

**KAMALNAYAN BAJAJ INSTITUTE FOR RESEARCH IN VISION AND
OPHTHALMOLOGY**

Leading the Nation Towards Excellence in Eye Research

Kamalnayan Bajaj Institute for Research in Vision and Ophthalmology is a joint venture by Medical Research Foundation (MRF) & Vision Research Foundation (VRF) for conducting advanced Research in Basic Science and Ophthalmology.

Vision Research Foundation over the past 2 decades, has been doing premier work in areas of ocular infections, cataract, tumors, angiogenesis, genetics of eye diseases and pathobiology of various other ophthalmic disorders. Scientists have developed basic techniques in applied medical biotechnology essential to understand disease processes involved in ophthalmology particularly related to etio-pathogenesis and identification of infectious, genetic and malignant disorders. The fundamental knowledge gained so far in VRF and the impact they have had in ophthalmic health-care management by MRF is significant. The main strength is in close-knit working, cross talking of ophthalmologists and vision basic scientists, besides a large clinical resource as patients come from all over India to Sankara Nethralaya. Applying for further capacity building would help us fight blindness in our country – a mission for vision and this would eventually result in newer diagnostics and therapeutics for visually challenged patients.

This dream became a reality on 6 September 2008. The new facility was built at a cost of Rs. 20 crores. State-of-the-art equipment worth Rs. 13 crores have been installed in this new facility that boasts of GCP (good clinical practice) Standard Laboratories for various Research Facilities.

Sankara Nethralaya, through Donations and Internal Accruals, has been able to raise Rs. 27 crores. The shortfall of Rs. 6 crores has been met through a Bank Loan.

We seek your support to bridge the gap of Rs. 6 crores that we have raised through a Loan, thereby helping us repay the loan.

SANKARA NETHRALAYA – KOLKATA

Since its inception in 1978, Sankara Nethralaya, a unit of Medical Research Foundation, has been receiving patients from the Eastern and North Eastern regions of India, seeking treatment and management for Ophthalmic conditions. While the hospital in Chennai received over 300 patients from this region every day, there were many more who could not travel the distance and avail the treatment facilities in Chennai. To serve more people from Eastern and North Eastern India, Sankara Nethralaya began offering its services through collaboration in Kolkata in December 2002, serving about 200 patients per day. In July 2007, with the idea of expanding and offering more comprehensive care, it moved to an independent interim location at Raja Subodh Mullick Square. While at the interim location, Sankara Nethralaya, with the support of Paschim Banga Rajya Pratibandhi Sammilini, constructed its own eye hospital, built on a 0.55 acre land in Mukundapur. The new hospital was commissioned on 21 January 2009.

A dedicated team of 11 consultants cater to the needs of at least 500-600 patients a day in all sub-specialities of ophthalmology. The hospital is equipped with state of the art investigational facilities. The center is a dedicated super-speciality eye hospital and referral centre for the entire Eastern region of the country and neighbouring countries such as Bangladesh and Nepal.

Keeping with the Sankara Nethralaya philosophy of Community Service, the new hospital in Kolkata has an entire floor dedicated to Community Service. Two operation theatres and 24 beds have been earmarked for indigent patients who receive treatment free of cost. The hospital also has a teleophthalmology and Mobile refraction van that takes quality eye care to the doorsteps of the people living in rural and semi-urban West Bengal.

The building was constructed at a cost of Rs. 16 crores and the total cost of the equipment was Rs. 9 crores. Sankara Nethralaya, through Donations and Internal Accruals, has been able to raise Rs. 16 crores. Of the shortfall of Rs. 9 crores, Rs 6 crores has been met through a Bank Loan and Rs. 3 crores through deferred payment for equipment.

We seek your support to bridge the gap of Rs. 9 crores that we have raised through a Loan and through deferred payment.

SN – Centre for Excellence
(A Unit of Medical Research Foundation)

Since its inception in 1978, one of the primary goals of Sankara Nethralaya, Medical Research Foundation has been Teaching and Training. A myriad of courses are being conducted by the organization, ranging from Post graduate Ophthalmology programs, PhD in Ophthalmology, Fellowships in Ophthalmic Subspecialties, Optometry, Dispensing Optics, Medical Laboratory Technology and ophthalmic nursing. Over a 1000 students have graduated from the hospital. This proposal is to expand the existing activity and make it more accessible to more people.

The Centre for Excellence is a platform that will be created by Medical Research Foundation (of which Sankara Nethralaya is a unit) for creating, processing and disseminating knowledge related to eye care, ophthalmic research and hospital administration. The aim of the centre would be to create a “Knowledge-based Eye Care Society”. It will create an opportunity for employees of the foundation, ophthalmologists, optometrists, researchers and other eye care practitioners around the world to embark on a journey of **study** that would enhance their knowledge. A wing of the Centre for Excellence would be an E-learning department that would help individuals interested in Self-study

MISSION:

The Mission of the Centre of Excellence is: “CREATION OF A KNOWLEDGE-BASED EYE CARE SOCIETY”.

The training programs would include Programs for Ophthalmology, Optometry, Optical Dispensing, Hospital Management and Internal Training Modules.

SPACE REQUIREMENT:

Wet Lab and Virtual Reality Lab: 2500 sq ft

Classrooms – for Ophthalmology, optometry, management courses: 3500 sq ft

Spectacle Dispensing Lab: 500 sq ft

E-learning department: 4500 sq ft (includes audio-visual studio)

Auditorium: 4000 sq ft

Library: 2000 sq ft

Administrative office: 500 sq ft

Toilets: 1000 sq ft

Total area – 18500 sq ft

TOTAL COST OF THE PROJECT: Rs. 8.00 CRORES

ESTABLISHMENT OF A SCHOOL OF DISPENSING

Elite School of Optometry has been a pioneer in Optometric education for the last twenty years in India. The recent growth of optometric profession and the optical industry in our country necessitates a scientific and systematic education of optical dispensing personnel as well.

Creation of a School of Dispensing is proposed for achieving the following goals:

- a) To provide basic knowledge in ophthalmic dispensing to optical sales personnel and others.
- b) To provide specialized training for contemporary dispensing personnel.
- c) To create a pool of scientifically trained and qualified ophthalmic dispensing managers.

To achieve these goals, three educational programs have been thought out: (i) A 9-month “Distance Learning Programme” for Optical Sales Personnel; (ii) A 1-month “Certificate Course in Ophthalmic Dispensing” for practicing dispensing professionals to upgrade their skills; and, (iii) A 4-year “Bachelor’s Degree in Ophthalmic Dispensing” for higher secondary students.

A new building of about 11000 sq ft is required to set up the School of Dispensing. The School would have Dispensing Lab, Optics Lab, Auditorium, Library, Classrooms, besides Research Lab.

THE TOTAL COST OF THE PROJECT WILL BE Rs. 5 CRORES

SANKARA NETHRALAYA: CREATION OF A CORPUS FUND

Sankara Nethralaya is involved in extending free service to the economically weaker sections of the society since its inception. From the very beginning, we have been following the “base hospital concept” for doing cataract surgeries as we are of the firm belief that the non-paying patients should also get the same type of treatment as that of the paying patients.

With this objective our Community Hospital was set up with 5 Operation Theatres and 75 beds and we have been committed to the mammoth task of performing 12,000 free cataract surgeries every year. Creation of a Corpus Fund, judiciously investing the same in the Government Securities and utilizing the Returns from them was thought to be the best way to fulfill this obligation to the society and to sustain this activity year after year.

Sir Ratan Tata Trust (SRTT) has been supporting us in our endeavour to churn out quality ophthalmologists through Grants for our Fellowship programmes. Their Institutional experts have assessed such Programmes under the framework “High Performing Knowledge Institution” (HPKI). They have evaluated them against the benchmark set by them. To quote from their report “... the above and their activity level and strategic approach as described in the earlier sections, makes it among the HPKI class.”

When we approached them with our proposal of creating a Corpus Fund, they readily agreed to an endowment grant of Rs 10 crores with Rs.5.5 crores from SRTT and Rs.4.5 crores from MRF. We have already mobilized our share of Rs.4.5crores. Sir Ratan Tata Trust has contributed Rs. 5.5 crores and helped us creating the Corpus for this objective by the year 2005. The total corpus that needs to be created is Rs.32 crores.

So far we have been able to collect Rs. 13.78 crores for the Corpus. We seek your support in helping us achieve our goal of collecting Rs. 32 crores.

PROTEOMICS WORK STATION

Proteomics will play an important role in medicine of the future, which will be personalized and will combine diagnostics with therapeutics.

Proteomics is the large-scale study of protein, particularly their structures and functions. This term was coined to make an analogy with genomics, and while it is often viewed as the "next step", proteomics is much more complicated than genomics. Most importantly, while the genome is a rather constant entity, the proteome differs from cell to cell and is constantly changing through its biochemical interactions with the genome and the environment. One organism has radically different protein expression in different parts of its body, in different stages of its life cycle and in different environmental conditions.

The proteome refers to all the proteins produced by an organism, much like the genome is the entire set of genes. The human body may contain more than 2 million different proteins, each having different functions. Thus, proteomics is the study of the composition, structure, function, and interaction of the proteins directing the activities of each living cell. As the main components of the physiological pathways of the cells, proteins serve as vital functions in the body.

Proteomic technologies will play an important role in drug discovery, molecular diagnostics and practice of medicine in the post-genomic era - the first decade of the 21st century. Proteomic technologies are now being integrated into the drug discovery process as complimentary to genomic approaches. Proteomics is providing a better understanding of pathomechanisms of human diseases. . Protein distribution / characterization in body tissues and fluids, in health as well as in disease, is the basis of the use of proteomic technologies for molecular diagnostics. **Proteomics will play an important role in medicine of the future, which will be personalized and will combine diagnostics with therapeutics.**

With completion of a rough draft of the [human](#) genome, many researchers are now looking at how genes and proteins interact to form other proteins. To catalog all human proteins and ascertain their functions and interactions presents a daunting challenge for scientists. An international collaboration to achieve these goals is being co-ordinated by the Human Proteome Organisation

Cost of setting up the proteomics work station: Rs. 3 crores

National Institute for Training in General Ophthalmology and Cataract Surgery

According to One World Sight Project there are 18 million, impoverished Cataract blinded persons in the world currently. In India, the commonest cause of preventable blindness is Cataract that accounts for 9 million blind persons in the country. While a large number of cataract surgeries are being done in the country every year, **there is an urgent need to increase the number of surgeries being performed** to tackle the rise in preventable blindness. **Recent surveys suggest that it is not just the increase in the quantity of surgeries, but also the improvement in quality that will make a positive impact on the blindness in the country. Imparting a good surgical training in safer methods to Ophthalmologists all over the country therefore assumes paramount importance.**

For the last six years, Sankara Nethralaya, with the support of Sir Ratan Tata Trust, Mumbai, has been conducting Training programs in Cataract Surgery. This program, which is of two-month duration, helps the ophthalmologists learn the precise technique, the best surgical procedures and **most importantly the right sterilization and post operative care measures** that would ensure a successful cataract surgery.

Sankara Nethralaya conducted an “Impact Evaluation Study” to find out the impact of this training program on the society, especially the rural population. The study confirmed the utility of the program and it was recommended that the program might be continued. The last six years have been essentially an intervention on tackling the problem of Preventable Blindness. But given the magnitude of the problem in our country, we at Sankara Nethralaya have decided that a more comprehensive approach should be taken. This thought has given rise to the concept of **“National Institute for Training in General Ophthalmology and Cataract Surgery”**.

The objective of this National Institute would be impart knowledge and provide training in general ophthalmology and cataract surgery. Sankara Nethralaya is uniquely placed to start such a teaching and training institution for the following reasons: Sankara Nethralaya is a well-recognized premier institute for teaching and training an army of people to combat blindness. The Dr. MGR Medical University, Tamil Nadu and the National Board of Examinations, New Delhi recognizes the Ophthalmology courses conducted by the hospital. We also conduct degree (B.S.), post-graduate (M. S. and M.Phil) and doctoral programs (PhD.) programs in Optometry, Ophthalmic Assistant, Medical laboratory technology, Genetics, Microbiology, Biochemistry and Pathology. All these courses are affiliated to the Birla Institute of Technology and Science (BITS), Pilani. At any given point over 100 ophthalmologists, 100 optometrists and over 30 basic scientists undergo training at Sankara Nethralaya.

We have therefore proposed a new building for this project that would provide the following:

1. General ward – 100 beds
2. Private ward – 10 rooms
3. 5 Operating theaters for 10 tables
4. 12 – 15 consultation rooms
5. Lecture halls
6. Laundry and other facilities

The cost of the project is expected to be Rs.30 crores

This project will not only directly tackle the problem of Cataract Blindness in our country, that places a large financial burden, but will also tackle this through the training of more personnel in the Correct Techniques of Cataract Surgery.

DONATION REQUIREMENT

PROJECT DESCRIPTION	BUDGET	DONATION REQUIRED
Kamalnayan Bajaj Institute for Research in Vision & Ophthalmology	Rs. 33 crores	Rs. 6 crores
Sankara Nethralaya – Kolkata	Rs. 25 crores	Rs. 9 crores
Shenoy Nagar	Rs. 1.5 crores	Rs. 1.50 crores
SN – Centre for Excellence	Rs. 8 crores	Rs. 8 crores
School of Dispensing	Rs. 5 crores	Rs. 5 crores
Corpus fund	Rs. 32 crores	Rs. 18 crores
National Institute for Training in General Ophthalmology and Cataract Surgery	Rs. 30 crores	Rs. 30 crores
Proteomics Work Station	Rs. 3 crores	Rs. 3 crores
Total Donations Requirement		Rs. 80.5 crores