



Dear friends and supporters

BEATING BLINDNESS

In May I attended the largest eye research meeting in the world with members of our vision research team. This conference brings together over ten thousand vision science researchers. Southampton gave 13 presentations and there was great interest in our work with some of our PhD students talking non-stop for two hours as they were questioned about their research posters! The meeting allows us the opportunity to network with researchers from around the world and thus build collaborations. One outcome from the meeting was that we will be joining forces with colleagues in America and Asia to further investigate the genetic causes of glaucoma. We have the largest cohort of glaucoma DNA samples in the UK collected from patients affected by this disease. Thanks to support from Gift of Sight we have already been able to genetically analyse these samples and, by combining our results with other researchers, we should hopefully identify novel risk factors for glaucoma. This will, in turn, provide us with new insights into ways to treat this disease.



Professor Andrew Lotery

I am delighted to welcome Dr Jorn Lakowski to our vision science group. He joined us in January as a Tenure Track Research Fellow, and Gift of Sight will support his salary for five years. This post was set up in memory of the late Professor Andrew Elkington, who would have been delighted with Jorn's appointment. We have also agreed a two year Postdoctoral position for Savannah Lynn, who successfully completed her PhD studentship as part of Dr Arjuna Ratnayaka's group in our laboratories. They have both written about their projects overleaf and we will look forward to watching them progress with their careers in our vision research group.

The expansion of our team has been fuelled by generous donations and legacies in favour of Gift of Sight. We have also been able to help our scientists by purchasing items of equipment for laboratory use, ensuring they are able to move projects forward efficiently. I am very grateful to all our kind supporters.

On a personal note, I am working with colleagues in Europe to finalise a forthcoming clinical trial in an inherited retinal condition called Stargardt disease. This study, supported by the European Union, will be one of the first clinical trials for this disease and we are the only UK site. Gift of Sight helped support the equipment needed for the study. We are continuing our clinical trials on macular degeneration and retinitis pigmentosa and I am delighted we can offer Hampshire patients access to these ground breaking trials. Gift of Sight has recently helped fund some research time for doctors participating in these studies, including the establishment of new research trials in Salisbury District Hospital, enabling their Ophthalmologists to get involved in research too. Thank you again for your ongoing support which is very much appreciated by myself and all the members of my vision science research group.

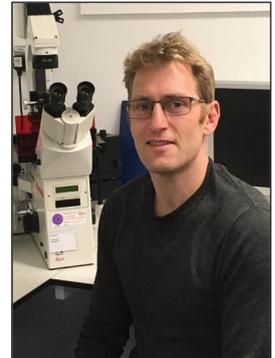
Andrew Lotery MD, FRCOphth
Professor of Ophthalmology

Research News

Research supported by Gift of Sight is undertaken in the University of Southampton.

Jorn Lakowski : *Andrew Elkington Track Tenure Research Fellow*

Inherited retinal degenerative diseases are a major cause of blindness in the UK, affecting 1:3000 individuals. While this is a very diverse group of conditions, the common endpoint is usually the loss of the light sensing cells, the rods and cones, within the retina. Cones are particularly important for our vision as they enable us to see with high acuity as well as in colour. It is the inevitable loss of these cells which renders a patient blind. Unfortunately, our current treatments can only slow down the disease progression but not stop or reverse it. There is an urgent need to develop new and more effective treatment options.



Jorn Lakowski

The paucity of adequate treatments for this group of blinding conditions has been mainly due to gaps in our knowledge of how rods and cones develop, function and are affected by a given disease. It is here where ultimately the key for the development of new vision preserving and restoring treatments can be found and it is here where the emphasis of my current research activities lies. Over the past decade human stem cells i.e. cells which can be coaxed to turn into any cell in the human body, including our rods and cones, have emerged as an extremely potent tool. This will help to not only understand but potentially cure many inherited retinal diseases.

In my newly established research lab within the University of Southampton, we are following a multipronged approach to developing cures for inherited dystrophies affecting the cone photoreceptors. Firstly, we use novel genome engineering techniques in conjunction with our stem cell cultures in order to understand how cone photoreceptors are made during development. The information gleaned from this work will then allow us to generate the necessary donor cells for retinal cell therapy treatments. Secondly, we mimic retinal dystrophy conditions using cones generated from our stem cell cultures to understand how the cells are affected by the degenerative disease. Finally, having generated “sick” cones in our stem cell model, we intend to identify molecules from large commercially available “libraries” containing thousands of compounds, which can protect these cells, with the goal of developing drugs for patient application.

Savannah Lynn : *Postdoctoral Scientist*

On the 1 April I returned to work in Arjuna Ratnayaka’s group as a Postdoctoral Researcher after finishing in the laboratory last September to write up my PhD thesis. My postdoctoral research will largely be a continuation of my PhD, in which I investigated the role of the Amyloid Beta ($A\beta$) protein in Age-related macular degeneration (AMD). This ‘sticky’ protein is known to build up in the brain of patients with Alzheimer’s disease but more recently has been shown to deposit in the eye. Here, it has been associated with several ocular diseases including AMD and glaucoma. The focus of my research is to try to understand the effects of $A\beta$ on the Retinal Pigment Epithelium (RPE), a single layer of cells that is crucial for healthy vision, and which appears to be the fulcrum of damage in AMD. Specifically, our group is looking at how $A\beta$ might impair the clearance of waste products through the cell’s major ‘waste disposal’ unit – lysosomes. I am very grateful for the opportunity to continue this interesting research and would like to express my utmost gratitude to Gift of Sight fundraisers and supporters for all the generous donations that have made this possible



Savannah Lynn

Thank You

A round-up of just some of the events that have recently taken place, to raise funds for Gift of Sight

Many thanks to the Lions Club of Chichester for their recent donation of £2,000. The members have supported Gift of Sight since 2006 and their gifts have added up to a fantastic total of £23,000.

Southampton ABP Half Marathon

Well done to Team Lotery who all managed the course with the younger member of the family having to wait at the finishing line for Prof and Mrs Lotery. Congratulations on raising a fabulous £3000! Thanks and well done to Christos Katsogiannis who has raised £250 for children's eye research and good luck Christos in your ongoing challenges and fundraising! Unfortunately James Bidwell suffered an injury and will undertake a run when healed to reflect his thanks for the £1395 donated. Wishing you a speedy recovery James!

Three Peaks Challenge - Sunday 17 June 2018

Five pupils from Pilgrims School completed the Three Peaks Challenge in 24 hours, raising funds for Gift of Sight. Henry Akerman, Hamish Bain, Orlando Fox, Hugo Hanson and Theo Harvey were driven to Fort William in Scotland with some of their Dads and a support team on the 16 June. The minibus and petrol for the challenge were kindly provided by their school and parents covered all other costs. Starting at 6.00 am at the foot of Ben Nevis, followed by a rainy ascent and descent of Scafell Pike, the boys finished their challenge at 4.33am on the summit of Snowdon. The team really did pull out all the stops, walking 23 miles, achieving a total ascent of 10,052ft and covering a driving distance of 462 miles.



Ben Nevis at 6.00 am

Hamish is the son of Ms Nishani Amerasinghe, one of our Consultant Ophthalmologists in Southampton Eye Unit. Her speciality subject is glaucoma and many of you will have met her in clinics. The boys have reached double their target, raising an amazing £2,500, but it's not too late to donate on their **JustGiving page** www.justgiving.com/fundraising/pilgrims3pc or by sending a cheque to this office with 'Three Peaks' written on the back. Huge congratulations to the walkers and our grateful thanks to you all. **Amazing!**

An Invitation

National Garden Scheme

We have been invited to hold a coffee morning at The Island, Greatbridge, Romsey on Sunday 19 August at 10.45 a.m. by courtesy of Christopher and Sarah Saunders-Davies. This is a **National Garden Scheme** initiative, organised to highlight the well documented benefits of spending time in a garden and will include refreshments on arrival, a personal tour by Sarah or, alternatively, time to wander and just take time out from our busy lives in a peaceful location. Guests are welcome to bring a picnic lunch and to spend a some leisurely time soaking up the beauty of the garden, leaving by 2.30 pm. No dogs please, except guide dogs. The garden is wheel-chair friendly.



There is no charge to attend but if you would like to join us on the 19 August (we have a maximum of 40 places) please email info@giftofsight.org.uk or telephone us on 023 8059 9073 and we will be able to add you to our guest list and send you full joining instructions nearer the time.

FORTHCOMING EVENTS

Saturday 21 July	<p>Gung Ho Southampton Sarah Kearsley and Sharon Ketley, who abseiled for us in 2016, have organised a team from Southampton Eye Unit to join them on the 21 July. The 5k route is set on Southampton Common and participants make their way over ten huge inflatable obstacles. Please visit the Gift of Sight JustGiving page to support the team.</p>
Saturday 21 July.	<p>On the same day Barbara Laws will be Skydiving to celebrate her birthday, undertaking this challenge in memory of her Father who was blind for his lifetime. https://www.justgiving.com/fundraising/peaplemandy. Good luck from us all Barbara!</p>
Thursday 6 September	<p>We will be fielding a team of volunteers to hold collection buckets at Salisbury Racecourse during this afternoon. If you love a day at the races please do come along and meet us and we'll try to encourage you to part with some of your winnings! The first race of the afternoon will be 'The Gift of Sight Appeal EBF Novice Stakes' http://www.salisburyracecourse.co.uk/salisburyracecourse.html</p>
Sunday 16 September	<p>Please join us at Longstock Park Water Garden, Longstock Park, Stockbridge, Hampshire SO20 6EH to wander round the estate and admire the beautiful gardens. Opening from 1 pm—4 pm, admission is £6 for adults, £2 for children under 16 with no charge for under 3's. The garden is accessible by wheelchair, although access may be difficult if wet. Only assistance dogs are admitted. Food & drink cannot be consumed in the garden but the Farm Shop and Café is open between 10 am—4 pm.</p>
Sunday 14 October	<p>Rotary Romsey Test Way Walk Please join us at this popular annual event. There are varying distances to walk and we shall have a team of 'twenty-five milers' again this year. Please do sign up for a distance that you can manage and we'll be delighted to provide you with a Gift of Sight polo shirt to wear on the day. Registration is now open on the Rotary website : https://walkthetestway.org.uk</p>
Tuesday 18 December	<p>Gift of Sight Carol Concert in Romsey Abbey. Please put aside the date to join us at this amazing Concert. Full details of pricing will be given nearer the time and booking will, once again, be made through Music in Romsey and Romsey Tourist Information Office.</p>

General Data Protection Regulations (GDPR) Statement

Gift of Sight is an Appeal managed within the University of Southampton, Office of Development and Alumni Relations (ODAR). As a supporter of Gift of Sight you are incredibly important to us and we are committed to protecting your data and privacy. Gift of Sight adopts a transparent approach to fundraising and how donations are used to support our research. We always treat your data with integrity and never sell it on to third parties. We respect your right to opt out of communications or processing at any time. Please read our Privacy statement at <https://www.giftofsight.org.uk/gift-sight-privacy-statement>

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