

# RESEARCH IN VISUAL SCIENCES & OPTOMETRY



## **ELITE SCHOOL OF OPTOMETRY**

(A unit of Medical Research Foundation)

## RESEARCH IN VISUAL SCIENCES & OPTOMETRY

There is an explosion in the need for eye care in India and worldwide. Over three billion people in the world need vision correction, and this number is growing rapidly. Myopia (short-sightedness) is reaching epidemic proportions, particularly at our doorstep in Asia, due to heredity and increased screen and text-based activity. The ageing population is bringing about a staggering demographic shift so that presbyopia (age-related difficulty in near focus) will soon affect over 40% of the population.

In addition, we are seeing an increased need for visual acuity arising from near work related to the information society, and a growth in vision market demand from Asia and other developing regions as incomes in the region increase and new products are developed. There is also increasing recognition of the importance of eye care in developing countries, and of vision care delivery as a vital component of total health care. Uncorrected refractive error, meaning the need for glasses, is responsible for the blindness of at least 6 million people and the impaired vision of 100 million people [ICEE data 2002], and it is now one of six priority areas in eye care identified by the World Health Organisation (WHO). Urgent international efforts by groups such as WHO are bringing eye care to the attention of government, and are supporting the growth of eye care into new markets.

## To foster research in optometry and visual science using non invasive methodology:

- Fundamental research in visual neuroscience, particularly the perception of position, motion, colour and texture.
- Fundamental research in visual optics, particularly the assessment of corneal curvature, accommodation and aberrations.
- Fundamental and clinical psychophysical investigation of amblyopia (lazy eye).
- Clinical investigation of visual function and quality of life changes due to age-related diseases such as cataract and age-related maculopathy.
- Fundamental and clinical investigation of the role that vision plays in balance control and mobility-orientation.
- Epidemiological studies on the prevalence of Refractive error, Strabismus and Low vision in the population and enable the strategy to manage.
- Normative ocular dimension studies exclusively to develop nanograms for various ocular parameters.
- Clinical trials of various new products like new spectacle design, contact lens, etc.

A new building is being planned to accommodate the above facilities. The project will pave way for explosive patient services, research and training and make available the latest equipment and research trials for the clinicians at Sankara Nethralaya. Besides, contributing to making the skill-based profession into knowledge based one.

## Seeking your generous support...

- This project is estimated to approximately cost Rs.5.00 Crores.
- We seek your help in this noble endeavour to achieve our mission.
- Donations made to MEDICAL RESEARCH FOUNDATION are exempt under Section 80G & 35AC of The Income Tax Act.

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