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Australia designs world first wearable device to record impact of artificial light for sound sleep

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MiEye sensor has been developed for public use by Circadian Health Innovations



In a world first, a new wearable device developed by Australia's Monash University researchers will help to record the impact of artificial light on our bodies for sound sleep, improved mental wellbeing and treating chronic health conditions.

The ‘MiEye’ sensor is the brainchild of circadian biology experts Professor Sean Cain (Adjunct) and Associate Professor Andrew Phillips (Adjunct) from the Faculty of Medicine, Nursing and Health Sciences.

Professor Jon McCormack, Elliott Wilson and Dr Rowan Page from SensiLab – a joint lab between the Faculty of Information Technology and the Faculty of Art, Design and Architecture – worked on making the MiEye device wearable and adapted it for commercial production.

When worn, the device, which senses light over 11 channels and is about as big as a 20-cent piece, records the impact of any light source, such as fluorescent light, overhead LED, sunsets, phone light and device light on the wearer. It then sends feedback to a smartphone application, which calculates the impact of ambient light on our body clock.

The MiEye sensor has been developed for public use by Circadian Health Innovations – a spin-off company founded by the lead researchers of the project.

Circadian Health Innovations Co-Founder and Chief Technology Officer Associate Professor Andrew Phillips said the device is currently available to select researchers and will be more widely available to clinicians and researchers in 2025.