Research

Our research focuses on antiviral and antitumor responses of natural killer (NK) cells, the third major population of lymphocytes. Although NK cells are traditionally categorized as part of the innate immune system, our lab has recently discovered a distinct subset of NK cells that display adaptive immune features. This NK cell subset, termed g-NK cells, has been found in approximately one-third of healthy individuals and the presence of these cells is associated with prior infection by cytomegalovirus (CMV), a common herpesvirus that infects billions of people worldwide. Compared to conventional NK cells, g-NK cells exhibit significantly heightened potential to mediate antibody-dependent protection against a broad spectrum of viral infections. The goals of our current research are to understand how g-NK cells function better than conventional NK cells, how g-NK cells are generated and maintained, and what role g-NK cells play in immune responses to viral infections.

Publications

