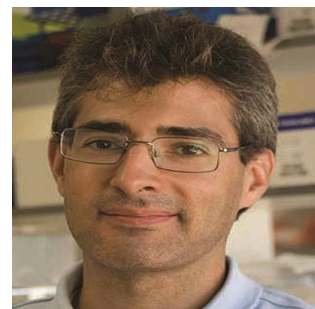


Seminar

Deciphering the Role of type 1 conventional dendritic cells in anti-tumor Immunity

Mark Dalod

Centre of Immunology
Marseille-France



When & where

Tuesday 19 November '19
16.00– 17.30 hrs
Figdor Lecture Theatre,
route 289

Host

Jolanda de Vries,
Dept. of Tumor Immunology

Registration

Not required

Abstract

Dendritic cells (DCs) are endowed with a unique potency to prime T cells, as well as to orchestrate their expansion, functional polarization and effector activity. XCR1+ type 1 conventional DCs (cDC1) promote optimal activation of innate and adaptive cytotoxic lymphocytes, namely natural killer (NK) cells, NK T cells and CD8+ T cells, which are all critical effector cell types in antitumor immunity. This suggests that they might play a critical, non-redundant, role in antitumor immunity. Several teams are investing major efforts to test this hypothesis and to determine how cDC1 functions could be harnessed for the benefits of cancer patients. Here we will report how we contribute addressing this question by using a systems biology strategy integrating the generation and use of dedicated mutant mouse models, the analysis of data and cells from cancer patients, and the large-scale generation of human cDC1 in vitro from CD34+ hematopoietic progenitors to better characterize their functions and molecular regulation.

Publications

- 1) Balan S*, Arnold-Schrauf C*, Abbas A, Couespel N, Savoret J, Imperatore F, Villani AC, Vu Manh TP, Bhardwaj N**, Dalod M**. Large-Scale Human Dendritic Cell Differentiation Revealing Notch-Dependent Lineage Bifurcation and Heterogeneity. Cell Rep. 2018. PMID: 30110645. *Co-1st authors; **Co-senior authors.
- 2) Cancel JC, Crozat K, Dalod M, Mattiuz R. Are Conventional Type 1 Dendritic Cells Critical for Protective Antitumor Immunity and How? Front Immunol. 2019.