center, 11100 Euclid Avenue, Lakeside 1400, Cleveland, Ohio, 44106-7061.

Signature

Signing below indicates that you have been informed about the research study in which you voluntarily agree to participate; that you have asked any questions about the study

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Principal Investigator: Erica Roesch, M.D.

Consent Form for Patients with Cystic Fibrosis

that you may have; and that the information given to you has permitted you to make a fully informed and free decision about your participation in the study. By signing this consent form, you do not waive any legal rights, and the investigator(s) or sponsor(s) are not relieved of any liability they may have. A copy of this consent form will be provided to you.

X	
Signature of Participant	Date
X	
Printed name of Participant	

Use this signature block when a witness is included in the consenting process *(e.g., inclusion of illiterate individuals or individuals who cannot physically sign but are able to provide informed consent)*

X	
Signature of Witness	Date
X	
Printed name of Witness	

Study personnel *(only individuals designated on the checklist may obtain consent)*

X	
Signature of person obtaining informed consent	Date
X	
Printed name of person obtaining informed consent	Time