Gift of **SIGHT**

NOVEMBER 2024 NEWSLETTER

Dear friends and supporters,



It has been 30 years since the clinical team at Southampton Eye Hospital, then in Bedford Place, moved to a bespoke Unit in University Hospital Southampton (then known as 'the General'). An event was organised in June to celebrate this auspicious anniversary with clinicians and scientists updating each other on new studies, new clinical practices and ideas for the future. We were delighted to have some of our eye unit alumni with us and also Professor Robert MacLaren, my colleague from Oxford University, who spoke about our collaborative gene therapy project for inherited eye diseases.

Our research team have been busy in the labs with 26 papers published so far this year! Many of these have been on the use of artificial intelligence to better interpret retinal images and predict progression of age-related macular degeneration. Others have shown a better understanding of a retinal condition that affects patients in their 40s and 50s, called central serous chorioretinopathy.

I was invited to speak at the German Ophthalmology Conference in Berlin and the International Society of Eye Research meeting in Buenos Aires in October. My talk in Berlin was focussed on our previous practice-changing clinical trial on central serous chorioretinopathy (the VICI trial). My talk in Buenos Aires was on our work on artificial intelligence, which can predict retinal ageing in a way that is not possible with routine clinical examinations.

My next trip will be to Vienna in December, where I will meet with my collaborators on the Pinnacle and Summit studies into age-related macular degeneration. In January, we will start and lead a new clinical trial for central serous chorioretinopathy (the Paint trial).

It was lovely to be invited to talk to guests at the recent Open Sight/Southampton Sight Eye Contact Exhibition. This is always a good event to explore new types of technology to help people with visual impairments, as well as finding details of support groups. As ever, it reminds me how vital research is to prevent or repair blindness.

Many amazing fundraising challenges have been undertaken during the last few months, with details given overleaf. I would like to send personal thanks to everyone who helps us in this way and to those of you who direct memory donations in the name of friends and family members to support our work. We have received some exceptionally generous legacies and these acts of selflessness are hugely appreciated. Thank you.

Andrew Lotery

Andrew Lotery MD, FRCOphth
Professor of Ophthalmology
University of Southampton

The Gift of Sight Appeal is managed by the University of Southampton which is an 'Exempt Charity' (HMRC reference number X19140) under the terms of the Charities Act 2011.

Dr Jay Self BM FRCOphth PhD Associate Professor Ophthalmology



I'm delighted to give this update on paediatric vision research undertaken at the University of Southampton. All the projects mentioned have been supported by donations and grants made through Gift of Sight.

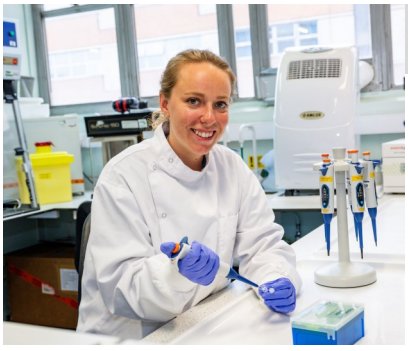
Our collaboration with a team of computer scientists and mathematicians within the University resulted in our Amblios Club project creating two new apps which are now available through various app stores, to encourage children to wear their eye patch for lazy eye. The app can identify when the child is wearing a patch and encourages them to keep it on whilst playing a suite of themed games. We received great publicity about this last year with a press release resulting in coverage in 53 UK newspapers, a radio interview and coverage on regional and national television channels. We are currently working with an independent film company to create a piece for BBC's 'The One Show'.

We are determined to improve the way children with nystagmus (wobbly eyes) are managed by doctors across the world. To do this we established a UK nystagmus interest group (NUKE) and created guidelines which have been endorsed by the Royal College of Ophthalmologists and shared widely across the globe. These guidelines will prevent patients from experiencing a 'postcode lottery' of care. This project attracted a generous grant, made through Gift of Sight, enabling us to use this platform to create some new games designed to test real-world vision for people with nystagmus that we will be able to use in clinical trials.

In another study we are investigating new ways to correctly diagnose children with the most severe eye conditions. By using novel technology, including the use of a hand-held electrophysiology device, we hope to be able to identify albinism and retinal diseases more quickly. This will improve NHS waiting times for the patients who need urgent care.

A significant part of our laboratory work is identifying new potential medical treatments for various types of albinism by investigating Food and Drug Approved (FDA) drugs. We are very excited to have identified some and my postdoctoral fellow, Ellie Keeling, will describe this in her input below. As you can see, we have been very busy!

I would like to thank everyone who has helped us make these meaningful impacts on the lives of kids with eye disease. Your support is invaluable.



Dr Ellie Keeling - Senior Research Fellow

In the three years that I have been working with Jay Self's paediatric research group, I have refined a cell culture model of a common form of albinism and used this to screen almost 1000 FDA approved drugs to try and identify new treatments. Because these compounds are already approved, they have already had safety studies completed and could, therefore, reach patients more quickly.

We have identified a few drugs that seem to work really well, and we are now exploring these in more depth to understand how they function by studying their chemical binding and biological effects. We have taken skin samples from some young albinism patients and I am processing these into eye cells in petrie dishes in the labs and using these to test the drugs. This is a very exciting prospect, and we hope to be able to publish some of our data soon.

continued….

I have also been involved in a small project using a handheld electrodiagnostic testing device to see if it can be used at as a diagnostic tool to speed up albinism diagnosis. Patients currently have to wait for full EDT testing, which has about a 4 month waiting list. Albinism treatments will need to be given at a very early age and it is important that we are able to diagnose patients quickly and efficiently, to allow the longest treatment window possible.

I was also proud to be part of the Vision Science Three Peaks fundraising event, which was very challenging but I am thrilled to have completed all three mountains. I wanted to do this as a way of showing my gratitude for the many years of funding from generous Gift of Sight donors.

Thank you.

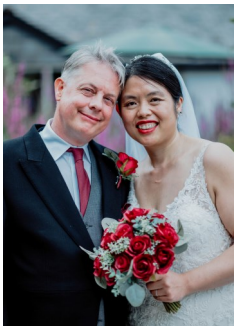
THANK YOU to all our generous fundraisers



We enjoyed spending time with **Southampton Archery Club** on the 20th July at their annual Charity Day, as well as meeting local dignitaries. The following weekend we met archers from all over the country who were competing at the World Record Status Target competition.

Our thanks to the club members for their determined fundraising for us throughout the year. We'll look forward to being with them during the Christmas period when they will advise us of the total they have raised.

Our grateful thanks to our very own **Dr Helena Lee** and her husband Roger for raising over £1,000 for Gift of Sight in lieu of gifts at their wedding on the 27th July.





Helena put in another appearance on the 2nd September when she joined the amazing **Joe Marsden** who was running 7 marathons in 7 days to help the OLIVIA study move forward, as mentioned in our last newsletter.

His first two marathons took place in Southampton, with the following five taking place in Leicester, Birmingham, Leeds and Manchester, finally arriving to a hugely heartwarming welcome in his home town of Liverpool. With a dedicated team helping him along the way Joe did suffer 'aches and pains' but ran through them with determination. It was lovely to see other people, including Helena, running with him at times.

Joe's dedication to raising awareness of albinism and undertaking such a huge challenge was taken up by Granada and Meridian TV and shared through many radio stations. We can't emphasise enough how incredibly grateful we are to him and his team for their generosity in giving a week of their time to this challenge, as well as all the planning beforehand. It was lovely to see messages of support on his JustGiving page from friends, family and total strangers and we have received emails and donations from all over the world. This challenge has shown how people can come together for a good cause.

Our grateful thanks to **Abby Arrowsmith** who has also been supporting the OLIVIA study, raising £8638 through her Justgiving page. Abby has been hugely helped by her friends and family, including those at Caton United Football Club who climbed Helvellyn in the Lake District. The team raised £1228 which has been a great boost to the funds. Another fantastic example of teamwork. Thank you.

We'd also like to send a huge thank you to our **Direct Debit and future Legacy donors.** Your ongoing help is greatly appreciated. We're organising a meeting to reiterate our personal thanks and give updates on research. Please save the afternoon of the **23rd April 2025** in your diary - we'll be in touch.



VISION SCIENCES THREE PEAKS CHALLENGE TEAM! Our team of University of Southampton students, scientists and supporters completed the **'Three Peaks Challenge'** on 7-8 September, raising more than £5000 for vision research.

They began at Scotland's **Ben Nevis** on the Saturday afternoon, with clear skies and breathtaking views. An unexpected 26 degrees heatwave made climbing difficult, with little opportunity for shade. As the sun went down, so did the temperature and the long descent in darkness put the head torches to good use. England's highest peak, **Scafell Pike,** welcomed the team at sunrise the next day. They powered through, clambering over the never-ending boulders to the summit. Knees took the brunt of the work heading down, with several hobbling bodies hauled into the minibus for the journey on to Wales. Heavy traffic and poor weather meant a delayed start for the final challenge - **Snowdon.** The team set off at around 6pm, with light rain and darkening skies. Visibility was poor but spirits were high as they began the steep ascent up the rocks. However, a sudden storm forced most of the team back down the mountain, whilst four climbers had dashed on ahead to reach the summit. Thankfully everyone arrived back safely!

The team hiked for 15.5 hours, completed 890,000 steps between them and had about 4 hours sleep over the 28.5 hours of the challenge. They then held a cake sale in Southampton Hospital to boost funds and their Justgiving page is still open if anyone would like to belatedly support them.

Our grateful thanks to the team at Sapphire Eye Care who generously sponsored costs towards the minibus and also provided water bottles, which were well used!

And coming up...! Full details on www.giftofsight.org.uk/events

FESTIVE BAKE SALE - 6th December 2024, 8:30am - 1pm (or until we sell out!) at the Front Entrance of **University Hospital Southampton**. If you're visiting that day, please do come along and support us.

BACH WINCHESTER VOICES AND ORCHESTRA will be performing parts III - VI of J.S. Bach's Christmas Oratorio on **Sunday 19th January 2025** at **St Paul's Church, St Paul's Hill, Winchester SO22 5AB**, at **4pm**. Professor Andrew Lotery will say a few words and there will be a retiring collection available for those who wish to donate to Gift of Sight. There is no charge to attend but please book seats through the Events page on our website here. Parking is available locally.

PLEASE SAVE THE DATE: **Gift of Sight Lecture - evening of 14th May 2025.** This will be in person, with times and venue to be confirmed in our next newsletter and through the Events page on our website. Our scientists are always delighted to catch up with guests and to share details of their projects.

Contact: Ailsa Walter | T: 023 8059 9073 or Jennie Mugridge | T: 023 8059 5921
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