

NEWS

Queen's partner with Banbridge opticians in innovative project

Staff Reporter

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Researchers from Queen's University have teamed up with Banbridge optometrist Jill McKeown to help aid early detection of age-related macular degeneration (AMD), the most common cause of severe vision loss in individuals aged over 55.

AMD is an eye disease which affects the central part of the retina within the eye causing changes to central vision leading to sight loss. This can make it harder to see faces, read, drive, or do close-up work like cooking or fixing things around the house.

In Northern Ireland, about 23.4% of people over 55 have AMD, with 1.6% experiencing the sight-threatening late stage, making it the leading cause of adult visual impairment.

The project, named I-SCREEN, is a European-wide pioneering AI-based programme led by the University of Vienna, which will help identify and monitor age-related macular degeneration (AMD) at its earliest stages.

Leading the project in Belfast is Professor Ruth Hogg, from the Centre for Public Health at Queen's University, together with Professor Julie-Anne Little from Ulster Uni-

versity.

Professor Hogg, along with researchers from the Northern Ireland Clinical Research Facility, are currently recruiting a cohort of patients with mid-stage AMD to follow for two years to identify the earliest stage of transition to late AMD.

Using eye scans and the precision of AI, the project will revolutionise AMD care by introducing a unique AI-powered platform compatible with optical coherence tomography (OCT) scanners found in high-street optometry practices.

This approach will empower primary care optometrists within local communities to diagnose AMD earlier and facilitate more timely treatment by efficient referral to secondary care specialists.

Professor Ruth Hogg said: "AMD poses a significant healthcare challenge, often slipping under the radar until severe vision loss occurs."

"The I-SCREEN project is dedicated to addressing this silent threat, leveraging AI and cloud technology together with imaging devices and expertise within optometry to make early AMD detection and treatment accessible to citizens from their local high street."

"I am delighted we are partnering with Jill McKeown. Opticians who are playing a crucial role within the pro-



Banbridge optometrist Jill McKeown is playing a key role within the project.

ject by referring patients with AMD to our research team."

Optician Jill McKeown, who is playing a key role within the project, said: "It is a fantastic opportunity to be able to recruit patients onto such

a study. I know that any patient showing even early signs of AMD will receive the highest standard of care. They will be closely monitored for signs of progression and given prompt treatment where

needed."

The project is made possible through the collaboration of a multidisciplinary consortium, bringing together a network of clinical retina experts, computer

scientists working at the cutting edge of AI development, an infrastructure of community-based opticians, and specialists experienced in clinical decision support systems for ophthalmology.



Professor Ruth Hogg has highlighted the importance of the research project.



The AMD study room.