

NCGG SEMINAR

“Genetic and non-genetic determinants controlling homeostasis and function of NK cells and innate lymphoid cells ”

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Time and Date: at 16:00 ~ 17:00
on 3 Dec, 2018 (Mon)

Room: The 2nd floor Conference Hall Small
in the 1st Research building, NCGG

<Reference for Seminar>

Innate lymphoid cells (ILC) are recently identified members of the innate immune system. They represent a heterogeneous family of effector cells that are currently classified into three groups based on their expression of key transcription factors and signature effector cytokines they produce. ILC are localized in lymphoid and non-lymphoid tissues where they contribute to the maintenance of a healthy state. They orchestrate immune responses to microbes and tumors and help maintain tissue integrity. Here, I discuss data from two approaches to unravel the genetic and non-genetic determinants, including age, that are important for the homeostasis of ILC and for the function of NK cells in the context an immune response to tumors. One involves a 1000-person healthy population-based study representing the Milieu Intérieur Consortium, while the other is based on the use of a unique mouse resource, called the Collaborative Cross mice.

1. Serafini N, [Vosshenrich CAJ](#), Di Santo JP. Transcriptional regulation of innate lymphoid cell fate. *Nat Rev Immunol*. 2015 Jul;15(7):415–428
2. Verrier T, Satoh-Takayama N, Serafini N, Marie S, Di Santo JP, [Vosshenrich CAJ](#). Phenotypic and Functional Plasticity of Murine Intestinal NKp46+ Group 3 Innate Lymphoid Cells. *J Immunol*. 2016 Jun 1;196(11):4731–4738.
3. Lim AI, Verrier T, [Vosshenrich CAJ](#), Di Santo JP. Developmental options and functional plasticity of innate lymphoid cells. *Curr Opin Immunol*. 2017 Mar 27;44:61–68.

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