



South West  
Academic Health  
Science Network



# PolyPhotonix Collaboration



**The SW AHSN and the National Institute for Health Research Clinical Research Network South West Peninsula (CRN SWP) in collaboration with PolyPhotonix has developed Noctura 400, a revolutionary light therapy sleep mask used for the prevention and treatment of Diabetic Retinopathy.**

The SW AHSN connected PolyPhotonix with the CRN SWP and clinical researchers in the region and also helped facilitate randomised controlled clinical trials across three sites in the South West Peninsula.

## Challenge identified and actions taken:

### PolyPhotonix is a bio-photonic research and development company, pioneering the use of organic light.

In partnership with the 'Fight for Sight' charity it has developed Noctura 400, a low cost revolutionary light therapy sleep mask used for the prevention and treatment of Diabetic Retinopathy.

Diabetic retinopathy occurs when diabetes damages the small blood vessels in the retina. Within 20 years

of initial diagnosis, 80% of diabetes patients will suffer from diabetic retinopathy.

PolyPhotonix's Noctura 400 light mask provides a non-invasive treatment to delay and manage the onset of diabetic retinopathy in diabetes patients, by illuminating the retina through closed eyes.

Three trial sites across the South West have recruited approximately 25 patients. Results showed that the light emitting masks reduced the number of intravitreal injections of ranibizumab required by patients and furthermore, used in conjunction with Lucentis (Ranibizumab) reduced the rate of progression of diabetic retinopathy.

## Impacts/Outcomes

- The CRN SWP enables rapid access to diabetes patients by providing the platform for Polyphotonix to trial its device. Over 25 patients will benefit from early access to the device in the South West.
- Polyphotonix's ability to market and procure the product will be enhanced by the SW AHSN and CRN SWP working together to generate the research-based evidence needed to take the product to the NHS market place.
- The Small Business Research Initiative (SBRI) Healthcare's credibility as a research and development funding mechanism is enhanced as a result of companies like Polyphotonix undertaking clinical trials to strengthen their case for procurement into the NHS. The SW AHSN and CRN SWP plan to collaborate on future projects with product developers, ensuring companies are offered the best possible routes into the NHS for testing, evaluation and clinical trials.

significant money to treat. Products such as PolyPhotonix's Noctura 400 provide essential solutions, forming part of the wider 'spend to save' health agenda.

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## Tips for adoption

The SW AHSN recommends that all AHSNs develop working relationships with local NHS stakeholders, particularly the regional NIHR CRNs. The joint offer provides companies with an excellent resource to help facilitate clinical trials across a region.

The PolyPhotonix product itself provides clinicians with an alternative way for the treatment of diabetic retinopathy, which in turn should prevent the onset of diabetic blindness and save the NHS money long term.

**"I would like to extend our sincere thanks to the SW AHSN and CRN SWP for the excellent support and guidance in recruiting local sites for our clinical study. We anticipate that earlier intervention could present significant benefits to both patients and the NHS"**

*– Martin Holland, Operations Director of PolyPhotonix Ltd*

## Plans for the future

Long term diabetes effects such as blindness and amputation cost the NHS

## Which national clinical or policy priorities does this example address?

Academic Health Science Networks provide support by linking companies with relevant NHS stakeholders to take a product idea forward to clinical trials. If a trial is successful the product may then be procured into the NHS, resulting in increased economic growth through job and income generation.

For more information call 01392 247903 or email [info@swahsn.com](mailto:info@swahsn.com)