

Lia EyeCare is an Irish-based eyecare technology company focused on developing non-pharmaceutical, device-based solutions for dry and sore eyes, digital eye strain and general eye discomfort.

A spin-out of the BioInnovate programme and University College Dublin, the company is headquartered in the mid-Cork Gaeltacht. Led by Sinéad Buckley and Breda O'Regan together with a multidisciplinary team, Lia EyeCare aims to deliver accessible, evidence-informed products that support everyday eye comfort and long-term ocular health.



Sinéad Buckley,
Co-Founder and COO



Breda O'Regan,
Co-Founder and CEO

About Health Innovation Hub Ireland

Health Innovation Hub Ireland (HIHI) was established by the Department of Business, Enterprise and Innovation and the Department of Health and is supported by Enterprise Ireland (EI) and the Health Service Executive (HSE) to drive collaboration between the health service and enterprise. We offer companies the opportunity for pilot and clinical evaluation studies and we provide the health service access to innovative products, services and devices that they may not otherwise be exposed to.

HIHI is built on the recognition that collaboration with enterprise can benefit patient care, patient pathways

and outcomes. We assess all concepts for healthcare innovation from those on the frontline – from clinician to porter. We encourage healthcare professionals to get in touch with HIHI if they have an idea or solution to how something in your job might work better.



The Healthcare Challenge

Eye discomfort, including dryness, irritation, fluctuating vision and eye fatigue, is a widespread issue affecting an estimated 750 million to 1.6 billion people globally. Many individuals rely on lubricating drops, warm compresses and environmental adjustments, yet still seek convenient, non-pharmacological relief for daily discomfort or screen-related

strain. As digital device use continues to rise, so too does the need for accessible, home-based solutions that can provide immediate comfort, reduce symptoms and support long-term ocular wellness. A proportion of users also express interest in wellness-oriented interventions that promote relaxation and reduce tension around the eyes.



The Health Solution



nightleaf® is a CE-marked wearable cold therapy device designed to provide immediate relief from eye discomfort, eye fatigue and screen-related strain. Intended for home use up to three times daily, nightleaf® delivers a gentle cooling sensation that helps reduce feelings of tension, refresh tired eyes and promote relaxation.

The device is designed to support ocular lubrication, reduce discomfort, flush debris, enhance comfort for

contact lens wearers and help maintain long-term corneal health. Its modulating cooling cycle aims to provide a soothing, calming experience that complements existing dry eye management strategies.

By offering a convenient, reusable and non-pharmacological option, nightleaf® supports individuals seeking simple, everyday relief for their eyes that fits seamlessly into modern routines.

HIHI Role

HIHI conducted a supervised single-session pilot evaluating the usability and immediate comfort effects of nightleaf®. Thirty-one volunteers were recruited, each participant used nightleaf® for 5 minutes and completed a structured feedback questionnaire afterwards.

HIHI coordinated participant recruitment, ethics approval, study facilitation, data collection and analysis. The findings provide Lia EyeCare with early user insights to inform product refinement, instructions for use and the design of future home-use studies.



Outcome Report

The pilot demonstrated strong user acceptance and immediate comfort benefits. After a single five-minute session, 81% of participants reported improved eye comfort, rising to 100% among those diagnosed with dry eye disease. Nearly one-third (29%) described their comfort as “much improved”. Participants frequently highlighted the cooling sensation as relaxing, refreshing and soothing, with comments such as “the best part was the coolness on the eyes” and “relief while using and directly after use”.

Usability outcomes were highly positive: 98% found nightleaf® easy to use, and 84% experienced no discomfort during use. Mild concerns included strap fit, eyebrow pressure and cooling intensity, offering clear direction for ergonomic refinement.

Participants also expressed interest in broader applications, including relaxation, stress reduction, sinus recovery and migraine relief. 71% said they would recommend nightleaf® to someone with dry, sore or tired eyes. Cost emerged as the key determinant to willingness to purchase. “It is easy to use. It feels relaxing and my eyes felt moisturised after same and not dry. I would buy this product, very cooling and relaxing sensation.” said one participant with dry eye disease.

Overall, the pilot confirms that nightleaf® delivers immediate comfort, is highly usable and is well-received by users. The findings support continued product development, ergonomic refinement and progression to a longer-term home-use study.

Testimonial

“Working with HIHI has been brilliant for Lia™ EyeCare.

Their team brought structure, credibility and practical support to our nightleaf® pilot, in every step. The overall process gave us high-quality early user insights that has directly helped us to move the product forward.

HIHI’s ability to connect healthcare innovation with real-world evaluation is invaluable for an early-stage company developing evidence-informed solutions”

*Sinéad Buckley,
Lia EyeCare Co-Founder and COO*