

NEWSLETTER OCTOBER 2025

1 MILLION RETINAL IMAGES IN SCONE REPOSITORY

Scottish Universities Transform Eye Health Research with Retinal Imaging Resource Retinal Imaging Network Achieves Millionth Image Milestone in Fight Against Diseases

SCONe has been featured in a number of media articles after reaching the one million retinal images milestone, including in <u>Optometry Today</u> and <u>Optician Magazine</u>.

Originally funded by The Royal College of Surgeons of Edinburgh, Sight Scotland, and The RS Macdonald Charitable Trust, along with Fight for Sight, NHS Lothian Charity, and the Chief Scientist Office, SCONe was set up in 2020 as a joint initiative by The University of Edinburgh and Glasgow Caledonian University.

The SCONe retinal image resource allows approved researchers to work towards discovering new information about eye and general health diseases such as age-related macular degeneration (AMD), glaucoma, cardiovascular disease, and dementia.

Over the past five years, the SCONe resource has successfully grown from an initial proof of concept to a **world-leading project**, having now safely delivered **over 1 million retinal images** from optometry practices around Scotland to Public Health Scotland's National Safe Haven, a secure data environment for clinical research.

One of the key aims in the creation and growth of the SCONe repository is to **safeguard retinal images captured in community optometry practices as a highly valuable clinical research resource** for improving public health across the population.

Professor Baljean Dhillon, one of the founders, said: "This innovative project will undoubtedly improve public health and fast track vital healthcare research. One of the many benefits of the repository comes from the presence of many images without or before clinical diagnosis.

With the repository including representation from 10 of the 14 Health Board areas in Scotland, the secured data, in conjunction with the latest advances in Artificial Intelligence for medical image analysis, are extremely valuable for developing new diagnostic tools and refining important time points in clinical care pathways where there is a need for monitoring, referral and intervention."

We are extremely grateful to the Scottish optometrists and optometry practices who came forward to participate, without whom this project would have not been possible.

Read our news updates here









WHAT'S NEXT FOR SCONE

At present, only current approved members of the SCONe research team have permitted access to the data within the National Safe Haven. However, in conjunction with <u>Public Health Scotland</u> and <u>Research Data Scotland</u>, researchers are now working towards a mechanism to allow tightly controlled, secure access to the repository for strictly approved and appropriately qualified researchers, to widen its potential to benefit the public through important and meaningful research.

The SCONe team's initial analyses on disease prediction are producing some very promising results, which the team will publish as soon as they are ready to share and have undergone peer review. The team are continuously on the lookout for new partners and collaborators to help realise their ambition of full coverage of Scotland and continue their valuable health research for the public good.



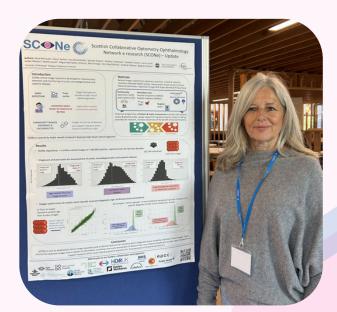


BRITISH CONGRESS OF OPTOMETRY & VISION SCIENCE

The British Congress of Optometry & Vision Science (BCOVS) was held at Glasgow Caledonian University on 1st - 2nd September. BCOVS brings together researchers from across the fields of optometry, orthoptics, ophthalmology, vision science, and psychology.

SCONe presented a poster with an update on the project's progress. Graphs demonstrated the number of retinal images in the SCONe repository that pre and post-date the development of ocular, systemic and neurodegenerative disease. The team has also developed a model to predict age from retinal images, with the difference between the predicted age and chronological age being termed the retinal age gap. It was shown that the retinal age gap distribution is different for both people diagnosed with Age-

related Macular Degeneration and people diagnosed with cognitive decline, dementia or Alzheimer's Disease when compared to controls.









SCOTTISH VISION STRATEGY CONFERENCE

RNIB Scottish Vision Strategy Conference

Wednesday 17th September Voco Grand Central, Glasgow

SCONe's Dr Alice McTrusty (pictured right) presented a talk titled 'SCONe: Building a Scotland wide Retinal Image Repository' as part of the 'Eye Health Innovation and Technology' session.

The talk included an overview of establishing the SCONe repository, highlighting the importance of safeguarding community acquired retinal images. It also covered the strict governance that SCONe adheres to and presented some early outputs from the data collected so far.

Ana Paula Rubio and Sam Gibbon also hosted a SCONe stand, where they spoke to attendees about our work.



HDR UK CONFERENCE



Health Data Research UK Conference 15th - 16th October, Hybrid format Scottish Event Campus (SEC), Glasgow

SCONe's PPIE Researcher Ana Paula Rubio (pictured left) presented a talk titled 'Beyond the Dataset: Integrating Public Voices in Data Science'.

Ana's talk took place on 16th October during the session 'Public and patient involvement and engagement (PPIE) throughout the research cycle'.









SCONE ANIMATED VIDEO

Our Patient and Public Involvement Group meet regularly and, together with our researchers and artist Alice Haskell, have co-designed research and public engagement work to help promote eye health as an important part of general health.

This work includes a new video to highlight the importance of routine eye examinations for your eye



and general health. Special thanks to The University of Edinburgh Strategic Impact Fund.

Retinal images taken during a visit to an optometrist can help to detect eye conditions like age-related macular degeneration or glaucoma. Projects like SCONe are exploring ways to use retinal images to detect other conditions, such as diabetes or neurodegenerative diseases.

DATA CONVERSATIONS PROJECT

Data Conversations is a public engagement project led by Ana Paula Rubio, our PPIE Lead in SCONe, with support from Research Data Scotland. The project was designed to bridge generational gaps by bringing together participants aged 18-25 with those over 50 to discuss data and its implications, particularly in healthcare contexts. The participant workshop was held in Aberdeen on the 3rd August 2025.

A key innovation of the project was the use of cultural probes - packages containing nine different activities sent to participants two weeks before the main workshop. These activities ranged from scaling exercises ("Does this look like data?") to mapping where participants thought data might be collected from their bodies. The cultural probes proved highly effective as they allowed participants to reflect on data concepts before arriving at the workshop, creating a foundation for deeper discussions.

We are developing a summary of cultural probe responses for participants who requested to see group-wide patterns, particularly differences between age groups. An online meeting is planned to allow participants to reflect on their journey and contribute to potential project outputs. We are exploring various output formats including videos, publications, artwork, or reports, depending on participant preferences. Keep an eye on our website and social media for the output results!

This initiative shows why it's so important to bring researchers and the public together to discuss complex topics like health data - not just to share information, but to create spaces for mutual learning and reflection. Public engagement like this builds trust, encourages open dialogue, and ultimately makes health research more relevant and transparent for everyone involved.

Read more on our LinkedIn page here





