FIGHTING BLINDNESS

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Newsletter of Retina Australia (ACT) Inc **October 2016**

KATIE CONQUERS IN RIO PARATRIATHLON

Of all the triumphs recorded at the 2016 Paralympics in Rio, none would have resonated more within Australia's blind and vision-impaired community than the win by Katie Kelly.

Katie, assisted by sighted guide Michellie Jones, claimed gold in the women's triathlon. The pair came from behind to beat British combination Alison Patrick and Melissa Reid in a time of one hour, 12 minutes and 18 seconds over a three-leg event centred on Copacabana Beach that involved a 750-metre swim, a 20-kilometre cycling leg and a 5-kilometre run. It was Australia's first medal in Paratriathlon at the Summer Paralympics.

By coincidence, Michellie Jones won Australia's first medal, a silver, when women's triathlon made its debut at the Sydney Olympics in 2000. She said Katie's and her achievement outweighed any other during her career.

"This is so much better," she said, "because when I think of everything Katie has been through, and everything she's done in such a short amount of time, this is the best thing that I've ever done."

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PRESIDENT'S REPORT

Welcome to the second newsletter produced by new committee member Noel Burton, the son of our Vice-President Barbara Burton and father of Chris Burton. Chris's update on his new vision device can be found on pages 23 and 24. The article, however, is but one of an eclectic mix of items, ranging from the Rio Paralympics to the value of routine eye examinations and a breakthrough in stem cell research. There is also an extremely interesting and comprehensive report from national president Leighton Boyd on the 2016 Retina International Congress in Taiwan.

Finally, courtesy of the Green Shed organisation, Retina ACT received a massive boost to its fundraising target recently. We therefore urge members to frequent the Green Shed Shop and Café in Garema Place. It's the perfect place to solve your Christmas gift problems!

Best wishes to all...

ROBIN POKE AM
President
Retina Australia (ACT)

MISSION STATEMENT

To provide information and support to people and families affected by inherited retinal dystrophies, and, with the support of the Australian community, to raise funds to finance scientific research into the causes, prevention and cure of retinitis pigmentosa.

BIG GREEN FUNDRAISING BOOST

On 25 August Retina Australia ACT received a major fundraising windfall courtesy of **The Green Shed Canberra**, owners of waste management centres at Mitchell and Mugga Lane.

The Green Shed holds a charity day on the last Wednesday of every month, and donates one hundred percent of proceeds to nominated charity organisations. Thanks largely to committee member Lyn Barlow, who first identified the scheme some two years ago, in June it was Retina ACT's turn to benefit from the scheme. Our members foraged through domestic items they no longer needed and which could be sold, and encouraged their friends to do likewise. All participants then took their goods to either the Mitchell or Mugga Lane facility and informed Shed staff that their contribution was on behalf of 'The Retina ACT Sale Day'. So successful was Retina ACT and its contributors that the Green Shed awarded the charity $10,000 for its efforts.

President of Retina ACT, Robin Poke, said the Green Shed charity scheme was a 'fabulous opportunity' for local charities.

"Blind and vision impaired charity organisations, not only in Canberra but across Australia, are very small fish in a big charity pond. Opportunities such as those offered by the Green Shed organisation come but rarely. We are therefore extremely grateful to the principal of Green Shed, Elaine Stanford, for this extraordinary gesture. To have an organisation such as hers in Canberra is a real blessing. She is providing us and so many other charities with unique community service opportunities."

Demonstrating further generosity, Elaine invited the Retina ACT committee and members for coffee at the Green Shed Shop and Café in City

Walk on 25 August, where she handed over a handsome cheque to our Secretary Jan James.

The Shop and Café is at 148 - 180 City Walk in the City (on the right hand side when walking from the bus terminal, just past David Jones'). Members are urged to visit the shop and 'help those who help us'. Christmas is coming ...

Retina ACT members enjoying coffee and sunshine at the presentation by Green Shed principal Elaine Sandford of a very big and generous cheque that will greatly assist the charity's fundraising campaign. Members are, from left, Lyn Barlow, Garth Hunt, John Barlow, Lindy Hou, Robin Poke and James Manders, while kneeling with guide dogs Jazzy and Comet are Elaine Sandford, her business associate Sandy Parkes, and Retina ACT's Jan James.

KATIE CONQUERS IN RIO PARATRIATHLON

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Katie was born at Casino in northern New South Wales. At the age of five she was diagnosed with poor hearing and subsequently wore hearing aids. In her mid-20s she was diagnosed by an ophthalmologist as having has just 30 per cent of her vision. The hearing and sight loss constituted a condition known as Usher Syndrome. The loss of vision meant Katie forfeited her driver's license. In January 2015 she was declared legally blind.

Katie, one of five siblings all of whom have been heavily into sport, was undeterred by these setbacks. She had been actively involved in sport, particularly distance running and iron man events, and competed in the New York Marathon.

Following her January 2015 diagnosis she contacted the Australian Paralympic Committee regarding her eligibility to compete in paratriathlon. A month later she was classified as a vision impaired paratriathlete.

On 13 March 2015 Katie placed first at the International Triathlon Union (ITU) World Paratriathlon held on Queensland's Sunshine Coast. Her guide was Laura Cook.

Katie beat her Japanese rival, Atsuko Yamada in a world-class time of 1:15:26. Two weeks later she won the National Paratriathlon Championships in Redcliffe with a time of 1:16:59. These titles led to Katie being ranked number 13 in the world.

Early in May 2015 it was confirmed that two-time ITU world champion Michellie Jones would be Katie's new guide in the lead up to the 2016 Summer Paralympics. With Jones alongside her, Katie won a World Paratriathlon event in Yokohama, Japan, on 16 May. With Michellie again on hand, the pair won their first World Championship title with a come-from-behind victory at the 2015 World Championships final in Chicago. On 11 September 2016 came the triumph in Rio de Janeiro and Katie Kelly being crowned Paralympic champion.

"When I crossed the finish line I felt so relieved," she said later." I'd been through such intense training. To keep the body in shape takes so much. It's hard work out there. You can't underestimate how hard it is to get there. I'm just really honoured and chuffed, and to do that in paratriathlon in Rio was a really special moment."

Not content, however, with being immersed in competition, Katie has dedicated herself to a sports education and a career is sport. On leaving St Ursula's College Toowoomba she completed a Bachelor of Sports Management at Griffith University, then in 2009 gained her Master's degree at the University of Technology, Sydney. She has subsequently worked in the sports industry with the National Rugby League, Melbourne Storm, ANZ Stadium, Newcastle Knights, the Northern Territory Department of Sport, and Athletics NSW. She has also provided pro bono work as media liaison officer for the Australian Blind Cricket Team and was a media liaison officer for the Australian Deaflympic team at the 2005 Deaflympics, held in Melbourne.

Nowadays, Katie lives in Canberra, where she continues to train with Head Coach of the Australian Paralympic team, Corey Bacon.

SPECIAL REPORT
2016 RETINA INTERNATIONAL CONGRESS
By Leighton Boyd, President, Retina Australia

I was fortunate to be able to attend this Congress and the associated business meetings that took place from 7 to 10 July 2016 at the Taiwan International Convention Centre in Taipei. The venue was centrally located in the business district, very close to the Taipei 101 Tower, built in 2004. This tower is world renowned for its environmentally conscious design, and at a height of 508 metres was for six years the tallest building in the world. Prior to the Congress, Rosemary and I took a lift to the lookout on the 89th level, travelling up in 37 seconds. We walked to the 91st level to see the very impressive, uninterrupted views of Taipei and the mountains surrounding the city.

It was also fortunate that the Congress and its associated meetings and social events were able to proceed, as Super Typhoon Nepartak crossed Taiwan at midnight on Thursday 7 July with winds gusting up to 295 km per hour at the centre of the storm. The damage was mainly confined to the south-east of the island, 300 km from Taipei, and although we had a considerable amount of rain to contend with, it was nothing like the 6-8 metres of rain in a 24 hour period in the southern mountains. Because the airports were closed for at least 24 hours, some of the speakers and delegates were unable to attend and the program had to be reshuffled, but otherwise the event ran very smoothly.

During the Congress, Taiwanese, Chinese and internationally renowned scientists gave an overview of the latest medical advances in retinal eye diseases.

Sessions were dedicated to Retinitis Pigmentosa, Age-related Macular Degeneration, Stargardt Disease and other inherited retinal diseases (IRDs). Information was also provided about Stem Cell Therapy, Gene Therapy, Retinal Implants, Optogenetic Therapy, Transcorneal Electrical Stimulation and Genetic Screening. As well, some of the clinical trials currently being conducted around the world and the prospect for future trials were discussed, along with issues including advocacy and accessibility, living with an inherited retinal disease, and mental health and mutual support.

The 19th Retina International World Congress was officially opened by Ms Christina Fasser (picture on right), the President of Retina International; Mr Chao-Ming (Nick) Lin, Chairman of Retinitis Pigmentosa Taiwan, and Mr Kin Ping (KP) Tsang, Chairman of Retina Hong Kong. Christina spoke about the challenges facing those with IRDs. She said she was looking forward to reports about scientific progress, in the knowledge that the dreams of forty years ago are now becoming a reality. Christina went on to say that all those in Retina International have the same dream: that there may be a treatment, or even a cure, developed for IRDs in the foreseeable future. Consequently, we have to work with governments to ensure that such treatments are available all over the world and that people are not disadvantaged because of their background, ethnicity or capacity to pay. She said we have to ensure that any treatment or cure found is a human right, and we must make sure that no-one is disadvantaged in the process.

After the official opening Ms Avril Daly, CEO of Retina International, introduced the keynote speaker, Professor Elise Heon (picture on right) from Toronto, Canada, who provided a clinical overview of retinal degenerations. In her presentation, Professor Heon explained the structure of the retina, the tools used for diagnosis, the differences between phenotype and genotype, the significance of DNA testing, and the importance of the counselling and management of people with an IRD. She also spoke about current research and associated clinical trials, and the potential for future research, with particular reference to the inclusion of the patient in the process so as to discuss their needs, expectations and awareness of each IRD.

Professor Heon completed her talk by stating that:

• retinal degeneration can be associated with other defective body areas, including ears or kidneys, and this adds to the difficulties in providing advice to patients,

• in 1990 there were only 2-3 genes known for RP and now there are more than 200 involved, with 17 known genetic causes for Leber Congenital Amaurosis as well

• genetic testing is faster than it used to be, however sometimes it is still like looking for a needle in a haystack

Congress speakers included:

• Professor Eberhart Zrenner from the University of Tübingen, Germany, who gave an overview of Retinal Implants, explaining their journey from laboratories to clinical applications. Professor Zrenner also mentioned that he had been involved in IRD research for over 35 years and stated that it is a very exciting time to be involved.

• Dr Shuichi Yamamoto, of Chiba University Hospital, Japan, provided an update about the Unoprostone Clinical Trial in which eye drops typically used to treat glaucoma are now being used to treat IRDs, with

varying degrees of success.

• Professor Morten Moe, Oslo University Hospital and University of Oslo, Norway, spoke about Stem Cell and Restoration of Eyesight. Professor Moe stated that stem cell therapy, which involves the repair, restoration, and/or replacement of damaged tissue, holds great promise for the treatment of a wide range of IRDs. He explained the various types of stem cells and the complex strategies being used to utilise stem cells in the treatment of IRDs, as well as some of the challenges facing researchers in undertaking this work.

• Dr Daniel Chung, from Spark Therapeutics, USA, spoke about recent clinical trials using gene therapy for individuals with an IRD from autosomal-recessive RPE65 gene mutations, and mentioned the importance of developing outcomes for all gene therapy trials that are relevant to the patient's needs. Dr Chung also stated that Spark Therapeutics were now more focused on including effects on daily living as a major factor in determining the success of any trial.

• Professor Takashi Fujikado, Osaka University Graduate School of Medicine, Japan, talked about the research he has led since 2009 involving a retinal prosthesis system through the use of STS (suprachoroidal transretinal stimulation). He spoke about the advances his team has made, particularly in the safety and functionality of the device, and of plans for the future which may involve working with the Australian Bionic Eye team.

• Dr Paul Bernstein, Moran Eye Centre, University of Utah, USA, presented information about the importance of diet, and of taking specific supplements in appropriate dosages, to ensure that people with IRDs can maintain their level of vision. He recommended that people with IRDs should include lutein, zeaxanthin, and meso-zeaxanthin in their diet. He provided data from his research which indicated that by managing nutrition there was a reduced rate of AMD by 4 per cent over five years.

• Dr Gerald Chader, University of Southern California, Dr Gregg Kokame, University of Hawaii School of Medicine, and Ms Frances Fulton, USA, all talked about the retinal

implant “Argus II”, describing differing aspects of its roll out which has now been given approval for human use under certain conditions. To date there have been 180 successful implants for RP patients who have regained some functional vision as a result. The device is now available in 18 centres across North America and Europe and there are plans to expand the distribution worldwide.

• Professor Stephen Lam, The Chinese University of Hong Kong, Mr Richard Yang,
Reflection Biotechnologies, Hong Kong, and Dr Takeshi Iwata, National Institute of Sensory Organs, Tokyo Medical Centre, Japan, spoke about the work of IRD clinics and the importance of gathering information about genetics and other aspects of IRDs to assist researchers. All three mentioned the collaboration occurring across Asia with respect to finding the causes of degenerative retinal disease so that, in turn, treatments can be found.

Professor Chang-Hao Yang, National Taiwan University Hospital, Dr Shih-Jen Chen and Dr Shih-Hwa Chiou, Taipei Veterans General Hospital, Taiwan, Dr Patricia Zilliox, Foundation Fighting Blindness Clinical Research Institute, USA, Dr Katarina Creese, Centre for Eye Research Australia, and Dr Juliana Salum, UNIFESP Federal University of São Paulo, Brazil, provided up-to-date information about the studies being undertaken for Age-related Macular Degeneration and Stargardt Disease. It was clear from these talks that although the research has led to some successes with the treatments developed to date, valuable lessons have been learned from the studies undertaken and several challenges remain for the future. Overall though, these researchers were confident that it will not be long before people with either form of AMD, or Stargardt Disease, will be able to access treatments that will make a huge difference to their sight, and to their lives.

Professor Eberhart Zrenner, University of Tübingen, Germany, Dr Helmut Sachs, University Teaching Hospital, Dresden, Germany, and Mr Peter Böhm, ARA-Tec GmBH, Germany, explained the rationale for the implantation of, and the reality of living with, the retinal implant “Alpha”. They indicated that this sub-retinal implant can restore very low or low vision in blind patients

and that the distributors were investigating the expansion of the market of such devices across Europe.

Associate Professor Francesco Testa, Second University of Naples, Italy, Professor Tomita Hiroshi, Iwate University, Japan, Professor Dominik Fischer, University of Tübingen, Germany, and Dr Serge Picaud, Institut de la Vision, France, have all devoted their time to gene therapy research for IRDs. They each provided updates on a variety of clinical trials and a promise for future treatments as a result of these trials, which generally involve an injection directly into the eye and are proving to be extremely positive.

Dr Stephen Lam, The Chinese University of Hong Kong, Dr Keng-Hung Lin, Taichung Veterans General Hospital, Taiwan, and Professor Zibin Jin, The Eye Hospital of Wenzhou Medical University, China, all spoke about the importance of genetic screening for patients with an IRD and the relevance of inherited patterns for such diseases. Their talks clearly indicated the significance of the work of our own Australian Inherited Retinal Disease Registry and compounded my belief that we must continue to support this team as much as we possibly can.

Professor Eberhart Zrenner, University of Tübingen, Germany, and Dr Guido Blaess, Okuvision GmbH, Germany, explained Transcorneal Electrical Stimulation Therapy. This procedure has completed all trials successfully and Okuvision has rolled out the use of the OkuStim therapy in Germany, Switzerland, Austria, Italy, Greece and Turkey. To date reports have indicated that all participants in this therapy are pleased with the change in their vision.

Presentations were also made by people from Hong Kong, China, Taiwan and Japan, who personally were affected by an inherited retinal disease. They spoke about the Internet and screen reading software, guide dogs, mental health and mutual support, depression and progression, and the social support being offered by organisations such as Retina Hong Kong and Retinitis Pigmentosa Taiwan. Collectively, they were all very positive speakers,

providing the strong message that if you have determination you can overcome the obstacle of your inherited retinal disease and overcome whatever challenges life brings.

Dr Gerald Chader (picture on right) from Los Angeles, California, led the plenary session for the Congress by drawing conclusions from the many and varied presentations that had been delivered in both the scientific and general sessions. He said he believed it was now possible to look positively at the promise of clinical trials, and that many researchers are closer to moving inherited retinal disease treatments from the laboratory bench to the patient's bedside. Dr Chader briefly spoke about AMD and mentioned that Wet AMD can now be fairly well controlled through the use of drugs, but for Dry AMD, antioxidants can slow the disease.

However the six therapy areas being covered for IRD are now being considered as potentially applicable for Dry AMD as well.

Dr Chader said: "We know more than half of the genetic mutations that cause IRDs; it is now believed that stem cells planted into the photoreceptor may replace the dying cells; Apoptosis does lead to cell death; some cells such as skin cells can be redeveloped into stem cells for the eye; significant progress is being made in the area of gene therapy, optogenetics, neuroprotection and the use of antioxidants; and there are huge advancements in the use of retinal implants, with two versions available commercially (Argus II & Alpha). However, it is still extremely important that you take your mother's advice and eat your vegetables!

Dr Chader briefly summarised some of the clinical trials being

undertaken currently, which include:

- The Ocata study in Massachusetts involving Stargardt Disease and Dry AMD;
- Dr Henry Klassen's (USA) work in supplying new photoreceptors to save cone cells;
- The use of stem cells by a group at RIKEN in Japan for Wet AMD studies;
- The London Project to cure blindness;
- The California Project to cure blindness;
- Optogenetic studies in France and Germany;
- Neurotech trials using a Ciliary Neurotrophic Factor (CNTF) on RP and Dry AMD;
- The RetinaComplex trial, comprising antioxidants to slow the progression of IRDs
- A number of Gene Therapy trials, worldwide, which show great promise, as all aim to restore some visual function for people with an IRD.

Dr Chader completed his presentation by saying that during the previous 25 years researchers have made tremendous progress. He also said that at the most recent meeting of the Retina International Scientific and Medical Advisory Board held at the Washington State Convention Centre, Seattle, all of the talks reported on clinical trials, with no time for any news on basic studies. As a consequence he was very excited by the prospect that in the not too distant future treatments may be available for all IRDs.

The Congress was officially closed by Christina Fasser, Nick Lin and KP Tsang, who thanked the major contributors to the event, the 40 speakers who represented many institutions or organisations world-wide, and the 680 people from 24 different countries who attended the Congress. Finally, Fraser Alexander, member of the RI management committee and immediate past-president of Retina New Zealand, officially invited everyone to travel to New Zealand for the next Retina International Congress which will be held between February 8 and 11, 2018 in Auckland.

ReNeuron announces first patient treated in US Phase I/II clinical trial in blindness-causing disease, retinitis pigmentosa

ReNeuron Group plc, a leading UK-based stem cell therapy development company, is pleased to announce that the first patient has been treated with the Company‘s cell therapy candidate for the blindness-causing disease retinitis pigmentosa (RP) in a first-in-human US clinical trial.

The procedure, involving a single injection of hRPC cells under the retina, was conducted at Massachusetts Eye and Ear in Boston, a teaching affiliate of Harvard Medical School (HMS) and a world-renowned clinical and research centre for the treatment of eye disease, including retinal degeneration. The patient was discharged from hospital on the same day.

RP is a group of hereditary diseases of the eye that lead to progressive loss of sight due to photoreceptor cells in the retina becoming damaged and eventually dying. ReNeuron has demonstrated that its Human Retinal Progenitor Cells (hRPCs) improve visual acuity in pre-clinical models of retinal degeneration and, uniquely, the cells appear to both protect the host retina from further degeneration as well as engraft into the retina itself and differentiate into the photoreceptor cell types that are lost as a result of the disease. These putative mechanisms of action suggest that ReNeuron‘s cell therapy candidate could potentially treat any of the specific genetic variants of RP rather than, as is the case with gene therapy approaches, being restricted to the targeting of one particular genetic cause of disease.

The Phase I/II clinical trial is an open-label, dose escalation study to evaluate the safety, tolerability and preliminary efficacy of ReNeuron‘s hRPC cell therapy candidate i5 patients with advanced RP. Importantly, the study marks the Company‘s initiation of clinical trial activities in the US.

The FDA has granted Fast Track designation to ReNeuron‘s hRPC programme targeting RP. This, together with the programme‘s Orphan Drug Designation in both the US and Europe, provides accelerated clinical development and marketing authorisation review processes for the RP therapeutic candidate as well as the potential for a significant period of market exclusivity once approved in these major territories.

Further patients have been identified for recruitment into the study and initial short-term safety and tolerability data from the Phase I part of the study are expected towards the end of 2016, with preliminary efficacy read-outs in the first half of 2017.

Subject to the outcome of the Phase I/II study, the Company expects to be able to file an application in the second half of 2017 to commence a pivotal Phase II/III clinical trial with its cell therapy candidate for RP. A positive outcome from this pivotal study is expected to form the basis for subsequent marketing authorisation filings in both the US and Europe.

Eric Pierce, MD, PhD, Director of the Ocular Genomics Institute and Berman Gund Laboratory for Study of Retinal Degenerations at Massachusetts Eye and Ear and HMS and Principal Investigator for the clinical trial, commented:

“We are delighted to have treated the first patient in this important Phase I/II clinical trial. The human Retinal Progenitor Cells being tested in the study are promising since they can make photoreceptors. The implanted cells may not only prevent degeneration of patients' vision but may possibly restore some vision by replacing degenerated photoreceptor cells. We look forward to reporting future

progress with this study in the months ahead."

Joining Dr Pierce as co-investigators are Dean Eliott, MD and Jason Comander, MD, PhD, both of Massachusetts Eye and Ear and the HMS Department of Ophthalmology. Olav Hellebø, Chief Executive Officer of ReNeuron, said: "The dosing of the first patient in the Phase I/II clinical trial of our cell therapy candidate for retinitis pigmentosa marks another significant milestone for ReNeuron. Retinal degenerative diseases represent extremely attractive targets for cell therapy approaches and our programme targeting RP benefits from a number of key competitive advantages in terms of the potential mechanisms of action of our hRPC cells and the potential speed of clinical development to market for this programme. With the start of this study, we are also delighted to have commenced clinical development activities in the US, a major target market."

About ReNeuron

ReNeuron is a leading, clinical-stage cell therapy development company. Based in the UK, its primary objective is the development of novel cell-based therapies targeting areas of significant unmet or poorly met medical need. ReNeuron has used its unique stem cell technologies to develop cell-based therapies for significant disease conditions where the cells can be readily administered "off-the-shelf" to any eligible patient without the need for additional immunosuppressive drug treatments. The company has therapeutic candidates in clinical development for motor disability as a result of stroke, for critical limb ischaemia, and for the blindness causing disease retinitis pigmentosa. ReNeuron is also advancing its proprietary exosome technology platform as a potential new nanomedicine targeting cancer and as a potential delivery system for gene therapy treatments.

ReNeuron‘s shares are traded on the London AIM market under the symbol RENE.L.
Further information on ReNeuron and its products can be found at www.reneuron.com

Eye researchers awarded top Australian research fellowships

Two researchers from the Centre for Eye Research Australia (CERA) received top honours from the National Health and Medical Research Council (NHMRC) at an event in Canberra in July. Deputy Director Professor Robyn Guymer was awarded a prestigious NHMRC Elizabeth Blackburn Fellowship to support her research into Age-related Macular Degeneration (AMD),

whilst A/Prof Alex Hewitt was recognised as the top-ranked NHMRC Practitioner Fellowship applicant. The Elizabeth Blackburn Fellowships are awarded annually to the highest ranked female applicant in each of the biomedical, clinical and public health pillars of the NHMRC’s Research Fellowship scheme. Robyn and Alex have been friends and supporters of Retina Australia for many years. They have also contributed directly and indirectly to Australian research grants provided by Retina Australia.

Routine Eye Examination Leads To High Rate of Change In Vision Or Care

Do you really need to get your eyes checked - even if you haven't noticed any vision problems or eye-related symptoms? More than half of routine eye examinations in asymptomatic patients lead to a change in vision prescription or other changes in care, according to a study in the June issue of *Optometry and Vision Science,* official journal of the American Academy of Optometry.

"In asymptomatic patients, comprehensive routine optometric eye examinations detect a significant number of new eye conditions and/or results in management changes," reports Elizabeth L. Irving, PhD, and colleagues of University of Waterloo, Ontario, Canada. They add that routine exams are even more likely to lead to changes in older patients and those with longer intervals between visits.

The study included data on nearly 6,400 patients seen at the researchers' eye clinic during a one-year period. About 40 per cent of patients reported no problems with blurred vision, headaches, or other eye-related symptoms.

In this group of asymptomatic patients, Dr. Irving and colleagues determined rates of significant changes since the previous assessment. Significant changes included a change in vision prescription (glasses or contact lenses), diagnosis of a new eye condition, or a new change in patient management.

Overall, 58 percent of asymptomatic patients had at least one significant change on routine eye examination. These included vision prescription changes in 41 percent, new diagnoses in 16 percent, and management changes in 31 percent. (Some patients had more than one type of change.)

Older patients were more likely to have significant changes. The rate of changes resulting from routine eye exams ranged from eight percent for children under four years old to 78 percent for adults 65 and older.

Assessment intervals were longest for young and middle-aged adults; for both groups, median time between visits was about three years. Older age and longer assessment interval were both associated with a higher rate of significant changes, independent of each other.

Routine eye examinations are generally believed to play an important role in preventing vision loss by screening for asymptomatic eye diseases. However, the ideal frequency of exams for patients without any vision problems or eye-related symptoms is unknown. Current recommendations vary, reflecting expert opinion rather than hard evidence.

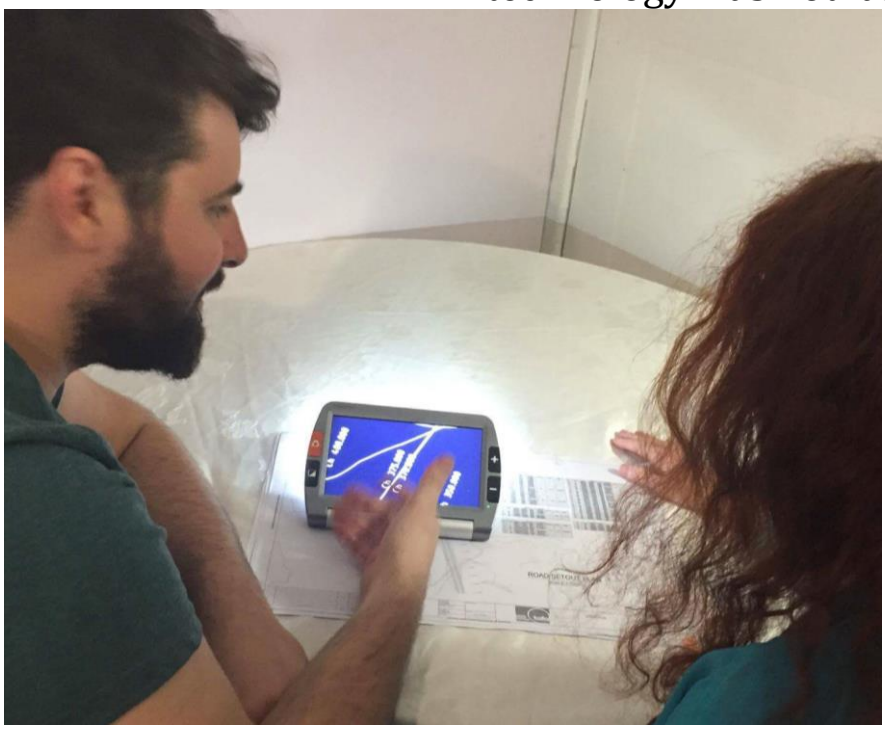
Across age groups, the assessment intervals in the study closely matched Canadian optometry guidelines. Dr. Irving and co-authors conclude: "Given an overall greater than 50 percent detection of significant change, routine eye examinations do appear to be productive in asymptomatic patients, and this appears to increase with age."

"Often people fail to see the need for symptomless eye examinations, but our authors make the case that there are numerous sound reasons for routine and regular eye exams," comments Anthony Adams, OD, PhD, Associate Editor of *Optometry and Vision Science.* "These include important systemic diseases such as diabetes and eye diseases like glaucoma and macular degeneration."

explore 7– By Humanware

Review by Christopher Burton who has RP.

I would like to share my thoughts on a device called explore 7 by Humanware as I feel it has greatly helped me in the workplace environment.



I recently started an internship position at a local City Council in civil design. Going into the role I was not really sure how I would overcome the difficulties that certain reading tasks would present. These would include reading documents with fine print, numbers and highly technical drawings.

I was also unsure as to how difficult observing or training in some fields from a distance would be for me in a workplace environment. For example, sitting next to someone and looking over their shoulder at a computer screen.

I have been using an excellent piece of technology that has helped me greatly called Esight Eyewear. (this was reviewed in the previous newsletter)

However, I found in these training situations even the Esight Eyewear technology was not fast enough.

I did some research into portable digital magnifiers and came upon a device that I feel has greatly benefited me in my workplace.

It enables me to overcome the obstacles that my vision presents in reading and training tasks. It also enables me to work at a similar speed to my colleagues when reading and checking things visually.

The Humanware Explore 7 also enables me to review things with a colleague at the same time, using the device together. This eliminates any disconnect between what we are discussing and viewing.

Using this technology also allows my colleagues to have a greater

understanding as to my level of vision, without me having to explain it.
Like with any adaptive technology there are downsides. Namely the impact
it has on my posture as I still need to get close to the screen. This device is for work I need to do quickly. I wouldn't use it to read a large document or a book. For that I would use my esight eyewear.
I use the Explore 7 more for speed and checking small portions of text quickly. The battery life isn't amazing and the device automatically turns off
after a short time period, which can be frustrating.

Overall I have found the Humanware explore 7 to be an invaluable, fast, functional avisula aid and I highly recommend it others with visual impairments.

In summary
Pros- Speed, collaboration with colleagues, portable, easy to use
Cons- Battery life, automatically turns off, only functional for short bursts, not good for posture

If you want to learn more about the device and its specifications here is the website link
http://store.humanware.com/hau/explore-7-handheld-electronic-magnifier.html

WAYS YOU CAN HELP RETINA AUSTRALIA (ACT)

There are many ways you can help and support us. Listed below are some suggestions.

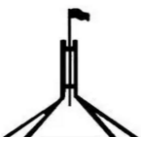
1. Suggest to family and friends that they hold a special event (such as a sponsored walk or fundraising dinner) to support our work.
2. Include a reference to us when updating your Will.
3. Tell your local eye professionals (and your family and friends) if you have found the information provided by Retina Australia (ACT) and its support services useful.
4. Offer your services to a member of the executive as there are numerous small jobs that need to be done. Many of these do not require you to be on a committee.
5. If approached, consider allowing your medical information and DNA to be stored on the inherited retinal diseases database so it is readily available to eye researchers both here and overseas.
6. When you hear that someone in your community has been diagnosed with sight loss, tell them about Retina Australia (ACT) and the support services offered.

ABOUT US

Retina Australia (ACT) Inc. is a member of the national body, Retina Australia (RA). Other members of RA are Retina Australia (NSW), Retina Australia (VIC) – which incorporates activities in Tasmania – Retina Australia (QLD), Retina Australia (SA) and Retina Australia (WA).

Our role, and that of our fellow organisations, is to provide information and support to people and families affected by Retinitis Pigmentosa and other retinal dystrophies. We also raise funds for scientific research into the causes and prevention of these dystrophies.

Retina Australia is a member of Retina International, which has members and affiliates in more than 50 countries. It is estimated that more than 20 million people worldwide are affected by some form of retinal dystrophy.



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