Compact, massive nuclear star clusters are found at the centers of most elliptical and spiral galaxies. They are among the densest stellar systems in the universe, and often coexist with massive black holes. The mass of both the black holes and nuclear star clusters correlates with the mass of their host galaxies, suggesting a link between the accretion of material into the central parsecs of a galaxy and its overall evolution. My work focuses on understanding this link and the connection between nuclear star clusters and black holes. I will present results on how galaxy nuclei acquire their mass using cutting-edge observations of the closest nuclear star clusters. These nearby nuclei also represent the best targets for dynamically detecting the lowest mass (<10^6 Msol) central black holes, which are key to understanding the initial formation of black holes in the early universe.