

Wednesday, 6<sup>th</sup> March, 12.00 pm, Seminar Room

*Host: Dr. Niels. C. Reichardt*

## Targeting DCs for immunotherapy

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<http://www.cnic.es/en/inflamacion/inmunobiologia/index.php>

Dendritic cells (DCs) are key immune sentinels that initiate and modulate immunity and tolerance. Manipulation of DCs holds promise as a potent immunotherapy tool for many diseases with an immune component, including cancer. We are investigating the role of DCs as orchestrators of the immune response, with the aim of developing novel immunotherapy strategies. We are also interested in the development of tools that allow for specific targeting of DCs for immunotherapy.

Regarding DC function, we are analyzing the mechanisms through which DCs and macrophages sense danger signals released by pathogens or damaged tissues, as well as their functional effects. Receptors of the C-type lectin family are important orchestrators of the sensing of tissue damage and infection. We are analyzing the modulation of signals downstream of C-type lectin receptors, with the aim of defining the impact of these signals on the initiation and modulation of immunity and inflammation. We believe that this research has potential for the development of new vaccines and immunotherapy strategies. Our ultimate goal is to achieve targeted manipulation of DCs for the control of immunity and tolerance.