



**UNIVERSITY OF  
CAMBRIDGE**  
School of Clinical Medicine

**Cambridge Institute for  
Medical Research and  
Department of Medicine**

**Information sheet for research into Genetic variation AND Altered  
Leucocyte Function in health and disease (GANDALF)  
HEALTHY VOLUNTEERS**

**Invitation to participate.**

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Do ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

**What is the purpose of this study?**

We are studying factors that affect regulation of the immune system. The immune system has the complex task of protecting the body against infectious organisms without attacking its own tissues. Without a well functioning immune system we are susceptible to a vast array of viral, bacterial, fungal and parasitic infections. However, when the immune system acts against the body it can cause important "autoimmune" diseases including rheumatoid arthritis, vasculitis and systemic lupus erythematosus (SLE). Genetic variation between individuals can affect the way their immune system responds to infections, and may predispose some individuals to autoimmune disease. In addition, genetic variation may affect the way the immune system is affected by immune suppressant drugs, as well as the likelihood of rejection after a transplant.

We plan to study the way the immune system responds to stimuli including infectious organisms and immune complexes. In particular, we wish to further investigate how genetic differences between individuals affect the way their white blood cells respond under a number of conditions. We hope a better understanding of how genetic variation affects immune responses will lead to new ways to treat infections, transplant rejection and autoimmune disease.

## **Why have I been chosen?**

We wish to study autoimmune disease such as vasculitis and systemic lupus erythematosus. All patients attending the Vasculitis and Lupus service are being invited to participate in the study. We have also chosen to study the responses of immune cells following transplantation. All patients attending the Addenbrooke's renal transplant clinic are being invited to participate in the study. Over a five year period, we aim to study approximately 500 patients from each clinic.

We would like first to compare genetic variations between people with autoimmune disease and healthy people. For the purposes of the study we need to recruit 500 healthy 'control' individuals. We are therefore inviting healthy people to consider participating in the study as one of these 'control' individuals. We would then like to go on to study the effects of the genetic variations on white blood cells from healthy people, people with autoimmune disease, and people taking immunosuppressant drugs after a kidney transplant.

## **Who is organising the study?**

Professor Ken Smith is leading the research. The study is being conducted on the Addenbrooke's Hospital site and is being supervised by both the hospital and the University of Cambridge. No specific payments will be made to any of the staff involved for including you in this study other than their normal salary.

## **Do I have to take part?**

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason.

## **What will happen to me if I take part?**

We will collect a 10ml blood sample from you to allow us to extract your DNA, which we then store anonymously in a secure location. If you are already enrolled in the Cambridge Bioresource, we will use the DNA sample that has already been stored. We may request further blood samples, which may vary in volume, but a maximum of 100mls would be taken at any one time. We will not take more than 3 blood samples in a one month period, and will take a maximum of 100mls in total in any one month (approximately 4 fluid ounces, or a cupful). This volume of blood is larger than is usually taken for research studies but is a safe amount to take at one time – it is less than one quarter the volume of blood taken when individuals donate blood to the National Blood Service.

The initial 10ml blood sample we collect from you will be used to extract DNA. We will use the DNA samples we collect to identify genetic variations between individuals. We will look to see if these variants are more frequent in some groups of people, e.g. those with a particular autoimmune disease like SLE.

We may ask you if we may take further blood samples from you. We would use these blood samples to extract white blood cells, the cells that make up your immune system. We will study these cells to identify the markers they have on their surface, as well as the way they behave when exposed to infectious organisms and other stimuli that activate the immune system.

We may also ask you to provide one or more urine and / or stool samples to look for protein or other molecular markers that may influence the immune system and that are associated with disease activity.

As many of the conditions we study are so rare, we may need to send your samples to other collaborating centres where specialised tests can be performed by research colleagues with specific expertise. As such new specialised tests are constantly being developed we are unable to tell you at present where your samples might be sent. However, we will only send samples to collaborating research groups once the collaboration agreement has been formally approved by the Addenbrooke's Hospital Research & Development department which works to oversee our research. In addition all samples sent to other centres will be **fully** anonymised. Personal identifiable data will **not** be sent to any other research group.

We will compare the cells and proteins for healthy individuals with the cells and proteins from people with autoimmune diseases and from people who are on immunosuppressant drugs following a transplant. This will increase our knowledge about the way genetic variations affect the immune system both in healthy people, in people on immunosuppressant drugs and in people with autoimmune disease. We may then be able to predict how people with autoimmune diseases and transplants will react to immunosuppressant drugs, and therefore give people the best treatment for their particular genetic makeup.

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

No specific restrictions need to be placed upon you as a consequence of participating in the study. You should continue with your regular medication. If you make any specific journeys to the hospital to take part in this study we will reimburse your travelling and parking costs at Addenbrooke's Hospital.

### **What are the possible risks / side effects of taking part?**

Minor discomfort and possible bruising only as a consequence of having a blood sample taken.

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

The study is aimed at understanding the genetic influences on infection, transplant rejection and autoimmune disease. During the course of the study it is extremely unlikely that the results will have any benefits / implications for you personally.

## **What happens at the end of the study?**

No further blood samples will be taken. Any samples that you have provided up until the end of the study will be stored by the research team pending ethical approval to continue the project. If we do not make a subsequent application for ethical approval in the required timeframe or if such an application is refused then your samples will be destroyed.

## **Confidentiality – who will have access to the data?**

All information which is collected about you during the course of the research will be kept strictly confidential. Data will be collected by the project team nursing and medical staff and will be stored in both paper and electronic format and will be retained for 15 years. Paper and electronic documents will be stored securely in line with the relevant guidance / requirements in force at the time at Addenbrooke's Hospital and in the University relating to the storage of patient confidential information. All of the electronic information about you will be secured by modern encryption techniques. Only members of the clinical project team will have access to any identifiable data (e.g. name, address, date of birth). All others working in the project will only have access to your data in an anonymised form - i.e. it will not be possible for them to identify you in any way from the data that they receive.

## **Will my GP be informed?**

We will not inform your GP of your participation in this study unless you wish us to do so.

## **What will happen to the study results?**

The results of the study will be published in due course in scientific journals. At no time, will any personal / confidential information about you, which might allow you to be individually recognised, be released in any publicly available or published material.

## **Are there compensation arrangements if something goes wrong?**

If, when taking part in the project, you are harmed as a consequence of either the management or conduct of the project then the NHS indemnity scheme will apply. If you are harmed as a consequence of a problem with the design of the project then this will be covered by insurance through the University of Cambridge's Clinical Trials policy. If you are harmed due to someone's negligence, then you may have grounds for a legal action but you may have to pay for it. Regardless of this, if you wish to complain, or have any concerns about any aspect of the way you have been approached or treated during the course of this study, the normal National Health Service and University of Cambridge complaints mechanisms should be available to you (contact details below):

Patient Advice and Liaison Service (PALS)  
Box 53, Cambridge University Hospitals NHS Foundation Trust,  
Addenbrooke's Hospital,  
Hills Road,  
Cambridge, CB2 0QQ.  
Tel: 01223 216756. Fax: 01223 256170.

### **What if I want to withdraw from the study?**

You may withdraw from the study at any time without giving a reason. A decision to withdraw will not affect the standard of care you or your partner receives. In line with the guidelines from the UK Medical Research Council on the use of biological samples in scientific research, we will treat each of the blood samples which you provide us as a gift / donation. Consequently, even if you decide to withdraw from the study or are withdrawn due to loss of capacity, we may continue to retain any / all of the samples which you may have already provided.

Should you wish to withdraw from the study then please inform the Research Nurse.

### **Ethical approval**

This study has been approved by the Cambridge Local Research Ethics Committee.

### **Local contact information**

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**Thank you for considering participating in this research project.**