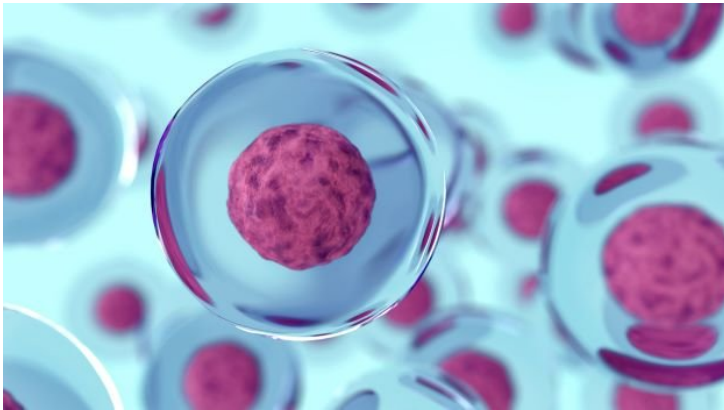


Singapore performs first-in-man trial for vision repair using regenerative therapy

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Developing a treatment for vision loss through transplant of photoreceptor precursor



With the advent of induced pluripotent stem cell (iPSC) and embryonic stem cell (ESC) technology, regenerative stem cell therapy has the potential to be an alternative treatment for end-stage retinal degeneration, independent of the underlying genetic defect.

Retinal regenerative therapies therefore hold great promise for the treatment of IRDs. Studies in animal models of IRDs have suggested visual improvement following retinal photoreceptor precursors transplantation, though there is limited evidence on the ability of these transplants to rescue retinal damage in higher mammals.

A recently published study from the Department of Ophthalmology at the NUS Yong Loo Lin School of Medicine in Singapore examines the therapeutic potential of photoreceptor precursors derived from clinically compliant iPSCs.

The study demonstrated the safety and therapeutic potential of clinically compliant iPSC-derived photoreceptor precursors as a cell replacement source for future clinical trials. These include performing a first-in-man clinical trial for photoreceptor precursor transplant in Singapore, in collaboration with RxCELL, a biotechnology company focused on therapeutic applications iPSCs.