Abstract: Let $G$ be a semisimple linear algebraic group over a field $k$ and let $X$ be a projective homogeneous $G$-variety. The variety $X$ is called *generically cellular* if $G$ splits over the field of rational functions $k(X)$. For example, a Pfister quadric is a generically cellular variety. In the talk I intend to classify such varieties and give applications to the Rost invariant.