

Xi (Charlie) Ren, Assistant Professor

Department of Biomedical Engineering, Carnegie Mellon University
Ph.D., 2011, Peking University



The research of Professor Ren is focused on the interface of biomaterial and stem cell engineering, with the goal of providing regenerative therapeutic solutions to repair or replace damaged tissues and organs. The extracellular matrix (ECM) is an essential niche component that maintains tissue homeostasis and drives tissue regeneration upon injury. The Ren lab is developing biologically selective and chemoselective approaches enabling ECM modulation and functionalization to boost injury repair *in vivo* and whole-organ bioengineering *in vitro*. In parallel, they are working to decipher inter-organ and intra-organ endothelial heterogeneity, and thereby to engineer organ-specific vasculature. One of their main model systems is the lung.

