A static cell is a dead cell. Survival depends upon a cell’s ability to traffic molecules to the right place and at the right time, so physiologic processes can continue unabated. Such trafficking is particularly critical for neurons that have elongated processes; as the vast majority of proteins are synthesized in the micron-sized perikarya and then transported into these long appendages. Overall research in the Roy lab is centered around the common theme of neuronal trafficking – movement of macromolecules in axons, dendrites and synapses. This talk will focus on harnessing intracellular trafficking to ameliorate pathology in neurodegenerative diseases, including the use of CRISPR/Cas9 based technology.