Defining Reversal of Keloid Lesions by Th2 Targeting With Dupilumab Treatment

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NCT04988022
Document Date: 4/25/2024

STUDY INFORMATION:

Study Title: Defining Reversal of Keloid Lesions by Th2 Targeting with Dupilumab Treatment

Study site(s): Icahn School of Medicine at Mount Sinai

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SUMMARY OF THIS RESEARCH STUDY:

This document explains a research study you might be interested in joining. Participation in the study is voluntary. You can agree to join or not. Your decision will not limit your ability to receive care at Mount Sinai. You should only agree to take part if you understand the study and if all of your questions about the research study are answered. If you do join the study, the research team must share any new information with you that may change your mind about taking part.

The purpose of this research study is to assess whether dupilumab can be a helpful treatment for keloids (atypical scars). Dupilumab is investigational for the purpose of this study as it is not FDA-approved for the treatment of keloids, but it is FDA-approved for the treatment of moderate to severe atopic dermatitis in adult participants.

If you choose to take part, you will be asked to come into the clinic to undergo screening procedures to determine if you are qualified for the study. If you are, you will undergo a treatment phase that will last 52 weeks over 9 visits. There are no costs to you for participating in this study. You will be compensated for your time and effort in participating in this study. In order to participate in this study, you need to consent to biopsies, completing questionnaires, having blood samples taken, physical examinations, optional clinical photography, among other study procedures. Some of your blood and tissue samples may be stored for future use.

If you choose to take part, the main risks to you are including those caused by parasites; injection site reactions, hypersensitivity/allergic reactions; cancer; inflammation of the eye; in addition to the normal risks associated with blood draws and biopsies, detailed later in this consent form.

You may benefit from taking part in this research. Some potential benefits are: improvement in your keloid(s). . Benefits from participation may not continue after the research has ended. If your keloid(s) improves, you may be able to obtain a prescription for the drug from your dermatologist, but it would no longer be provided at no cost.

Instead of being in this research study, your choices may include: other treatments for your condition (such as corticosteroid applied to or injected into your skin), or you may choose not to use any treatment at all.

If you are interested in learning more about this study, please continue to read below.

STUDY PARTICIPATION:

You may qualify to take part in this research study because you are at least 18 years old, and you have at least one (1) keloid that has failed to resolve with prior minimally invasive treatments (e.g. topical creams or steroid injections). However, at least one keloid should not have been treated with surgery, cryotherapy, radiation, or any other procedure that leads to a deformity that interferes with proper clinical assessments.

Funds for conducting this research are provided by the Regeneron Pharmaceuticals, Inc.

Your participation in this research study is expected to last about 56 weeks, including the screening and treatment phase.

There are 44 people expected to take part in this research study at Icahn School of Medicine at Mount Sinai. At least 50% of subjects (at least 22 out of the 44 subjects) will also have documented diagnosis of concomitant type 2 atopic/allergic) inflammatory diseases (e.g., active AD, asthma, chronic rhinosinusitis with nasal polyposis, food allergy confirmed by prick test or allergen-specific IgE, seasonal allergies, other confirmed allergies).

Funds for conducting this research are provided by Regeneron Pharmaceuticals, Inc. Dr. Emma Guttman (the lead researcher) in this study receives financial compensation as a consultant for Regeneron (the study sponsor and manufacturer of the study, dupilumab). Dr. Guttman also receives financial compensation from other companies that research and develop medicines used in the treatment of dermatologic conditions

A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

DESCRIPTION OF WHAT IS INVOLVED:

If you agree to take part in this research study, here is what may be involved:

All research visits/activities will be performed only at the Icahn School of Medicine at Mount Sinai, Department of Dermatology. All procedures performed during the study are being done for research purposes only.

Screening / Visit 1 (60 minutes):

After signing this consent form, we will ask you about your medical history and any medications you are taking, and a study doctor will perform a skin examination to assess your keloid(s). You will also have a physical examination (including measurement of blood pressure, heart rate, height and weight) and a blood sample will be drawn (approximately 3 ¼ tablespoons). This blood sample will include general blood test. If you have the potential to become pregnant, some of the blood sample collected will be used for a pregnancy test. This test must be negative to continue to qualify for the study.

If you continue to qualify for the study you will return for a baseline visit.

Baseline / Visit 2 (90 minutes):
At this visit you will undergo the following:

- We will ask you about any updates to your medical history and medications you are taking;
- A study doctor will perform a skin examination to assess your keloid(s) and ask you about the onset of your keloid(s). If you also have active atopic dermatitis, the study doctor will also assess its status.
- Your blood pressure and heart rate will be measured;
- A blood sample will be drawn (approximately one (1) tablespoon) to test your general health, as well as specialized laboratory tests for blood biomarkers (characteristics that are objectively measured to evaluate your response to the study treatment),
- You will be asked to fill out two (2) short questionnaires about your overall health and quality of life;
- You will have two (2), 4.5 mm punch biopsies of your keloid(s). 4.5 mm is the equivalent of the eraser on a pencil head. One of these will be from your affected skin, and the other from non-affected skin. Each biopsy will require 2-3 stitches that will be removed by the study doctor or study nurse 10-14 days later;
- If you have the potential to become pregnant, a urine sample will be collected for a pregnancy test. This test must be negative to continue to qualify for this study.
- Photographs of your keloid(s) and skin may be taken. You will not be identifiable in these photos. These photographs may be used for publication in the future and may be shared with Regeneron. All efforts will be made to photograph areas that do not include the face or any other identifying markers (tattoos). If there are any views that show your face or any identifying markers, they will be blacked out in any publication. *Consent to photographs is optional*. You can still participate in the trial if you do not consent for photographs to be taken.

Please initial one:
_____ I agree to have photographs taken and be used as stated in this document
_____ I do not agree to have my photographs taken for this study.

You will then be assigned to a study treatment group. The study treatment you get will be chosen by chance, like picking numbers out of a hat. Neither you nor the study doctor will choose what study treatment you get. Neither you nor the study doctor will know which study treatment you are getting. This information could be obtained in an emergency, however. You will not be told which study treatment you are getting, however, an unblinded designated drug dispenser will know.

Study treatment options are either dupilumab or placebo. A placebo looks just like drug, but does not contain any drug. In this study, the placebo will be an injection, just like the study drug. You will have a 3 in 4 chance of being given dupilumab.

At this visit you will receive your first dose (given as 2 injections) of study drug (600mg). All future doses will be taken as only 1 injection (300 mg) every week. Injections are given subcutaneously (injected into your skin into an area such as your upper arms, thighs or belly*).* A member of the study team will perform the first injection of your first dose. You or someone (a "caregiver") who can regularly give your injections if you choose not to do them for yourself, will be trained on how to give injections of the study drug, and then you or your caregiver will perform the second injection of your first dose. All subjects should be observed for 30 minutes following the first injections.

You will be given a supply of the study drug to take home with you. The study staff will explain how and when to perform these injections at home for the rest of the study. You will receive one dose weekly through Week 24.

Visits 3, 4, 5, and 6 (60 minutes each)
You will be asked to return to the study at weeks: 4, 8, 16, and 24 to perform the following tests and procedures (unless otherwise indicated the procedure or test takes place at all visits):

- A review of any illness or medical events you've had and any medications (prescription and over-the-counter) that have changed since your last visit.
- Your blood pressure and pulse will be measured (Visits 3, Visit 5, and Visit 6 only).
- A study doctor will perform a skin examination to assess your keloid(s) and atopic dermatitis (if applicable).
- A blood sample (Up to 2 ½ tablespoons) will be taken for a general blood test, and for blood biomarker levels (Visit 3, Visit 5, and Visit 6 only).
- You will be asked to fill out a short questionnaire about your overall health and quality of life (Visit 3, Visit 5, and Visit 6 only).
- Photographs of your keloid(s) may be taken (if applicable, at Visit 3, Visit 5, and Visit 6 only).
- If you have the potential to become pregnant, a urine sample will be collected for a pregnancy test at every visit.

- You will have one (1), 4.5 mm punch biopsy of your keloid taken close to the affected area that was biopsied at baseline (Visit 6 only).
- At Visit 6, all subjects previously given placebo will cross over to dupilumab treatment. Subjects previously on dupilumab will receive 1 (one) injection of 300 mg dupilumab and one (1) injection of placebo to maintain the blind of the study. Subjects previously on placebo will receive two (2) injections of 300 mg dupilumab. All subjects should be observed for 30 minutes following the injection.

You will be asked to return the used study drug boxes and any unused supply of the study drug, and you will be given a new supply to take home with you at each visit

Visits 7, 8, and 9 (60-90 minutes)
The following tests and procedures will be performed at weeks: 28, 36, and 48 (unless otherwise indicated the procedure or test takes place at all visits):

- A review of any illness or medical events you've had and any medications (prescription and over-the-counter) that have changed since your last visit.
- Your blood pressure and pulse will be measured (At Visit 8 and Visit 9 only).
- A study doctor will perform a skin examination to assess your keloid(s) and atopic dermatitis (if applicable).
- A blood sample (Up to 2 ½ tablespoons) will be taken for blood biomarker levels (Visit 9 only).
- You will be asked to fill out a short questionnaire about your overall health and quality of life (Visit 8 and Visit 9 only).
- Photographs of your scalp and skin may be taken (if applicable at Visit 8 and Visit 9 only).
- If you have the potential to become pregnant, a urine sample will be collected for a pregnancy test at every visit.

During this study period you (or a caregiver) will inject your doses of the study drug at home as instructed once a week. Your dose of the study drug at Week 48 will be the last dose for this study.

Follow Up Visit - Visit 10 (60 minutes)

You will be asked to return to the study site at weeks 52 for a follow up visit. The following tests and procedures will be performed:

- A review of any illness or medical events you've had and any medications (prescription and over-the-counter) that have changed since your last visit.
- Your blood pressure and pulse will be measured.
- A study doctor will perform a skin examination to assess your keloid(s) and atopic dermatitis (if applicable).
- If you have the potential to become pregnant, a urine sample will be collected for a pregnancy test.

- You will be asked to fill out a short questionnaire about your overall health and quality of life.
- Photographs of your scalp and skin may be taken (if applicable).

Early Termination Visit (60 minutes)

If you decide to end your participation in the study at any time before completing the study, you will be asked to return to the study site for an Early Termination Visit, at which you will undergo the the following procedures:

- A review of any illness or medical events you've had and any medications (prescription and over-the-counter) that have changed since your last visit.
- Your blood pressure and pulse will be measured.
- A study doctor will perform a skin examination to assess your keloid(s) and atopic dermatitis (if applicable).
- If you have the potential to become pregnant, a urine sample will be collected for a pregnancy test.
- You will be asked to fill out a short questionnaire about your overall health and quality of life.
- Photographs of your keloid(s) may be taken (if applicable).
- You will have two (2), 4.5 mm punch biopsies of your keloid(s). 4.5 mm is the equivalent of the eraser on a pencil head. One of these will be from your affected skin, and the other from non-affected skin. Each biopsy will require 2-3 stitches that will be removed by the study doctor or study nurse 10-14 days later

Because this research study involves the use of a study drug, a note must be included in your electronic medical record that you are taking part in the research. This way, anyone involved in your medical care will know that you are a study participant, and they can work to avoid any problems or negative outcomes that could arise if they do not know.

Randomization

No one, not you, or anyone from your medical team or from the research team will be able to choose what group you are assigned to or what study drug you get. It will be by chance, like pulling names out of a hat. You will have a 3 in 4 chance of being given the study drug. Neither you nor the Lead Researcher or your own doctor will know which study drug you are getting. If there is an emergency, they can get this information. You will not be told which study treatment you are getting, however, an unblinded designated drug dispenser will know.

HIV/AIDS

To take part in this research study, your blood will be tested for evidence of HIV, the virus that causes AIDS. People can get HIV through unprotected sexual contact with someone who has HIV, and through contact with blood (as in sharing needles including for piercing, tattooing, and injecting drugs). People who are pregnant with HIV infections can transmit HIV to their infants during pregnancy,

delivery or while breastfeeding. There are treatments for HIV/AIDS that can help people stay healthy. People with HIV/AIDS can adopt safe practices to protect uninfected and infected people in their lives from getting HIV or getting infected with a different strain of HIV.

By law, positive test results for HIV/AIDS (as well as other communicable diseases such as hepatitis B, hepatitis C, and syphilis) are reported to the NYS Department of Health so they can study how people get and transmit the disease and notify sexual or needle-sharing partners they may have been exposed. If you wish to be tested anonymously for HIV/AIDS, the research team can refer you to a public testing center, but you will not be able to be in this study. New York State law protects the confidentiality of HIV test results and other related information. It is illegal to discriminate against a person based on their HIV status and services are available to help if this happens. You are free to refuse to get an HIV test, but if you refuse you cannot be part of this research study.

Pregnancy

If you can possibly get pregnant, a blood test for pregnancy will be done before you begin the study at the screening visit. After this, a urine pregnancy test will be repeated every subsequent visit.

You cannot be included in the study if you are or become pregnant, as the study drug could harm your fetus. You also should not be in the study if you are producing milk to feed a child as the study drug could harm your baby.

Unless you are at least one year past menopause or have had a successful operation to make pregnancy impossible, you should use effective birth control. Unless you are sexually abstinent (not having genital sex) the recommended methods of birth control are:

- The consistent use of approved hormonal birth control (pill, patches, or rings),
- An intrauterine device (IUD),
- Contraceptive injection (Depo-Provera),
- Double barrier methods (Diaphragm with spermicidal gel or condoms with contraceptive foam),
- Sexual abstinence (no sexual activity),
- Sterilization (a vasectomy, getting tubes tied, or a hysterectomy).

All birth control methods (other than abstinence and sterilization) are only effective if you use them properly, start them at least one month before you begin the research study, and continue using them throughout the research study and for one month after the research study ends. If you are unsure whether the method of birth control you use is approved to use while you are in this study, you should ask the Lead Researcher before you begin the study. If you are less than one-year post-menopausal, you could still become pregnant. If you or your partner becomes pregnant, or may be pregnant, at any time during the study, you must tell a person from the research team immediately. The team may stop the study drug and refer you/your partner to an obstetrician/gynecologist for follow-up.
Should you/your partner become pregnant, whether or not you/your partner have the baby, the people funding and overseeing the research may ask for information on the pregnancy, even if you are no

longer part of the study. You/your partner will be asked for additional written consent to share this information if that happens.

Semen/Sperm:

Drugs can be found in semen and alter sperm. Since you are taking part in a study using experimental drugs or treatments, it is recommended that 1) you use a condom, 2) you do not get a partner pregnant or expose them to semen, and 3) you do not donate semen. These recommendations apply both while you are taking the study drug, and for 3 months after you stop taking the study drug This is because levels of the study drug may be present in the sperm and/or semen even after you stop taking the study drug. You are encouraged to tell your partner(s) and/or their doctor(s) that you are participating in this clinical trial.

Future Contact:

The researchers may wish to use your personal contact information to contact you in the future. Do you give the researchers permission to **contact you** in the future to request the collection of additional information about you, discuss how your private information, study data and/or samples might be used, or discuss possible participation in another research study?

Please initial your choice: Yes_____ No_____

USE OF YOUR DATA AND/OR SAMPLES:

The researchers would like your permission to keep your personal information (such as, name, address, date of birth, social security number), study data and/or samples (blood, tissue, urine, saliva, or any other body matter) to use or share in future studies. You can still be part of the study if you do not allow us to use or share them. Please select Yes or No to each of the questions below. To decline all future uses/sharing please select 'No' each time.

(1) Will you allow the researchers to store your data and/or samples to use in future research studies?

Please initial your choice: Yes_____ No_____

If you select No, please stop here and move to the next section, **'Your Responsibilities If You Take Part in This Research**' section below."

If yes, please continue to the next question and tell us how your personal information, study data and/or samples may be used in future research studies.

(2) Do you give the researchers permission to keep the data and/or samples, so they could use them in future studies that are **directly related** to the purpose of the current study?

Please initial your choice: Yes_____ No_____

(3) Do you give the researchers permission to keep the data and/or samples indefinitely, so they could use them for future studies that are **not related** to the purpose of the current study (for example a different area of research)?

Please initial your choice: Yes_____ No_____

(3.1) From time to time, researchers outside of medicine and related sciences would like to use data and/or samples. This might be in the fields such as anthropology, human origins, mapping human migration patterns. Do you give permission for researchers **outside the field of medicine** to use your data and/or samples?

Please initial your choice: Yes_____ No_____

a. If the future research in a different area can be done without having to know that the data and/or samples came from you personally, that will be done.
b. If the future research in a different area requires that it is known specifically who the data and/or samples came from, then one of the following will be done:
   I. If you allowed the researchers to contact you in the future, they may be able to contact you to explain why your data and/or samples is needed and what will be done with it. Your permission will be asked to use your data and/or samples in that research project.
   II. If you do not give permission to be contacted in the future, or if it is found that contacting you is not practical (for example, because you have moved), your data and/or samples may still be used. The Institutional Review Board (IRB) will be asked for permission to use the data and/or samples linked to your identity. The IRB can give permission for researchers to use and share identifiable health information without contacting you, but only if it determines that sharing the data and/or samples will not be more than minimal risk to you or your privacy. The IRB is a committee of doctors and scientists and nonscientists, including people not associated with this hospital or medical school, whose job it is to protect people who participate in research.

(4) Do you give permission to have your data and/or samples given **to other researchers,** including those at Mount Sinai, other medical or scientific institutions and for-profit companies, for use in research within the limits you have chosen above?

Please initial your choice: Yes_____ No_____ **YOUR RESPONSIBILITIES IF YOU TAKE PART IN THIS RESEARCH:**

If you decide to take part in this research study, you will be responsible for the following things:

- Go to all scheduled visits
- Follow the study staff's directions about the study.
- Tell the study staff about any illnesses or injuries.
- Tell the study staff about any changes to your medicines.
- Tell the study staff about any side effects or problems that occur during the study.
- Tell the study staff if you plan to have any surgery or any other medical treatments or procedures.
- You should not receive any live vaccines.
- Practice birth control, if applicable.
- If you are female and become pregnant, you must notify the doctor within 24 hours from when you are made aware of the pregnancy.
- You may use any topical prescriptions for your atopic dermatitis (if applicable) during the course of the study, but not on your keloid lesions

COSTS OR PAYMENTS THAT MAY RESULT FROM PARTICIPATION:

There may be costs to you for taking part in this study. For example, physical exams or blood work performed as part of this research study may reveal medical problems that require medical attention

If you agree to take part in this study, you will be paid up to $775 for your time and effort if you complete the study (Visit-2 = $175.00 USD; Visit-6 = $125.00 USD; Visit-9 = $175.00 USD; Visits-3,4,5,7,8,10 = $50.00 USD each). If you withdraw from the study; or are withdrawn before completing the study; or miss visits you will receive an amount of money for the visits that you have completed. You will not have to submit receipts to receive payment. This payment will come in the form of a check.
It can take up to 8 weeks to prepare and give you a check for study participation. If you do not get a check by then, you can first contact the research team. If further assistance is needed, please contact Mount Sinai's Program for the Protection of Human Subjects at (212) 824-8200.

Tax law may require the Mount Sinai Finance Department to report the amount of payment you receive from Mount Sinai to the Internal Revenue Service (IRS) or other agencies, as applicable. Generally, this happens if you receive payments that equal $600 or more from Mount Sinai in a calendar year. You would be responsible for the payment of any tax that may be due.

It is possible that products may someday be developed with the help of your data and/or samples, and there are no plans to share any profits from such products with you.

POSSIBLE BENEFITS:

There is a chance this study may benefit you, but this is not guaranteed. Others may benefit from what researchers learn from the study. Possible benefits to you include: improvement in your keloid(s). Benefits from the participation may not continue after the research has ended. If your keloid(s) improves, you may be able to obtain a prescription for the drug from your dermatologist, but it would no longer be provided at no cost.

POSSIBLE RISKS AND DISCOMFORTS:

Physical Risks:
Risks of Study Drug (Dupilumab)

Possible side effects based on observations in dupilumab clinical trials:

Dupilumab has been studied in more than 7400 individuals in completed and on-going studies, including healthy volunteers, subjects with atopic dermatitis, asthma, nasal polyps and eosinophilic esophagitis. In these studies, some subjects were treated with dupilumab while others received placebo. In completed studies in atopic dermatitis approximately 4100 subjects have received dupilumab, including approximately 70 children and adolescents.

In clinical studies of dupilumab in adults with atopic dermatitis, side effects reported more often in subjects treated with dupilumab compared to those receiving placebo, and which were possibly related to dupilumab, are listed in the table below.

Side effect	**Description**	**Percent of** subjects **with side effect among those who received**	
		Dupilumab	**Placebo**
Very common (occurring in ≥10% of subjects*)*			
Injection site reaction	May include mild to moderate pain, itching, swelling, redness, warmth, rash hives, bruising, bleeding, skin flaking at the site of study drug injection; these reactions typically resolve on their own without treatment	10-16%	5-6%
Common (occurred in >1 to <10 % of subjects*)*			
Allergic conjunctivitis	Pink eye caused due to allergy	2-7%	1-3%
Blepharitis	Inflammation (swelling and redness) of the eyelid	0.4-4.5%	0.2-1%

Conjunctivitis	Pink eye for which the cause is not known	0-4%	0.3-1%
Oral Herpes	Cold sores or fever blisters on the mouth and lips	2.5-4%	1.5-2%
Eye pruritus	Itching in eye	0.4-3%	0.2-1%
Bacterial Conjunctivitis	Pink eye due to infection with bacteria	1-2%	0.4-1%
Dry eye	Eye dryness due to tear fluid of insufficient quality or quantity	0.2-2	0-0.3%
Herpes simplex	Blisters caused by herpes on areas other than mouth and lip	1.0-2%	0.3-1%
Eosinophilia	A high level of disease-fighting white blood cells known as eosinophils in the blood. Across various conditions treated with dupilumab, less than 2% had blood eosinophilia, but eosinophilia associated with symptoms is a potential risk in patients with asthma or chronic rhinosinusitis (sinus infection) with nasal polyps (non-cancerous growths in the nose or nasal passages) who also have asthma.	0.2-1.7%	0-0.4%
There have also been rare incidences of the following conditions (occurring in <0.1% of subjects): rash (a persistent rash or redness on the face, head, and/or neck); arthralgia (joint pain); soreness (stiffness where two or more bones meet at the joint); angioedema (a swelling of the deeper layers of the skin caused by a build-up of fluid); Herpes Zoster (Shingles, a reactivation of the chickenpox virus in the body which can cause a painful rash and may appear as a stripe of blisters); Serum Sickness (a type of reaction in which subjects may develop fever); skin rash; joint swelling; joint pain; muscle pain; headache; nausea; diarrhea; swollen glands; blurred vision; and / or cancer.			

In addition to the risks outlined above, there have also been rare incidences of sepsis, eyelid thickening, and keratitis. The sepsis, or extreme infection, case was of severe intensity and treatment was given to resolve the symptoms. The eyelid thickening case was of moderate intensity and involved an eyelid mass, which was resolved with an eye procedure. The case of keratitis, or inflammation of the cornea, in both eyes was moderate in intensity, and then continued in the right eye with mild intensity. The study participant is now recovered.

If you experience an injection site reaction, the area of the injection site reaction may be photographed so it can be looked at by a committee overseeing the safety of study subjects; you will not be identifiable in the pictures that are taken.

Risk of Allergic or Hypersensitivity Reaction

There is a chance that you may experience a local or generalized allergic reaction (also known as hypersensitivity reactions) to the study drug. One kind of allergic reaction can happen immediately (within minutes or hours) after taking study drug. This is called anaphylaxis. Symptoms of immediate allergic reaction may include skin flushing, rash or hives, sneezing, runny nose, difficulty breathing, wheezing, sudden cough, a sense of choking, sudden change in blood pressure (causing dizziness or lightheadedness), swelling around the mouth, throat, or eyes, fast pulse or sweating, abdominal cramps, diarrhea, passing out, and a sense that something bad is going to happen. The severity of this type of immediate reaction ranges from mild to severe. A mild reaction may progress to a more severe one, so you should contact the study personnel if you experience any new symptoms occurring within a couple of hours after study drug injection.

A severe allergic reaction requires immediate medical treatment and could result in permanent disability or death if not treated promptly. If you believe you are having a severe allergic reaction, you should immediately seek emergency medical treatment and alert the study doctor and study staff as soon as possible.

Another kind of hypersensitivity reaction called ‘serum sickness’ sometimes occurs days to weeks after study drug injection and it may cause fever, skin rash, joint swelling and pain, muscle pain, swollen glands, headache, nausea, diarrhea and blurred vision. This occurred very rarely in dupilumab clinical trials in *subjects* with large amounts of antibodies against dupilumab. It is possible that your body may develop antibodies against dupilumab. Formation of antibodies is a natural defense reaction of the immune system against the presence of foreign substances. These antibodies may sometimes work against your body, which could result in illness.

Risks of Biopsy

Possible risks from a biopsy include the following: bleeding from the biopsy site, pain, local reaction to the anesthetic (lidocaine), infection or healing problems such as the possibility of a scar at the site. The study investigator will determine if you require stitches for wound closure.

Risks of Blood-Draw

The risks of a blood draw include pain, bruising, and the slight possibility of infection at the place where the needle goes in. Some people feel dizzy or may faint during or after a blood draw.

Risks of Photographs

There is a possibility that you will be able to be identified from photographs taken for the study. However, steps will be taken to reduce this possibility whenever possible. Photographs will only be used for teaching purposes and to share the results of the study.

Risks of Questionnaires

Some of the questions asked may be upsetting, or you may feel uncomfortable answering them.

Unknown Risks
In addition to these risks, this research may hurt you in ways that are unknown. The unknown risks could be minor or major (death).
Risk of loss of private information; this risk always exists, but there are procedures in place to minimize the risk.

This drug may harm a pregnancy or unborn child. You should not become pregnant or get someone pregnant while on this research study. Please read the acceptable methods of birth control found under the Description of What's Involved section of this document.

If you are or become pregnant, this research may hurt your baby or your pregnancy in ways that are unknown. The unknown risks might be minor or might be major (death) for the pregnancy. You should not become pregnant or conceive a baby while on this research study. Please read the acceptable methods of birth control found under the Description of What Is Involved section of this document.

Group Risks - Although your name will not be given to researchers, basic information such as your race, ethnic group, and sex may be shared. This information helps researchers learn whether the factors that lead to health problems are the same in different groups of people. It is possible that such findings could one day help people of the same race, ethnic group, or sex as you. However, they could also be used to support harmful stereotypes or discrimination.

Privacy Risks - Because your genetic information is unique to you, there is a small chance that someone could trace it back to you. The risk of this happening is very small, but may grow in the future. Since the database contains genetic information, a break in security may also pose a potential risk to blood relatives as well as yourself. For example, it could be used to make it harder for you (or a relative) to get or keep a job or insurance. If your private information was misused, it is possible you would experience other harms, such as stress, anxiety, stigmatization, or embarrassment from revealing information about your family relationships, ethnic heritage, or health conditions.

OTHER OPTIONS TO CONSIDER:

You may decide not to take part in this research study. If you decide not to take part, this will not affect the clinical care you receive at Mount Sinai. The choice is totally up to you.

Instead of being in this research study, your choices may include: other treatments for your condition such as corticosteroid applied to or injected into your skin, or you may choose not to use any treatment at all.

The important risks and possible benefits of these alternatives are listed below:

Topical corticosteroids: skin thinning; stretch marks; easy bruising; and enlarged blood vessels.

Oral corticosteroids: clouding of the lens in one or both eyes; high blood sugar, which can trigger or worsen diabetes; increased risk of infections; thinning bones; and suppressed adrenal gland hormone production.

Benefits of topical or oral corticosteroids include the possibility that your condition may improve

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IN CASE OF INJURY DURING THIS RESEARCH STUDY

If you are injured or made sick from taking part in this study, you will get medical care. The group funding this research study will pay you for any reasonable and necessary medical expenses to diagnose and treat research-related injury or illness. This does not prevent you from seeking payment for injury related to malpractice or negligence. You can contact the Lead Researcher for more information.

The Centers for Medicare and Medicaid Services (CMS) is the government agency that oversees Medicare and Medicaid. Funding agencies who make payments for injuries related to studies must report payments to CMS. In order to do this, the funder must have certain information about you, such as your name, date of birth, Social Security Number, Medicare or Medicaid ID numbers, date of injury, and description of injury. The funding agency is only allowed to use this information to report payments related to the injury should this be necessary or as otherwise specified in the Authorization to Use and Disclose Protected Health Information section, which is included below.

ENDING PARTICIPATION IN THE RESEARCH STUDY:

You may stop taking part in this study at any time. No matter what you choose, your care and benefits through Mount Sinai will not be negatively impacted.

If you decide to stop being in the study, please contact the Lead Researcher or the research staff. You will be asked to return to the study for a final termination visit (procedures are listed in the description section)

You may also withdraw your permission for the researchers to use and share any of your protected information for research, but you must do so in writing to the Lead Researcher at the address on the first page. Even if you withdraw your permission, the Lead Researcher may still use the information

that was already collected if that information is necessary to complete the research study. Your health information may still be used or shared after you withdraw your authorization if you have an adverse event (a bad effect) from taking part in the research study.

If you stop being in the research study, the research team may not remove information they have already placed in the study database, and may continue to use that data as part of this study. The research team may ask you whether they can continue to collect information from your medical record.
If you decide you don't want your data and/or samples to be used for research anymore, you can contact the researcher and ask to have your data and/or samples withdrawn or labeled so that they will not to be used in additional projects or shared. If your data and/or samples have already been shared with researchers, those researchers will be asked to stop using them. However, if any data and/or samples have already been shared without your identity or a linking code, it won't be possible to retrieve them. Data and/or samples that have already been used will not be affected by your decision. If your data and/or samples have already been deposited in an external repository, the study team will request that your data and/or samples be removed.

Withdrawal without your consent: The Lead Researcher, the funder or Mount Sinai may stop your involvement in this research study at any time without your consent. This may be because the research study is being stopped, the instructions of the research team have not been followed, the Lead Researcher believes it is in your best interest, or for any other reason. If data and/or samples have been stored as part of the research study, they too can be destroyed without your consent.

CONTACT INFORMATION:

If you have any questions, concerns or complaints at any time about this research, or you think the research has harmed you, please contact the office of the research team and/or the Lead Researcher at phone number 212-241-3288.

If there is an emergency, please call 911 or go to the emergency room. Let the emergency room staff know you are in a research study so they can contact the Lead Researcher if needed.

DISCLOSURE OF FINANCIAL INTERESTS:

Researchers sometimes get paid for consulting or doing work for companies that produce drugs, biologics or medical devices. If you have questions regarding industry relationships, you are encouraged to talk to the Lead Researcher or visit our website at http://icahn.mssm.edu/ where Mount Sinai publicly discloses the industry relationships of our faculty.

The company sponsoring this research study makes the drug being tested and has a financial interest that could be affected by the outcome of this research study.

The company sponsoring this research study manufactures the drug/device being tested and so has a financial interest that could be affected by the outcome of this research study. Dr. Emma Guttman (the Principal Investigator in this study) receives financial compensation as a consultant for Regeneron and Sanofi (the study sponsors and co-developers of the study drug, dupilumab). Dr. Guttman also receives financial compensation from other companies that research and develop medicines used in the treatment of dermatologic conditions.

Dr. Emma Guttman (the Lead Researcher in this study) is a paid consultant for Regeneron, the study sponsor and co-developer of the study drug, dupilumab. Dr. Guttman is also a paid consultant for Sanofi, co-developer of dupilumab. In addition, Dr. Guttman is a paid consultant for other companies that research and develop treatments for dermatological diseases. Dr. Guttman is the named inventor on a patent filed through Mount Sinai for the use of dupilumab for the treatment of Keloids. This patent was filed through Mount Sinai and is unlicensed. The results of this study will influence the value of the patent. Giselle Singer (the Research Coordinator in this study) is and owns shares in Regeneron. If you have questions regarding paid relationships that your physician/researcher may have with industry, we encourage you to talk with him or her, or check for industry relationships posted on individual faculty pages on our website at http://icahn.mssm.edu/.

The Lead Researcher's department has a financial interest that could be affected by the outcome of this research study Researchers and/or their departments receive money from the company sponsoring this research based on how many participants they enroll.

MAINTAINING CONFIDENTIALITY – HIPAA AUTHORIZATION:

As part of this study, some of your private and/or protected health information will be obtained, used, and shared with your permission. There is a Federal Health Insurance Portability and Accountability Act (HIPAA) that makes sure this is done correctly and safely.

What is protected health information (PHI)?
PHI is the combination of two things:

1. PHI contains information that identifies you. It will be used to contact you and link you to your health information, like name, date of birth, medical record number, and address.
2. PHI also contains health information, including information about your mental and physical health from your visits to doctors or hospitals, or from study visits.

Every time you visit a hospital or your doctor, PHI is created and recorded in your medical record by your healthcare providers. In the same way, the PHI created as part of this study will be linked to who you are and your medical information.

What PHI is collected and used in this research study, and might also be shared with others?

As part of this research project, the research team at the hospital(s) involved in the research will collect your name, address, telephone number, birthdate, e-mail. social security number, blood and tissue samples, and photographic images
The researchers will also get information from your medical record at the Mount Sinai Hospital or your private doctor.

During the study, the researchers will gather information by:

- Reviewing and/or taking your medical history (includes current and past medications or therapies, illnesses, conditions or symptoms, family medical history, allergies, etc.)
- Doing a physical examination that generally also includes blood pressure reading, heart rate, breathing rate, and temperature.
- Completing the tests, procedures, questionnaires and interviews explained in the description section of this consent.
- Reviewing HIV-related information, which includes any information indicating that you have had an HIV-related test, or have HIV infection, HIV-related illness or AIDS, or any information which could indicate that you have been potentially exposed to HIV.

Why is your PHI being used?
Researchers need the information that identifies you so they can contact you during the study. They need your health information and the results of any tests and procedures being collected as part of this study to answer the questions posed in the study. The purpose of the study is discussed earlier in this consent form. Before researchers analyze the data, they remove any information that would let others know who you are or that you took part in the study. If researchers publish or present study results at scientific meetings, lectures, or other events, their presentations would not include any information that would let others know who you are, unless you give separate permission to do so.

The Lead Researcher may also use and share the results of these tests and procedures with other healthcare providers at Mount Sinai who are involved in your care or treatment. The research team and other authorized members of The Mount Sinai Health System (“Mount Sinai”) workforce may use and share your information to ensure that the research meets legal, institutional or accreditation requirements. For example:

- The Mount Sinai Program for the Protection of Human Subjects is responsible for overseeing research on human participants and may need to see your information.

- If you receive any payments for taking part in this study, the Mount Sinai Finance Department may need your name, address, social security number, payment amount, and related information for tax reporting purposes.
- I*f the research team uncovers abuse, neglect, or reportable diseases, this information may be disclosed to appropriate authorities.*

Who, outside Mount Sinai, might receive your PHI?
As part of the study, the Lead Researcher, research team and others in the Mount Sinai workforce may disclose your PHI, including the results of the research study tests and procedures, to the following people or organizations: (It is possible that there may be changes to the list during this research study; you may request an up-to-date list at any time by contacting the Lead Researcher.)

- The United States Department of Health and Human Services (DHHS) and the Office of Human Research Protection (OHRP) (the government organization that is responsible for protecting human research participants).
- Other collaborating research center(s) and their associated research/clinical staff who are working with the researchers on this project: Laboratory of Inflammatory Skin Diseases
- The commercial sponsor and/or their representative (who will use the results for submissions to the Food and Drug Administration (the government organization that approves drugs or devices for medical use): Regeneron Pharmaceuticals, Inc
- The United States Food and Drug Administration.

In all disclosures outside of Mount Sinai, you will not be identified by name, social security number, address, telephone number, or any other direct personal identifier unless disclosure of the direct identifier is required by law. Some records and information disclosed may be identified with a unique code number. The Lead Researcher will ensure that the key to the code will be kept in a locked file, or will be securely stored electronically. The code will not be used to link the information back to you without your permission, unless the law requires it, or rarely if the Institutional Review Board (IRB) allows it after determining that there would be minimal risk to your privacy. It is possible that a sponsor or their representatives, a data coordinating office, a contract research organization, may come to inspect your records. Even if those records are identifiable when inspected, the information leaving the institution will be stripped of direct identifiers. Additionally, when applicable, the monitors, auditors, the IRB, *OHRP, as well as the Food and Drug Administration (FDA) will be granted direct access to your medical records for verification of the research procedures and data. OHRP and FDA are authorized to remove information with identifiers if necessary to complete their task. By signing this document you are authorizing this access.* The results of this research may be published. However, your name and other identifying information will be kept confidential.

For how long will Mount Sinai be able to use or disclose your PHI?
Your authorization for use of your PHI for this specific study does not expire.

Will you be able to access your records?
During your participation in this study, you will not be able to access your medical records. This is done to prevent the knowledge of study results from affecting the reliability of the study. Your information will be available should an emergency arise that would require your treating physician to know this information to best treat you. You will have access to your medical record and any study information that is part of that record when the study is over or earlier, if possible. The research team is not required to release research information to you that is not part of your medical record.

Do you need to give the researchers permission to obtain, use or share your PHI?
NO! If you decide not to let the research team obtain, use or share your PHI, you should not sign this form, and you will not be allowed to volunteer in the research study. If you do not sign, it will not affect your treatment, payment, or enrollment in any health plans or affect your eligibility for benefits.

Can you change your mind?
If you decide to stop being in the study, please contact the Lead Researcher or the research staff. The research team may ask you whether they can continue to collect information from your medical record. You will also have to decide if you wish to limit the continued use of the information collected during the study. Under US privacy laws you may also withdraw your permission for the researchers to use and share any of your protected information for research, but you must do so in writing to the Lead Researcher at the address on the first page.

Even if you withdraw your permission, the Lead Researcher may still use the information that was already collected, but only to complete this research study. Your health information may still be used or shared after you withdraw your authorization if you have an adverse event (a bad effect) from taking part in the research study.

If you have not already received it, you will also be given The Hospital's Notice of Privacy Practices that contains more information about how The Hospital uses and discloses your PHI.

It is important for you to understand that once information is disclosed to others outside Mount Sinai, the information may be re-disclosed and will no longer be covered by the federal privacy protection regulations. However, where possible, Mount Sinai has entered into agreements with those who will receive your information to continue to protect your confidentiality.

If researchers are reviewing your medical records or asking questions about your medical history or conditions, it is possible that they may learn information related to your HIV status. If that is the case, the following information concerns you. If researchers are not reviewing your medical records or asking questions about your medical history or conditions, then you may ignore the following section.

Notice Concerning HIV-Related Information

If you are authorizing the release of HIV-related information, you should be aware that the recipient(s) is (are) prohibited from re-disclosing any HIV-related information without your authorization unless permitted to do so under federal or state law. You also have a right to request a list of people who may receive or use your HIV-related information without authorization. If you experience discrimination because of the release or disclosure of HIV-related information, you may contact the New York State Division of Human Rights at (888) 392-3644 or the New York City Commission on Human Rights at (212) 416-0197. These agencies are responsible for protecting your rights.

How the Institutional Review Board (IRB) can help you:

This research has been reviewed and approved by an Institutional Review Board (IRB). You may reach a representative of the Mount Sinai Program for Protection of Human Subjects at telephone number (212) 824-8200 during regular work hours (Monday-Friday, 9am-5pm, excluding holidays) for any of the reasons listed below. This office will direct your call to the right person within the Mount Sinai Health System:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You are not comfortable talking to the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

ADULT PARTICIPANT:
Your signature below documents your permission to take part in this research study and to the use and disclosure of your protected health information. A signed and dated copy will be given to you.

Signature of Participant	Printed Name of Participant	Date	Time

PERSON EXPLAINING STUDY AND OBTAINING CONSENT:

Signature of Consent Delegate	Printed Name of Consent Delegate	Date	Time

WITNESS SECTION: ⭘ N/A

My signature below documents that the information in the consent document and any other written information was accurately explained to, and apparently understood by, the participant, and that consent was freely given by the participant.

Signature of Witness	Printed Name of Witness	Date	Time