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Dr. Adam Wei Jian Soh will investigate how the basement membrane (BM), a sheet-like extracellular matrix that encloses tissues, stretches in mechanically-active tissues in [Dr. David Sherwood's lab](#) at Duke University. Dr. Soh will use *C. elegans* ovulation as a novel model system for examining BM stretching and recovery. Soh has performed a localization screen and identified candidate proteins that are likely important for BM dynamics. He will follow up on these findings by determining which proteins are functionally important for the stretching and recovery of BMs. Soh hypothesizes that type IV collagen is critical for stretching tissues as genetic defects in this gene lead to vasculature hemorrhaging and muscle dysfunction. This research may also identify novel genes that are critical for tissue support and are mutated in human disease.

Previously, Dr. Soh investigated the mechanics of motile cilia beating as a PhD student in [Dr. Chad Pearson's lab](#) at the University of Colorado Anschutz Medical Campus. Specifically, he discovered a [novel intracellular mechanism involving the cortical cytoskeleton network that regulates cilia beating synchronization](#). Through this research Soh developed expertise in imaging techniques and cellular biophysics. This experience has prepared Dr. Soh for his current project dissecting basement membrane dynamics.

FELLOW