

New technology allows vital signs to be checked via webcam

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Webcam software developed by a new Oxford University spin-out company will offer a simple, non-invasive way of monitoring patients' vital signs.

OxeHealth, set-up by the University's technology transfer company Isis Innovation, is working on software that will detect a patient's [heart rate](#), respiratory rate and [oxygen saturation](#) even in artificial light without the need for any physical contact or additional hardware. The firm, spun out of Oxford University's Institute of [Biomedical Engineering](#), will receive up to £500,000 in funding from IP Group.

'Our research has transformed the ubiquitous webcam into a non-contact sensor for monitoring the most important vital signs,' said Professor Tarassenko, Director of the Institute of Biomedical Engineering. 'Our close collaboration with biomedical scientists in the University and [clinicians](#) in the NHS Trust has enabled rapid translation from the lab to the ward. We believe that our webcam software offers a step change in the way that the health of individuals can be assessed in the home or the hospital.'

The software has been validated in a clinical study with patients in the Oxford Kidney Unit, showing that respiratory rate, [pulse rate](#) and oxygen saturation can all be monitored accurately with a remote webcam.

Tom Hockaday, MD of Isis Innovation, said: 'OxeHealth's product has the potential to make major healthcare improvements by reducing the number of times patients need to visit the doctor, and allowing doctors to adjust treatments quickly in response to real-time monitoring.'

Oxford University Hospitals NHS Trust Chief Executive, Sir Jonathan Michael said: 'We are delighted that OxeHealth is the first spin-out directly linked with the Trust. The study in our

[Kidney](#) Unit was essential to demonstrate that the technology works in a [clinical environment](#), for the benefit of patients. Oxehealth is another example of the many innovative opportunities which the partnership between the Trust and the University is making possible.'

Alan Aubrey, Chief Executive Officer of IP Group said: 'Digital health is an exciting and growing area and IP Group is pleased to support OxeHealth as it seeks to develop new products that could transform healthcare and patient monitoring.'

Over the coming months, OxeHealth will refine its technology for remote monitoring of Chronic Obstructive Pulmonary Disorder and other chronic disease patients in their homes.

Provided by Oxford University

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