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LVPEI receives Australian patent for novel stem cell therapy

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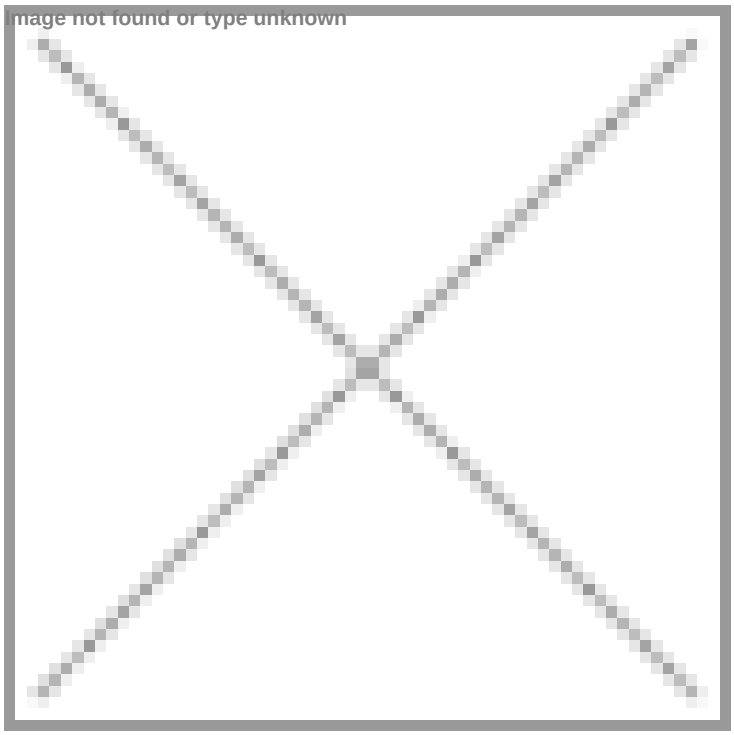
A significant milestone in the field of ophthalmology and cell-based therapies



The L V Prasad Eye Institute (LVPEI), Hyderabad, India has been granted an Australian patent for a novel cell therapy that can be used to repair damaged corneas from a variety of corneal diseases. This unique ‘cell composition’ based therapy marks a significant milestone in the field of ophthalmology and cell-based therapies.

The patent is granted for the advanced cell compositions comprising limbal epithelial and stromal cells for treating and preventing corneal diseases, along with their production methods and therapeutic applications.

The therapy has previously been granted a patent by the Patent Office, Government of India, for a period of 20 years in accordance with the provisions of the Patents Act, 1970. Government of India approved clinical trials are also under way. It will need more validation before it is available for patient use.

The patent was granted to two inventors from LVPEI, Dr Sayan Basu and Dr Vivek Singh.

Corneal scarring happens when the cornea (the transparent, outer layer of the eye) is damaged and turns opaque due to infection or accidents. Corneal blindness is a major cause of blindness and vision impairment, especially in low- and middle-income countries.

Another example of the therapy’s potential impact is in treating Keratoconus, a chronic condition where the cornea thins out

and changes shape, distorting vision.

Dr Singh believes this marks the first Australian patent for India, focusing on the use of stromal stem cell-based therapy for corneal scars. “In the long term, this breakthrough will significantly benefit individuals with visual impairments by providing an affordable and effective treatment option”, said Dr Singh.

Dr Sayan Basu, added, “If the clinical trials are successful, this cell-based therapy could revolutionise the treatment of various corneal pathologies.”