Participant Information Sheet/Consent Form
Non-Interventional Study - *Adult providing own consent*

Baker IDI Heart and Diabetes Institute

Title	Feasibility of identification of chemotherapy-induced cardiac damage using novel exercise magnetic resonance imaging in breast cancer patients and exercise training for prevention; a pilot study.
Short Title	Exercise for cardiac reserve (ECR)
Protocol Number, Project Number	1.02 269/15
Project Sponsor	Baker IDI Heart and Diabetes Institute
Coordinating Principal Investigator/ Principal Investigator	Assoc Prof Andre La Gerche
Associate Investigator(s)	Rhys Beaudry, Assoc Prof Sherene Loi, Assoc Prof Sue-Anne McLachlan, Dr. Tim Roberts, Dr. Melissa Moore, Dr Ben Costello, Ms Kristel Janssens, Ms Ashley Bigaran, Dr Steve Fraser, Prof Steve Selig
	St Vincent's Hospital (Recruitment, Echocardiography, CPET)
Location	Peter MacCallum Cancer Institute (Recruitment)
	Baker IDI Heart and Diabetes Institute (CMR, CPET, Exercise Training)

Part 1 What does my participation involve?

1 Introduction

You are invited to take part in this research project. This is because you are a recently diagnosed, 18-70 year old female breast cancer patient scheduled for anthracycline based chemotherapy. The research project is testing a new, non-invasive diagnostic strategy for predicting heart failure following breast cancer treatment. The strategy is called exercise cardiac magnetic resonance imaging (CMR).

This Participant Information Sheet/Consent Form tells you about the research project. It explains the tests and research involved. Knowing what is involved will help you decide if you want to take part in the research.

Please read this information carefully. Ask questions about anything that you don't understand or want to know more about. Before deciding whether or not to take part, you might want to talk about it with a relative, friend or local doctor.

Participation in this research is voluntary. If you don't wish to take part, you don't have to. You will receive the best possible care whether or not you take part.

If you decide you want to take part in the research project, you will be asked to sign the consent section. By signing it you are telling us that you:
- Understand what you have read
- Consent to take part in the research project
- Consent to the tests and research that are described
- Consent to the use of your personal and health information as described.

You will be given a copy of this Participant Information and Consent Form to keep.

2 What is the purpose of this research?

The aim of this study is to test exercise CMR as a method of identifying signs of heart failure prior to its clinical onset. Heart failure is when the heart cannot supply the body with adequate blood flow. Additionally, exercise training will be investigated as a treatment modality for preventing declines in heart function.

CMR uses harmless magnetic waves to non-invasively produce images of your heart. For this study, you will pedal a specially adapted cycle while you lie in the narrow tube of the CMR machine. This is a novel technique hypothesized to aid in earlier diagnosis of heart failure.

This research has been initiated by the study doctor, Dr. Andre La Gerche.

This research has been funded in part by St. Vincent's Research Endowment Fund, Future Leader Fellowship from the Australian National Heart Foundation, and Endeavour from the Australian Department of Education.

This research is being conducted by Dr. Andre La Gerche, Rhys Beaudry, Dr. Sherene Loi, Dr. Sue-Anne MacLachlan, Dr. Tim Roberts and Ashley Bigaran

3 What does participation in this research involve?

Prior to participating in this study you must sign this informed consent form. You will then be screened for eligibility, you must be:

1. Female
2. Aged 18-70
3. Diagnosed with breast cancer
4. Scheduled for anthracycline-based chemotherapy
5. Capable of walking up 2 flights of stairs without stopping

You must not have:

1. A contraindication to anthracycline-based chemotherapy such as known structural heart disease
2. Irregular heartbeat
3. A contraindication to CMR such as a pacemaker or implanted metallic foreign body/device
4. Extensive breast reconstructive surgery or surgical advice precluding exercise for > 4 weeks

You will be assigned to one of two groups; the control group which receives usual care, or the exercise group which participates in a supervised exercise intervention. You will be given a choice of which group you would like to be assigned to until the group is full. .

Demographic information such as education, ethnicity, marital status and number of children will be collected at baseline only. You will undergo baseline testing prior to initiation of your chemotherapy, and follow-up testing 4 weeks after your last cycle of anthracycline chemotherapy. Testing will consist of:

1. Exercise Testing: Exercise testing involves stationary cycling starting at maximal exercise. During the test you will wear a mask which monitors how much air you breathe. The mask in no way limits your ability to breath. This test will be conducted at St Vincent's Hospital or the Baker IDI Heart and Diabetes Institute.
2. Exercise CMR: Exercise CMR involves pedaling a specialised cycle while lying in the tube of a CMR machine. This test will be conducted at the Baker IDI Heart and Diabetes Institute.
3. A blood test which requires approximately 10 ml of blood; this will be taken at the time of your exercise test.
4. Resting echocardiography: A non-invasive ultrasound will be used to create images of your heart. This is taken as part of usual care at your treating hospital.
5. Red blood cell count and other measures will be recorded from blood samples taken as a part of standard care.

Study length will vary depending on your treatment. Typically participants will have baseline and follow-up testing separated by approximately 6 months.

If you are assigned to the exercise intervention, you will be expected to participate in supervised exercise classes for the duration of your treatment. Three sessions will be offered per week at the Baker IDI Heart and Diabetes Institute, sessions are approximately 1 hour long.

Access to your medical record by your treating oncologist is required. Your participation in the project will be recorded in your medical record; your personal data will remain confidential.

This research project has been designed to make sure the researchers interpret the results in a fair and appropriate way.

There are no costs associated with participating in this research project, nor will you be paid. You will be reimbursed for any of the following costs that you incur as a result of participating in this research project: parking or transit to the study site. You may be reimbursed for parking expenses associated with the research project visit to a maximum of $20 with a receipt.

If you decide to participate in this research project, the study doctor can inform your local doctor, at your discretion.

4 What do I have to do?

You are expected to undergo baseline and follow-up testing, as well as adhere to the exercise protocol if you are assigned to the exercise group. Participants assigned to the exercise group are expected to participate in supervised exercise for approximately 1-2 hours per week. This study imposes no restrictions on lifestyle, diet or medications.

5 Other relevant information about the research project

This study aims to recruit 30 breast cancer patients from the Melbourne region, specifically from St Vincent's Hospital, Peter MacCallum Cancer Institute and the Baker IDI Heart and Diabetes Institute. 15 participants will be assigned to each group. Several participants may be present at the same time for

supervised exercise sessions. Researchers from each of the listed institutes will be collaborating for this project.

6 Do I have to take part in this research project?

Participation in any research project is voluntary. If you do not wish to take part, you do not have to. If you decide to take part and later change your mind, you are free to withdraw from the project at any stage.

If you do decide to take part, you will be given this Participant Information and Consent Form to sign and you will be given a copy to keep.

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your routine treatment, your relationship with those treating you or your relationship with St Vincent's Hospital, Peter MacCallum Cancer Institute or the Baker IDI Heart and Diabetes Institute.

7 What are the alternatives to participation?

You do not have to take part in this research project to receive treatment at this hospital. You may choose to receive standard care.

8 What are the possible benefits of taking part?

We cannot guarantee or promise that you will receive any benefits from this research; however, possible benefits may include increased physical fitness, improved heart function or suggestive early evidence of heart failure. Exercise has many demonstrated beneficial effects including improved quality of life, reduced anxiety, improved sleep, appetite, strength and reduced fatigue.

9 What are the possible risks and disadvantages of taking part?

This study has minimal associated risk. Exercise (and exercise testing) has been known to elicit serious cardiac events in extremely rare cases. Following exercise you may experience muscle soreness; this poses no risk to your health. Medically trained staff will be present for all exercise and testing to minimise any harm that may be incurred as a result of exercise.

Having a blood sample taken may cause some discomfort, bruising, minor infection or bleeding. If this happens, it can be easily treated.

Should participation in this research uncover a medical condition of which you were unaware you will be informed and directed to where you may receive appropriate care. If a relevant heart condition is diagnosed you will be excluded from the study.

CMR stands for cardiac magnetic resonance imaging. A CMR scanner is a machine that uses electromagnetic radiation (radio waves) in a strong magnetic field to take clear pictures of the inside of the body. Electromagnetic radiation is not the same as ionising radiation used, for example, in X-rays. The pictures taken by the machine are called CMR scans.

We will ask you to lie on a table inside the CMR scanner. The scanner will record information about your heart. The scanner is very noisy and we can give you some earphones to reduce the noise. Some people may experience symptoms of claustrophobia from lying in a confined space. If you do experience discomfort at any time during the scan, you will be able to alert staff by pressing on a call button provided to you.

There are no proven long-term risks related to CMR scans as used in this research project. CMR is considered to be safe when performed at a centre with appropriate procedures. However, the magnetic attraction for some metal objects can pose a safety risk, so it is important that metal objects are not taken into the scanner room.

We will thoroughly examine you to make sure there is no reason for you not to have the scan. You must tell us if you have metal implanted in your body, such as a pacemaker or metal pins.

The scans we are taking are for research purposes. They are not intended to be used like scans taken for a full clinical examination. The scans will not be used to help diagnose, treat or manage a particular condition. A specialist will look at your MRI scans for features relevant to the research project. On rare occasions, the specialist may find an unusual feature that could have a significant risk to your health. If this happens, we will contact you to talk about the findings. We cannot guarantee that we will find any/all unusual features.

10 What will happen to my test samples?

You will be asked to provide additional consent for the collection of your blood during the research project.

Samples of your blood obtained for the purpose of this research project will be analysed by the named investigators on this study or Alfred Pathology Service. Samples will not be stored or transferred to any other department/ institution.

Sample collection is required as part of this study. Two of three samples are taken as part of normal clinical care. Only one sample is taken purely for this research purpose, this sample requires approximately 5 ml of blood (1 teaspoon).

11 What if new information arises during this research project?

Sometimes during the course of a research project, new information becomes available about the treatment that is being studied. If this happens, your study doctor will tell you about it and discuss with you whether you want to continue in the research project. If you decide to withdraw, your study doctor will make arrangements for your regular health care to continue. If you decide to continue in the research project you will be asked to sign an updated consent form.

Also, on receiving new information, your study doctor might consider it to be in your best interests to withdraw you from the research project. If this happens, he/ she will explain the reasons and arrange for your regular health care to continue.

12 Can I have other treatments during this research project?

Whilst you are participating in this research project, you may not be able to take some or all of the medications or treatments you have been taking for your condition or for other reasons. It is important to tell your study doctor and the study staff about any treatments or medications you may be taking, including over-the-counter medications, vitamins or herbal remedies, acupuncture or other alternative treatments. You should also tell your study doctor about any changes to these during your participation in the research project. Your study doctor should also explain to you which treatments or medications need to be stopped for the time you are involved in the research project.

You may wish to take medication during or after the research project to address side effects or symptoms that you may have (eg. aspirin for soreness). You may need to pay for these medications and so it is important that you ask your doctor about this possibility.

13 What if I withdraw from this research project?

If you decide to withdraw from this research project, please notify a member of the research team before you withdraw. A member of the research team will inform you if there are any special requirements linked to withdrawing.

If you do withdraw your consent during the research project, the study doctor and relevant study staff will not collect additional personal information from you, although personal information already collected will be retained to ensure that the results of the research project can be measured properly and to comply with law. You should be aware that data collected by the sponsor up to the time you withdraw will form part of the research project results. If you do not want them to do this, you must tell them before you join the research project.

14 Could this research project be stopped unexpectedly?

This research project may be stopped unexpectedly for currently unanticipated reasons.

15 What happens when the research project ends?

Following completion of the study you will be contacted with your results. Study results will be published; you will be contacted with where study results may be found.

Part 2 How is the research project being conducted?

16 What will happen to information about me?

By signing the consent form you consent to the study doctor and relevant research staff collecting and using personal information about you for the research project. Any information obtained in connection with this research project that can identify you will remain confidential. Some of the results of this study that may influence clinical care decision making (eg. the echocardiogram) will be recorded in the routine clinical records. This is in keeping with standard clinical care. Other tests specific to this study will be stored with the investigators in a password protected personal digital file. Some paper documents will be stored with the principal investigator in a locked cabinet in his secure office. Your information will only be used for the purpose of this research project and it will only be disclosed with your permission, except as required by law.
The results of your exercise testing and some data from the exercise MRI will contribute to Ashley Bigaran's honours project at Deakin University. H442 Bachelor of exercise and sports science honours: 'The effect of chemotherapy on aerobic power and cardiac function in breast cancer patients.'

Information about you may be obtained from your health records held at this and other health services for the purpose of this research. By signing the consent form you agree to the research team accessing health records if they are relevant to your participation in this research project.

Your health records and any information obtained during the research project are subject to inspection for the purpose of verifying the procedures and the data. This review may be done by St Vincent's Hospital (Melbourne) Human Research Ethics Committee, Alfred Hospital Ethics Committee, or as required by law. By signing the Consent Form, you authorise release of, or access to, this confidential information to the relevant research personnel and regulatory authorities as noted above.

It is anticipated that the results of this research project will be published and/or presented in a variety of forums. In any publication and/or presentation, information will be provided in such a way that you cannot be identified, except with your permission. All data will be presented using group statistics.

In accordance with relevant Australian and/or Victoria privacy and other relevant laws, you have the right to request access to the information collected and stored by the research team about you. You also have the right to request that any information with which you disagree be corrected. Please contact the research team member named at the end of this document if you would like to access your information.

Any information obtained for the purpose of this research project that can identify you will be treated as confidential and securely stored. It will be disclosed only with your permission, or as required by law.

17 Complaints and compensation

If you suffer any injuries or complications as a result of this research project, you should contact the study team as soon as possible and you will be assisted with arranging appropriate medical treatment. If you are eligible for Medicare, you can receive any medical treatment required to treat the injury or complication, free of charge, as a public patient in any Australian public hospital.

18 Who is organising and funding the research?

This research project is being conducted by Dr. Andre La Gerche.

No financial benefits are expected as a result of this research.

You will not benefit financially from your involvement in this research project even if, for example, your samples (or knowledge acquired from analysis of your samples) prove to be of commercial value to the St. Vincent's Hospital Melbourne, Peter MacCallum Cancer Institute or the Baker IDI Heart and Diabetes Institute.

In addition, if knowledge acquired through this research leads to discoveries that are of commercial value to St Vincent's Hospital Melbourne, Peter MacCallum Cancer Institute, the Baker IDI Heart and Diabetes Institute, or the study doctors or their institutions, there will be no financial benefit to you or your family from these discoveries. Affiliated institutes will not receive a payment for undertaking this research project.

No member of the research team will receive a personal financial benefit from your involvement in this research project (other than their ordinary wages).

No conflicts of interest are declared.

19 Who has reviewed the research project?

All research in Australia involving humans is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this research project have been approved by the HRECs of St Vincent's Hospital Melbourne and the Alfred Hospital.

This project will be carried out according to the *National Statement on Ethical Conduct in Human Research (2007)*. This statement has been developed to protect the interests of people who agree to participate in human research studies.

20 Further information and who to contact

The person you may need to contact will depend on the nature of your query.
If you want any further information concerning this project or if you have any medical problems which may be related to your involvement in the project (for example, any side effects), you can contact the principal study doctor on 04 8532 1143 or any of the following people:

Clinical contact person

Primary

Name	Kristel Janssens
Position	Research Nurse
Telephone	03/ 8532 1169
Email	kristel.janssens@bakeridi.edu.au

Secondary

Name	Dr Andre La Gerche
Position	Cardiologist
Telephone	0481 300 929
Email	Andre.Lagerche@bakeridi.edu.au

For matters relating to research at the site at which you are participating, the details of the local site complaints person are:

Complaints contact person

Name	Emily Bingle
Position	Research Governance Officer
Telephone	03 9076 3619
Email	research@alfred.org.au

If you have any complaints about any aspect of the project, the way it is being conducted or any questions about being a research participant in general, then you may contact:

Reviewing HREC approving this research and HREC Executive Officer details

Reviewing HREC name	Alfred Hospital
HREC Executive Officer	Emily Bingle
Telephone	03 9076 3619
Email	research@alfred.org.au

Consent Form – Imaging and Exercise

Title	Feasibility of identification of chemotherapy-induced cardiac damage using novel exercise magnetic resonance imaging in breast cancer patients and exercise training for prevention; a pilot study.
Short Title	Exercise for cardiac reserve (ECR)
Protocol Number, Project Number	1.01, 269/15
Project Sponsor	Investigator driven study
Coordinating Principal Investigator/ Principal Investigator	Assoc Prof Andre La Gerche
Associate Investigators	Rhys Beaudry, Assoc Prof Sherene Loi, Assoc Prof Sue-Anne McLachlan, Dr. Tim Roberts, Dr. Melissa Moore, Dr Ben Costello, Ms Kristel Janssens, Ashley Bigaran, Dr Steve Fraser, Prof Steve Selig
Location	St Vincent's Hospital (Recruitment, Echocardiography, CPET) Peter MacCallum Cancer Institute (Recruitment) Baker IDI Heart and Diabetes Institute (CMR, CPET, Exercise Training)

Declaration by Participant

I have read the Participant Information Sheet or someone has read it to me in a language that I understand.

I understand the purposes, procedures and risks of the research described in the project.

I have had an opportunity to ask questions and I am satisfied with the answers I have received.

I freely agree to participate in this research project as described and understand that I am free to withdraw at any time during the project without affecting my future health care.

I understand that I will be given a signed copy of this document to keep.

I give permission for my doctors, other health professionals, hospitals or laboratories outside this hospital to release information to St Vincent's Hospital Melbourne, Peter MacCallum Cancer Institute or the Baker IDI Heart and Diabetes Institute concerning my condition and treatment for the purposes of this project. I understand that such information will remain confidential.

I understand that, if I decide to discontinue the research project treatment, I may be asked to attend follow-up visits to allow collection of information regarding my health status. Alternatively, a member of the

research team may request my permission to obtain access to my medical records for collection of follow-up information for the purposes of research and analysis.

Name of Participant (please _____

Signature _____ Date _____

Name of Witness* to Participant's Signature (please print) _____

Signature _____ Date _____

* Witness is not to be the investigator, a member of the study team or their delegate. In the event that an interpreter is used, the interpreter may not act as a witness to the consent process. Witness must be 18 years or older.

Declaration by Study Doctor/Senior Researcher†

I have given a verbal explanation of the research project, its procedures and risks and I believe that the participant has understood that explanation.

Name of Study Doctor/ Senior Researcher† (please print) _____

Signature _____ Date _____

† A senior member of the research team must provide the explanation of, and information concerning, the research project.

Note: All parties signing the consent section must date their own signature.

Consent Form - Blood Collection

Title	Feasibility of identification of chemotherapy-induced cardiac damage using novel exercise magnetic resonance imaging in breast cancer patients and exercise training for prevention; a pilot study.
Short Title	Exercise for cardiac reserve (ECR)
Protocol Number, Project Number	1.01, 269/15
Project Sponsor	Investigator driven study
Coordinating Principal Investigator/ Principal Investigator	Assoc Prof Andre La Gerche
Associate Investigators	Rhys Beaudry, Assoc Prof Sherene Loi, Assoc Prof Sue-Anne McLachlan, Dr. Tim Roberts, Dr. Melissa Moore, Dr Ben Costello, Ms Kristel Janssens, Ashley Bigaran, Dr Steve Fraser, Prof Steve Selig
Location	St Vincent's Hospital (Recruitment, Echocardiography, CPET) Peter MacCallum Cancer Institute (Recruitment) Baker IDI Heart and Diabetes Institute (CMR, CPET, Exercise Training)

Declaration by Participant

I have read the Participant Information Sheet or someone has read it to me in a language that I understand.

I understand the purposes, procedures and risks of the research described in the project.

I have had an opportunity to ask questions and I am satisfied with the answers I have received.

I freely agree to participate in this research project as described and understand that I am free to withdraw at any time during the project without affecting my future health care.

I understand that I will be given a signed copy of this document to keep.

I give permission for my doctors, other health professionals, hospitals or laboratories outside this hospital to release information to St Vincent's Hospital Melbourne, Peter MacCallum Cancer Institute or the Baker IDI Heart and Diabetes Institute concerning my condition and treatment for the purposes of this project. I understand that such information will remain confidential.

I understand that, if I decide to discontinue the research project treatment, I may be asked to attend follow-up visits to allow collection of information regarding my health status. Alternatively, a member of the

research team may request my permission to obtain access to my medical records for collection of follow-up information for the purposes of research and analysis.

Name of Participant (please _____

Signature _____ Date _____

Name of Witness* to Participant's Signature (please print) _____

Signature _____ Date _____

* Witness is not to be the investigator, a member of the study team or their delegate. In the event that an interpreter is used, the interpreter may not act as a witness to the consent process. Witness must be 18 years or older.

Declaration by Study Doctor/Senior Researcher†

I have given a verbal explanation of the research project, its procedures and risks and I believe that the participant has understood that explanation.

Name of Study Doctor/ Senior Researcher† (please print) _____

Signature _____ Date _____

† A senior member of the research team must provide the explanation of, and information concerning, the research project.

Note: All parties signing the consent section must date their own signature.

Form for Withdrawal of Participation

Title	Feasibility of identification of chemotherapy-induced cardiac damage using novel exercise magnetic resonance imaging in breast cancer patients and exercise training for prevention; a pilot study.
Short Title	Exercise for cardiac reserve (ECR)
Protocol Number, Project Number	1.01, 269/15
Project Sponsor	Investigator driven study
Coordinating Principal Investigator/ Principal Investigator	Assoc Prof Andre La Gerche
Associate Investigator(s)	Rhys Beaudry, Assoc Prof Sherene Loi, Assoc Prof Sue-Anne McLachlan, Dr. Tim Roberts, Dr. Melissa Moore, Dr Ben Costello, Ms Kristel Janssens, Ashley Bigaran, Dr Steve Fraser, Prof Steve Selig
Location	St Vincent's Hospital (Recruitment, Echocardiography, CPET) Peter MacCallum Cancer Institute (Recruitment) Baker IDI Heart and Diabetes Institute (CMR, CPET, Exercise Training)

Declaration by Participant

I wish to withdraw from participation in the above research project and understand that such withdrawal will not affect my routine treatment, my relationship with those treating me or my relationships with St Vincent's Hospital Melbourne, Peter MacCallum Cancer Institute or the Baker IDI Heart and Diabetes Institute.

Name of Participant (please print) _____

Signature _____ Date _____

Declaration by Study Doctor/Senior Researcher†

I have given a verbal explanation of the implications of withdrawal from the research project and I believe that the participant has understood that explanation.

Name of Study Doctor/ Senior Researcher† (please print) _____

Signature _____ Date _____

† A senior member of the research team must provide the explanation of and information concerning withdrawal from the research project.
Note: All parties signing the consent section must date their own signature.