

*Insert Header with institution's name or institution's letterhead*

## Participant Information Sheet/Consent Form

**Interventional Study - Adult providing own consent**

*[Insert site name]*

<b>Title</b>	A randomised controlled trial investigating Ventilation Imaging to reduce Toxicity for Lung cancer radiation therapy patients
<b>Short Title</b>	VITaL
<b>Protocol Number</b>	IX-2022-CT-VITAL
<b>Project Sponsor</b>	The University of Sydney
<b>Coordinating Principal Investigator/ Principal Investigator</b>	Prof Paul Keall
<b>Associate Investigator(s)</b>	<i>[Associate Investigator(s)]</i>
<b>Location</b>	<i>[Location]</i>

### Part 1 What does my participation involve?

#### 1 Introduction

You are invited to take part in this research project. This is because you are soon to receive radiation therapy for your non-small cell lung cancer and have a risk of developing pneumonitis, or trouble breathing, following your treatment. This research project is testing a new treatment planning method to help protect the healthiest parts of your lungs from being injured by the radiation therapy. This new method is called CT ventilation imaging.

This Participant Information Sheet/Consent Form tells you about the research project. It explains the tests and treatments 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 your 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 have the tests and treatments that are described
- Consent to the use of your personal and health information as described.
- Consent to the future use of your anonymised data.

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

## **2 What is the purpose of this research?**

The purpose of this study is to test whether patients receiving healthy lung sparing treatment have a better quality of life than patients receiving standard treatment.

Some parts of your lungs work better than other parts. These parts differ between patients. Standard treatment does not currently look at high or low functioning areas of the lungs. This trial will look at the different parts of your lungs and aim to minimise radiation induced lung injury by using a new imaging method called Computed Tomography (CT) ventilation imaging. This new imaging technique uses your routine CT scans to create a 3D image to show which parts of your lungs are working the best. During radiation therapy planning, this 3D image is used to help avoid radiation dose to your healthy, high functioning lung areas, and redirect the radiation through the lower functioning areas. By avoiding high functioning lung areas, it is thought that radiation side effects such as pneumonitis and difficulty breathing may be reduced.

CT Ventilation Imaging is an experimental software. This means that it is not an approved treatment for lung cancer in Australia.

This research has been initiated by the study investigator, Professor Paul Keall.

This research is being conducted by Image X Institute at the University of Sydney.

## **3 What does participation in this research involve?**

This trial will be conducted over five years. Each participant (165 in total) will be enrolled in the trial prior to their radiation therapy treatment.

If you agree to participate in this trial you will be asked to sign the consent form. Once you have consented to participate in this trial, you will be required to complete a brief quality of life questionnaire which takes about 5-10 minutes to complete. This questionnaire will be repeated over the course of your treatment, and at your scheduled follow up visits out to 3 years. Following this, you will be required to undergo a CT scan. The information from this scan will be used to create two treatment plans – a standard treatment plan, and a healthy lung sparing plan.

You will be participating in a randomised controlled research project. Sometimes we do not know which treatment is best for treating a condition. To find out we need to compare different treatments. We put people into groups and give each group a different treatment. The results are compared to see if one is better than the other. To try to make sure the groups are the same, each participant is put into a group by chance (random). You will have a 50:50 chance of receiving either the standard CT treatment plan, or the experimental CT ventilation imaging treatment plan.

You will be participating in a double-blind study. This means that neither you nor your study doctor will know which treatment you are receiving. However, in certain circumstances your study doctor can find out which treatment you are receiving.

This research project has been designed to make sure the researchers interpret the results in a fair and appropriate way and avoids study doctors or participants jumping to conclusions.

There are no additional costs associated with participating in this research project, nor will you be paid. All medication, tests and medical care required as part of the research project will be provided to you free of charge.

It is desirable that your local doctor be advised of your decision to participate in this research project. If you have a local doctor, we strongly recommend that you inform them of your participation in this research project.

#### **4 What do I have to do?**

As part of this trial, you will be asked to complete a baseline quality of life questionnaire before your treatment starts. Once your radiation treatment is finished, you will be asked to complete the same questionnaire at your follow up appointments at 1, 3, 6, 9, 12, 24 and 36 months. There are no additional requirements or preparation procedures, above those required for your normal radiation therapy, to participate in this study.

#### **5 Other relevant information about the research project**

This study aims to recruit 165 patients in total across approximately 15 different hospitals throughout Australia. All patients will be randomised in the same way. The CT ventilation imaging has been developed over a number of years at the University of Sydney.

#### **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 *[Institution]*.

#### **7 What are the alternatives to participation?**

You do not have to take part in this research project to receive treatment at this hospital. If you do not take part, you will receive standard radiation therapy. Your study doctor will discuss your options with you before you decide whether or not to take part in this research project. You can also discuss the options with your local doctor.

#### **8 What are the possible benefits of taking part?**

This research project is testing a new experimental approach to the planning of radiation therapy that may help protect the healthiest parts of your lungs from being injured by the radiation therapy.

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

Medical treatments often cause side effects. You may have none, some or all of the effects listed below, and they may be mild, moderate or severe. If you have any of these side effects, or are worried about them, talk with your study doctor. Your study doctor will also be looking out for side effects.

There may be side effects that the researchers do not expect or do not know about and that may be serious. Tell your study doctor immediately about any new or unusual symptoms that you get.

Many side effects go away shortly after treatment ends. However, sometimes side effects can be serious, long lasting or permanent. If a severe side effect or reaction occurs, your study doctor may need to stop your treatment. Your study doctor will discuss the best way of managing any side effects with you.

Risks associated with radiation treatment are associated with routine care. These risks remain the same whether or not you are participating in this trial and are explained by your Doctor before treatment is scheduled.

### **Conception, Pregnancy and Breast-feeding**

The effects of lung cancer radiation therapy on the unborn child and on the newborn baby are not known. Because of this, it is important that research project participants are not pregnant or breast-feeding, and do not become pregnant during the course of the research project. You must not participate in the research if you are pregnant or trying to become pregnant, or breast-feeding. If you are female and child-bearing is a possibility, you will be required to undergo a pregnancy test prior to commencing the research project. If necessary, you should use reliable contraception (such as oral or implanted contraception, an IUD, or have had a tubal ligation).

If you do become pregnant whilst participating in the research project, you should advise your study doctor immediately. Your study doctor will withdraw you from the research project and advise on further medical attention should this be necessary. You must not continue in the research if you become pregnant.

### **Distress**

If you become upset or distressed as a result of your participation in the research, the study doctor will be able to arrange for counselling or other appropriate support. Any counselling or support will be provided by qualified staff who are not members of the research project team. This counselling will be provided free of charge.

### **Radiation from two additional CT scans**

This research study involves exposure to a small amount of radiation. As part of everyday living, everyone is exposed to naturally occurring background radiation and receives a dose of about 2 millisieverts (mSv) each year. The effective dose from this study is about 12-24 mSv. The additional dose you will receive from participating in this study comes from two to four additional computed tomography (CT) scans. At this dose level, no harmful effects of radiation have been demonstrated as any effect is too small to measure. The risk is believed to be low and theoretically is approximately equivalent to that received from many diagnostic medical x-ray and nuclear medicine procedures.

### **Change in treatment plan for patients randomised to the CT ventilation imaging arm**

This research study involves investigating whether experimental CT ventilation imaging treatment plans that spare high functioning lung improves quality of life. Patients assigned to the CT ventilation imaging treatment plan arm will have a different plan. This means that radiation doses to the lungs are different by design. Radiation doses to the tumour and other organs, such as the heart, oesophagus and spinal cord, as part of the trial will be made to be as similar as achievable. However, there will be small changes to the dose to the tumour and other organs. These differences will be small enough that the clinical differences in the treatment outcomes and risk of side effects will be negligible compared to other variabilities in the radiation therapy process.

## **10 What will happen to my test images?**

If you give us your permission by signing the consent document, we plan to present and publish the results. In any publication, information will be provided in such a way that you cannot be identified. Results of the study will be provided to you if you wish. If you wish to receive the study results you should contact your treating physician. The images will be stored on the hospital

electronic medical records and de-identified on a password protected database held at the University of Sydney. Medical personnel within the district are able to access your medical records on clinical grounds should it be required.

## **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.

It may also be necessary for you to take medication during or after the research project to address side effects or symptoms that you may have. 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?**

There are no health risks linked to withdrawing. If you decide to withdraw from the project, please notify a member of the research team before you withdraw. This notice will allow that person or the research supervisor to discuss any health risks or 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.

If you would like to withdraw your consent to the disclose of your Services Australia information you will be required to complete the Services Australia Withdrawal of Consent Form.

#### **14 Could this research project be stopped unexpectedly?**

This research project may be stopped unexpectedly for a variety of reasons. These may include reasons such as:

- Unacceptable side effects
- The treatment being shown not to be effective
- The treatment being shown to work and not need further testing

#### **15 What happens when the research project ends?**

Once you have completed your radiation treatment, your doctor will continue to follow up with you for at least one year, and for up to 3 years at the following time points:

- 1 month
- 3 months
- 6 months
- 9 months
- 12 months
- 2 years
- 3 years

These follow up appointments are to check on your progress, record any side effects you may have from your treatment, and for you to complete a new Quality of Life survey.

## 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.

*[The following text is for GenesisCare only. Other sites should delete this text]  
Your personal and health information may be accessed by, or disclosed to, sponsor representatives, regulatory authorities or ethics committees in so far as this relates to the clinical investigation. 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.*

*Steps are taken to reduce the risk of your personal information being misused or accessed by unauthorised people. However, these risks cannot be eliminated. The regulatory regimes governing data access and use in other countries may not be the same as those that are in place in Australia.*

*Should you agree to participate in this study, some of your personal information will be kept within an Australian cloud-based Electronic Document Management System used by GenesisCare. This system assists in the management of clinical trials. Personal information that will be entered into this system will include your Name and Date of Birth. GenesisCare will ensure that your data is securely stored and that there are strict measures in place regarding who can access your personal information. Your data will only be accessible to the GenesisCare research personnel managing the study and the study sponsor or regulatory agencies as described in the consent form. However, the provider of this system and its representatives, may have access to your data when product maintenance and technical support is required by GenesisCare. Your data will be stored on this system for the duration of the study. At time of study completion, your data will be archived from this system and securely stored on GenesisCare servers in Australia for at least 15 years.*

All participant information and data will be de-identified and all information will be re-identifiable only by the Principal Investigator and clinical trials team. 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. Research data collected from this study may also be used in other future research studies and participants will not be identified.

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 study team accessing health records if they are relevant to your participation in this research project.

You will be asked to sign a separate consent form authorising the study to access your Commonwealth health information provided by Services Australia, see the separate Services Australia Participant Information Document and Participant Consent Form. Services Australia is not involved in this research other than to provide the information that you have consented to the release of, should you decide to participate in this study. Services Australia has confirmed that this research and any associated documents have received approval from a Human Research Ethics Committee (HREC) that is registered with and operates within guidelines set out by the National Health and Medical Research Council (NHMRC).

Your planning CT images will be de-identified and sent electronically to the University of Sydney and 4DMedical. Using this data, 4DMedical will create a ventilation image and send it back to your hospital, via the University of Sydney. Your hospital will then make two treatment plans – one with your standard CT image, and one with the ventilation image created by 4DMedical. Your treating doctor will approve both plans. After this, you will be randomised to determine which treatment plan you will receive. The person who creates your treatment plans is the only

one who will know what treatment arm you have been randomised to. They will be responsible for uploading the correct plan for your treatment.

Your study information and all images will be coded with your gender, year of birth and study ID before being sent to the University of Sydney. Researchers at the University of Sydney will analyse the study information and publish results and are responsible for keeping the study data after the research project is finished.

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) by the relevant authorities and authorised representatives of the Sponsor, The University of Sydney, the institution relevant to this Participant Information Sheet, *[Name of institution]*, or as required by law. By signing the Consent Form, you authorise release of, or access to, this confidential information to the relevant study 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. Any published materials involving participant data will not contain information that could potentially identify participants.

Information about your participation in this research project may be recorded in your health records.

The Confidentiality and Privacy of participant information will be respected. The de-identified images shall be stored electronically on a password protected server at the University of Sydney. Any published materials involving participant data will be de-identified.

In accordance with relevant Australian *and/or [Name of state/territory]* privacy and other relevant laws, you have the right to request access to your information collected and stored by the research team. You also have the right to request that any information with which you disagree be corrected. Please contact the study 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 and for the future research described below under 'Future studies' 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.

## **Future studies:**

Aligned with the Australian Government's National Health and Medical Research Council's Open Access Policy, in the future, your de-identified information may be:

- Used by the study team for new research ideas,
- Shared with other researchers, or
- Stored in an open data library to be made publicly available for the purpose of future research projects.

Any information that is shared for future studies will be de-identified. Future research may be 'related' to this project or could be about a research topic that has not yet been specified.

Other researchers who use your research data may be in Australia or another country. It is possible that research using your de-identified data may eventually be used for commercial purposes.

You must agree to your Research Data being used for future research to participate in the VITaL trial.

Your Services Australia information will not be shared with researchers for unrelated research and will not be sent overseas.

## **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.

Sponsors of clinical investigations in Australia have agreed that the guidelines developed by their industry body, Medical Technology Association of Australia (MTAA), will govern the way in which compensation claims from injured participants are managed by sponsors. The sponsor is obliged to follow these guidelines.

However, as guidelines, they do NOT in any way dictate the pathway you should follow to seek compensation.

These guidelines are available for your inspection on the MTAA website ([www.mtaa.org.au](http://www.mtaa.org.au)) under Policy – Clinical Investigations. Alternatively, your study doctor can provide you with a hard-copy of these guidelines.

## **18 Who is organising and funding the research?**

This research has received seed funding from an NHMRC Investigator Grant and a CINSW Program Grant. Additional trial funding has been received from the NHMRC Clinical Trial and Cohort Studies grant scheme and the Cancer Institute, NSW.

This research project is being conducted by Professor Paul Keall at the University of Sydney, and researchers from different hospitals around Australia.

Some study investigators and their institutions may benefit from this research. Paul Keall is an inventor on patent US7668357B2 related to CT ventilation imaging. John Kipritidis and Paul Keall are inventors on CT ventilation imaging software disclosed to the University of Sydney. This intellectual property has been licensed to 4D Medical. The University of Sydney and the inventors under the University of Sydney IP policy may benefit financially from this research project if, for example, the project assists The University of Sydney to obtain approval for a new device. Andreas Fouras is the founder and a director of 4D Medical that may benefit financially from this research project.

In addition, if knowledge acquired through this research leads to discoveries that are of commercial value to The University of Sydney, the study doctors or their institutions, there will be no financial benefit to you or your family from these discoveries.

*[Name of institution]* will receive a payment from The University of Sydney for undertaking this research project.

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

## **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 HREC of South Western Sydney Local Health District.

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 *[phone number]* or any of the following people:

### Clinical contact person

Name	<i>[Name]</i>
Position	<i>[Position]</i>
Telephone	<i>[Phone number]</i>
Email	<i>[Email address]</i>

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	<i>[Name]</i>
Position	<i>[Position]</i>
Telephone	<i>[Phone number]</i>
Email	<i>[Email address]</i>

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	South Western Sydney Local Health District HREC
HREC Executive Officer	Research Ethics and Governance Officer
Telephone	(02) 8738 8304 OR (02) 8738 8314
Email	SWSLHD-Ethics@health.nsw.gov.au

### Local HREC Office contact (Site Research Governance Officer)

Name	<i>[Name]</i>
Position	<i>[Position]</i>
Telephone	<i>[Phone number]</i>
Email	<i>[Email address]</i>

## Consent Form - *Adult providing own consent*

**Title** A randomised controlled trial investigating Ventilation Imaging to reduce Toxicity for Lung cancer radiation therapy patients

**Short Title** VITaL

**Protocol Number** IX-2022-CT-VITAL

**Project Sponsor** The University of Sydney

**Principal Investigator** Professor Paul Keall

**Associate Investigator(s)** *[Associate Investigator(s)]*

**Location** *[Location where the research will be conducted]*

### **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 give permission for my doctors, other health professionals, hospitals or laboratories outside this hospital to release information to The University of Sydney concerning my disease and treatment for the purposes of this project. I understand that such information will remain confidential.

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 study without affecting my future health care.

I freely agree to allow my collected information to be de-identified and used for future research.

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

Name of Participant (please print) \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

### **Declaration by Study Doctor/Senior Researcher<sup>†</sup>**

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<sup>†</sup> (please print) \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

<sup>†</sup> 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 - *Adult providing own consent*

**Title** A randomised controlled trial investigating Ventilation Imaging to reduce Toxicity for Lung cancer radiation therapy patients

**Short Title** VITaL

**Protocol Number** IX-2022-CT-VITAL

**Project Sponsor** The University of Sydney

**Coordinating Principal Investigator** Professor Paul Keall

**Associate Investigator(s)** *[Associate Investigator(s)]*

**Location** *[Location where the research will be conducted]*

### **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 relationship with *[Institution]*.

Name of Participant (please print) _____
Signature _____ Date _____

*In the event that the participant's decision to withdraw is communicated verbally, the Study Doctor/Senior Researcher will need to provide a description of the circumstances below.*

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### **Declaration by Study Doctor/Senior Researcher<sup>†</sup>**

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 <sup>†</sup> (please print) _____
Signature _____ Date _____

<sup>†</sup> 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.