PATIENT INFORMATION SHEET
IRAS 328435

1. Study title

PEAR-TREE2: **P**rospective **E**valuation of **A**I **R**&D tool for patient stratification: a **T**rial for **R**enal immuno-oncology model **E**xperimental **E**valuation **2**

2. Invitation paragraph

We would like to invite you 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. Talk to others about the study if you wish. 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.

3. What is the purpose of the study?

Kidney cancer is a serious unmet need. Patients with kidney cancer that cannot be removed surgically are often offered drugs to treat their tumour. Although these may work well, not all drugs work equally well in all patients, and we do not yet understand why.

Pear Bio, the study sponsor, have developed a personalised medicine test using microtumour and computer vision technology. Personalised medicine is a field that uses lab tests and patient data to inform treatment decisions for each patient. Microtumour technology allows human cells to be grown in a manner that resembles a tumour inside the patient's body. A small tumour sample taken from you is grown into multiple such microtumours in a lab. Each microtumour receives a potential treatment being considered by your oncologist. Microscopes are used to collect images to measure the response of the microtumours to each treatment option (e.g., is the tumour dying/shrinking). This test can be used to predict the effectiveness of each treatment option. Test results are compared to your actual response to treatment.

As this technology is still in early development, test results will not be used to affect your treatment. This study aims to measure the accuracy of the test observationally so that future studies can apply the test to help inform oncologists when making treatment decisions. As such, there will be no clinical benefit to you taking part in this study. However, you may benefit future patients suffering from kidney cancer. If you are interested, we can relay feedback via your treating physician on whether your tumour sample was successfully tested by Pear Bio.

4. Why have I been invited?

We are approaching you because you are due to start a new treatment for your cancer and you have been identified as someone on whom a biopsy of the tumour tissue can be done safely.

5. Do I have to take part?

No. It is up to you to decide whether or not to take part. We will describe the study and go through this information sheet with you. We will then ask you to sign a consent form to show you have agreed to take part. You are free to withdraw at any time, without giving a reason. This would not affect the standard of care nor the treatment that you receive.

6. What will happen to me if I take part?

If you decide to take part in this study, we will collect detailed information about your cancer, your treatment so far, your age and gender. We will also need to collect some of your tumour cells, through a new core biopsy, prior to you starting your next treatment. In addition to this, we will take a single 40mL blood sample from you (about 7-8 teaspoons).

7. Expenses and payments

Whether or not you take part in this study, you will need to attend appointments for clinical review and treatment as part of your cancer care. If you are required to come to the hospital for an additional study-related visit, your travel expenses will be reimbursed up to £100.

8. What will I have to do?

You will attend your clinic visits and treatment dates as planned by your oncology team. Research staff working on this study will meet with you at the planned visits.

The research team will schedule your additional study related core biopsy procedure. On the day of your procedure, the research team will attend to collect the samples provided for the study. You will have the extra blood sample for the study taken at the time of your study core needle biopsy procedure.

9. What are the alternatives for diagnosis or treatment*?*

This study is not a clinical trial, and does not involve any change to your treatment beyond the standard of care agreed with your team.

10. What are the possible disadvantages and risks of taking part?

As this is an observational study, there are no risks relating to taking any new medications or having anything above standard planned treatment. However, there is a modest risk of side effects relating to the procedures you are being invited to undergo.

For example, pain, bruising, lightheadedness, and, on rare occasions, infection could arise as a consequence of having blood taken. To minimise this risk, blood will be taken by a clinical professional trained and experienced in taking blood from patients. In all, we'll need to take the equivalent of about 1 small tea-cup of blood.

All the risks of the biopsy will be discussed with you separately by your clinical team performing the biopsies. If a core needle biopsy procedure is deemed unsafe, we would not ask you to enter the study.

If you take part in this study you will have CT Chest, Abdomen scans, a biopsy and may have PET-CT scans or Bone scans. Some of these will be extra to those that you would have if you did not take part. These procedures might use ionising radiation to form images of your body and provide your doctor with other clinical information. Ionising radiation may cause cancer many years or decades after the exposure. In patients with your current clinical condition, the chance of this happening to you is extremely small.

What are the possible benefits of taking part?
There are no benefits to you from taking part in this study. The Pear Bio test will run in parallel with your treatment, rather than beforehand, and your cancer doctor will not be aware of the outcome. However, we can inform you as to whether the sample we took has been successfully grown and tested in the lab, and many months after the test has been completed, these results will be fed back to your treating team. However, this will not be in time for those results to affect the treatment you have.

It is hoped that the information we get from this study will help improve the treatment of people with cancer in the future.

11. What happens when the research study stops?
Your oncologist will continue to monitor and treat your cancer according to national guidelines and local practices.

12. What will happen if I don't want to carry on with the study?
You can withdraw from the study at any time. If you decide to withdraw from the study, your standard of care will not be affected. You will still need to attend your routine follow-up assessments as part of your standard NHS care. If you withdraw from the study, all samples and clinical information that we have obtained up to the point of you coming out of the study will continue to be used for the purpose of the study.

13. What if there is a problem?
If you have a concern about any aspect of this study, you should ask to speak to the researchers, who will do their best to answer your questions ([CI name], the study Chief Investigator, can be contacted on [phone, email]).

If you remain unhappy and wish to complain formally, you can do this through the [hospital name] Patients Advice and Liaison Service (PALS) on Telephone [phone] or Email [email]. The PALS team are based in [address].

In the event that something does go wrong and you are harmed during the research and this is due to someone's negligence then you may have grounds for a legal action for compensation against the NHS Trust administering your care, and/or Ourotech Limited (trading as Pear Bio), but you may have to pay your legal costs. The normal National Health Service complaints mechanisms will still be available to you.

14. How will we use information about you?

We will need to use information from your medical records for this research project. We will keep your information about you safe and secure.This information will include your

- NHS number and local hospital number
- Name
- Date of birth
- Contact details

We will maintain your confidentiality at all times.

People will use this information to do the research or to check your records to make sure that the research is being done properly. This includes researchers at [LOCAL SITE NAME].

Researchers who do not need to know who you are, for example researchers at Pear Bio, will not be able to see your name or contact details. Your data will be identified with a code instead. Some of your information may be sent to outside the UK. They must follow our rules about keeping your information safe.

Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that no-one can work out that you took part in the study.

15. What are your choices about how your information is used?

You can stop being part of the study at any time, without giving a reason, but we will keep information about you that we already have. This will not affect your current or future clinical care.

If you choose to stop taking part in the study, we would like to continue collecting information about your health from central NHS records, your hospital and your GP. If you do not want this to happen, tell us and we will stop.

We need to manage your records in specific ways for the research to be reliable. This means that we won't be able to let you see or change the data we hold about you.

16. Where can I find out more about how your information is used?

You can find out more about how we use your information

- at www.hra.nhs.uk/information-about-patients/
- our leaflet available from www.hra.nhs.uk/patientdataandresearch
- by asking one of the research team
- by sending an email to **Steve O'Connell** (steven@pearbio.com), or
- by ringing us on 07841247505

17. Involvement of the General Practitioner/Family doctor (GP)

If you agree, we will notify your GP about your involvement in the study.

18. What will happen to any samples I give?

Your Research Nurse or other designated members of the PEAR-TREE2 study research team will take blood samples and biopsy samples where appropriate and send them to the Pear Bio laboratory for testing. Your samples will be anonymised and given a unique code so that they cannot be directly traced back to you as the donor. We will also ask for your consent to use these samples for future ethically approved research, and to keep the samples if you were to lose mental capacity during or after the study. The tumour tissue provided will be processed and treated with various treatment regimens in a laboratory setting. These will include existing approved drugs, but may include other therapies not approved in your context, or newer potential therapies. Cells will also be extracted from blood samples for analysis. Where enough material is available, Pear Bio will extract the DNA/RNA (genetic material) from the blood and tumour samples and may send the samples to other companies for analysis, which may include tests on your whole genome to see how mutated your tumour is (tumour mutational burden). Your confidentiality will be maintained at all times.

19. Will any genetic tests be done?

Genetic material from the samples provided may be used for sequencing. Part of this involves looking at the expression of common biomarkers associated with cancer and treatment response/mechanism of action. We may perform whole genome sequencing or whole exome sequencing for the purpose of measuring cancer biomarkers like tumour mutational burden, but this data will not be used to identify you.

20. What will happen to the results of the research study?

We will send a lay summary of the initial results to highlight what we have done with your samples and our initial findings. The overall results of the study will be collected together by Pear Bio, the Chief Investigator and the research team, who intend to present and publish the findings. This may take several years from the beginning of the study. When the results are published, we will be happy to make them available to all the patients who took part. We will only make available the overall results of the study. No individual patient will be identified in any report or publication from the study. We will write our reports in a way that no-one can work out that you took part in the study. Depending on the results, it is likely that the research data will be kept for 25 years.

21. Who is organising and funding the research?

The study is administered by [LEAD SITE], where the Study investigator [CI name] works. The study is funded and sponsored by Ourotech Limited (trading as Pear Bio).

22. Who has reviewed the study?

All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee, to protect your safety, rights, wellbeing and dignity. This study has been reviewed and given a favourable opinion by REC [REF].

23. Further information and contact details

For further information please contact:

[CI name]
[CI hospital address]
[CI Telephone]
[CI email]