



## January 2018 at LVPEI

One annual event that is getting even more prominent in our calendar is the “Champalimaud Symposium“. This was started eleven years ago with the inauguration of the Champalimaud Translational Centre for Eye Research at our Institute. Some of the most eminent scientists in eye, vision and biological research have presented their work during these years. An added boon was their interaction with our group that helped to expand the horizons of our research team. This year the Champalimaud lecture was delivered by Prof. Masayo Takahashi of the world renowned RIKEN Centre for Developmental Biology in Japan. She spoke to us on her work on human Induced Pluripotent Stem Cell (iPSC) - derived Retinal Pigmented Epithelial (RPE) cell therapy for the treatment of patients with Age Related Macular Degeneration (ARMD) and other retinal dystrophic conditions affecting the eye. She also interacted closely with the retina research team at LVPEI and shared her experiences and guided them in the preparations required to translate retinal cell therapy research into patient care. We are hopeful that this collaboration would help us to speed up our own research efforts towards finding novel treatment options for the prevention of retinal degenerative conditions. Prof. Martin Chalfie of Columbia University, New York and a Nobel Laureate enhanced the quality of the Symposium significantly. He presented his personal story and the outstanding work on making the green fluorescent protein (which occurs in some fish in the sea) the laboratory, and using it as a marker to follow events that happen at the molecular level inside a cell. This has led to a revolution in studying events in cells and organisms (particularly the worm *C. elegans*, used as an animal model), and capturing them in real time on the live organism. Yet another value addition was the Leibniz Prize winning German scientist, Prof. Brigitte Roeder of the University of Hamburg in Germany. The presentations from these luminaries combined with the ones from various segments of our group made for an exhilarating day. The presence of Dr. Leonor Beleza, President, and Mr. Joao Botelho, Management Board member of the Champalimaud Foundation, is much appreciated as this offered an opportunity to review the progress of our collaboration and to discuss future opportunities.

Our partnership with the Champalimaud Foundation has added a new dimension to our research and produced impactful outcomes. The most notable is the development of the concept and technique of Simple Limbal Epithelial Transplantation (SLET). With the application of SLET in many countries from Africa to America, the impact has been very notable. This has resulted in restoring sight and salvaging vision for hundreds of victims of recalcitrant and visually disabling ocular surface conditions. One major benefit of this technique is its ease of application allowing many ophthalmologists in diverse settings to adapt this procedure. In our Institute, we have started doing this procedure in our rural secondary centres. The promise of this technique is getting increasingly realized around the world. This indeed is a stellar illustration of translational research - Bench to Bedside to Community. Our compliments to our stem cell group, and Virender Sangwan and Sayan Basu, for conceptualizing this. This is the kind of research that needs encouragement in many developing countries of the world.

We were also honored with the visit of Dr. Erwin Nether, winner of the 1991 Nobel Prize in Medicine who interacted with our group during this month.

The Institute’s commitment to research has been further strengthened during the year with more of our clinicians now allocating at least 50 per cent of their time for research. As a tradition, over 80 percent our clinicians have dedicated research time, ranging from one to three days a week.



Our annual workshop on the subject of “Ocular Surface” for a group focused on corneal problems was again a major attraction. 125 Ophthalmologists from several Asian countries, US, Mexico and Europe attended this workshop organized by our Tej Kohli Cornea Institute. The workshop focused on all aspects of SLET, with the faculty drawn from Bascom Palmer Eye Institute, and Harvard from the US and Mexico in addition to our group.

Another education event was a workshop titled “A to Z External Dacryocystorhinostomy”, related to surgical technique for lacrimal drainage problems. This was organized by Anasua Ganguly, one of the recent additions to our faculty at our Vijayawada campus (Kode Venkatadri Chowdary Campus). Anasua received great reviews for this workshop. Congratulations to her for this workshop and also on building a strong Ophthalmic plastics service on that campus in a very short time. As was communicated earlier, problems of lacrimal passages, which do not receive much attention in ophthalmic care, are a major focus area for us due to the outstanding commitment of Javed Ali to this area. Javed has developed this into an “Institute of Dacryology”, thanks to the generosity of the Raj Kumar Seksaria family of Mumbai.

A training programme was held for our team at the Institute for Vision Rehabilitation, focused on self-employment for our clients. These included linkages with banks, and District programmes for economic independence of persons with disabilities. Our team has an excellent track record of job placement services for the clients at our Institute. Yet another activity of this group during the month was a workshop on the importance of group therapy, attended by the parents of children with special needs and developmental delays. With these diverse services, our rehabilitation services have become very comprehensive.

On the rural and community eye health front, the number of primary care vision centres has reached 168 with the addition of four more centres this month. These are linked to our secondary centre in Madanapalle of Chittoor District in Andhra Pradesh. To further strengthen the functioning of our vision centre network, a workshop on leadership development was organized for the coordinators of these centres during this month, focused on community and media relations and communication skills. Community ownership and participation is the key for optimal utilization of these centres in these remote rural and tribal communities.

As in every month, several centres in our vast network celebrated their anniversaries. I would like to thank everyone who make each year very special at these centres with their committed services, touching the lives of hundreds of thousands in need of eye care.

The story of young Ashwini makes all that we do worthwhile. Having had eye problems leading to low vision since childhood, she could not pursue her dream of becoming an engineer. She was then seen by our rehabilitation team and that has transformed her life. Professional counselling followed by training in mobility and usage of special assistive devices helped her to complete her Engineering degree. Recently she has secured a position in IBM as an Associate Systems Engineer. “LVPEI has filled my colourless life with colours. I am so inspired by the team that I have started a not for profit organization ‘Krant - Ray of Hope’ where I try to support people who face similar challenges,” informed an enthusiastic Ashwini. Her life of conquering adversity and sharing the fruits of her success is indeed an inspiring example for many.

- Gullapalli N Rao