Abstract: Recent advances in nano-fabrication have lead to the experimental realization of single molecule magnet (SMM) transistors. In this talk I will discuss effects of molecular magnetism on low-temperature electronic transport through SMMs. For half-integer molecular spin, electron- and spin-tunneling cooperate to produce a new Kondo anomaly in the linear conductance. The magnetic symmetry of the spin tunneling imposes a selection rule on the total spin for the occurrence of the Kondo effect, which deviates from the usual even-odd alteration. The Kondo energy scale, which can be much larger than the magnetic splittings of the molecular spin states, is strongly modulated by the anisotropy parameter or by a magnetic field, and can thus be used for accurate transport spectroscopy of molecular magnetic states. I will also discuss signatures of this molecular Kondo effect in time-dependent response measurements out of equilibrium.