

PARTICIPANT INFORMATION and CONSENT FORM

The BCC3 Cohort presents:

(BC CARMA-CHIWOS Collaboration)

~ REDOSE Sub-Study ~

ReEvaluating antiretroviral Drug cOncentrations and Side Effects in individuals living with HIV

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SPONSOR: The Canadian Institutes of Health Research (CIHR)

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1. INVITATION

You are being invited to take part in this research study because you are living with HIV and are age 19 or older. This study is being conducted by the team listed above as well as women and men living with HIV with diverse lived experiences and expertise who were trained to work with research. This team is trying to better understand antiretroviral (ARV) concentrations and side effects for people living with HIV as they age. We are investigating whether the level of ARVs in your bloodstream increases as you get older and whether this might be different for women compared to men. We also want to understand what other factors such as your weight, kidney and liver functions might influence the levels of ARV in your bloodstream, and whether high ARV levels are associated with increased side effects.

REDOSE is a sub-study of British Columbia CARMA-CHIWOS Collaboration (BCC3). The BCC3 project is a collaboration of two projects that have each been running for a decade or longer. By collaborating together, these projects will be able to better understand how the lived experiences of people living with HIV intersect with clinical and cellular markers of aging. There are certain aspects of this collaboration we will be looking at during this study and we aim for further investigation to follow in the future.

2. YOUR PARTICIPATION IS VOLUNTARY

Your participation is voluntary. You have the right to refuse to participate in this study. If you decide to participate, you may still choose to withdraw from the study at any time without any negative consequences to the medical care, education, or other services to which you are entitled or are presently receiving.

You should be aware that there is a difference for both you and your primary care provider between being a patient and being a research participant. As a patient, all medical procedures and treatments are carried out for your benefit only according to standard accepted practice. As a research participant, you and your primary care provider also must take into account the requirements for the research study. These may include procedures and treatments that are not part of standard practice or are not yet proven. This consent form describes the diagnostic and treatment procedures that are being carried out for research purposes. Please review the consent document carefully when deciding whether or not you wish to be part of the research and sign this consent only if you accept being a research participant.

If you wish to participate in this study, you will be asked to sign this form.

Please take time to read the following information carefully and to discuss it with your family, friends, and/or primary care provider before you decide.

3. WHO IS CONDUCTING THE STUDY?

This study is funded by the Canadian Institutes of Health Research (CIHR). A team of doctors, researchers and community members are conducting this study.

4. BACKGROUND

HIV is a chronic condition managed with lifelong daily medication: antiretroviral (ARV) therapy. As people with HIV live longer, older adults, especially women, experience increased side

effects from ARVs, which impacts their quality of life. Aging also brings changes in how the body processes medication (pharmacokinetics), and these changes are different for men and women. There's limited knowledge about how age and sex affect the body's processing of ARVs. Studies for the development of these medications focused on young men, resulting in dosing recommendations that may not be suitable for many groups, including older adults and women. This knowledge gap poses challenges in ensuring the safety and tolerability of HIV treatments for all people.

5. WHAT IS THE PURPOSE OF THE STUDY?

Research has shown increased risk of ARV side effects for women compared to men. This leads to women experiencing more rashes, gastrointestinal intolerance, weight gain, and sleep/mood effects. Older adults also have a higher risk of short and long-term ARV side effects. These effects, in turn, may result in higher rates of stopping one's ARVs, increased chronic health conditions such as bone disease, and decreased quality of life. Despite rising concerns over these side effects, we do not understand what causes them.

The goal of this study is to better understand the impact of age and sex on ARV levels in the bloodstream and determine whether high ARV levels are linked to more side effects. This knowledge will help to understand and improve any ARV-related health issues, such as side effects, experienced by women and older adults. New knowledge gained from this study will help to guide future care that will allow for a more personalized approach to HIV treatments.

This study is taking place in British Columbia, from 2024 to 2027, and will include 260 women living with HIV and 260 men living with HIV.

6. WHO CAN PARTICIPATE IN THE STUDY?

You may be able to participate in this study if:

- a. you are able to communicate in English;
- b. you are an adult living with HIV (age \geq 19y);
- c. you have an undetectable viral load (viral load [VL] <50 copies/mL) at last blood draw;
- d. you are on the same ARV regimen \geq two weeks*;
- e. you are able to attend a study visit at a study site (no need to be a clinic client)
- f. you are **not** currently pregnant or breastfeeding.

7. WHAT DOES THE STUDY INVOLVE?

If you agree to take part in this study, the visit and sample collection schedule you can expect are outlined below. There will be one visit made up of two parts - the Clinic Visit and the survey. There are two parts of the study can happen on the same day or over a maximum of 14 days. The Clinic Visit is expected to take between 1 and 2 hours and completing the survey online should take around the same time. The total amount of time you are being asked to commit to the study is between approximately 3-4 hours.

REDOSE STUDY PART 1: The Clinic Visit (1-2 hrs)

This portion of the visit must occur first and will take place at a clinical location.

- a. If not already done, one of the study research staff will meet with you and review the study consent form, answer any questions you may have and obtain your signature on the consent form
- b. Your height, weight, waist circumference and blood pressure will be measured
- c. We will measure your grip strength and assess how much time it takes you to walk a certain distance.
- d. A trained interviewer will ask you questions about your medical history and HIV history (e.g. diagnoses, medication use)
- e. A blood sample will be collected
- f. A urine sample will be collected
- g. Optional mouth-swab collected by you or the research study staff
- h. Optional rectal swab self-collected by you

44 ml (3 tablespoons) of blood will be collected. HIV-related health information will be extracted from your clinical record, if available.

Your biospecimens (samples), collected as part of this study, will be tested for the following:

- drug levels of antiretrovirals;
- some common chemistry and hematology tests, including blood counts, kidney and liver function;
- urine samples to test for kidney function.

REDOSE STUDY PART 2: Survey (1.5 hrs)

This portion of the visit must occur after Part 1, can take place 0-14 days afterward and can take place remotely or at a community site or clinical location. If you choose to self-survey, a research assistant will email you a link to access the survey. You will be asked questions about your:

- Demographics (e.g. age, gender)
- Medical and HIV history
- Antiretrovirals and side effects
- Substance use
- Experiences of stigma and discrimination
- Chronic pain and sleep
- Social support
- Emotional and social health and well-being
- Resilience

If you prefer to complete the survey with a research assistant, the interview will take place in a quiet, confidential space at a local clinic, community organization, or in your home via telephone or videoconference (Skype or Zoom). If you participate via videoconference, you may keep your camera off throughout the interview and can log in using a nickname, if you prefer. The information you share will be saved on a secure online database. Your name, contact information and other personal information that can identify you will be kept separate from your answers to the survey. Therefore, it is not possible to connect you to the answers you

have shared.

If you have previously participated in the CARMA study, data collected as part of your previous participation in the CARMA study may be accessed and included in this study.

Some of the tests for the study are being done using non-diagnostic methods of testing (for research use only), and as such, we will not be able to give these testing results to you or your primary care provider.

NOTIFYING YOU and/or YOUR PRIMARY CARE PROVIDER OF YOUR TEST RESULTS

As part of this study, we will be doing some lab tests to look at different markers of health in your blood and urine. Some of these tests will be done in a regular hospital lab and, if abnormal or outside of normal range, the results of these tests can be made available to you or your primary care provider. Other tests are done at a research lab where reference ranges or “normal” values may be unknown. In this case, we will contact you if the study physician feels that the results may be important for your health and we will recommend for you to follow up with a care provider.

Please indicate, by checking the applicable box, whether you would like us to notify you, your primary care provider(s) or both of you about the lab test results done as part of this study. This is not a consent to release medical information.

- Yes, I would like the study investigator to notify ONLY my primary care provider(s) about my lab test results done as part of this study.
- I would like the study investigator to notify BOTH me and my primary care provider(s) about my lab test results.
- I would like the study investigator to notify ONLY me about my lab test results.

In the future, we may have other health results available for sharing that are also based on research tools. These should be interpreted with care and will only be sent to you if you consent to this. These results may or may not be clinically actionable.

- I would also like the study team to inform me of research lab results when/if they become available.

Primary care provider(s) name(s): _____

Phone number: _____

Clinic Name: _____

My phone number is: _____

Alternate phone number and name/relationship: _____

My email address is: _____

PERFORMING ADDITIONAL TESTING

There may also be the opportunity in the future to perform additional testing on your samples that would allow for us to make comparisons with other participants in the BCC3 study to better understand aspects of aging including measurements of hormones, immune cells and molecular markers. This testing is optional. If you agree to it, biospecimens (samples) could be tested for the following (list not exhaustive):

- lab tests that are used to diagnose diseases of aging such as diabetes and heart, liver or kidney disease
- genetic markers
- sexual hormones
- tests to understand the health and functioning of your telomeres (the length of DNA at the end of your chromosomes)
- tests that look at the health of cells that fight infection and help heal injuries
- inflammation biomarkers (elements in the blood that show inflammation is present)
- viral infections that are common in humans and can be in the body for a long time (such as hepatitis B and C)
- tests to understand the health of your immune cells
- tests to understand the health and functioning of your mitochondria (energy producing part of body cells)

Your blood will be tested in batches. Testing may be 6 or more months after your visit.

I **agree** to my samples being tested for additional research purposes related to health and aging

I **do not agree** to my samples being tested for additional research purposes related to health and aging

Collection of Swabs for Testing Not Yet Funded

We are requesting two optional rectal swabs (self-collected) and one optional mouth swab (self-collected or collected by research staff). We do not currently have funding to test these swabs. We plan to submit grant applications that, if successful, will provide funds for this testing. Once we are successful with additional funds, your biospecimens will have testing done to test for exposures to viruses and in the biological science area called “omics”. “Omics” is a field of study that looks at the group classification and measurement of biological molecules that translate into the structure, function, and dynamics of an organism or organisms. These testing will be used to investigate links between the bacteria that inhabit the gut (as a surrogate for a stool/gut sample) and the other health markers we are looking at in this study.

I **agree** to collect a mouth swab at this visit for testing at a later date when funding becomes available

I **agree** to collect a rectal swab at this visit for testing at a later date when funding becomes available

I **do not agree** to collect a mouth swab

I **do not agree** to collect a rectal swab

8. HEALTH INFORMATION LINKAGE AND SECURITY

As part of this study, we plan to link data from the REDOSE biospecimens, as well as the survey to provincial health databases (e.g. birth, death, name change, cancer or pharmacy registries). In order to link to these health databases, we use your first name, last name, birth date and provincial health card number (PHN) stored in the secure BCC3 Participant Database. Once linkage is made, a non-identifying, unique LINKAGE ID is assigned across all files so that data sets can be linked without needing to access your personal identifying information again. Linkage will be done by only one authorized member of the study team, the Data Analyst, within a high-security environment. The provincial health databases and REDOSE Team follow strict provincial PRIVACY policies. We want to link health databases to get accurate data and because it is not possible to ask about all important health information such as blood work results, lifetime hospitalizations, use of health care services, emergency room visits and medication information in a 2-hour interview. This linkage will provide us with extra information to help better understand the health of people living with HIV. It may also be done many years from now, to see if there is a relationship between the markers we measure now and your future health. If you do not feel comfortable with providing your PHN or if you are concerned about the privacy and confidentiality of this linkage, it would be best for you not to participate in this study.

9. DATA STORAGE AND SECURITY

Signed consent forms will be stored securely in a locked filing cabinet in a locked office on the secure premises of the BC Women's Hospital + Health Centre. If consent forms are signed off site, they will be securely stored at that site using the same measures as described and will be transported in a locked file folder with one of our research staff to BC Women's for filing. Survey data will be captured using the survey feature within an online database called REDCap (<https://projectredcap.org>). Any information that can identify you (i.e. name, contact details) will be entered and stored in a separate password-protected BCC3-REDOSE Study Master File. No data will remain on the tablet/computer used to conduct the interview. Only the Research Staff will have access to the consent forms and the BCC3-REDOSE Study Master File. Study investigators will only have access to de-identified data, stripped of any information that could identify you. Your biospecimens and data will be identified using a unique study ID only and will not contain any personally identifying information such as your name or date of birth. Testing results and health data collected as part of this study will be kept for a maximum of 25 years after the study is finished or for an indefinite period of time if you have also signed the Bio-Banking Consent.

10. WHAT ARE THE POSSIBLE HARMS AND DISCOMFORTS?

Blood drawing may cause some discomfort, bleeding or bruising where the needle enters the body. A small blood clot may form where the needle enters the body or there may be swelling in the area. Rarely, fainting or a local infection at the puncture site may occur. In some cases, people experience minor discomfort when rectal swabs are collected.

Some of the survey questions are very personal. They might bring up feelings like discomfort, sadness, grief, stress, or anger. Again, you do not have to answer any question that makes you

feel uncomfortable, and you are welcome to skip questions, skip survey sections, or to stop the interview at any time.

If you agree to link your REDOSE survey data to other provincial health databases, your personal information, including name, date of birth, and Personal Health Number (PHN), will be used to make data linkages. If you participate, your security and privacy will be maximized, but in a rare event may not be guaranteed. A security breach has never occurred with such databases and linkages in Canada.

At the end of the interview, you will be provided with a list of local resources and free counseling services should you want to access them.

We will make every effort to protect your privacy and confidentiality during the study; however, it is possible that people may learn you are participating in this study and this may make you uncomfortable. The chances that research data would be accidentally released are estimated to be exceedingly small.

11. WHAT ARE THE POTENTIAL BENEFITS OF PARTICIPATING?

The blood tests done in the regular hospital lab may be used by your primary care provider as part of your care and treatment. Apart from this, you may not receive any further individual benefit from participating in this study. However, knowledge gained from this study may, in the future, help healthcare providers and caregivers better understand how to optimize the health of people living with HIV.

12. WHAT IF NEW INFORMATION BECOMES AVAILABLE THAT MAY AFFECT MY DECISION TO PARTICIPATE?

You will be told of any new information learned during the course of the study that might cause you to change your mind about staying in the study.

13. WHAT HAPPENS IF I DECIDE TO WITHDRAW MY CONSENT TO PARTICIPATE?

Your participation in this research is entirely voluntary. You are under no obligation to be included in this study. You may withdraw from this study at any time without giving reasons. If you decide to enter the study and to withdraw at any time in the future, there will be no penalty or loss of benefits to which you are otherwise entitled, and your future medical care will not be affected.

You have the right to request the withdrawal of your information collected during the study, and the destruction of any specimen collected during the study. This request will be respected to the extent possible. Please note however that there may be exceptions where the data will not be able to be withdrawn for example where the data is no longer identifiable (meaning it cannot be linked in any way back to your identity) or where the data has been merged with other data. Similarly, if a specimen has already been used, we can only delete data obtained from it. If you would like to request the withdrawal of your data, please contact Dr. Elizabeth King, Principal Investigator, at 604 875 2212.

14. HOW WILL MY TAKING PART IN THIS STUDY BE KEPT CONFIDENTIAL?

Your confidentiality will be respected. However, research records and health or other source records identifying you may be inspected in the presence of the Investigator or his or her designate by representatives of the Sponsor, UBC Children's and Women's Research Ethics Board, Simon Fraser University Research Ethics Board and any other entity as required by law for the purpose of monitoring the research. No information or records that disclose your identity will be published without your consent, nor will any information or records that disclose your identity be removed or released without your consent, unless required by law.

You will be assigned a unique study number as a participant in this study. This number will not include any personal information that could identify you (e.g., it will not include your Personal Health Number, SIN, or your initials, etc.). Only this number will be used on any research-related information collected about you during the course of this study, so that your identity will be kept confidential. Information that contains your identity will remain only with the Principal Investigator and/or designate. The list that matches your name to the unique study number that is used on your research-related information will not be removed or released without your consent unless required by law.

Your rights to privacy are legally protected by federal and provincial laws that require safeguards to ensure that your privacy is respected. You also have the legal right of access to the information about you that has been provided to the sponsor and, if need be, an opportunity to correct any errors in this information. Further details about these laws are available on request to your study doctor.

Disclosure of Race/Ethnicity

Studies involving humans now routinely collect information on race and ethnic origin as well as other characteristics of individuals because these characteristics may influence how people respond to different medications. Providing information on your race or ethnic origin is voluntary.

15. WHAT HAPPENS IF SOMETHING GOES WRONG?

By signing this form, you do not give up any of your legal rights and you do not release the sponsor, study doctor, participating institutions, or anyone else from their legal and professional duties. If you become ill or physically injured as a result of participation in this study, medical treatment will be provided by your provincial medical plan.

16. WHAT WILL THE STUDY COST ME?

All research-related activities that occur during your participation in this study will be at no cost to you.

Reimbursement

REDOSE PART 1: The Clinic Visit - You will be paid \$30 at this visit to assist with the cost of parking and transportation. You will be paid at the time of your visit and receipts are not required.

REDOSE PART 2: The Survey - You will be paid \$40 for your time spent in completing this survey. Even if the visit takes place remotely, you will receive the same amount. You will be paid at the time of your visit if in person, or after completion of the survey by e-transfer or cheque if done remotely; receipts are not required.

17. WHO DO I CONTACT IF I HAVE QUESTIONS ABOUT THE STUDY DURING MY PARTICIPATION?

If you have any questions or desire further information about this study before or during participation, you can contact Dr Elizabeth King at 604 875 2212.

18. WHO DO I CONTACT IF I HAVE QUESTIONS OR CONCERNS ABOUT MY RIGHTS AS A PARTICIPANT?

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the University of British Columbia Office of Research Ethics by e-mail at RSIL@ors.ubc.ca or by phone at 604-822-8598 (Toll Free: 1-877-822-8598). Please reference the study number (**H19-00896**) when contacting the Complaint Line so the staff can better assist you. You may also contact the Fraser Health Research Ethics Board co-Chair by calling 604-587-4681 if you have any concerns about your rights as a research participant.

19. AFTER THE STUDY IS FINISHED

Please contact Dr Elizabeth King 604 875 2212, with any requests you may have about study updates or results. We will not be providing individual results from this study.

20. FUTURE SHARING of DATA

As per our Sponsor's (CIHR) policy, your **de-identified research data** (which means your name, birthdate, and other identifiers have been removed) may be deposited into a publicly accessible location at the time of publication. Please note that your de-identified data will be pooled so it can't be identified when it is released to the public. Making data publicly accessible can enhance the transparency of the research data and allows for external validation and fraud control, but it also allows others to access the data for re-analysis of this study or to do other kinds of analyses in the future beyond those you are consenting to in this study. Also, this future use of your data may not be subject to oversight by a research ethics board, and thus the data may be publicly shared and used in currently unknown ways. Once the data are made publicly available, you will not be able to withdraw your data. Even though the identifying information will be removed from the data it is possible that others may be able to find out who you are. The chance of this is currently thought to be extremely low.

21. FUTURE RESEARCH

We understand some people are interested in health issues and health research. Creation of a database of people who are interested in being involved in future research will allow us to inform them about upcoming studies for which they may be eligible.

The research team would like to ask you for permission to contact you in the future for opportunities related to this current project, and also other research opportunities. If you agree to have your contact information kept on file, it does not mean you are obligated in any way to participate in any future research.

I AGREE that a member of Dr King's research team may contact me in the future to ask if I am interested in participating in other research studies not described in this form.

Phone: _____

Email: _____

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Mailing address: _____

Other: _____

I DO NOT AGREE to have my contact information kept on file or to be contacted for future research.

REDOSE

(ReEvaluating antiretroviral Drug cONcentrations and Side Effects in individuals living with HIV)

REDOSE Participant Consent and Signature Page

- I have read and understood the information in this consent form.
- I have had enough time to think about the information provided.
- I have been able to ask questions and have had satisfactory responses to my questions.
- I understand that all of the information collected will be kept confidential and that the results will only be used for scientific purposes.
- I understand that my participation in this study is voluntary.
- I understand that I am completely free at any time to refuse to participate or to withdraw from this study at any time, and that this will not change the quality of care that I receive.
- I authorize access to my health records and biospecimens as described in this consent form.
- I understand that I am not waiving any of my legal rights as a result of signing this consent form.
- I understand that this study will provide no direct benefit to me.

I will receive a signed copy of this consent form for my own records

I have read this form and I consent to my participation in this study

Printed name and signature of **participant**

Date

Printed name and signature of **person obtaining consent**

Date