Prevention of Corneal Blindness: Collaboration between IUSO and SN

This is a collaborative project between Vision Research Foundation (Chennai, India), which is the research wing of Sankara Nethralaya (SN), and Indiana University School of Optometry (IUSO at Bloomington, IN, USA). The main focus is on prevention of corneal blindness through enhanced professional education and clinical research projects on Fuchs dystrophy and Keratoconus.

Specific activities include

1. Exemplary research projects on two disorders of the cornea: Fuchs dystrophy and Keratoconus. In the first project, we will develop diagnostic tests for Fuchs dystrophy so that only patients with severe cases of the disorder undergo transplantation. In the second project, we will investigate biomechanical properties of the cornea following collagen cross-linking in keratoconus patients in order to further optimize the protocol for enhanced efficacy. Overall, these projects are expected to reduce the number of corneal transplants so that healthy donor eyes are available for most severe cases of the diseases.

2. Exchange visits involving more than 30 faculty and researchers over a period of 3 years. The activities during the visits are geared to enable advanced training of the IUSO and SN researchers in the use of diagnostic instruments, clinical data analysis, and biomarker studies of Fuchs dystrophy and Keratoconus.

3. Dissemination of information on the latest developments in scientific and clinical aspects of Fuchs dystrophy and Keratoconus through a website for the benefit of clinicians, scientists, and patients. Additional dissemination will be achieved through scientific publications and presentations at national and international meetings.

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