

ABSTRACT

5 Provided is a composite comprising a neural retina, a retinal
pigment epithelial cell sheet, and a hydrogel, wherein the neural retina
and the retinal pigment epithelial cell sheet are derived from a human
pluripotent stem cell respectively; in the neural retina, a neural retinal
layer including at least a photoreceptor layer is formed, wherein the
photoreceptor layer comprises at least one or more cells selected from the
group consisting of a photoreceptor cell, a photoreceptor precursor cell
10 and a retinal precursor cell; the melting point of the hydrogel is from 20°C
to 40°C; and the whole of the neural retina and the retinal pigment
epithelial cell sheet is embedded in the hydrogel, the tangent directions
of the respective surfaces of the neural retina and the retinal pigment
epithelial cell sheet are approximately parallel, the apical surface of the
15 neural retina and the apical surface of the retinal pigment epithelial cell
sheet face each other, and the neural retina and the retinal pigment
epithelial cell sheet are separated from each other without contact through
the hydrogel.