Harnessing innate immunity in cancer therapy

E. Vivier[1,2,3,4]

[1]Aix Marseille Univ, CNRS, INSERM, Centre d'Immunologie de Marseille-Luminy, Marseille, France, Campus de Luminy case 906, 13288 Marseille cedex 09,
vivier@ciml.univ-mrs.fr
[2]Marseille Immunopole, Hôpital de la Timone, Assistance Publique des Hôpitaux de Marseille
[3]Innate Pharma Research Labs, Innate Pharma, Marseille
[4] Paris-Saclay Cancer Cluster

Abstract

New therapies that promote antitumor immunity have been recently developed. Most of these immunomodulatory approaches have focused on enhancing T-cell responses, either by targeting inhibitory pathways with immune checkpoint inhibitors, or by targeting activating pathways, as with chimeric antigen receptor T cells or bispecific antibodies. Although these therapies have led to unprecedented successes, only a minority of patients with cancer benefit from these treatments, highlighting the need to identify new cells and molecules that could be exploited in the next generation of immunotherapy. Given the crucial role of innate immune responses in immunity, harnessing these responses opens up new possibilities for long-lasting, multilayered tumor control. We will present innovative anti-tumor therapies based on the manipulation of Natural Killer cells in particular via Antibody-based NK cell Engager Therapeutics (ANKETs).