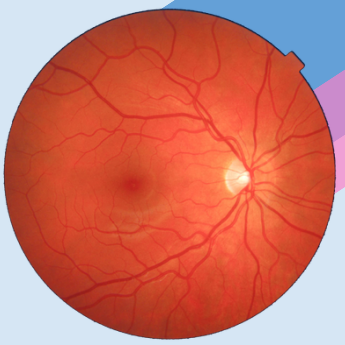
SCONe

Scottish Collaborative Optometry-Ophthalmology Network e-research

NEWSLETTER APRIL 2026

SCONe PHASE TWO SUMMARY

We produced a summary of our achievements during the second phase of SCONe
November 2022 to November 2025



Achievements described in the summary include:

- Nearly 1.5 million retinal images have been safely delivered from optometry practices around Scotland to Public Health Scotland's National Safe Haven, a secure data environment for clinical research;
- In a collaborative effort with the Belfast Ophthalmic Reading Centre, we have completed grading of approximately 9,500 retinal images, confirming whether signs of age-related macular degeneration (AMD) were visible. This tidy, labelled dataset of graded images is now being fed into the modelling;
- Our Artificial Intelligence (AI)-based work on prediction of age-related macular degeneration (AMD) has delivered strong results, which are currently being prepared for publication, following peer review;
- We have designed a follow-on study to evaluate how effectively our system performs in the real world, to ensure that our tool can accurately identify individuals who would benefit from treatment or healthcare interventions;
- Our Public and Patient Involvement Group has been actively involved in the co-design of specific research questions and engagement activities, with the aim to enhance public awareness of the value of retinal images in healthcare research and to support people in understanding why regular eye tests matter.

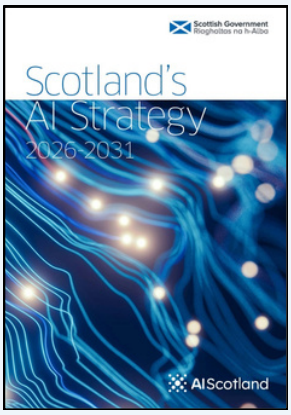
We would like the thank the organisations who funded the work described in the summary: Sight Scotland, The Royal College of Surgeons of Edinburgh, The RS MacDonald Charitable Trust, and Fight For Sight; their generosity and commitment made the creation and growth of the SCONe retinal image repository possible.

Read the full summary here

LATEST NEWS IN BRIEF

- The SCONe team are currently working closely with Research Data Scotland (RDS) and Public Health Scotland (PHS) to include SCONe in their portfolio of research datasets. The aim is to open a mechanism to allow other trusted researchers to use SCONe data securely within the National Safe Haven, while at the same time bringing in financial support for the costs of maintaining and improving the repository.

- SCONe research is mentioned in “Scotland’s AI Strategy 2026 - 2031”, published in March 2026 by Scottish Government. Under the project name “NeurEYE”, SCONe researchers have been working to develop a digital tool that can predict a person’s risk of cognitive decline, such as dementia, from retinal images. This is noted (on p.11 of the report) as one of several examples of the potential for AI in healthcare and public services.



- A workshop was held in January at the University of Edinburgh to discuss how the NeurEYE technology could be used in the real world to detect and monitor cognitive decline. The workshop brought together experts from various fields, including eye care, brain health, and social care. The goal was to understand how to turn this technology into a useful tool that can be used in practice, rather than just a technical innovation. The team is currently writing up the results of this workshop.

THE EYE AS A WINDOW TO YOUR HEALTH

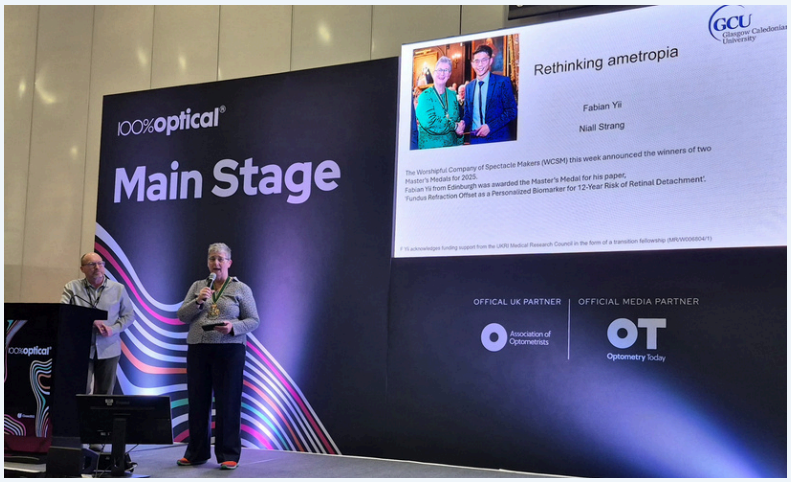
In developing our research, we have consulted patients and members of the public to gauge support and identify priorities. Our Patient and Public Involvement Group co-designed a video to highlight the importance of routine eye examinations for your eye and general health.

SCONE AT “100% OPTICAL”

100% Optical event, Sunday 1st March, Excel, London

SCONe’s Professor Niall Strang presented a talk titled '**Rethinking ametropia**' on the main stage at 100% Optical, the UK’s largest event for optical professionals.

The talk, which presented work by PhD student Fabian Yii that partially made use of SCONe data, described how variations in fundus appearance and ocular shape can influence the clinical assessment and management of myopia (short-sightedness). This highlights another way in which the SCONe retinal image dataset is providing a valuable resource for vision research.



SCONE PAPER IN TOP TEN FOR 2025!

Our paper 'SCONe: a community-acquired retinal image repository enabling ocular, cardiovascular and neurodegenerative disease prediction' has been selected as one of the Top 10 Best Papers published within BMJ Health & Care Informatics in 2025!

The paper acts as an introduction to the SCONe dataset, describing the characteristics of the cohort and highlighting its enormous potential to support research into earlier detection of disease.

Since the paper was written and accepted for publication, we have expanded the SCONe cohort significantly; the total number of images now stands at just under 1.5 million. We are in the process of writing and submitting a number of new papers to journals, which will provide further insight into our progress since then.

Read the full paper here