Participant Information and Consent Form

Title of research project: Region-specific Adipose Tissues and Liver Changes Associated with Semaglutide Treatment in Chronic Kidney Disease Patients

Protocol: **Pro00157402**

Principal Investigator: Dr. Paolo Raggi (780-407-4575)
Co-Investigator: Dr. Luis D'Marco (587-334-0176)
Research/Study Coordinator: Ali Syed (587-372-2453)

Why am I being asked to take part in this research study?

You are being asked to participate in this research study because you have diabetes mellitus. Please read this explanation about the study and its risks and benefits before you decide if you would like to take part in it. You should take as much time as you need to make your decision. You should ask the study doctor or study staff to explain anything that you do not understand and make sure that all your questions have been answered before signing this consent form. Before you make your decision, feel free to talk about this study with anyone you wish. You will be given a copy of this form for your records. Participation in this study is voluntary.

What is the reason for doing the study?

Obesity is a growing problem all over the world and is associated with various diseases such as diabetes mellitus, high blood pressure, high cholesterol, cancer, heart disease, and kidney disease. Obesity can affect the kidneys in two main ways: indirectly, through diabetes and high blood pressure, and directly, through complex proteins called "adipokines," which are produced by fat cells (also known as adipocytes).

Many of these adipokines are released by fat cells under normal conditions, and they help the immune defenses and energy production. However, when people become obese these proteins produce chronic inflammation in the heart, blood vessels, the pancreas (that releases

insulin to regulate blood sugar levels), and the kidneys leading to a deterioration in liver and kidney function.

In recent years, new drugs have been developed called glucagon-like peptide-1 receptor agonists (GLP-1Ras), like Semaglutide (e.g.Ozempic). These medications lower blood sugar levels, induce weight loss, and improve kidney and liver function. However, little is known about their specific effect on fat (adipose) tissue and the proteins released by fat (adipokines). Therefore, studies in patients receiving these drugs could tell researchers how they affect chronic inflammation, fat accumulation around internal organs, and the function of the heart, liver, and kidneys.

What will I be asked to do?

If you agree to join the study, you will be asked to have a magnetic resonance imaging **(MRI)** scan to measure the fat around the heart, liver and kidneys. Each study visit may last about 1 hour, and that is all the time we require of you; you will not have to return for future visitis.

Before your imaging test, you will first sign this consent form. If you agree to take part in this study, you will have the MRI scan on the same day. The MRI study will be performed in the ABACUS Research Center on the lower level in the Mazankowski Alberta Heart Institute. You will need to change into a hospital gown and lie on the scanner table. You will be asked to hold your breath a few times, each time for 8-10 seconds. This procedure takes about 15-20 minutes. To do this test we will not inject any drugs into you and we will not give you any experimental drugs.

We will also ask you to give us a urine sample, and a blood sample. To draw the blood we will insert a small needle in a vein of one of your arms for a few seconds. The needle will be taken out as soon as the blood sample is drawn. We will draw about 20 cc of blood, i.e. about 2 blood tube tests.

A nurse or a support staff will ask you questions about your medical history. The type of information we will collect includes your medications, recent tests your doctor may have ordered, and basic information such as age, weight, height. These questions are like what you would be asked for a routine MRI or other scans.

Possible Side Effects and/or Risks

The risks and discomforts you may experience to participate in this study are minimal and include lying on a radiology bed for 15-20 minutes, that may cause some back discomfort, and ringing in the ears from the noise the MRI scan makes when taking pictures. The MRI scan does not use radiation to take pictures, therefore there is no increased risk of cancer. If you are claustrophobic and cannot tolerate staying in a close environment for the length of time that it takes to complete the test, this study may not be appropriate for you. You cannot wear anything made of iron, steel or any heavy metal in the MRI scanner, since these metals can be magnetize and fly around during the procedure, potentially injuring you or an attendant. You may also faint or have light-headedness, or have some pain or discomfort, bruising, and rarely an infection where the needle is inserted to draw the blood sample.

What are the benefits to me?

There is no direct benefit to you from taking part in this study. Indirectly, you will help doctors understand how drugs such as Semaglutide work.

If we see an unexpected but significant finding in your MRI scan or in your blood and urine tests, we will immediately notify your doctor of this information.

Do I have to take part in the study?

Your participation in this study is entirely voluntary. If you do decide to take part you will be given a copy of this information sheet and you will be asked to sign the consent form. You are under no pressure to take part and may withdraw from the study at any time without having to explain why. If you withdraw you have the right to withdraw any of your information from the database at any time so that it is not included in the study.

Will I be paid to be in the research?

You will not be paid to participate in this research study. However, we will be happy to give you a pre-paid parking voucher for the hospital parkade for the day you attend your imaging test.

Will my information be kept private?

During the study we will be collecting data about you. We will do everything we can to make sure that this data is kept private. Sometimes, by law, we may have to release your information with your name so we cannot guarantee absolute privacy. However, we will make every legal effort to make sure that your information is kept private.

Your study data will be coded with a unique identifier, removing direct personal identifiers such as your name and address to protect your privacy. However, it is important to note that full dates, such as date of birth or date of hospital admission may be considered identifying information (for example, per AHS standards). Therefore, while your data will be coded, the inclusion of full dates could still make it possible, under certain circumstances, to trace the data back to you. Only the study doctor will be able to associate your coded data with your identity.

During research studies it is important that the data we get is accurate. For this reason your health data, including your name, may be looked at by people from: the University of Alberta researchers listed on this consent form, and members of the Research Ethics Board.

The investigator or their study staff may need to look at your personal health records or at those kept by other health care providers that you may have seen in the past (i.e. your family doctor). Any personal health information that we get from these records will be only what is needed for the study.

By signing this consent form you are saying it is okay for the study team to collect, use and disclose information about you from your personal health records as described above.

After the study is done, we will still need to securely store your health data that was collected as part of the study. At the University of Alberta, we keep data stored for a minimum of 5 years after the end of the study.

What if I have questions?

If you have any questions about the research now or later, please contact:

Principal Investigator: Dr. Paolo Raggi (780-407-7524)
Co-Investigator: Dr. Luis D'Marco (587-334-0176)
Research/Study Coordinator: Ali Syed (587-372-2453)

If you have any questions regarding your rights as a research participant, you may contact the Health Research Ethics Board at ethics@ualberta.ca. This office is independent of the study investigators.

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By signing below, you understand:

- That you have read the above information and have had anything that you do not understand explained to you to your satisfaction
- That you will be taking part in a research study
- That you may freely leave the research study at any time
- That you do not waive your legal rights by being in the study
- That the legal and professional obligations of the investigators and involved institutions are not changed by your taking part in this study.

SIGNATURE OF STUDY PARTICIPANT

_____
Name of Participant

_____ _____
Signature of Participant Date

SIGNATURE OF PERSON OBTAINING CONSENT

_____ _____
Name of Person Obtaining Consent Contact Number

_____ _____
Signature Date

SIGNATURE OF THE WITNESS

_____
Name of Witness

_____ _____
Signature of Witness Date

A copy of this consent form has been given to you to keep for your records and reference.