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PARTICIPANT INFORMATION SHEET: VAC084

A Phase 1a study to assess safety and immunogenicity of the *Plasmodium vivax* malaria vaccine candidate Pvs25-IMX313 in Matrix-M1 adjuvant in healthy adults living in the UK

We would like to invite you to take part in a research study funded by the European Commission. Before you decide whether to volunteer, it is important for you to understand why the research is being done and what it would involve. Please take time to read the following information carefully and discuss it with friends, relatives and your General Practitioner (GP) if you wish.

- Part 1 tells you the purpose of the study and what will happen to you if you take part.
- Part 2 tells you more information about the study processes.

Please ask the research doctor/nurse who has given you this document if there is anything that is not clear, or if you would like more information. They can be contacted at the e-mail address above. You will also be able to discuss the trial with us if you attend a screening visit. Take time to decide whether or not to take part. This information sheet has been reviewed by four members of the Jenner Institute's patient and public involvement team.

Part 1

Why are we carrying out this study?

Malaria is a major global health problem. It is a potentially fatal disease in humans caused by a parasite. The parasite lives in mosquitoes and is transmitted from person-to-person by mosquitoes. Each year there are more than 200 million cases of malaria and over 400,000 deaths worldwide. Two thirds of these deaths occur in children under 5 years old. There is a great need for new ways to reduce the spread of malaria by mosquitoes.

Pvs25-IMX313/Matrix-M1 is a new 'transmission-blocking vaccine' for malaria. The aim is that the vaccine will cause the body to produce an immune response against the parasite which causes malaria. Then, if that vaccinated person is bitten by a mosquito, the antibodies they have generated will be taken up by that mosquito. This stops the malaria parasite developing in the mosquito, so that when the mosquito next bites, it cannot infect another person with malaria. This means that unlike other vaccines, Pvs25-IMX313/Matrix-M1, hereafter referred to as "the vaccine", does not aim to protect the person being vaccinated from disease but instead to reduce risk of infection to other people. In this way, if effective, a transmission-blocking vaccine could stop onward transmission of malaria and bring down the number of cases in the whole population.

As a Phase 1a study, the vaccine will be given to people for the first time. The purpose of this study is to assess the safety of the vaccine, as well as the vaccine's ability to induce an immune response from the body (immunogenicity). We will do this by giving volunteers three doses of the vaccine, at four week intervals, doing blood tests and collecting information about any symptoms that occur after vaccination. We plan to recruit a total of 24-30 volunteers to be vaccinated.

What will happen if I decide to take part?

This study involves having three doses of the vaccine and then being followed up with regular clinic visits and blood tests at the Centre for Clinical Vaccinology and Tropical Medicine (CCVTM) clinic in Oxford. You will also be asked to complete a diary, recording any symptoms you experience after each vaccination.

Do I have to take part?

No. It is up to you to decide whether or not to take part. A decision not to take part will not result in any penalty, or loss of benefits to which you are otherwise entitled. Even after consenting to take part you are free to withdraw at any time without giving a reason, but you may be asked to return to the clinic for follow up for safety reasons.

The University of Oxford does not urge, influence, or encourage any employees/students of the institution to take part in this research study. Your decision to not participate in the study, or a decision on your part to withdraw from the study, will have no effect whatsoever on your employment/student status at the University.

Length of research

If you decide to take part in this study, you will be involved in the trial for approximately 8 months.

In addition to the above, we would like to highlight several key points we think you should consider before making a decision. This is a brief summary and a more detailed explanation is included in the sections to follow.

- **This is the first time this vaccine is being tested in humans**
The vaccine is being given to humans for the first time in this study, therefore, we do not yet know full details about its effects. The adjuvant (Matrix-M1) that is incorporated in the vaccine, has however been administered in other vaccines to tens of thousands of people in previous clinical trials (here and abroad) and has been shown to be well tolerated. We expect side effects of the vaccine will be similar to those seen in these previous studies using the same adjuvant, but as this is the first trial to test the vaccine, there is a chance that the effects may be different, or more severe. Some potential side effects are listed on page 6.
- **Following each vaccination, volunteers are required to attend regular clinic follow-ups and complete a daily diary to assess side effects from the vaccine**
The vaccine schedule involves three vaccinations, given at approximately 4 week intervals. Following each vaccination, volunteers will be required to fill in an electronic diary every day for 28 days and attend the clinic on days 1, 7, 14 and 28 after each vaccine. In addition, there are 2 further clinic visits after the last dose. Overall, volunteers will be followed until approximately 8 months from the time of enrolment and 6 months from the final vaccination dose.
- **Each clinic visit involves blood tests to assess safety of the vaccine and the body's immune response.**
Blood tests will be taken at each clinic visit to help us assess any side effects of the vaccine and how the body's immune system is responding. The volume of blood taken varies between 10 to 128 ml per visit, with an estimated 972mL taken over the course of the study in total. Due to these

regular blood tests, volunteers will be required to refrain from blood donation for the duration of the trial, as donating blood could increase the risk of anaemia.

- **All volunteers remain at risk of developing malaria following vaccination**

There is no risk of being infected with malaria from the vaccine. However, as it is designed to prevent onward transmission of malaria to other people rather than reducing an individual's risk of being infected with malaria, all volunteers will remain at risk of malaria infection themselves. Therefore, in the future, before travelling to an area where malaria is present, volunteers should always seek and follow health advice about malaria prevention.

CONSIDERATIONS BEFORE TAKING PART IN THIS STUDY

Am I eligible to be involved in the trial?

In order to be involved in the study you **must**:

- Be a healthy adult aged between 18 and 45 years.
- Be able and willing (in the Investigator's judgement) to comply with all study requirements (the Investigators are the research doctors involved with the clinical trial).
- Allow the Investigators to discuss your medical history with your GP.
- Practice continuous effective contraception for the duration of the study (volunteers with the potential to become pregnant only).
- Refrain from blood donation during the course of the study.

You cannot participate in this study if:

- You have had malaria before.
- You have travelled to a malaria endemic region in the last 6 months or are intending to travel to a malaria endemic region during the time you would be involved in the study.
- You have participated in another research study in the last 30 days.
- You are planning to participate in another research study at the same time as this study.
- You have previously received an investigational vaccine likely to impact on interpretation of the trial data, as assessed by the Investigator(s).
- You have previously received an investigational product in the 30 days preceding enrolment, or are planning to receive one during the study period.
- You have had immunoglobulins and/or any blood products (such as a blood transfusion) in the last three months.
- You have received any other vaccine within the last 30 days or plan to receive another vaccine (apart from the vaccines in this study) within 30 days of receiving the study vaccines (COVID-19 vaccines are an exception to this, but they should not be received between 14 days before to 7 days after any study vaccination).
- You have conditions affecting your immune system.
- You are pregnant, breast feeding or intend to become pregnant during the study.

- You have a history of allergic disease or reactions to any component of the vaccine being tested.
- You have a history of a severe allergic reaction to any vaccination.
- You have a history of cancer (except basal cell carcinoma of the skin and cervical carcinoma in situ).
- You have a history of a serious psychiatric condition that may affect participation in the study.
- You have any other serious long-term illnesses requiring hospital follow-up.
- You drink on average more than 25 units of alcohol a week (a pint of beer is 2 - 3 units, a small glass of wine (125mL) 1 unit and a shot of spirits (25mL) one unit).
- You have injected illegal drugs at any time in the last 5 years.
- You have hepatitis B, hepatitis C or HIV infection.

Mild conditions, such as childhood asthma, which are well-controlled, would not automatically exclude you from participating. If you are unclear whether you are eligible to be involved in the study you can contact the study team who will be able to advise you (see contact details at the top of page 1).

If we find any abnormality on examination, blood or urine tests which is clinically significant you may also be excluded from the study.

Screening Visit: Following the online pre-screening questionnaire and a pre-screening telephone call there will be an in-person screening visit. This takes place at the CCVTM clinic at The Churchill Hospital, Oxford and will last approximately two hours, with an opportunity for a short break. The purpose of the screening visit is for you to discuss the trial with us and decide if you wish to enter the study. If you decide to participate, you will be asked to sign a consent form and we will check that you are eligible to participate.

After signing the consent form:

- You will be asked some medical questions.
- A doctor will examine you.
- Blood samples and a urine sample will be taken. The results of these tests will need to be normal for you to be enrolled in the study.
- All volunteers with the potential to become pregnant will have a urinary pregnancy test.

Please note – The screening blood tests will look at your blood counts (e.g. to check if you are anaemic), your liver function and your kidney function. We will also test your blood to see if you are infected with hepatitis B, hepatitis C or HIV, as these conditions can affect your body's response to the vaccines we are assessing. If you test positive to any of these, we will let you know and arrange for a repeat test. With your consent we may also report positive results to your GP and offer to refer you for further investigation/treatment. For individuals who test positive for either Hepatitis B or Hepatitis C, we will also be obligated to report this to the health authorities.

Some individuals may test positive for Hepatitis C virus due to previous involvement in a Hepatitis C vaccine study. If this applies to you and you wish to take part in our study, with your consent, we will

contact the team responsible for the Hepatitis C vaccine study to check your Hepatitis C status prior to enrolment in this malaria vaccine study.

Blood Donation: Under current UK regulations, volunteers will not be able to donate blood during the course of the study.

Private Medical Insurance: If you have private medical insurance you are advised to contact your insurance company before participating in this trial, as involvement may affect the cover provided.

Malaria Prophylaxis: If in future you travel to an area where malaria is common, you should not assume that the experimental vaccines you received in this study will give you any protection against malaria. Even if this vaccine is effective, it is not designed to protect the recipient from malaria infection. Make sure you visit your GP or a travel clinic before travelling to a malaria endemic region and follow their advice on prevention measures.

Contraception: It is currently unknown whether the vaccines being tested are safe during pregnancy. For this reason, it is important that all volunteers with the potential to become pregnant use adequate contraception throughout the trial. These are the injection, implant, the coil and most forms of hormonal contraception. Condoms alone will not be sufficient for the study. If you were to become pregnant during the trial you must tell us immediately and you will be withdrawn from the study, although we will ask to follow you up for safety reasons. Volunteers with the potential to become pregnant are defined as those who are fertile and able to become pregnant following the start of menstruation until becoming post-menopausal, unless permanently sterile. A post-menopausal state is defined as no menstruation for 12 months without a known cause.

THE VACCINE

What are the vaccines that are being tested?

Pvs25-IMX313/Matrix-M1 is a 'protein-in-adjuvant' vaccine, made up of the protein Pvs25-IMX313 and the adjuvant Matrix-M1. This is not a live vaccine and so there is no chance of catching malaria. Vaccinations will be given into the muscle of the upper arm (usually on the non-dominant side, i.e. on the left arm if you are right-handed).

Pvs25-IMX313

The protein Pfs25-IMX313 has two parts: **Pvs25** and **IMX313**, which are fused together.

Pvs25 is a protein found on the surface of the *Plasmodium vivax* malaria parasite as it develops in the mosquito. An effective immune response against this protein could stop the growth of malaria in the mosquito, preventing the parasite from being transmitted by the mosquito to another human.

IMX313 has been added to Pvs25 protein to help 'display' the protein to the body's immune system. Previous laboratory work has shown that IMX313 can increase the immune response.

A similar vaccine to the one we are testing in this study, targeting a different species of malaria (*Plasmodium falciparum*) called Pfs25-IMX313 has been given to 26 healthy UK adults in a previous trial in Oxford. Although it was formulated differently to the vaccine being tested here, it was found to be safe and well-tolerated.

Matrix-M1

Matrix-M1 is a vaccine adjuvant derived from the bark of a specific tree. Adjuvants help improve the body's immune response to a vaccine. Matrix-M1 has previously been given to tens of thousands of

healthy volunteers in other clinical trials and has been safe and well tolerated. This includes trials of other investigational vaccines for malaria and COVID-19.

Pvs25-IMX313/Matrix-M1

Each of the three different components of this vaccine (Pvs25, IMX313 and Matrix-M1) have all been previously tested in humans. However, the combination of the three components has not been given to anyone before this study. So, this is a “first-in-human” trial, the purpose of which is to assess the safety of the combination Pvs25-IMX313/Matrix-M1 vaccine. There is however, limited safety data from the *Plasmodium falciparum* equivalent of the vaccine (Pfs25-IMX313 in Matrix-M1) to show that this related vaccine is safe and well-tolerated.

What dose of the vaccine is being tested?

The optimal dose of the vaccine is not yet known. The aim of this initial study is to assess the safety of the Pvs25-IMX313 protein at various doses. The volunteers will be allocated to one of three groups and each group will receive a different dosing regime of the vaccine, as detailed below. We will also assess the body’s immune response at the different doses.

Based on previous studies, the optimal dose of the adjuvant Matrix-M1 is 50 µg (micrograms). This is the dose that we will be using in this trial, in combination with the Pvs25-IMX313 protein.

The doses and schedule of the vaccine and adjuvant to be given in this study are summarised below:

Group	Group size	Day 0	Day 28	Day 56
Group 1	8-10	Pvs25-IMX313 10 µg Matrix-M1 50 µg	Pvs25-IMX313 10 µg Matrix-M1 50 µg	Pvs25-IMX313 10 µg Matrix-M1 50 µg
Group 2	8-10	Pvs25-IMX313 50 µg Matrix-M1 50 µg	Pvs25-IMX313 50 µg Matrix-M1 50 µg	Pvs25-IMX313 50 µg Matrix-M1 50 µg
Group 3	8-10	Pvs25-IMX313 50 µg Matrix-M1 50 µg	Pvs25-IMX313 50 µg Matrix-M1 50 µg	Pvs25-IMX313 10 µg Matrix-M1 50 µg

Table 1 : Vaccination dosing and schedule for this study

What are the expected side effects from this vaccine?

The effect of vaccines are potentially irreversible, so it is important you understand the potential risks of the vaccines before you agree to be involved in the study.

This particular vaccine has not been used in humans before but we do not expect the side effects of this vaccine to be significantly different from previous trials where different protein vaccines have been used with the same adjuvant (Matrix-M1). We expect that most symptoms will be mild, but symptoms may also be moderate or severe in how strong they are. All symptoms should resolve completely within a few days.

You may experience any of the following short-lived side effects:

- Injection site pain (most likely mild; however there is a chance this could be moderate or severe in intensity).
- Redness, swelling, itching and warmth at the vaccine site (symptoms are likely to be mild if present; however, there is a chance this could be moderate or severe in intensity).

- A ‘flu-like’ illness within 24 hours of vaccination which usually resolves within 48 hours. (This can include headache, muscle aches, joint aches, feverishness, tiredness, nausea and feeling generally unwell). The majority of general symptoms are likely to be mild but there is a possibility of moderate or severe symptoms occurring.

It is important to remember this vaccine is being tested in humans for the first time in this trial, so there is a chance you could experience a side effect different in nature, or more severe than those described.

Severe Reactions

With any vaccination there is a low risk of serious reactions, which may be related to the immune system of the nervous system. Severe allergic reactions to vaccines (anaphylaxis) are very rare but can be fatal. Doctors qualified in the management of anaphylaxis and appropriate equipment and medication will be present at each vaccination. Reactions in the nervous system are also extremely rare following vaccination, but can cause an illness called Guillain-Barré syndrome. Guillain-Barré syndrome is an illness in which people can develop severe weakness and may be fatal. However, these reactions have not previously been seen with the type of vaccine used in this study. If you experience unexpected symptoms, or become in any way concerned you should contact one of the Investigators (who are available 24 hours a day) using the emergency contact details that you will be given once you have been vaccinated.

VISITS

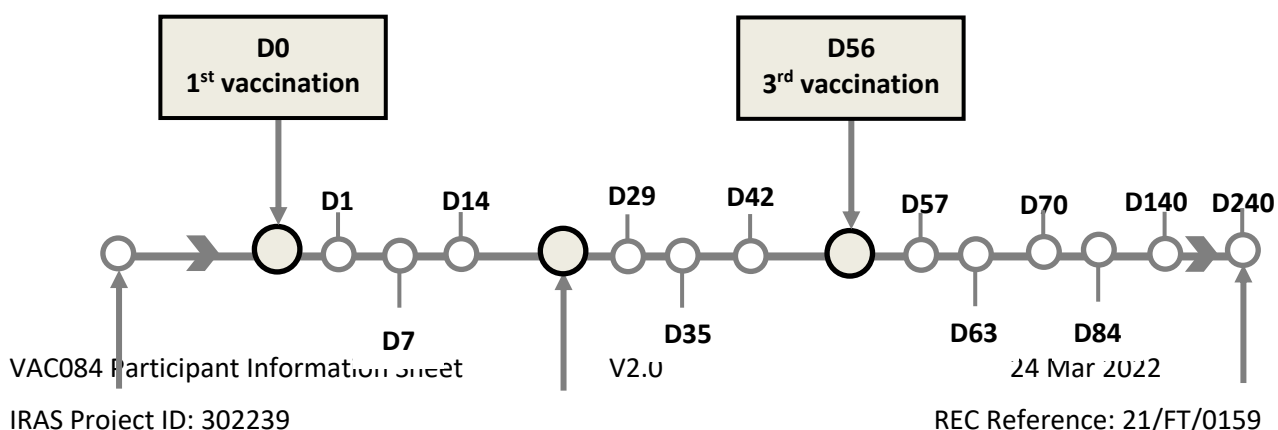
You will receive 3 vaccinations and attend 16 visits in total. All visits will take place at CCVTM clinic in Oxford. The screening and follow-up visits will take up to one hour, except for the vaccination visits which will take up to two and half hours. The CCVTM clinic is wheelchair-accessible.

Number, timing and purpose of visits

Each vaccination is given four weeks apart (on days 0, 28 and 56). Volunteers will be reviewed in clinic the day after each of the three vaccinations and then at one week, two weeks and four weeks post-vaccination. In addition to this there are 2 further clinic appointments, on days 140 and 240 after the third vaccination. This means that the final clinic review will be approximately 8 months after the first vaccine dose.

At each visit we will check your temperature, pulse and blood pressure readings, ask you some medical questions and usually take some blood tests. On the day 84 visit, four weeks after the third vaccination, all participants with the potential to become pregnant will also have a urinary pregnancy test. All participants may be examined by a doctor if needed.

During the course of the trial you may be asked to attend for an extra visit, for example, if a blood test needs to be repeated. You will be additionally compensated for the time and inconvenience of any extra visits.



Screening
visit

D28
2nd vaccination

End of study

Figure 1: Schedule of visits. Circles denote in-person clinic visits.

Vaccinations

On each vaccination day, we will assess you to check for any new medical problems since your last visit and make sure that you are still happy to go ahead. We will also take some blood tests. All volunteers with the potential to become pregnant will also have a urinary pregnancy test. The vaccines will be given into the muscle of your upper arm, usually on the non-dominant side (e.g. left arm if right-handed).

After each vaccination, we will ask you to wait in the clinic for 1 hour to check there are no immediate problems. You will be assessed again before leaving and be given a thermometer and tape measure to take away. We will also show you how to use the electronic diary, which will need to be completed for 28 days after each vaccine. We will ask you to record details about specific symptoms and any redness at the vaccination site every day for 7 days after each vaccination. After these 7 days we will just ask you to record if you feel unwell or take any medications over the next 3 weeks.

At the follow-up visits, we may ask to photograph your vaccination site. Your face will not appear in any such photograph. Photographs may be shown to other professional staff, used for educational purposes or included in a scientific or academic publication.

First volunteers

As this is the first time that the vaccine is being administered to people, for safety reasons, we will initially vaccinate one volunteer alone, followed by clinical review on the day after vaccination and further monitoring via a diary card for at least a further 24 hours. If there are no safety concerns, a further 2 volunteers will be vaccinated at a minimum of two days after the first volunteer and at least an hour apart. Following review of the second and third volunteers at the 48-hour timepoint, an internal safety review will be carried out. If no safety concerns are identified, the remaining volunteers in the group will be vaccinated. This staggered enrolment will be carried out for both Groups 1 and 2.

You will be able to choose not to be one of the first three volunteers vaccinated.

COVID-19

Due to the COVID-19 pandemic, there are enhanced precautions in place to keep you as safe as possible whilst carrying out the study effectively. These will follow the latest guidance from UK Health Security Agency (UKHSA) and the UK Government to minimise the risk of transmission of possible COVID-19 infection when you attend clinic appointments.

During the course of the study, you may develop symptoms that could be consistent with COVID-19 infection. If so, you will be directed to national NHS guidance and testing services. If you test positive for COVID-19 during this study:

- Please self-isolate as per latest government guidance.
- You will be directed to local NHS services if you require further medical care for COVID-19.

If you have to self-isolate during the course of the study, we will try to re-schedule clinic visits that are due to another time or schedule telephone consultations where possible.

To minimise the number of people in the building during study visits, we will give you a specific appointment time for all study visits and you must attend then. If you arrive before your appointment time, please wait outside of the building.

Clinic visits

- All staff will use appropriate personal protective equipment (PPE) during clinic visits. Social distancing will be strictly observed, unless proximity is required for clinical reasons.
- In the following circumstances, **please do not attend clinic** and call to inform us:
 - If you or a household member have any symptoms of COVID-19: fever of 37.8°C or higher, new cough, loss or change in sense of smell or taste.
 - If you or a household member have been diagnosed with COVID-19 and are self-isolating.
 - If you are unwell or not sure that you should attend.

Vaccinations

- Fever can occur within the first 24-48 hours following malaria vaccinations. If you develop a fever after your vaccination, you will be required to self-isolate (your household contacts do not need to isolate at this stage). Please let us know so we can discuss arrangements for your post-vaccination visits. You can stop self-isolation once you have been fever free for 24 hours.
- If you have a fever after 48 hours following vaccination, then this is less likely to be due to the vaccination and you will be advised to get tested for COVID-19 through local NHS facilities.

COVID-19 vaccination

- Please inform us if you have an appointment for COVID-19 vaccination during the trial as we would like to avoid giving your malaria vaccinations around the time of COVID-19 vaccination. This is because it is not known what effect COVID-19 vaccinations may have on your response to malaria vaccination, which is being studied in this trial. Similarly, it is not known if your response to COVID-19 vaccination may be affected if you are given a malaria vaccine around the same time.
- You will be able to receive a COVID-19 vaccine during the study if it is given at least 14 days before or 7 days after any malaria trial vaccinations. We have some flexibility in the dates of your malaria vaccinations so they can be fitted around any COVID-19 vaccination.

As the public health situation evolves, we may change some of these procedures, in line with the most up-to-date guidance from UKHSA and the UK Government. We will inform you as soon as possible of any changes.

OTHER INFORMATION

Blood Tests

We take blood tests as part of the screening visit and at the study visits in order for us to assess your general health, your immune response to the vaccine and to assess the safety of the vaccines. The volume of blood taken at each visit ranges from 10 to 128 ml. The total volume of blood taken over the course of the study is an estimated 972mL. If you would like them, we can give you the results of your blood tests. You will be asked to consent separately for blood to be stored and shared with other researchers via the Oxford Vaccine Centre Biobank. If you are not happy for your samples to be biobanked, they will be destroyed at the end of the study.

To avoid repeated testing, if you are not enrolled into this study and apply to enter another study carried out by the Jenner Clinical Trials Group based at the CCVTM in Oxford, the screening blood results may be used in that study, where appropriate and with your consent.

Abnormal Results

If abnormal results or undiagnosed conditions are found in the course of the study these will be discussed with you and, if you agree, your GP (or a hospital specialist, if more appropriate) will be informed. Any newly diagnosed conditions will be looked after within the NHS.

Expenses and Payments

You will be compensated for travel, time and the inconvenience of blood tests for each visit during the trial, and for attending a screening visit. The approximate total compensation for taking part in this study will be £790. Payment will be made via BACS within six weeks of completing the study.

You will be compensated as follows:

- Screening visit £25 per visit
- Travel expenses: £15 per visit (if travel to the trial site costs more than £15 additional reimbursement may be offered)
- Time required for visit: £20 per hour
- Inconvenience of blood tests: £10 per blood donation

If additional pre-enrolment visits are required (for example, for any repeat blood tests needed due to an abnormal result), you will receive a fixed payment of £10 per visit. You will also receive additional compensation for any extra visits attended during the course of the trial according to the rates above.

If you choose to leave the study early or are withdrawn from the study, you will be compensated according to the length of your participation based on these figures. Please note that if you do leave the study early it can take several weeks for your final payment to be made.

You should note that compensation payments received in this trial may have an impact on your entitlement to benefits.

	Time in Trial (approximate)	Maximum number of Visits	Maximum volume of Blood Taken (mL)	Compensation
Groups 1-3	8 months	16	972	£790

Table 2: Summary of study visits, blood taken and compensation for visits including screening visit

What alternatives are present?

At present, there is no transmission-blocking malaria vaccine approved anywhere in the world. There are other malaria vaccines in various stages of development. This study may help develop an effective transmission-blocking malaria vaccine.

What are the possible benefits of taking part?

This study will not benefit you, but the information gained from the study might help to prevent malaria infection and disease in those living in areas where malaria is common and in travellers to those areas.

Will my taking part in the study be kept confidential?

Yes. All the information about your participation in this study will be kept confidential. The details are included in Part 2.

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

What if relevant new information becomes available?

Sometimes during the course of a trial, new information relevant to the trial becomes available. If this happens, we will tell you about it and discuss whether you want to, or should, continue in the study. If you decide to continue to take part, you may be asked to sign an updated consent form. On receiving new information, we may consider it to be in your best interests to withdraw you from the study. Your participation in this study may also be stopped at any time by the study doctor or the Sponsor for other reasons.

What will happen if I don't want to carry on with the study?

If, at any time after agreeing to participate, you change your mind about being involved with this study you are free to withdraw without giving a reason. Your decision will not result in any penalty, or loss of benefits to which you are otherwise entitled. Unless you state otherwise, any blood taken whilst you have been in the study will continue to be stored and used for research as detailed above. Similarly, all your data collected up to the point of your withdrawal will be stored, unless you specifically request for it to be destroyed. You are free to request that your blood samples are destroyed at any time during or after the study.

What if there is a problem?

If you are harmed as a result of taking part in this study, the study doctor can advise you of further action and refer you to a doctor within the NHS for treatment, if necessary. The University of Oxford, as Sponsor, has appropriate insurance in place in the unlikely event that you suffer any harm as a direct consequence of your participation in this trial.

The Investigators recognise the important contribution that volunteers make to medical research, and make every effort to ensure your safety and well-being. In the event of harm being suffered, while the University will cooperate with any claim, you may wish to seek independent legal advice to ensure that you are properly represented in pursuing any complaint. At any time during the study you will be entirely free to change your mind and withdraw from the study. This will not affect your subsequent medical care in any way.

Complaints statement

If you wish to complain about any aspect of the way in which you have been approached or treated during the course of this study, you should contact your local trial team (contact details at the end of this document) or you may contact the University of Oxford Research Governance, Ethics and Assurance (RGEA) office on 01865 616480 or the head of RGEA, email ctr@admin.ox.ac.uk.

Will my taking part in this study be kept confidential?

All information that is collected about you during the course of the research will be coded with a study number and kept confidential. Personal details will be stored securely and separately from the research data. Responsible members of the University or regulatory bodies may be given access to data for monitoring and/or audit of the study to ensure that the research is complying with applicable regulations. Any information about you that leaves the clinic will have your name and address removed so that you cannot be identified from it. Your information is stored electronically on a secure server and any paper notes are kept in a locked filing cabinet.

Involvement of the General Practitioner/Family doctor (GP)

In order to enrol into this study, you will be required to sign a form documenting that you consent for us to contact your GP. This is to inform them that you are interested in being involved in the study, and to check there are no medical reasons that they are aware of that would make your participation inadvisable. Your GP may be asked to share information about your medical history and give access to any other medical records as required. The researchers will not enrol you in the trial if your GP has relevant concerns about your eligibility or safety. We will write to your GP to let them know whether or not you are finally enrolled in the study, and whether or not you completed the study, so they can update your medical records accordingly.

Prevention of 'Over Volunteering'

Volunteers participating in this study must not be receiving investigational medications or vaccines in another study at the same time. In order to check this, you will be asked to provide your National Insurance or Passport number. This will be entered on to a national database which helps prevent volunteers from taking part in too many clinical trials. More information can be found at www.tops.org.uk. Your national insurance or passport number is also required to allow processing of compensation payments.

What will happen to any research samples I give?

Your study visit blood tests will be analysed in Oxford University research laboratories. Blood tests for your general health will be carried out in the NHS laboratories at Oxford University Hospitals. With your consent, some cells from your blood may be used to produce specific antibodies ('monoclonal antibodies'), which could be used for commercial activity in the future. Other blood tests to look at the response of your body to the vaccine may be done with collaborating laboratories in the UK and in other countries. Any samples or data sent to NHS laboratories or collaborating labs will be assigned a study code rather than your name/personal details (pseudo-anonymised).

If you consent, some of your leftover blood samples will be stored indefinitely at the Oxford Vaccine Centre Biobank and may be used for further related research, including of the human body's immune response and/or vaccine research. Any such future research will have an appropriate ethical review. Upon your request at any time, your remaining blood samples will be destroyed. More information around the procedures for long term storage of your samples is available in the Oxford Vaccine Centre Biobank information booklet and you will be asked to sign a separate consent form if you agree to have your samples stored for future use in ethically approved research. If you decide not to consent to storage of your samples in the Biobank, these samples will be disposed of at the end of the study. Your participation in this study will not be affected by your decision to allow or not allow storage and future use of your leftover blood samples.

To avoid repeat testing, if you are not enrolled into this study and you apply to enter another study carried out by the Jenner Clinical Vaccine Trials Group based at the CCVTM, the results from your screening visit blood tests may be used to determine whether you are eligible for the second trial you applied for.

Will any genetic tests be done?

Yes. Some blood will be used to look at the pattern of your genes that can affect the immune system (including your 'human leukocyte antigen' [HLA] type). Since these genetic test are not carried out to look at your general health, you would not be given the results of these tests.

What will happen to my data?

Data protection regulation requires that we state the legal basis for processing information about you. In the case of research, this is 'a task in the public interest.' The University of Oxford is the sponsor for this study, based in the United Kingdom, is the data controller and is responsible for looking after your information and using it properly.

We will be using information from you and your medical records in order to undertake this study. We will use the minimum personally-identifiable information possible. The University of Oxford will keep identifiable information about you from this study for a maximum of 5 years after the study has finished. We will securely store the anonymised research data and any research documents with personal information, such as consent forms, for a maximum of 5 years after the end of the study. The need to store this information for longer in relation to licensing of the vaccine will be reviewed every 5 years. Once the study has been completed, all documents would be archived in a secure facility. Files will be confidentially destroyed if storage is no longer required. For effective vaccines that may be licensed, secure storage of research data may be required for at least 15 years after the end of the study, subject to adjustments in clinical trials regulations. In addition to the scientific data, we will also store documents containing personal information that you provide when registering for the trial (including contact details), medical information and signed consent forms during this archiving period.

The study team will use your name and contact details, to contact you about the research study, and make sure that relevant information about the study is recorded for your care, in relation to your health during the study and to oversee the quality of the study. At the completion of the study, unless you consent otherwise (e.g. if you request to be informed of other trials), your personal details will not be used to contact you other than for exceptional circumstances concerning your safety. If you consent to take part in another study carried out by the Jenner Institute, personal information and medical information including blood test results may be accessed to avoid unnecessary repetition.

Your bank details will be stored for 7 years in line with University financial policy.

Your information may also be shared with collaborating partners working with Oxford University. This information will be identified only by the unique trial number and you will not be personally identifiable. All data received will be kept securely by these parties in line with all regulatory requirements.

If the study is paused due to safety concerns relating to the vaccine, the local ethics committee and the manufacturers of the vaccine adjuvant (Novavax) will be informed. The data shared would be de-identified.

Data protection regulation provides you with control over your personal data and how it is used. When you agree to your information being used in research, however, some of those rights may be limited in order for the research to be reliable and accurate. Further information about your rights with respect to your personal data is available at: <https://compliance.web.ox.ac.uk/individual-rights>

Involvement of Appledown Clinical Research Ltd (ACR)

ACR are independent external monitors used in this study to ensure we are complying with the clinical trial regulations. They will conduct a site visit to prepare and set up the clinical trial prior to recruitment as well as conduct monitoring visits to check the information in source documents (e.g. blood test results and GP letters). In most documents you will only be identified by a study ID number but they will see some documents which would identify you (e.g. the consent form). They will not retain any data which could identify you personally. For remote monitoring to occur they may require secure online access to electronic documents but will not download or copy

them. ACR will comply with the University's Information Security Policies, which are documented in the agreement with the University.

What happens at the end of the study?

If you have any queries or concerns once the study is over, please do not hesitate to get in touch with us.

The results of this research study may be presented at scientific meetings or conferences and published in a scientific medical journal. This may not happen until 1 or 2 years after the study is completed. A lay summary of the results and a link to any publications will be sent to all participants. You will not be identified in any report or publication.

The anonymised data will be shared with the collaborating partners who are organising and funding this research work. Data from this study may be used to file patents, licence vaccines in the future or make profits in other ways. You will not be paid for any part of this. Data from this study may be used as part of a student post-graduate degree, for example a MD or PhD.

A description of this study will be available on www.clinicaltrials.gov. This website will not include information that can identify you. At most, the website will include a summary of the results. You can search this website at any time.

Taking part in future vaccine related research

With your consent, we would like to keep your contact details after your participation in this study is complete so we may inform you of opportunities to participate in future vaccine related research. This is entirely optional and your participation in this study will not be affected by your decision to allow or not allow storage of your contact details beyond your participation in this trial.

Your details will be stored electronically on a secure server and only authorised individuals at the CCVTM will have access to it. In addition, a copy of your consent form for this study will be retained, separately, for the duration of time you are on the future research database. We will not, under any circumstances, share your contact details with any third party institutions without your permission. Being contacted does not oblige you to agree to take part in future research and you can ask us to have your contact details removed from our database at any time.

Who is sponsoring, organising and funding the research?

The study is organised by the University of Oxford. The study is funded by the European Commission MultiViVax Grant. Neither your GP nor the researchers are paid for recruiting you into this study.

Who has reviewed the study?

This study has been reviewed by the Fast Track Research Ethics Committee and has been given a favourable ethical opinion. A Research Ethics Committee is an independent group of people who review research to protect participants' interests.

Thank you for reading this information sheet. If you are interested in taking part in the study please contact the study team at your local study site to arrange a screening appointment.

Contact details for further information:

Volunteer Recruitment Co-ordinator; vaccinetrials@ndm.ox.ac.uk; Tel: 01865 611406

CCVTM, Churchill Hospital, Old Road, Headington, Oxford, OX3 7LE