Because the Riemann Mapping Theorem does not hold in several complex variables, it is of interest to fully classify the simply connected domains. By considering convex, bounded domains with noncompact automorphism groups, we can define a rescaling sequence based on the boundary-accumulating automorphism orbit. If this orbit converges nontangentially we prove the accumulation point is of finite type in the sense of D’Angelo. This both provides a partial proof to the Greene-Krantz conjecture and also classifies such domains as polynomial ellipsoids. (Received August 30, 2019)