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Role of activating NK cell receptors in the host response against viral infection  

Experimental infection with mouse cytomegalovirus has proved to be an excellent model to study complex host-pathogen interactions required to resolve virus infection. Linkage studies, positional cloning and functional studies in mice and cells, have led to the identification of key genes governing host resistance against cytomegalovirus, including various activating natural killer (NK) cell receptors of the Ly49 family. These receptors seem dedicated to recognize infected cells through either virus MHC class I-like proteins or virus proteins associated with host MHC class I. While reviewing the genetic and molecular data supporting these receptor-ligand interactions, this presentation points to the central role that specific recognition of the virus-infected cell by NK cells plays in host defense.