

Summer 2017

Funding world-class vision research

Dear Friends and Supporters

It has been the time of year to meet up with other eye researchers from a variety of academic institutions to collate information relating to research projects and we were delighted to host a conference recently for colleagues from the Universities of Oxford, Bristol, Cardiff and Southampton (OBCS). I was delighted that Luke O'Gorman, one of our PhD students who is



ABP Half Marathon team 2017

studying the development of bioinformatics pipelines for ophthalmic disease, received the prize for the best presentation. His talk was called 'Targeted sequencing and analysis of the myocillin gene in a selected cohort of primary angle-open glaucoma patients'. Luke also works with the paediatric team on genetic based eye diseases and we have asked him to share details of his work, shown overleaf.

The recent Gift of Sight Lecture was well attended and it was good to have the chance to talk to many supporters who came along. My thanks to Mr Jay Self and Mr David Anderson for joining me and providing updates of their work and to Mr Andy Luff for introducing the evening on our behalf.

I am taking this opportunity to thank all the patients who accept invitations to participate in clinical trials which help us evaluate how new treatments work and whether they bring sufficient improvement to make the case for new therapies for a large number of patients. We are one of the leading recruiters to ophthalmic clinical trials in the country. Our research was recently recognised at the University Hospital Southampton "Hospital Heroes" awards ceremony. I was the winner of "Clinical Impact Through Research" for delivering a research study which has led to a change in clinical practice locally and members of our Ophthalmology clinical research team were runners up in the "Research Team of the Year" award. They are a tremendous group and I am proud to work with them. I know you will join me in congratulating them on their achievement.

Your significant financial support has enabled us to increase the staff in our vision science group, helping us to look at the many causes of eye diseases in more depth. We are currently undertaking clinical trials in macular degeneration, central serous retinopathy and diabetic eye disease. Future studies are planned in retinitis pigmentosa and stargardt disease.

My family and I enjoyed our run in the ABP Half Marathon and we were joined by PhD student Savannah Lynn and her fiancé, who ran with us. Please accept my personal thanks for your sponsorship which totalled almost £3000. Other members of the research team have also been actively fundraising and this is mentioned on our 'Thank you' page.

I would like to this opportunity to thank everyone who has supported us recently and in past years. The dedication you show helps our team focus on extending our work for patient benefit. Thank you.

Andrew Lotery

RESEARCH NEWS

An update from Dr Helena Lee

NIHR Academic Clinical Lecturer in Ophthalmology

A great deal has been achieved since I joined the paediatric research team in Southampton in 2015. With the help of both a Gift of Sight starter grant of £10,000 and the purchase of a state-of-the art high definition retinal imaging (OCT) machine, I have developed a working laboratory model of albinism. Using this model I have been able to investigate how the absence of pigment in albinism affects eye and vision development and why. I have shown that although the eye does not develop normally in young children with albinism, which causes poor vision, the eye is still able to change and adapt. Potentially, treating albinism at a young age will improve both eye development



Helena Lee (R) and friend raising funds at the Gung-Ho event, Southampton 2017

and prevent visual impairment. I recently presented this work internationally at The Association for Research in Vision and Ophthalmology (ARVO) in Baltimore, where it was very well received.

I have also been developing a new treatment for young children with albinism, based on replacing a chemical that is missing in the eyes of these patients and is thought to be responsible for problems with development of the eye. Early results look very promising, with evidence that this treatment can improve this phenomenon in our laboratory model. No treatments are currently available for vision problems seen in albinism. I am hopeful, when this work is completed, that we will be finally able to offer an effective treatment to young children affected by this condition.

Luke O'Gorman - PhD student

Luke previously graduated with a distinction in a MSc Bioinformatics degree at the University of Leicester and is currently a second year PhD student working primarily under Professor Sarah Ennis and Dr Jane Gibson at the University of Southampton. His project focuses on the genetic analysis of patients with various forms of nystagmus and primary open-angle glaucoma. A range of sequencing data has been generated for his studies, from focusing on all genes to a small number of important genes which require extensive analyses.



Luke O'Gorman

By developing informatic pipelines to interrogate and analyse patient DNA using next-generation sequencing data (NGS), mutations can be identified to understand the underlying biology behind disease. As part of his project, this type of data analysis has been successful in concluding the underpinning causal genetics in many idiopathic (meaning the cause of the disease is unknown) and albinism associated nystagmus patients. Luke is also investigating mutations identified in 67 primary open-angle glaucoma genes and is currently studying the most common causal gene, myocilin.

Luke is enjoying the opportunity of gaining in-depth experience of handling next-generation sequencing data and finds it interesting that mutations which have been identified can be related back to the clinical presentation of the patients. He has enjoyed transferring his work into publications and presenting his work at a range of conferences including UK Eye Genetics Group and the OBCS Alliance. Luke hopes he can continue to provide high impact research in the future.

THANK YOU

We cannot emphasise enough how much your donations mean to us. We have been able to advertise for more research staff and purchase imaging equipment and consumables that enable laboratory experiments to continue. Thank you for your cheques, on-line gifts, Direct Debit, Payroll payments and Trust & Foundation support. Generous legacies have made a huge impact on our income and we feel sure these kind donors knew in advance how much their benevolence would be appreciated.

Regrettably we are unable to list all names but here is a sample of our some donations recently received:

Paediatric research benefitted from monies raised at an Easter Cake Sale and Tombola organised by Jackie Davies in Southampton Eye Unit and funds raised by Pat Swadling during his term as Chief Ranger of The Foresters Friendly Society Court 5069. The Inner Wheel of Southampton held a 'Pimms and Strawberries' afternoon with entertainment which was great fun. Thank you all for your ongoing support.



Team Mad sc-eye'n'tists

Our research team have also been fundraising in earnest! Professor Lotery, his family and Savannah Lynn (PhD student) ran the ABP Half Marathon. Helena Lee and Janice Parmenter took part in Gung-Ho Southampton on what must have been one of the hottest days this summer, covering a distance of 5 kilometres and climbing over obstacles on the way. Ellie, Chelsea, Savannah and Tutte, who are all part of the vision science team, pedalled around New Milton on another hot Sunday as part of the annual Pedal Car Grand Prix, with a great back up team. They were delighted to finish in second place in the Ladies Class: an excellent result as they had no time to practice beforehand. Grateful thanks to Tony Smith for the generous loan of the car which was returned to him without any damage!

Mrs Lily Alison kindly held another of her regular table top sales, Margaret and Sheila Harding donated the proceeds from setting up a table at car boot sales and Challenge Adventure cycled hard and sent a generous cheque. Thanks to you all and to The Inner Wheel Club of Winchester for their kind donation



Jenny and Ed

Jennifer Mansbridge wanted to celebrate a 'big' birthday and signed up for a Skydive at Old Sarum with her nephew, Ed Phippard, joining her for the jump. It's not the first time the Mansbridge family have supported Gift of Sight and we know they were as delighted as us with the final sum of £3146. Thank you so much to all their family and friends, many of whom are local Freemasons, for this generous support.

The 21 May saw us at Old Sarum again to meet another group of intrepid jumpers. Initially a cloudy day, the weather cleared and our team eventually took off. Owen Wright and Jack Aalen are both members of The New Forest (East) Probus Club and generously offered to fundraise for us after hearing a talk about the vision research carried out in University Hospital Southampton. Although Jack was with us on the day he was unable to jump but his daughter Laura and nephew Robert Mitchell were both in the team. Jack's sister Nancy sadly died prior to the Skydive and the considerable funds he and his family raised have been dedicated to her memory.



L-r: Robert, Rosie, Jack, Laura and Owen.

Owen has been busy collecting sponsorship and has been a great advocate for our research. As a pilot he was amused that he was actually jumping out of the plane from 15,000 ft. Rosie is a Southampton patient and we would like to thank Specsavers, Alton for helping her beat her fundraising target. The team has raised in excess of £3750 which is an amazing sum and will greatly help our research. Thank you all.

FORTHCOMING EVENTS 2017 Mark McFloyd has signed up to run the New Forest Marathon in memory of his Grandmother, Sunday Mrs Nora Rosendale. He has opened a JustGiving page and would welcome your sponsorship 10 Sept. https://www.justgiving.com/fundraising/mark-mcfloyd. Weds. Open Sight Eye Contact Exhibition Opening Times: 10.00am - 5.00pm at The Ageas Bowl, 4 October Botley Road, Southampton SO30 3XH Admittance free. Professor Andrew Lotery will be giving a talk in order to update guests on current vision research projects and clinical trials being undertaken in Southampton. Enquiries to Open Sight please on 023 8064 1244. Sunday Rotary Romsey Test Way Walk. This year's walk is sponsored by Specsavers, Romsey who have kindly chosen Gift of Sight as their charity to support. We are raising funds for children's 8 October eye research. Ailsa has signed up to walk 25.5 miles but alternative distances are 5, 8, 11, and 16 miles. To register as part of our Gift of Sight team please quote Ailsa's reference of #364 at the foot of the registration page when you sign up. http://walkthetestway.org.uk/ Once you have registered please add your own fundraising page to our team JustGiving page https://www.justgiving.com/companyteams/GoS-TW 80% of sponsorship is sent to Gift of Sight and 20% supports Rotary charities which are all good causes. Please do help us make this a great day out. Gift of Sight polo shirts or t-shirts will be provided to all walkers. Any sponsorship you can give to help us raise as much as possible will be greatly appreciated. Please send your sponsorship cheque made payable to Rotary Romsey Test Trust Fund to our office address at the bottom of this page. Weds 11 Thanks to Mrs Greta Paxton for organising a coffee morning from 10.00am-12 noon at 'Serenity', 20 Northlands Gardens, Southampton SO15 2NL, including a Raffle and Bring and October Buy table. Entry £3. Tel: 02380 235095. Ample parking is available in Hill Lane, Southampton. Sat. 28 Thanks also to Vickie Lush for organising a Quiz Night at Shawford Parish Hall, Pearson Lane, October Shawford, Nr Winchester SO21 2AA. Tickets cost £15 per head to include a Ploughman's supper. Tables of six can be booked if you would like to organise a team. To book please telephone Vickie on 01962 841165 or 07860779955 Friday 15 Gift of Sight Christmas Carol Concert in Romsey Abbey at 6.30pm (Doors open at 5.45pm). Tickets £35 reserved front of nave, £30 reserved nave, £25 unreserved but with excellent December acoustics and CCTV. Booking commences Monday 2 October. Please apply through www.musicinromsey.ticketsource.co.uk (booking fee applies) or to Romsey Tourist Office Tel: 01794 512987. Full details will be posted on the Gift of Sight website.

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