

***Schematic proposal for changes in glomerular parietal epithelial cells
(PECs) in mice with advanced age.***

In young mice, confluent PECs (blue color with green nuclei) attach to Bowman's capsule. With advanced age, there is a decrease in PEC density (most pronounced in juxta-medullary glomeruli). Of the remaining PECs, a subset become activated and express CD44 (red color), and are likely pro-fibrotic. Another subset undergoes EMT (purple color). These events are temporally associated with enhanced ERK activation and Notch 3 expression, and likely further contribute to extracellular matrix production by PECs. The combination of reduced PEC density along with enhanced activation and possible EMT limit the capacity for PECs to function as podocyte progenitors in aging and contribute to scarring.

