ISLRR VIEW

July 2022

From the Editor

I am delighted to introduce this special issue of ISLRR News, celebrating 16 of the next generation of Low Vision researchers and rehabilitation experts. Many of our contributors will be at the conference in Dublin – please say hello to them!

Reading contributions from people at the start of their low vision career made me think of the changes that have happened in the 25 years since I have been working in this area. For me, the most exciting changes have been the effective treatment of wet AMD (which was unheard of when I qualified as an optometrist), the increase in awareness of depression and anxiety in people with vision impairment, the widespread adoption of smartphones and the development of artificial intelligence apps like Seeing AI. I'm sure everyone else who is, like me, closer to retirement than high school will have their own list.

There is still much to do: access to low vision services is still patchy, in too much of the world access to low vision aids is based on ability to pay rather than clinical need, and we are yet to see the full potential of wearables as low vision aids. I'm sure our next generation colleagues will see huge changes in low vision care over the next few decades.

I hope to see lots of you around the convention centre in Dublin – have a great conference!

Michael Crossland, Editor, ISLRR View. London, UK. m.crossland@ucl.ac.uk

From the ISLRR President

Several months ago, Michael Crossland and I were floating ideas for the next Newsletter when we realized that the "next" would be the "conference newsletter". The word "next" rang a bell with me and I remembered how the concept of focussing our attention on The Next Generation (TNG) was adopted by ISLRR at the Vision 2008 Conference in Montreal. Since then, this notion has been brought forth at each of our conferences in some guise: creating conference sessions featuring TNG members, presenting awards for best presentations by TNG members, or recognizing them in

some other appropriate way. This year, Michael and I floated the idea of a special issue of our newsletter featuring TNG but, this time, focusing on who they are, where they're from, what they're doing right now and, possibly, where they hope to be in the future.

Little did we know what a rich harvest we would glean. In this issue, you will meet eye-care professionals – some of whom are still completing their training and others who are in early stages of their careers. You will also have a preview of the researchers who are coming soon to an article, book chapter, or professional meeting near you. This group contains Masters and Doctoral students as well as post-doctoral trainees. You will also read about a young person whose own experience with visual impairment led them down a professional path that opened may doors for him and, no doubt, many eyes of those who have shared his life experiences.

Finally, and very happily, I declare that these contributions represent a truly International reflection of our field. Our authors trace their origins and/or their current life situation to 5 out of 6 continents. (We really have to make inroads in South America!).

In conclusion, please follow our editor's suggestion to find these young people during the conference & say "Hello!" I would add one more thing: have them autograph their page in the newsletter for you. I believe that it will make it one of your prized possessions.

See you in the meeting rooms, hallways and, of course, at all the social events that have been planned for you by the Local Organizing Committee in Dublin!

Olga Overbury, ISLRR President. Montréal, Canada. Olga.overbury@umontreal.ca

The Next Generation: Tosin Omonye Ogedenbe

My name is Tosin Omonye Ogedengbe. I am a graduate student with a background in Optometry. I gained my experience as an optometrist working with government and private sectors across different regions of Nigeria.

I am currently completing a Master's degree in Vision Science at the University of Montreal, where in collaboration with the Vision Impairment Research Laboratory, Canadian National Institute for the Blind (CNIB), and Mitacs Canada - I research inclusive and accessible workplace, employment environment preparedness and integration for people with visual impairment.

My principal interest lies in improving the quality of life of people with visual impairment across lifespan through an interdisciplinary and translational approach. This is to ensure that as the world evolves and technological advancement becomes inevitable, people with visual disabilities are not left behind in the new world of possibility.

The Next Generation: Melanie Mungalsingh

Melanie Mungalsingh obtained a Bachelor of Science (Hons) in Biomedical Sciences, with a minor in Biology at the University of Waterloo, Canada in 2010. She received a BSc (Hons) Optometry degree from the University of the West Indies (UWI) in 2014, and a Masters of Science in Low Vision Rehabilitation from Salus University in 2015. She gained certification as a low vision therapist from the Academy for Certification of Vision Rehabilitation & Education Professionals (ACVREP) in 2016. She has worked as an Optometrist in the Department of Optometry & Visual Sciences at the UWI. Her position involved supervising the eye care of patients, which optometric students provided during their final year of studies in both a clinical and hospital environment. She has also worked as an Optometrist at a private practice. Both positions afforded her the opportunity to provide low vision services to patients with visual impairments. Melanie was awarded the Blindness and Low Vision Studies Noir Low Vision Award in 2016. She has recently obtained PhD degree in 2021 from the University of Waterloo, where her research focused on corneal sensitivity. She has since moved back to her true passion, low vision, by obtaining a postdoctoral fellowship at the University of Waterloo, which involves examining whether reading can be improved through a combination of practice and non-invasive brain stimulation in adults diagnosed with macular degeneration.

The Next Generation: Anna Do

My name is Anna Do, and I received my Doctorate in Occupational Therapy (OTD) degree in May 2021 at the MGH Institute of Health Professions in Boston, Massachusetts. I am originally from Syracuse, New York, where my parents immigrated to from Vietnam.

I currently work at Casa Colina Hospital and Centers for Healthcare in Pomona, California. I began working at Casa Colina in July 2021 as an Occupational Therapy Fellow. I am part of a one-year neuro fellowship program, where I rotate between the inpatient, outpatient, and transitional living settings and receive mentorship to advance my skills in the neuro-rehab population. As part of my fellowship, I partake in research aimed at improving treatment outcomes for patients with stroke, spinal cord injury, and traumatic brain injury.

I completed my doctoral capstone project on low vision, in which I published a journal manuscript on examining the relationship between race and ethnicity and depression in older adults with low vision. I also worked as a research assistant in Dr. Walter Wittich's Vision Impairment Research Lab in Montreal, Canada and collaborated with lab members to publish a scoping review protocol on 3D printing

for individuals with deafblindness. Moreover, I have applied my research experience to clinical practice for patients with visual deficits secondary to neurological conditions. Through occupational therapy practice, I am able to holistically assist patients maximize their visual function by identifying how mental health, socioeconomic status, and race and ethnicity intersect with their abilities.

Despite the challenges I have faced, witnessing the progress that my patients make day-by-day has kept me in this field. The most rewarding part about being an occupational therapist is assisting my patients in returning to meaningful daily activities, such as reading a book or visually scanning for items at the grocery store, and in turn helping improve their overall quality of life.

My ultimate goal is to open my own clinical practice and assist patients with neurological and visual impairments in low-income communities.

The Next Generation: Önder Islek

My name is Önder Islek. I was born with RP in southern part of Turkey (Just 20 Km from the Syrian border). Because of my parents, I am bilingual in Arabic and Turkish. Indeed, I spoke only Arabic until I started elementary school at the age of 5. So besides my visual impairment, I was struggling with the language challenge at the school because the education was only in Turkish.

I am one of 9 children of my parents. My mother had never attended a school and my father only attended an elementary school for 5 years. Since I was born in a small village, I never received any services regarding my visual impairment and ESL (second language learning). Therefore, I was not very successful at school - I was left alone throughout my journey.

Since I faced a number of challenges throughout my education and daily life, I decided to be a teacher so that I could help other students who are in a similar boat with me. After finishing my BA in Early Childhood Education, I wanted to teach students. Later on I faced discrimination due to my visual impairment and was not allowed to teach in public schools in Turkey. Therefore, I travelled to US to do my Masters degree in Teaching students with visual impairments. After finishing my Masters, I travelled to the UK and pursued my PhD at University of Birmingham at School of Education on promoting independence of students with visual impairments. In last 4 years, I have been working at Aksaray University, in Turkey, at the department of special education. I teach lots of classes in teachers preparation program in a variety of subjects. I helped setting up the second teacher preparation program for students with visual impairments in the entire country. İn addition, my colleagues and I set up an Adaptive PE and Sport Masters programme, which is also one of the first in its kind in Turkey.

Currently, I am on a Fulbright early carrier postdoc visit at the University of Hawaii.

The Next Generation: Rui Jin

My name is Rui Jin. I am currently a second year PhD student at Optometry and Vision Science School in the University of Melbourne. My study focused on the low vision mobility aid. My PhD project aims to better understand current mobility needs in the low vision community, by analysing retrospective de-identified data (from our research partner, Vision Australia) and by completing a prospective nation-wide survey of mobility aids for low vision. Using these two sources of data and the previous expertise of our research team, I will then develop a laboratory-based protocol to assess and quantify mobility function. In the third phase of my PhD, I will use this protocol to investigate the efficacy of commercially available Sensory Substitution Devices (SSDs) for improving obstacle avoidance and navigation. Finally, I will implement novel software algorithms (including depth processing and noise filtering) to improve the performance of SSDs and help to achieve the mobility goals that were highlighted in the first phase of my project.

The Next Generation: Rebecca Sumalini Chakram

I am Rebecca Sumalini Chakram, a practicing low vision specialist at Institute for Vision Rehabilitation in L V Prasad Eye Institute (LVPEI), Hyderabad, India. I have completed my bachelor's degree in optometry from Bausch & Lomb School of Optometry, Hyderabad, India. Currently I am in the final year of my PhD in Optometry and Vision Sciences in a collaborative research program of City, University of London, London, UK and Brien Holden Institute of Optometry and Vision Sciences, LVPEI, Hyderabad, India.

While I was pursuing my undergraduate studies, low vision rehabilitation care fascinated me and I then made up my mind to pursue this field to be a low vision practitioner. I was especially intrigued with the idea of restoring independence, confidence and ultimately better quality of life for individuals with visual impairment. I got this wonderful opportunity to receive the on-job clinical training in providing low vision care at LVPEI. I am pursuing my career as a low vision specialist in the Institute for Vision Rehabilitation, LVPEI since 2009.

On several occasions, while assessing and managing children with visual impairment, I happened to come across children having additional disabilities/ developmental delays in the areas of motor, speech, auditory or cognition. More often than not the only management that I provided was refractive correction to them. I was unable to help these children beyond that. This stimulated my interest to take the lead in initiating a dedicated clinic, called Special Needs Vision Clinic at LVPEI in 2018. In addition to the regular assessment tools, the clinic is equipped with a range of tools for both functional vision and visual function assessment. We also have few therapeutic tools

(for ex: Sanet Vision Integrator) to improve the children's visual skills like eye-hand coordination, visual memory, visual attention etc. The establishment of this clinic was possible through a corporate grant (of approximately 75,000 USD) that was received from RenewSys India Private Limited in collaboration with the Mission for Vision, India.

The few clinical observations that I made during the assessment of children with developmental delays/disabilities helped me realize that there is limited evidence of repeatability of the vision assessment tools for these children. Repeatability of the tools is important as there are several factors, such as seizures, severity/location of the brain damage that can be responsible for variability in this group of children. In 2019, I had grabbed the opportunity to pursue my PhD through the collaborative research program of City, University of London, London, UK and LVPEI.
As part of my doctoral work, I am working on the clinical validation of existing and new tests of visual functions in children with cerebral visual impairment (CVI), one of the most common conditions in the special needs cohort. The study also investigates various parameters that are likely to contribute to the variability of the condition like developmental quotient, brain imaging and functional vision scoring. The study has bigger clinical implications such as:
- To help understand the most repeatable clinical tools for the pre/non-verbal group of CVI
- To understand the relationship between the location/severity of brain damage to the visual functions and functional vision in this cohort and how overall development correlates with visual functions.

This work is being carried out in collaboration with a paediatric neurology unit at a local multi-specialty paediatric tertiary care facility (Rainbow Children's Hospitals, India). My supervisors are Dr. PremNandhini Satgunam, LVPEI; Dr. Ahalya Subramanian and Dr. Miriam Conway, City, University of London, UK and Dr. Lokesh Lingappa, Rainbow Children's Hospitals, India.

Vision concerns of children with developmental delays/disabilities often go unnoticed and this may result in lifetime consequences for the child and the family. Providing better vision to these children can go a long way in enhancing their overall development. I am keen on furthering evidence-based practice in the vision rehabilitative management of these children, as there are limited resources in this specific field of eye-care. This is what sustains me in this field despite several challenges involved in the special needs vision care and research. In the long run, I am looking forward to building a scientific community that collectively strives towards developing innovative vision rehabilitative strategies to address the visual needs of the special cohort. My doctoral work is a baby step towards this goal.

I draw my motivation to pursue my journey as a clinician-researcher from a small yet powerful piece of advice that I had received from Prof. Thomas Sudhof (Nobel Laureate-Physiology, 2013) in a small group session that I attended as part of the Global Young Scientists Summit-2022, ***"It is important to stick to what we love pursuing and to take tiny steps to achieve our bigger and ultimate goal"***.

The Next Generation: Andrew Miller

Qualifying as an optometrist in 1991, Andrew started his training at the Birmingham Midland Eye Hospital. For the last 15 years he has led the sight loss support team for the local charity Focus Birmingham.

Andrew has an interest in the development of low vision training in poorer resourced countries and has worked on projects in Jordan, Palestine, Nepal and most recently in Zambia.

Andrew is also visiting lecturer, teaching practical low vision skills at Aston and Birmingham City Universities and this has led to a desire to pursue a role in academic research. In January 2022 Andrew was delighted to join the team at Anglia Ruskin University as the "Macular Society PhD Student" researching the costs and benefits of wearable Electronic Vision Enhancement Systems.

The Next Generation: Carlijn Veldhorst

I am Carlijn Veldhorst, a PhD student at Radboud University Nijmegen, the Netherlands. I study the development of toddlers and teenagers with vision impairments (VI), with a special interest in who is doing well, and why. Of course I will also study the different challenges these children face. Following a theoretical framework on participation, I want to discover hindering and, especially, stimulating factors in the development of children with VI. I will look at factors within the children, such as self-esteem and motivation, and outside the children, for example parenting skills of their parents. The project is longitudinal and we collect data through home visits using a variety of instruments: interviews, developmental tests, video observations and digital questionnaires. With this PhD project I hope to give directions for even better guidance for children with VI and their family.

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The Next Generation: Chinenye H. Timothy

I am a Principal Optometrist in clinical hospital practice in Nigeria. I hold a Doctor of Optometry Degree after completing a six-year university programme leading to the award; and an MSc degree in Clinical Optometry at the prestigious Cardiff University, United Kingdom (awarded in January 2020). The MSc programme exposed me to advanced clinical techniques that have helped to extend my clinical roles in the hospital (including anchoring a Low Vision Clinic), support those with sight loss, and contribute in reducing the burden of blindness in Nigeria. I have attended several professional courses and workshops, both local and international, on eye care and vision rehabilitation as part of my professional development and to meet up with the developing trend in eye care practice. I am an active member of the Nigerian Optometric Association (NOA) and the American Academy of Optometry (AAO). I have served in various committees of the NOA both at local and national levels as well as participating in many of the NOA programs and Continuing Professional Development (CPD) presentations. I have been privileged to serve as a resource person at some of these professional conferences. I became a member of the International Society for Low Vision Research and Rehabilitation (ISLRR) in 2019 in order to advance my career in low vision and rehabilitation sub-specialty. I look forward to the forthcoming ISLRR Conference in Dublin which will give me an opportunity to network, meet with leaders in the field, and learn of innovative research areas that will benefit those with low vision/visual impairment in my practice. I have a research-oriented disposition and am ready to contribute to the attainment of Vision 2020 goals - reduction and elimination of avoidable blindness and visual impairment.

The Next Generation: Alexis Ceecee Britten-Jones

Dr Alexis Ceecee Britten-Jones is a researcher at the University of Melbourne and the Centre for Eye Research Australia, in Victoria, Australia. She is also a clinician optometrist. Dr Britten-Jones' research is on understanding the natural progression of inherited retinal diseases and how we can advance the development of new gene therapy treatments for these conditions.

Dr Britten-Jones is also working on a project to understand how people with inherited retinal diseases share their condition with other people. Through her research, she has found that many people report not knowing how to navigate discussions about their condition when they are first diagnosed, or when their vision loss is still undetectable to other people, such as before the need for aids such as canes and guide dogs. In this work, Dr Britten-Jones is aiming to identify the support needs of people with early-stage vision loss, to develop resources to help individuals affected and their families in the earlier stages of diagnosis.

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The Next Generation: Tony Succar

Tony Succar's, PhD, passion for developing strategies which optimize function and independence for people with blindness and low vision, led him to earn his Master of Science in Medicine (Ophthalmic Science) from The University of Sydney, in the development of an extraocular retinal prosthesis (bionic eye). Dr. Succar was subsequently awarded The University of Sydney Postgraduate Scholarship in Vision and Eye Health Research, where he completed his PhD in the development of a Virtual Ophthalmology Clinic (VOC). He then travelled to the United States to pursue his clinical research endeavours, and completed a Postdoctoral Fellowship in Low Vision Rehabilitation at the Envision Research Institute, which involved the development of a virtual rehabilitation program for restoring functional depth perception for people with age-related macular degeneration (AMD), for which he was awarded his first U.S. Patent. Dr. Succar was then appointed as a Postdoctoral Scholar-Research Associate at the University of Southern California, Department of Ophthalmology, Keck Medicine of USC, evaluating structure-function correlations of retinal diseases and prescreening candidates with AMD for a retinal stem cell clinical treatment trial. Dr. Succar is now working as Clinical Research Project Manager at Massachusetts Eye and Ear, Harvard Medical School, where he is involved in conducting first-in-human clinical trials investigating vision restoring therapies and devices for people with blindness and low vision.

The Next Generation: Heidi Siira

I am Heidi Siira, a university lecturer and a post-doctoral researcher working in the University of Oulu, Finland, in the Research Unit of Health Sciences and Technology. I am also a coordinator in GeroNursing Center (GNC) – a centre of research and expertise on restorative care of older adults. I defended my PhD thesis on low vision rehabilitation, health-related quality of life and related factors among older adults with visual impairments in May 2021. This two-year mixed methods follow-up study was awarded a Health Advocate 2021 in the category "Deans' Choices". Before my academic career, I worked for many years with older adults in different sectors of social and healthcare and was involved in vocational education. During my doctoral training, I actively participated in several international conferences in my field as well as networked internationally with scientists in training schools addressed for PhD students. In my post-doctoral research, I want to combine my background and key knowledge and competence areas in gerontology, rehabilitation and disability. I want to conduct and promote working-life-oriented research that is effective and meaningful for society and health care practices. My research interests concern wellbeing and quality of life of older adults, sensory impairment in old age,

rehabilitation and rehabilitation counselling as well as restorative care of older adults. I have earned a bronze medal for working ten (10) years for the visually impaired from the Finnish Federation of the Visually Impaired (FFVI). I have also done voluntary work for visually impaired people in terms of audio description of movies, audio reading and guiding.

The Next Generation: Ms. Anjali Suresh

I am Anjali Suresh, from Kerala, India. I am currently working at L V Prasad Eye Institute, Vijayawada, Andhra Pradesh as a consultant optometrist at Institute for Vision Rehabilitation. I did my Bachelors in Optometry from Vasan Institute of Ophthalmology and Research, Coimbatore, Tamil Nadu. Later on, I moved to L V Prasad Eye institute, Hyderabad, to pursue my Post Graduate Diploma in Optometry and Vision Sciences (PGDOVS) in Posterior Segment and Low Vision (2018-2020).I have presented my research work about the baseline traits of low vision patients in a tertiary eye care centre in India in national and international conferences (both oral and poster). In 2021, I joined at The Eye Foundation, Bangalore, as an Optometrist where I started low vision practice and started providing eye care to the patients. It is at that point of my career, I found that I am bound to do different things and to change lives of people around me. Added on to my dream, I joined at L V Prasad Eye Institute, Vijayawada, as a low vision practitioner, its been 7 months and the journey continues. This field has showed me how even simple things can impact the life of people. It changed my perception to the life in whole and I realized that even the smallest things should not be taken for granted. Despite the challenges faced in this field, what makes me happy is that I am able to help people around me, even in the very tiny possible way. My ultimate goal is to keep helping the people, keep learning, teaching and improving myself each day to be able to help others.

The Next Generation: Aria Genaelle MWIZERO, MD

I am Aria Genaelle MWIZERO, a Burundian Medical Doctor working as a General Practitioner in Rwanda where I did also my studies in General Medicine at University of Rwanda. I graduated in November 2019, now I am working as a Junior Medical Officer at Kibagabaga Hospital in Kigali City since May 1st 2022. I am interested in Ophthalmology since when I was doing general medicine in Doctorate 1, to see patients with visual impairment regaining their normal vision is one thing that pushed me to love this career. For me to have a good vision is to have a good life in every aspect, we need our eyes daily to be independent, it is a noble cause to fight for patients with visual impairment and to give them a chance to live a normal life. My ultimate goal is to become an ophthalmologist, having an impact on patients with visual impairment by providing quality care to those who will come for my services in order to have a good vision.

The Next Generation: Kelly Scherer O.D.

I am originally from Tennessee and I completed my undergraduate degree at Wake Forest in NC. I am a graduate of New England College of Optometry and completed my residency in Low Vision and Primary Care at the Boston VA. I have been working as the Director of Clinical Services at The Chicago Lighthouse in Chicago IL for almost four years. There I am practicing low vision on an interdisciplinary team and providing clinical training to doctoral optometry students. I enjoy the solution and education focus in the low vision exam, helping patients to understand not only their symptoms and disease, but also providing effective and creative adaptations to improve their function and independence. The variety of disease we see in low vision provides continuous opportunities for professional growth. My motivation to continue in this field grows with ongoing reinforcement that low vision services scarce. I am constantly encouraged by patient feedback on their progress and rehabilitation. I hope to see more optometrists joining us to serve the growing number of visually impaired individuals worldwide and continued innovation in delivery of care with an aim to reduce preventable blindness.

The Next Generation: Arathy Kartha

Hi, I am Arathy Kartha, currently a postdoctoral research fellow in the Ultra-Low Vision Lab at the Wilmer Eye Institute at Johns Hopkins. During the last three years of my postdoctoral fellowship, I have been working with my mentor Dr. Gislin Dagnelie on developing and validating visual performance measures for people with ultra-low vision using virtual reality. I am originally from India and an optometrist by training. I received my BS and MPhil in Optometry from the Elite School of Optometry, Chennai, India. Following this I went to the Queensland University of Technology, Brisbane, Australia to pursue my PhD. It was in the 3rd year of my optometry school that I developed an interest in low vision when I had my first clinical rotations in the low vision clinic at Sankara Nethralaya, one of the largest tertiary eye hospitals in India. During that time, I had the opportunity to learn about the assessment and management of a wide variety of low vision patients within a short span of time.

The complexity of the cases and the challenges of providing solutions that are backed by scientific evidence are what drove me to pursue research in the field of low vision. Personally, I have experienced a loved one losing her vision gradually to AMD and diabetic retinopathy. This together with her hearing impairment had a devastating effect on her daily functioning. Being an avid reader, she finally gave up most of her favourite activities including writing long letters and finally limited herself to being only in familiar environments. I believe that she could have enjoyed better quality of life had she had access to assistive technology and multisensory rehabilitation training, which has now become my passion, and is the topic of a 5

year K99/R00 Pathway to Independence Award I received from the National Eye Institute.

I am fortunate to have a group of dedicated mentors who helped me build a strong research foundation and who continue to support me in my own independent research. I am very grateful for the scholarship from the Australian Government that allowed me to get my PhD and the new NEI award that helps me transition to a career as an independent researcher.

The ISLRR board thanks all of the contributors to this edition of ISLRR View and wishes all attendees of Vision 2022 an enjoyable and informative conference.