**Bruch’s Membrane**

Presented by: j.puetzer@imperial.ac.uk & manjit.mehat.09@ucl.ac.uk

Joint project of Ali, Bainbridge, Stevens Groups

**What is it?**
- Membrane of the retina that degenerates during age-related macular degeneration (AMD)
- AMD is leading cause of vision loss
- Affects 30 million people worldwide
- Currently no cure

**How do you propose to tackle this?**
- Stevens Group - electrospinning PCL-based scaffolds functionalised with peptides
- Ali/Bainbridge Groups - investigate RPE cell response to synthetic scaffolds
- Optimal scaffold will maintain and deliver fully functional monolayer of RPE cell

**Difficult Challenges**
- Native membrane is 2-4 µm thick
- Native fiber diameter is 60 nm
- Maintain RPE cell morphology and function on scaffold
- Mechanically compatible for in vivo implantation


Human Bruch’s Membrane, Bar = 20µm
