School of Optometry and Vision Science

UNSW SYDNEY

PARTICIPANT INFORMATION STATEMENT AND CONSENT FORM

[Migraine Group]

The ocular surface in migraine

Associate Prof Maria Markoulli, Prof Eric Papas, Dr Katherine Spira, Prof Arun Krishnan, Nur Amalina Md Isa

1. What is the research study about?

You are invited to take part in this research study. The research study aims to explore the changes on the eye surface in people with migraine disorder. Your participation will help to better understand the features of the eye surface in people with migraine of different types and treatments, and how this may lead to better assessment and management of the condition.

2. Who is conducting this research?

The study is being carried out by the following researchers: Associate Professor Maria Markoulli, Professor Emeritus Eric Papas, Dr Katherine Spira, Professor Arun Krishnan and PhD student Nur Amalina Md Isa at the School of Optometry and Vision Science, UNSW Sydney.

Research Funder: This research is being funded by UNSW.

3. Inclusion/Exclusion Criteria

Before you decide to participate in this research study, we need to ensure that it is ok for you to take part. The research study is looking to recruit people who meet the following criteria:

Group 1: Migraine patients

1. 18 years of age or older
2. Have adequate understanding of English and able to give informed consent by signing a record of consent for the study.
3. Diagnosed with episodic migraine (having ≤14 headache days per month) or chronic migraine (having ≥15 headache days per month).

Group 2: Chronic migraine patients receiving new therapy

1. 18 years of age or older.
2. Have adequate understanding of English and able to give informed consent by signing a record of consent for the study.
3. Diagnosed with chronic migraine and about to receive new migraine therapy of either Calcitonin gene-related peptide (CGRP) monoclonal antibodies or Botox injection.

Participants who meet the following criteria will be excluded from the study:

1. Habitual contact lens (CL) wearer (i.e., wear CL at least 5 days/week, for more than 6 months)
2. Have active eye disease such as iritis, corneal edema, glaucoma, or corneal dystrophies.
3. Have active eye infection, inflammation, or corneal abrasions.
4. Using daily medicated topical eye drops.
5. Have previous refractive surgery, eye trauma, or eye surgery within the last 12 months.
6. Have previous eye infection with Herpes viruses.
7. Have current or previous history of B12 deficiency.
8. Pregnant or lactating
9. Have known systemic co-morbidities which may cause neuropathies (E.g., diabetes, multiple sclerosis, cancer, Sjogren syndrome).
10. Have known allergy to sodium fluorescein dye or anesthetic eye drops.

4. Do I have to take part in this research study?

Participation in this research study is voluntary. If you do not want 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 study at any stage.

If you decide you want to take part in the research study, you will be asked to:

- Read the information carefully (ask questions if necessary);
- Sign and return the consent form if you decide to participate in the study;
- Take a copy of this form with you to keep.

5. What does participation in this research require, and are there any risks involved?

If you agree to participate you will be asked to complete the following research procedures.

Screening: A screening using questionnaire asking about medical, eye health and migraine history will be conducted to determine if you are eligible to take part. Completing the screening measures will take approximately 10 minutes. The screening questionnaire will be administered to you in a paper version, or by telephone or online interview. If the screening shows that you meet the criteria for inclusion, then you will be able to start the research project. If the screening questionnaire shows that you cannot be in the research project, your information will be withdrawn.

Procedures:

If you are eligible to participate, the study, you will be allocated to Group 1 or Group 2 based on the results of the screening. Both groups will undergo the same testing procedures. Only Group 2 will be asked to come for a second visit at 3-4 months after receiving the new treatment to review their migraine and eye surface conditions with the same testing procedures on the first visit.

Standard eye exam:

We will start by conducting a standard eye examination on your vision, front surface of the eye, and tear film. Your vision will be evaluated using a letter chart and the health of the front surface of your eye will be assessed with a standard procedure in which a microscope and bright light are used. This will be conducted to ensure your suitability for the subsequent testing.

Tear film assessment:

We will also assess the integrity of your tear film by measuring its stability, salinity (osmolarity), and volume. Your tear film stability will be evaluated using a non-invasive instrument known as the Oculus Keratograph. The tear film salinity will be measured using a small probe that will be placed at the corner of your eye. This will take less than 10 seconds to perform. The volume of your tears will be measured using a standard technique known as the ‘Shirmer Strip’ that is placed at the corner of your eye for 5 minutes.

Tear film collection:

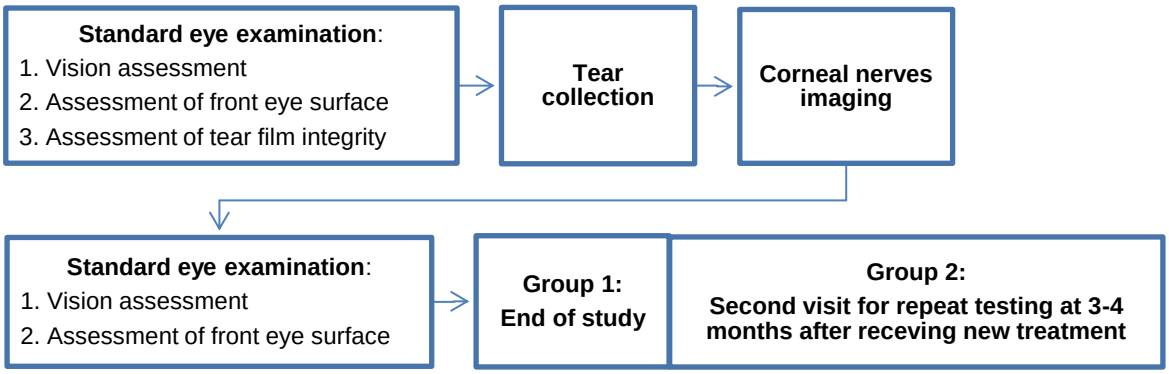
We will then collect a small sample of your tears using a well-established method that involves flushing your eye with saline to aid tear collection and holding a small glass tube against the outer edge of your eyelid without touching your eye. This procedure will take one minute per eye.

Corneal nerve imaging:

Next, we will evaluate the nerves in the front of your eye using a technique called corneal confocal microscopy. To do this, we will put anaesthetic drops in your eye (Oxybuprocaine 0.4%, preservative-free) then place a probe on the front surface of your eye for approximately one minute.

Finally, we will re-evaluate your eye health by conducting the standard eye examination described above. We will also instil yellow (fluorescein) dyes into your eyes to determine whether there is any damage to the front surface of your eyes.

All tests conducted in this study are parts of a standard routine eye examination except for tears collection and corneal microscopy. The expected total visit duration is 1.5 hours.



Risks involved: The risks involved in this study are minimal. During routine eye assessment, mild redness, irritation or watering of the eyes may be experienced. There are no reports of adverse events because of the bright lights used in this assessment.

During confocal microscopy, a preservative-free anaesthetic eyedrop will be administered on the eyes. This will cause a stinging sensation for a few seconds, followed by numbness which subsides within 10 minutes. An allergic reaction may occur. However, this occasion is rare and its possibility will be reduced by using the preservative-free drops, and if there is any known previous allergy to eye drops or anaesthetics, we will not perform the procedure. Mild discomfort may occur with confocal microscopy in people with any diseases in the front surface of the eye. Hence, we will screen the health of the front surface of the eye for any active disease with a microscope to ensure your suitability before conducting the procedure. We will also examine your eyes if there is indication of an allergic reaction after the

procedure. In the unlikely event that an allergic response occurs which requires medical intervention, you will be referred immediately to an appropriate health care practitioner at no cost to you. You should avoid rubbing your eyes for at least 30 minutes after this procedure.

Fluorescein is a safe, non-toxic, temporary dye and is used routinely in eye examinations. It may cause temporary yellowing of vision but usually exits the eye within few minutes by blinking. No serious adverse events have been reported with the use of fluorescein on the external eye.

If any visual disturbance or discomfort persist after 12 hours of the optometric procedures, please contact the UNSW Optometry Clinic on (02) 9385 4624 or after hours on the red eye emergency contact number 0449665812, or the Sydney Eye Hospital on (02) 9382 7111.

If any ocular abnormalities are identified during the study, you will be referred to the UNSW Optometry Clinic or your clinician of choice for follow-up.

Additional Costs and Reimbursement: There is no cost associated with participating in this research project, nor will you be paid. However, you will receive a $20 corporate gift card at the end of each study visit to reimburse you for any reasonable travel, parking, meals and other expenses while completing the study.

6. What will happen to information about me?

By signing the consent form, you consent to the research team collecting and using information about you for the research study.

The research team will store the data collected from you for this research project for a minimum of 7 years after the publication of research results. The information about you will be stored in a re-identifiable format where any identifiers will be replaced with a unique participant code.

You will be asked to provide your consent for the research team the share or use the information collected from you in future research that:

- Will be specific to the aims of this research;
- Will be an extension of, or closely related to, the original project; or is in the same general area of research;
- Will be used in any future research.

Your information will only be shared in a format that will not identify you.

- Information collected from you in an electronic format stored on a UNSW password protected OneDrive only accessible to the approved research investigators.
- Information collected from you using paper-based measures will be stored in a locked filing cabinet at the School of Optometry and Vision Science and only the approved research investigators will have access to this information.

The information you provide is personal information for the purposes of the Privacy and Personal Information Protection Act 1998 (NSW). You have the right of access to personal information held about you by the University, the right to request correction and amendment of it, and the right to make

a complaint about a breach of the Information Protection Principles as contained in the PPIP Act. Further information on how the University protects personal information is available in the **UNSW Privacy Management Plan**.

7. How and when will I find out what the results of the research study are?

The research team intend to publish and/ report the results of the research. All Information will be published in a way that will not identify you.

If you would like to receive a copy of the results you can let the research team know by inserting your email or mailing address in the consent form. We will only use these details to send you the results of the research.

8. What if I want to withdraw from the research study?

If you do consent to participate, you may withdraw at any time. You can do so by completing the 'Withdrawal of Consent Form' which is provided at the end of this document or you can ring the research team and tell them you no longer want to participate. Your decision not to participate or to withdraw from the study will not affect your relationship with UNSW Sydney. If you decide to leave the research study, the researchers will not collect additional information from you. You can request that any identifiable information about you be withdrawn from the research project.

9. What if I have a complaint or any concerns about the research study?

If you have a complaint regarding any aspect of the study or the way it is being conducted, please contact the UNSW Human Ethics Coordinator:

Complaints Contact

Position	UNSW Human Research Ethics Coordinator
Telephone	+ 61 2 9385 6222
Email	humanethics@unsw.edu.au
HC Reference Number	HC230013

10. What should I do if I have further questions about my involvement in the research study?

The person you may need to contact will depend on the nature of your query. If you require further information regarding this study or if you have any problems which may be related to your involvement in the study, you can contact the following member/s of the research team:

Research Team Contact Details

Name	Nur Amalina Md Isa
Position	PhD Student
Telephone	+612 9065 7355
Email	amalinaisa@unsw.edu.au

Chief Investigator

Name	Dr Maria Markoulli

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Position	Associate Professor/ Optometrist, University of New South wales
Telephone	+612 9065 7355
Email	m.markoulli@unsw.edu.au

Support Services Contact Details

If at any stage during the study, you become distressed or require additional support from someone not involved in the research please call:

Name/Organisation	Dr Kath Watt
Position	Clinic Director
Telephone	+612 9385 4624

Additional Services:

- **UNSW Red Eye Clinic**
  Ground Floor,
  Rupert Myers Building (North Wing)
  Gate 14 Barker Street
  UNSW, Sydney NSW 2052
  Tel: +612 9385 6859

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Consent Form – Participant providing own consent

Declaration by the participant

- ☐ I understand I am being asked to provide consent to participate in this research study;
- ☐ I have read the Participant Information Sheet, or someone has read it to me in a language that I understand;
- ☐ I understand the purposes, study tasks and risks of the research described in the study;
- ☐ Collection of biospecimens: I understand that the research team will collect tears; I provide my consent for this to happen.
- ☐ I provide my consent for the information collected about me to be used for the purpose of this research study only.
- ☐ 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 study as described and understand that I am free to withdraw at any time during the study and withdrawal will not affect my relationship with any of the named organisations and/or research team members;
- ☐ I understand that I will be given a signed copy of this document to keep.
- ☐ I would like to receive a copy of the study results via email or post, I have provided my details below and ask that they be used for this purpose only.
  Name: _____
  Address: _____
  Email Address: _____

Optional Consent for reuse of data and future research:

- ☐ I provide my consent for the information collected about me to made available to other researchers as described at section 6 of this document.
- ☐ I provide my consent for my name and contact details to be retained in a register so I can be contacted about other research projects in the future.

Participant Signature

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

Declaration by Researcher*

- ☐ I have given a verbal explanation of the research study; its study activities and risks and I believe that the participant has understood that explanation.

Researcher Signature*

Name of Researcher (please print)	
Signature of Researcher	
Date	

⁺An appropriately qualified member of the research team must provide the explanation of, and information concerning the research study.
Note: All parties signing the consent section must date their own signature.

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Form for Withdrawal of Participation

I wish to **WITHDRAW** my consent to participate in this research study described above and understand that such withdrawal **WILL NOT** affect my relationship with The University of New South Wales

- ☐ I am withdrawing my consent and I would like any identifiable information collected about me which I have provided for the purpose of this research study withdrawn.
- ☐ I am withdrawing my consent to participate in further components of this research and provide my permission for the research team to retain and/or use information collected about me which I have provided for the purpose of this research.
- ☐ I am withdrawing my consent and I understand that any information already published and/or not linked to my identity cannot be withdrawn from the research.

Participant Name

Name of Participant (please type)	
Date	

The section for Withdrawal of Participation should be forwarded to:

CI Name:	Associate Professor Maria Markoulli
Email:	m.markoulli@unsw.edu.au
Phone:	+612 9065 7355
Postal Address:	School of Optometry and Vision Science Level 3, North Wing, Rupert Myers Building Gate 14 Barker Street UNSW Sydney 2052

HREC Approval Number: HC230013
Version dated: 14/03/2023

Are you diagnosed with MIGRAINE ?

People with migraine are found to have different eye features suggesting that the eyes could have been affected by migraine and its symptoms. This finding could change and improve the way migraine is assessed and managed.

Hence, researchers at UNSW are looking for individuals with migraine to join the study exploring further, the potential of the eyes in evaluating this condition.

Who are we looking for?

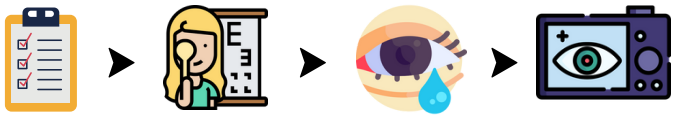
The research study is looking to recruit people who:

- Are 18 years of age or older.
- Are diagnosed with migraine.

You will **NOT** be able to participate in the study if you:

- Usually wear contact lenses at least 5 days/week.
- Have active eye infection, inflammation or corneal abrasion.
- Using daily medicated topical eyedrops.
- Are woman who is pregnant or breastfeeding.
- Have any conditions that would cause neuropathy (e.g. diabetes, multiple sclerosis, peripheral neuropathy, chemotherapy, Sjogren syndrome).
- History of eye infection with Herpes viruses
- History of eye trauma, eye surgery within last 12 months or refractive surgery.
- Have current or previous history of B12 deficiency.
- Have known allergy to fluorescein dye or anesthetic eyedrops.

Participant will be asked to complete the following research activities (approximately take 1.5 hours) at UNSW if they agree to participate:



Completing Survey ➤ **Undergo Standard Eye Test** ➤ **Tear Collection** ➤ **Cornea Imaging**

A full description of all research activities including any risks, harms or discomforts that you may experience while participating in this research is included in the Participant Information Statement and Consent Form (QR code)

Participant will be reimbursed with a $20 corporate gift card at the end of each study visit to compensate for the time and any reasonable expenses associated while completing the visit.

Please contact the following person via email or phone for more info or to register your interest in taking part in the research:

- **Name: Amalina Isa**
- **Position: PhD student, University of New South Wales**
- **Telephone: +612 9065 7355**
- **Email: amalinaisa@unsw.edu.au**

If you have questions about the research and would like to contact the Chief Investigator, please contact the following person:

- Name: A/Prof Dr Maria Markoulli
- Position: Optometrist, University of New South Wales
- Telephone: +612 9065 7355
- Email: m.markoulli@unsw.edu.au