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**Cell mobility after endocytosis of carbon nanotubes** MASSOOMA PIRBHAI, THOMAS FLORES, SABRINA JEDLICKA, SLAVA V. ROTKIN, Lehigh University — Directed cell movement plays a crucial role in cellular behaviors such as neuronal cell division, cell migration, and cell differentiation. There is evidence in preclinical in vivo studies that small fields have successfully been used to enhance regrowth of damaged spinal cord axons but with a small success rate. Fortunately, the evolution of functional biomaterials and nanotechnology may provide promising solutions for enhancing the application of electric fields in guiding neuron migration and neurogenesis within the central nervous system. In this work, we studied how endocytosis and subsequent retention of carbon nanotubes affects the mobility of cells under the influence of an electric field, including the directed cell movement.

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