KING'S College LONDON
University of London

Guy's and St Thomas' NHS
NHS Foundation Trust

Guy's Hospital
3rd Floor Southwark Wing
St. Thomas' Street
London SE1 9RT

Tel: 020 7188 6417

PATIENT INFORMATION SHEET

Title of the Study: Psoriasis Stratification to Optimise Relevant Therapy Discovery Study (PSORT-D) – Molecular and Immune Biomarkers in Skin and Blood

Version and date: Version 2, 24th August 2016
REC Name: London Bridge
REC Reference: 1**4/LO/1685**

INTRODUCTION

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. A member of our team will go through the information sheet with you and answer any questions you have. Please take time to read the following information carefully. Talk to others about the study if you wish.

Part 1 tells you the purpose of this study and what will happen to you if you take part.

Part 2 gives you more detailed information about the conduct of the study.

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.

In the last few years, new injectable drugs called biologics, have been successfully used to treat moderate-severe cases of psoriasis. However, these drugs are very expensive (estimated annual cost is £10,000) and it remains the case that a significant number of patients fail to respond adequately.

If we could predict which patients will do well with a particular biologic drug then we could devise new treatment plans that would be personalised for each patient rather than the current system of "trial and error" prescribing. This would be of added benefit to society as a whole since it could result in significant cost savings to the NHS and aid the pharmaceutical industry in development of new drugs.

This study, named "*Psoriasis Stratification to Optimise Relevant Therapy Discovery–Molecular and Immune Biomarkers in Skin and Blood*" (PSORT-D) is an MRC funded programme aiming to use existing knowledge about psoriasis, and the analysis of newly collected psoriasis biological samples to develop tests that we can use in the clinic to help direct personalised treatments. In particular we will collect and analyse blood, urine and skin samples from psoriatic patients undergoing biologic therapy to identify markers predicting therapy response (biomarkers).

PART 1

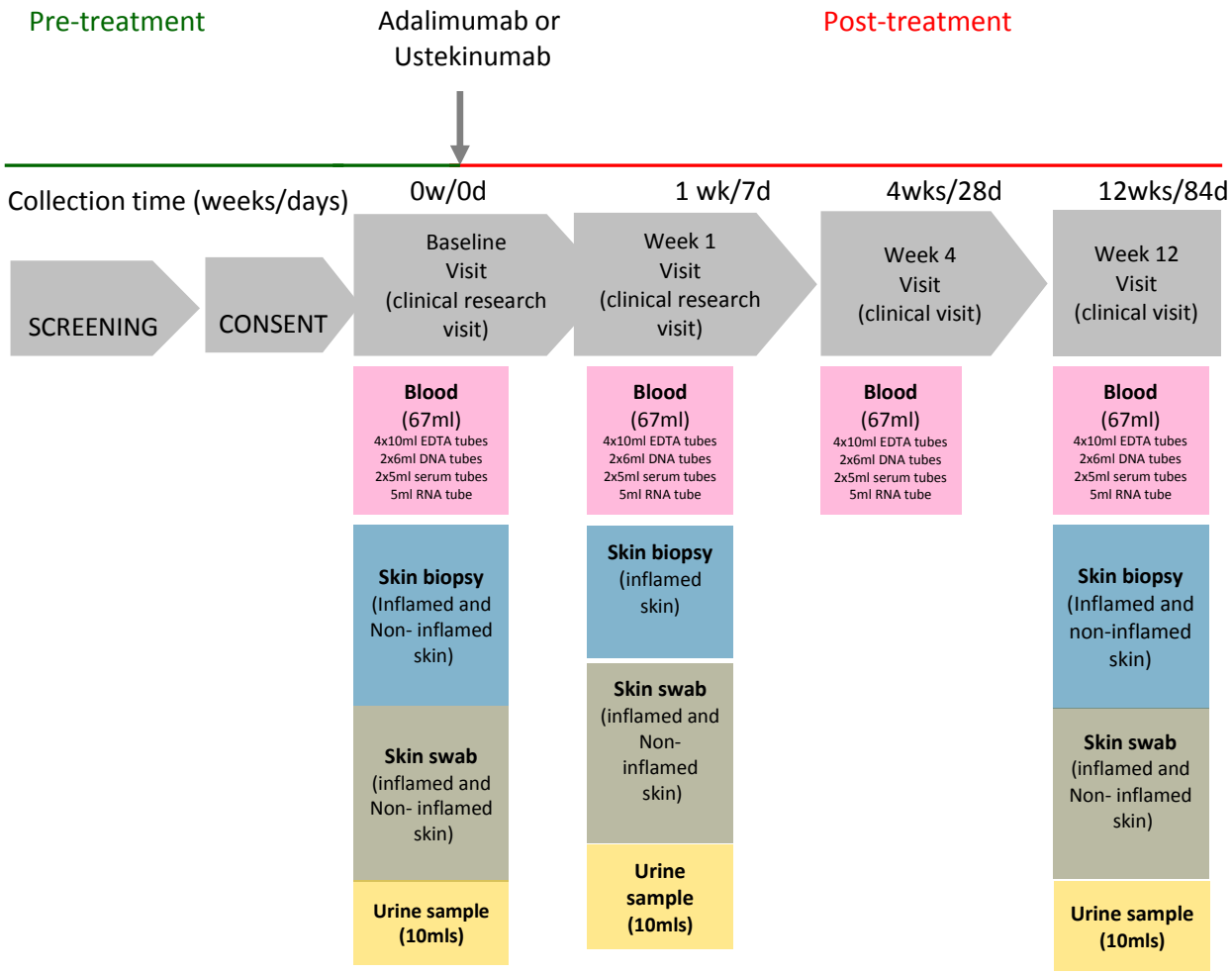
WHAT IS THE PURPOSE OF THE STUDY?
The purpose of this research study is to identify biomarkers which can predict patient response to biologic therapy.

WHY HAVE I BEEN INVITED?
You have been invited to participate because you suffer from chronic plaque psoriasis and you are about to start a biologic therapy.

DO I HAVE TO TAKE PART?
No, it is up to you to decide whether or not to take part. If you do, you will be given this information sheet to keep and be asked to sign a consent form. You are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect the standard of care you receive.

YOU WILL BE ASKED IF YOU ARE WILLING TO BE CONTACTED BY THE STUDY TEAM IN THE FUTURE
In the event that new discoveries are made or new aspects to explore, the researchers are requesting permission to contact you again. If we contact you, we would then seek your consent again to collect further information, clinical assessments or samples (eg: blood) depending on the research question. This is an optional request and if you don't wish to give consent to be contacted, it will not impact your participation in this study nor will it impact on your clinical care.

WHAT WILL HAPPEN TO ME IF I TAKE PART?
In order to participate in this study you will need to donate four types of biological samples: urine, blood, non-invasive skin swab sampling (microbiome) and skin samples (biopsies). The samples will be collected by a member of the clinical research team, both during your standard clinical appointments (Baseline and week 12) and additional research visits outside of your standard clinical care (week 1 and week 4). Below is a chart that shows each of the study visits and what samples we would ask you to donate at each visit:



If you are affected by psoriasis and you are starting a therapy with a biologic drug, you will be asked to provide up to 67mls of blood (4 tablespoons), a small (up to 6mm) skin punch biopsy from inflamed skin (described below), a skin swab sample (microbiome) from both inflamed and non-inflamed skin , and a urine sample before the therapy starts and at 1 and 12 weeks after therapy. Before therapy and in your last visit we will collect an additional skin biopsy sample from non-inflamed skin (Baseline and week 12), to be used as an internal control to evaluate samples from inflamed skin. Moreover we will ask you an additional blood sample only at 4 weeks of treatment.

In addition you will be asked to bring your drug with you to clinic so that we can obtain the above samples from you at each study visit prior to you administering your drug.

<u>Skin Preparation</u>

We will also ask you to refrain from using topical treatments (except for emollients) at the future site of biopsy/skin swab for 14 days before biopsies.

Blood sample

We will collect a blood sample of approximately 67mls (4 tablespoons) using the classic venepuncture system.

Punch Skin Biopsy Procedure

A biopsy is a procedure to remove a very small piece of your skin under local anaesthetic. Before taking the biopsy, the area, usually the lower back or buttock area, will be disinfected and injected with a local anaesthetic. Following that, a piece of your skin of the size indicated below (up to 6mm) will be taken. The biopsy area will require 2 to 3 stitches and will be covered with the appropriate dressing. Biopsy sites should not be allowed to get wet for the first 24-48 hours after taking the biopsy. You will need to have the stitches removed approximately 10-14 days later at your GP surgery. We will contact your GP and send the appropriate documentation. Alternatively you can arrange to see the research nurse/coordinator at the hospital to have the stitches removed.

 Size of a 6mm punch biopsy

Skin swab (microbiome) procedure

The microbiome sample consists of a scraping of your outer skin cells without puncturing the skin. A small open-ended plastic tube will be placed next to the skin to be sampled and approximately half of a teaspoon of clear neutral solution called Phosphate Buffer Saline will be placed into the tube on your skin. The area inside of the tube is then rubbed with a rounded tipped glass rod 20 times and the solution is then removed from the tube. This procedure will only take 10-15 minutes to perform. There will be no specific after-care as this procedure will not puncture your skin. The microbiome samples will be taken from inflamed and non-inflamed skin from near the same spot and immediately prior to the biopsies.

Urine samples

We would ask you to provide us with a urine sample on the day of your visit (a 10ml sample container and instructions will be provided on the day).

With your permission further relevant information about your health may be retrieved from medical notes and other records held on databases.

WHAT ARE THE POSSIBLE RISKS OF TAKING PART IN THIS STUDY?

Potential risks of the skin biopsy include local discomfort, bleeding, and/or rarely infection. The procedure will leave a small scar (up to 6 mm but the size may vary from person to person depending on their skin integrity) and sometimes a small area of local hyper pigmentation. In very rare cases there could be risks to 'keloid' formation (red, raised formation of scar tissue). After injection of a local anaesthetic intolerance reactions are possible in very rare cases.

Taking blood samples might cause discomfort and bruising.

The collection of samples for this study will be scheduled to coincide with your routine appointment in as many cases as possible.

WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?

You will not receive any benefit for taking part in this study. However the information obtained from this study will be very helpful in the development of a Biomarker test to select the most appropriate biologic for a patient. This will result in a substantial health gain by avoiding side-effects and subsequent loss of productivity for patients. Moreover it will improve the cost-effectiveness of therapy and therefore reduce NHS costs.

DO I GET ANY MONEY FOR TAKING PART IN THIS STUDY?
You will be reimbursed to the value of £100 for participation in this study. Additionally, previously agreed reasonable travel costs incurred will be reimbursed upon submission of valid receipts.
.

WHO CAN I CONTACT FOR FURTHER INFORMATION ON THE STUDY?
If you have any questions concerning the study please do not hesitate to contact Professor Catherine Smith (*Principal Investigator and Chief Investigator*) on 02071886412 (and/or the Study Research Nurse/Coordinator on 0207188 7188 ext 88203).

This completes Part 1 of the Information Sheet. If the information in Part 1 has interested you and you are considering participation, please continue to read the additional information in Part 2 before making any decision.

PART 2

WILL MY TAKING PART IN THIS STUDY BE KEPT CONFIDENTIAL?
Yes. All the information about your participation in this study will be kept confidential.

WHAT HAPPENS IF I DON'T WANT TO CARRY ON WITH THE STUDY?
Your participation is entirely voluntary. You may refuse to be in this study, or withdraw at any time. Neither of these actions will affect your future treatment.
Identifiable data or tissue already collected with consent would be retained and used in the study. No further data or tissue would be collected or any other research procedures carried out on or in relation to you. You will be also given the additional option to have your collected samples destroyed if you wish. At the time of withdrawal you will be provided via mail or email with a form ("sample destruction form") where you can state your will.

WHAT HAPPENS IF I LOSE CAPACITY TO CONSENT DURING THE STUDY?
If you lose capacity to consent during the study you will be withdrawn from the study and Identifiable data or tissue already collected with consent would be retained and used in the study. No further data or tissue would be collected or any other research procedures carried out on or in relation to you.

WHAT IF THERE IS ANY PROBLEM?

If you have a concern about any aspect of this study, you should ask to speak with the researchers who will do their best to answer your questions Please contact: Principle Investigator Professor Catherine Smith, email: catherine.smith@gstt.nhs.uk or telephone 020 718 86412.

If you have a complaint, you should talk to your research doctor who will do their best to answer your questions. If you remain unhappy, you may be able to make a formal complaint through the NHS complaints procedure. Details can be obtained through the Guy's and St Thomas' Patient Advisory Liaison Service (PALS) on 0207 1887188, address: PALS, KIC, Ground floor, North Wing, St Thomas' Hospital, Westminster Bridge Road, London, SE1 7EH

In the event that something does go wrong and you are harmed during the biopsy there are no special compensation arrangements. If you are harmed and this is due to someone's negligence then you may have grounds for a legal action for compensation against the Guy's and St Thomas' NHS Foundation Trust but you may have to pay your legal costs. The normal National Health Service complaints mechanism will be available for you (if appropriate).

WHO WILL HAVE ACCESS TO THE DATA GENERATED?
All information resulting from this study will be coded and anonymised and will be only accessible by member of the research team involved in this study for scientific analysis purposes.

All staff will have a duty of confidentiality to you as a research participant and nothing that would reveal your identity will be disclosed outside the research site.

WHAT WILL HAPPEN TO THE SAMPLES I GIVE?

This project involves the collaboration of leading dermatology clinics/ research laboratories and key industrial partners developing drugs for psoriasis or providing specialised sample analysis. All the collaborators involved have a specific expertise in analysing the biological samples we ask you for. Therefore blood, skin and microbiome samples that we obtain from you will be either sent immediately or after some time to the other study research centres for specific analysis. We will isolate, analyze and store your DNA (potentially forever) and other components from the donated blood and skin samples for use in medical research. We may measure a range of chemicals (including drug levels) in these samples and may determine your genetic code. Genes are made out of DNA. RNA is the version of the DNA code that the body uses to direct how proteins are made. We may determine the DNA/RNA code of the samples taken. This may include determining the sequence of all or part of your DNA code. We may also measure particular proteins in your blood and skin. Samples used will be anonymised. Data will be held in protected databases.

The samples will be used in the study described above. Your biological samples will be stored securely in accordance with the Human Tissue Act and according to national and local NHS Research Governance guidelines and will only be used for scientific research related to skin disease**.** You will be asked on the consent form if you are happy to give permission for the storage and analysis of samples in future studies, not covered by the present research proposal. The approval of the local Research Ethics Committee will be sought. Tissue and blood that is not used immediately will be stored for future studies in skin diseases, possibly in a Research Tissue Bank. This will only take place following the necessary Ethical approval required to establish a Research Tissue Bank. Only researchers involved in the study will have access to the tissue and blood samples. The samples will be coded and will not be directly marked with your name.

Our team collaborate on psoriasis research throughout the world. By signing the consent form, you are agreeing that your anonymised study data (including clinical information, samples, and research data arising from samples taken) can be shared with research collaborators and industry partners, who may be located outside of the country or region (e.g., the European Union) in which you live. This includes the Psoriasis Stratification to Optimise Relevant Therapy (PSORT.org.uk) consortium. Your study data will always be kept confidential, secure and anonymised and used only for the purposes of research on psoriasis.

WHAT HAPPENS IF A DISCOVERY IS MADE USING THE DONATED SAMPLE?

The samples donated to the PSORT-D study are given as an “absolute and non-returnable gift”, i.e. without receiving a payment and without conditions. For example if results from the research undertaken with the donated samples are used to develop a new blood test to improve treatment, then you will not receive any compensation nor will funds be forthcoming to you. The study team will work in partnership with others in the public and the private sector (e.g. pharmaceutical or biotechnology industry, etc.) to successfully develop any discoveries for the benefit of patients.

WHAT WILL HAPPEN TO THE RESULTS OF THE RESEARCH STUDY?

The biomarkers identified in this study will be further investigated in ongoing large scale UK studies British Association of Dermatologists Biologic Interventions Register (BADBIR – ethics

ref: 07/MRE08/9) and Biomarkers of Systemic Treatment Outcomes in Psoriasis study (BSTOP – ethics ref: 11/H0802/7), to which you may be invited to participate in due course.
The results of the research study will be discussed at scientific meetings and published in international scientific journal. You will not be personally identified unless you have consented to release such information.
It is not planned to routinely feedback the results from the research, including genetic or other tests obtained from the donated samples. However, if the research does identify an important change that may affect your general health, with your permission we would let your doctor and your clinical care team know.

We will disseminate outcomes of research through the PSORT website, to research-participants and to the local groups/centres involved in recruitment in appropriate formats informed by Patient and Public Involvement. Results arising from the research will also be disseminated through the information channels of the Psoriasis Association, including their website, social media channels, and membership magazine and via speaker invitations to their Annual Conference. Many of the study investigators have experience of engaging with local and national media. We will disseminate information of public interest generated from this project and issues arising from this research via our University press offices following publication in peer-reviewed journals.

WHO IS ORGANISING AND FUNDING THE RESEARCH?
This research project is funded by a Medical Research Council award to the PSORT consortium and by contribution from our industrial partners.

WHO HAS REVIEWED THIS STUDY?
This study was given a favourable ethical opinion for conduct by the London Bridge Research Ethics Committee.

If you have understood all the information above and wish to participate in this study, you will be asked to sign an INFORMED CONSENT FORM. You should keep a copy of the information sheet yourself.
Thank you for considering taking part in this study and taking time to read this information sheet.