X Linked Retinitis Pigmentosa and Age-related Macular Treatment by Induced Pluripotent Stem Cells AMD / XLRP >> IPSC

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How can the future be now? because we're already in the future, the future of stem cell therapy. This research targets the two retinal diseases retinitis pigmentosa and age-related macular degeneration, RP patients who have damaged rod cells and can only see from the eye center, and AMD patients who have damaged macula cone cells and can only see from eye sides. We have rods and cones in our photoreceptors, the two diseases infect the retina inversely, and according to NIH one in 5000 worldwide carries RP, 11 million carries AMD. so, by cloning the two diseases can be completely treated, starting by the induction of RP chemically or by gene editing, induction of AMD " in two different mice models " then diagnose by electroretinogram test, passing through our growth factors and the formation of IPSC from Yamanaka factors, skin cell, and the main proteins, ending with an injection of IPSC rod cells in RP patient taken from AMD patient and injection of IPSC cone cells in AMD patient taken from the RP one Consider the cellular adaptation factors, and the cell continuous division inside the eye (cell division) by changing the chemical composition of the medium or by inserting specific genes The main research idea represented in taking healthy cones from RP and healthy rods from AMD, then transplant them inversely after IPSC cloning.

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