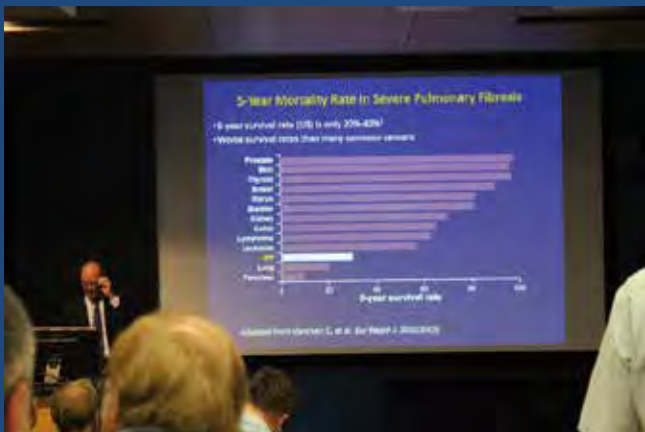
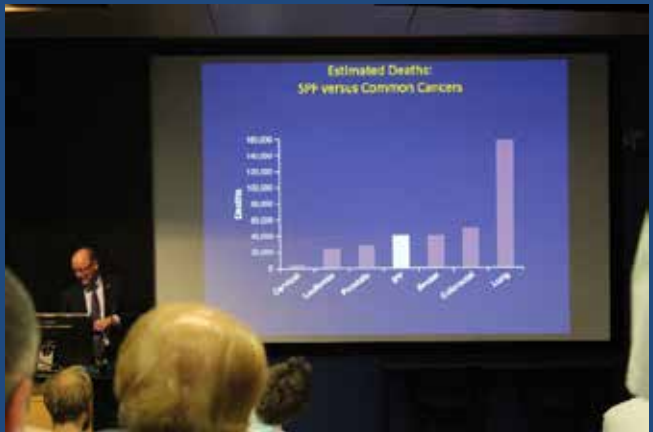
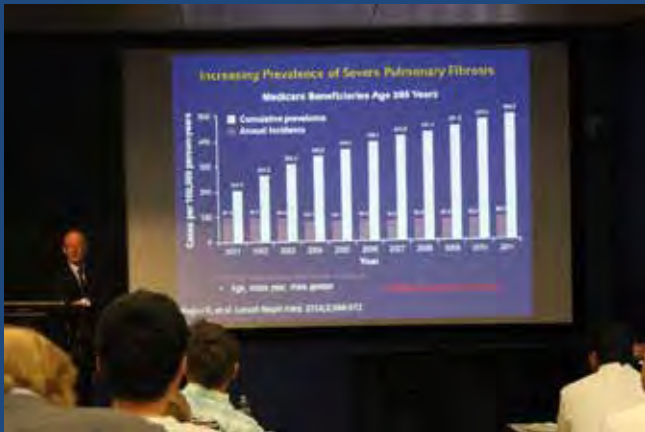
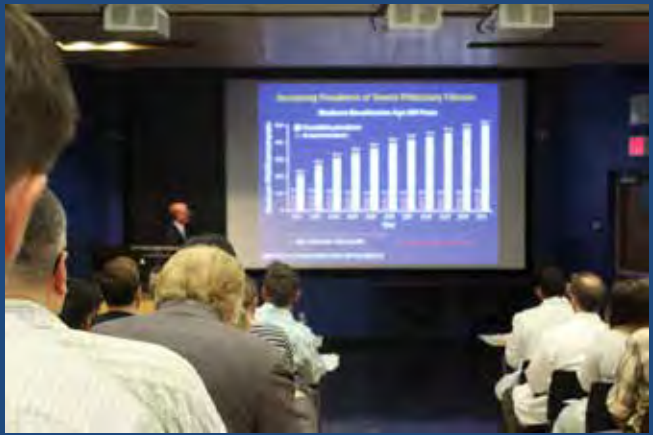
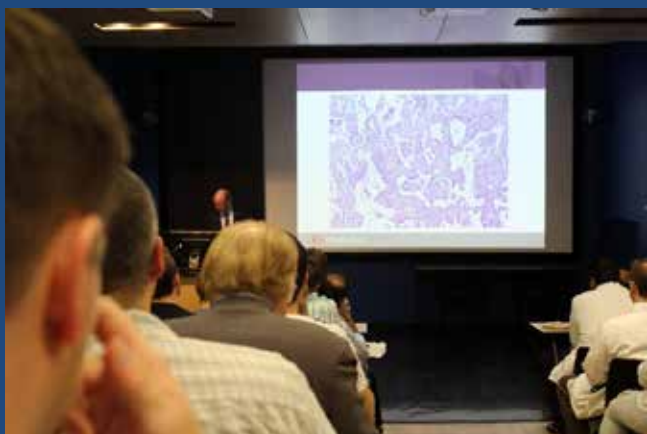
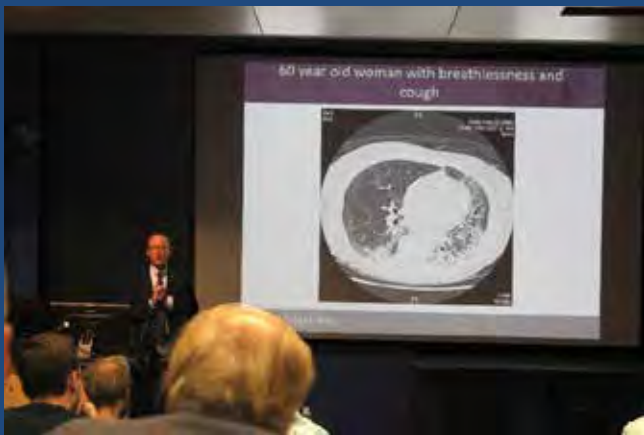


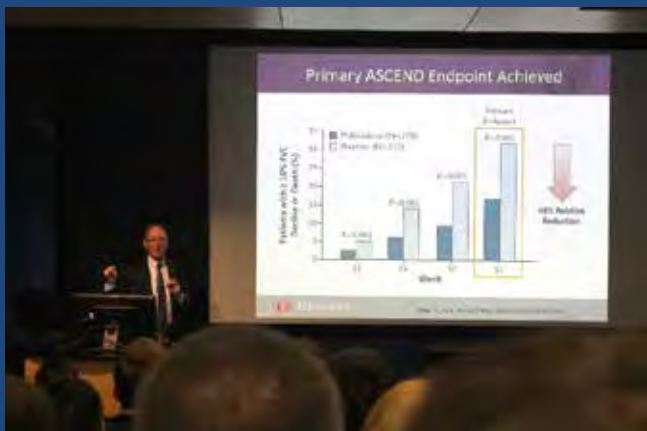
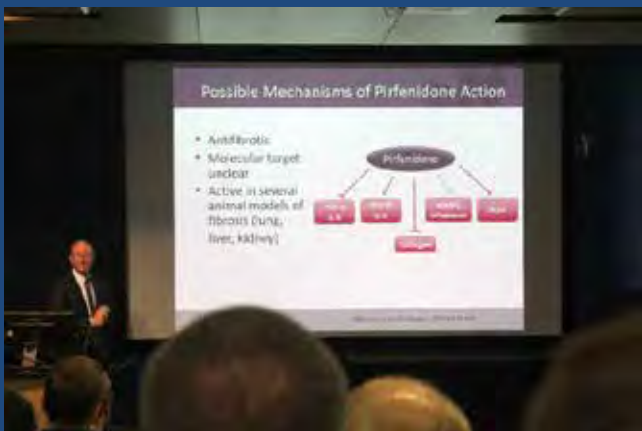
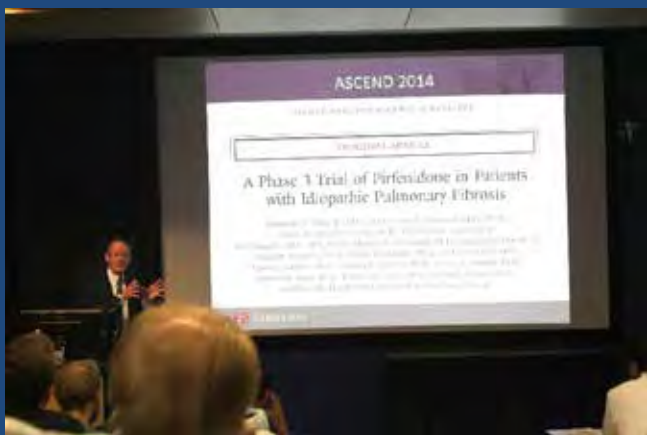
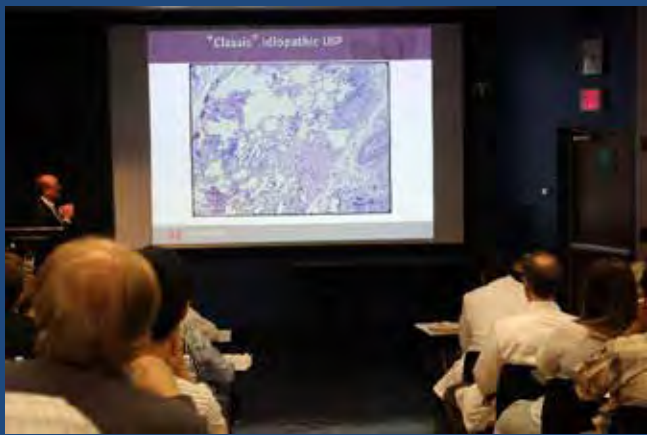
DOM Research Seminar Special Guest Lecture with Dr. Paul Noble – May 10, 2018

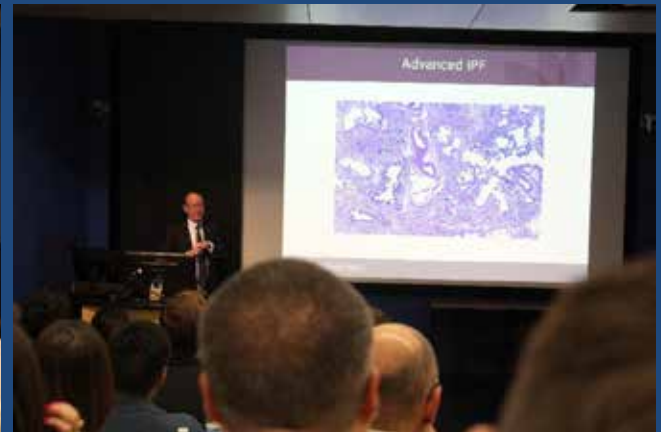
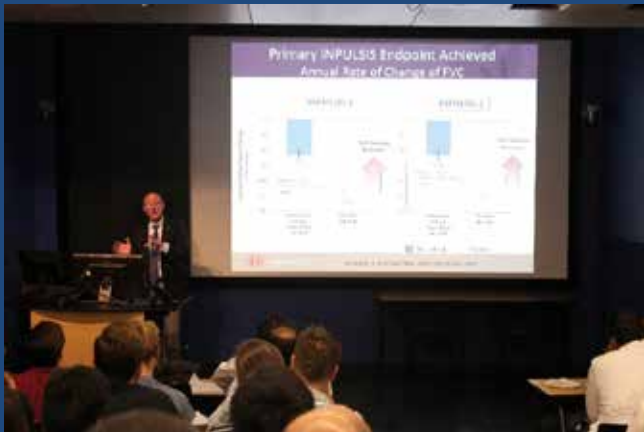


**Paul W. Noble, MD**, professor and chair, Department of Medicine; director, Women's Guild Lung Institute, and the Vera and Paul Guerin Family Distinguished Chair in Pulmonary Medicine at Los Angeles' Cedars-Sinai Medical Center, spoke on the topic, "The Changing Landscape of Fibrosing Lung Diseases." See the archived video [here](#).











### Conditional deletion of HAS2 in AEC2

A schematic diagram illustrating the conditional deletion of HAS2 in AEC2. It shows the Cre-loxP system where Cre recombinase excises a loxP-flanked STOP cassette, allowing the expression of HAS2 from a loxP-flanked promoter in AEC2 cells.

### Has2<sup>fl/fl</sup> mice are more susceptible to bleomycin-induced fibrosis

Histology and survival curves comparing *Has2<sup>fl/fl</sup>* and *Has2<sup>+/+</sup>* mice. The top row shows lung histology and a survival curve for *Has2<sup>fl/fl</sup>* mice. The bottom row shows lung histology and a survival curve for *Has2<sup>+/+</sup>* mice. The *Has2<sup>fl/fl</sup>* group shows significantly higher mortality and more severe lung fibrosis.

### Reduced renewal capacity of AEC2s from bleomycin treated Slpc-Cre/Has2<sup>fl/fl</sup> mice

Four bar graphs showing reduced renewal capacity. The graphs show the percentage of AEC2s in different stages (AEC2, AEC2, AEC2, AEC2) and the percentage of AEC2s in different stages (AEC2, AEC2, AEC2, AEC2) for *Slpc-Cre/Has2<sup>fl/fl</sup>* and *Slpc-Cre/Has2<sup>+/+</sup>* mice.

### Reduced AEC2s in IPF lung

Schematic of AEC2 renewal and a bar graph showing reduced AEC2s in IPF lung. The schematic shows AEC2s renewing themselves. The bar graph shows a significant reduction in AEC2s in IPF lung compared to normal lung.

### Reduced cell surface HA on AEC2s from IPF lung

Line graph and bar graphs showing reduced cell surface HA. The line graph shows HA levels over time. The bar graphs show HA levels in normal and IPF lung.

### Reduced colony formation of AEC2s from IPF lung

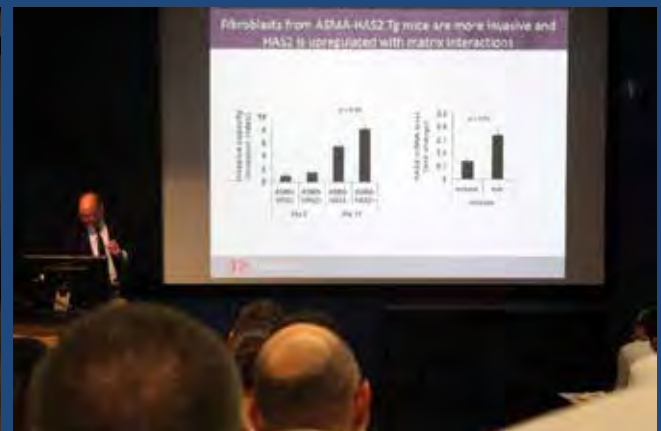
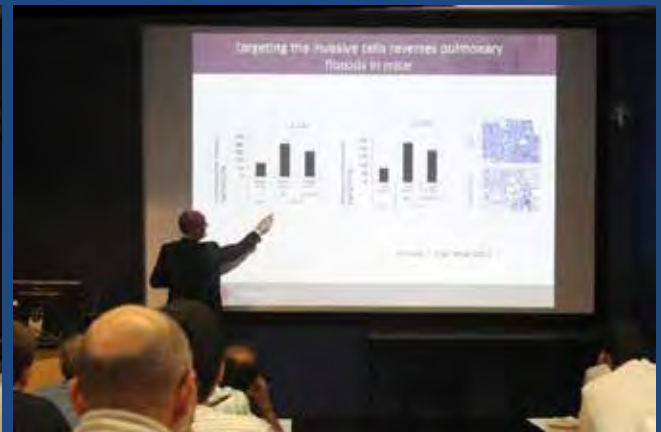
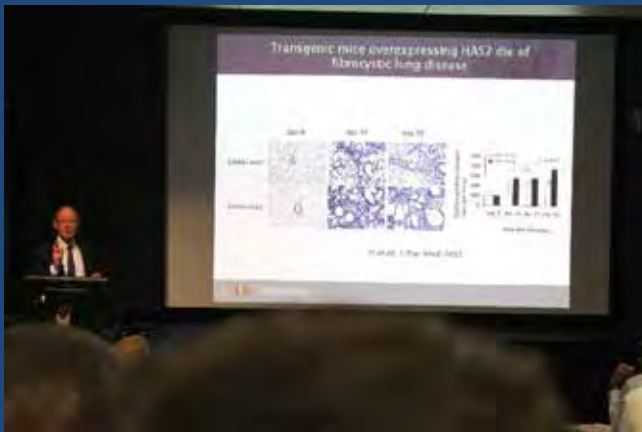
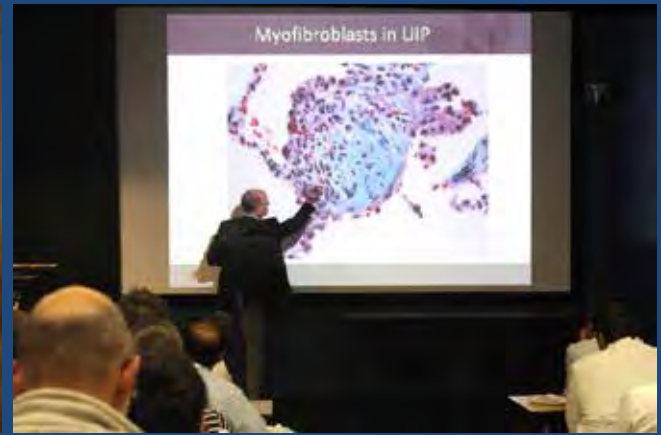
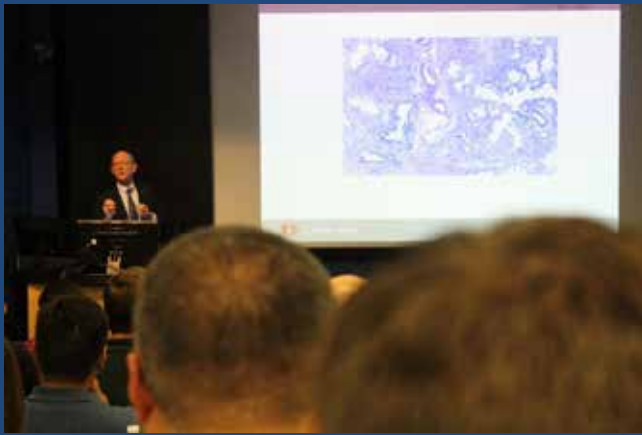
Micrographs and a bar graph showing reduced colony formation. The micrographs show AEC2 colonies. The bar graph shows a significant reduction in colony formation in IPF lung.

### Decreased CPE of low HA expressing human AEC2s

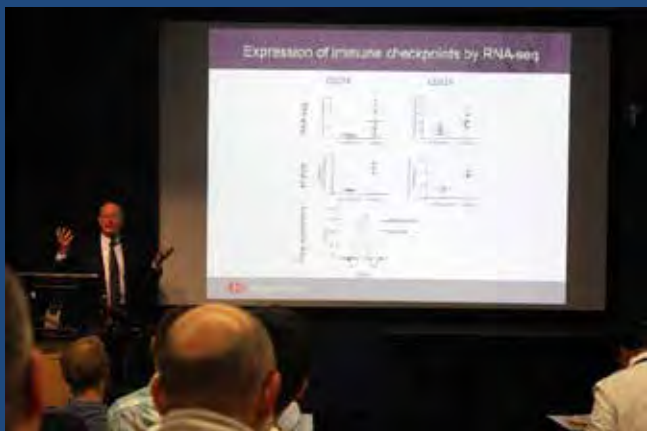
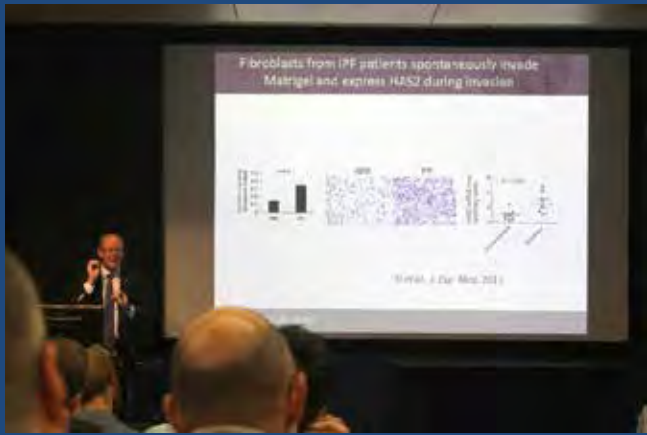
Schematic and bar graph showing decreased CPE. The schematic shows AEC2s in normal and IPF lung. The bar graph shows a significant reduction in CPE in IPF lung.

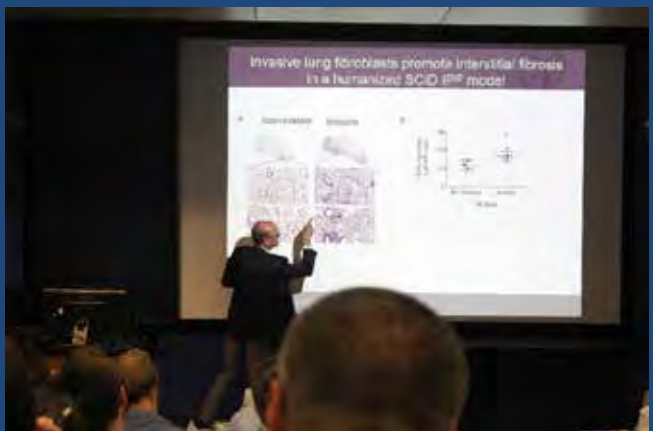
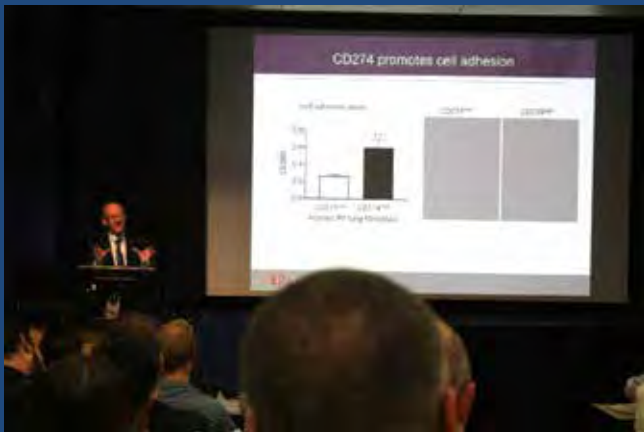
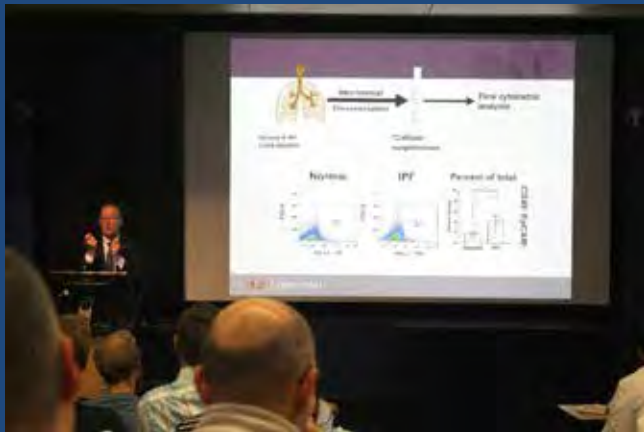
### Matrix interactions with hyaline cartilage receptors regulate AEC2 cell renewal

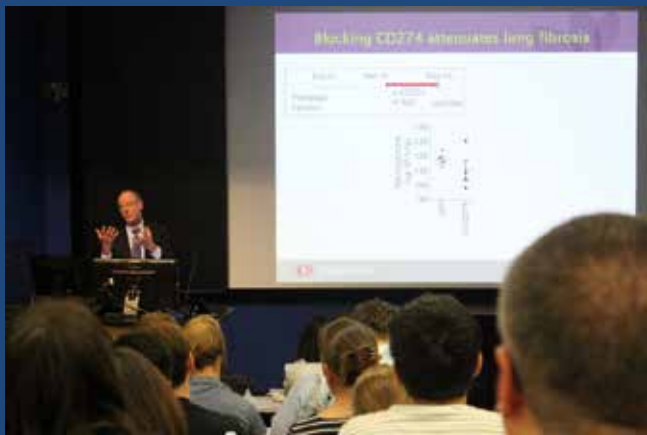
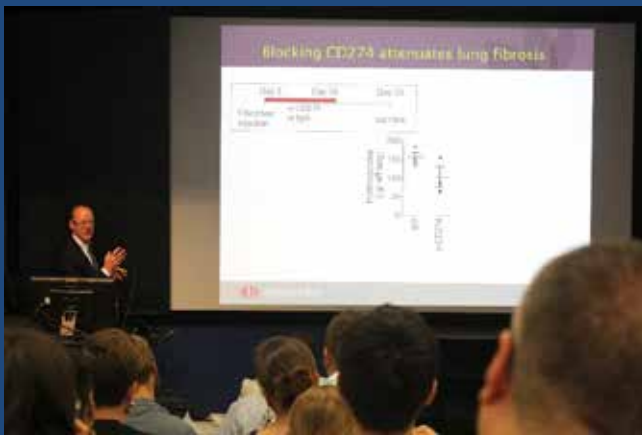
Diagram of AEC2 cell renewal regulated by matrix interactions. The diagram shows AEC2s interacting with the extracellular matrix and receiving signals from hyaline cartilage receptors.













Archived video of the May 10, 2018, DOM Research Seminar can be viewed here:  
<https://streaming.biocom.arizona.edu/event/?id=28199>

Photos courtesy of David Mogollón, Communications Coordinator, UA Department of  
Medicine, (520) 626-1137 or [dmogollon@deptofmed.arizona.edu](mailto:dmogollon@deptofmed.arizona.edu)