Abstract

A major limitation in the treatment of glioblastoma (GBM) and other invasive cancers is delivery of therapeutics to invading tumor cells outside of the area that is safe for surgical removal and the source of disease progression. Therefore, effective delivery to these invading cancer cells represents a promising therapeutic approach. However, achieving broad particle distribution and selective nanoparticle targeting within the brain remains a significant challenge due to the adhesive extracellular matrix (ECM) and clearance mechanisms in the brain. In this presentation, I will discuss our group’s effort in the development of emerging strategies to overcome these barriers toward realizing the clinical promise of nanomedicine.