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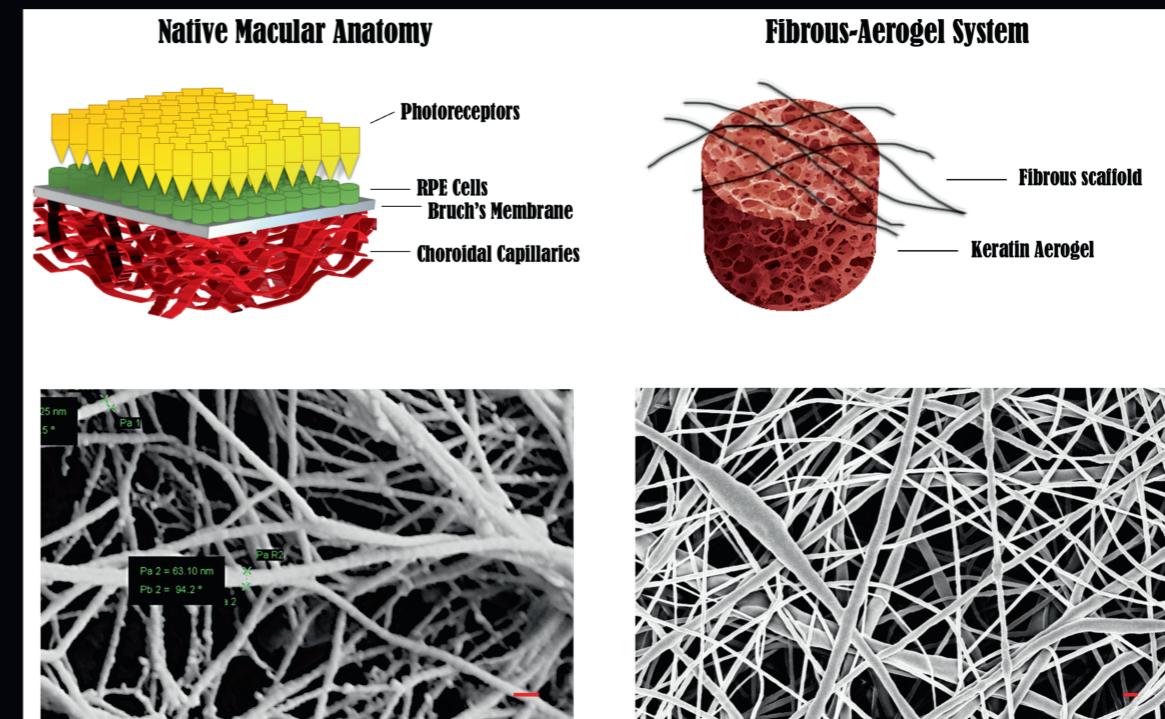
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Cover: Overview of biomimetic fibrous-aerogel design. (a) Schematic representation of the native macula and scaffold design. Native macula consists of soft choroid tissue with choroidal capillaries layered by a thin, fibrous membrane known as the Bruch's membrane. Cells of the retinal pigment epithelium are attached to the Bruch's membrane. RPE can lead to the formation of neural retina in newts²¹ and are a potential source of neural retina for human therapies.³⁰ Our fibrous aerogel system contains a keratene aerogel to mimic the choroid, which is layered by polycaprolactone (PCL) to mimic the Bruch's membrane. An RPE cell line was used for our studies with this system. (b) Images of native Bruch's membrane in newts (left) and the PCL fibers of the fibrous-aerogel scaffolds (right) demonstrating similarities in the architecture of these layers. Note, however, that the scalebar for the Bruch's membrane image (left) is 100 nm compared to 1000 nm for the PCL fibers (right). Scalebars are in red from "Design and Characterization of Biomimetic Keratene Aerogel-Electrospun Polycaprolactone Scaffolds for Retinal Cell Culture" by Zeng et al., <https://doi.org/10.1007/s10439-021-02756-5> pp. 1633–1644.

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