

# Role of metabolic pathways and sensors in regulation of dendritic cell-driven T cell responses

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#### STELLINGEN

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## Role of metabolic pathways and sensors in regulation of dendritic cell-driven T cell responses

- Carbons derived from glycogen that is stored in dendritic cells have different metabolic fates than those derived from glucose that is obtained by dendritic cells from their environment (this thesis).
- O-GlcNAcylation is a metabolic trait that can be used to distinguish dendritic cells that prime T helper 2 responses from those that prime other T helper cell responses (this thesis).
- The nature of the immunological consequences that result from the manipulation of dendritic cell metabolism depends on the type of tissue these cells reside in (this thesis).
- 4. Murine conventional dendritic cells with impaired mTORC1 signalling are not pro-inflammatory (this thesis).
- 5. Conventional dendritic cell functions have wrongly been attributed to Monocyte-derived dendritic cells (Bosteels et al., Immunity 2020).
- While in vitro studies have been extremely informative, the reported metabolic phenotypes may not be recapitulated in vivo (Kedia-Mehta et al., Nat Commun 2019).
- 7. Immunometabolism is quickly becoming a systems-level science where multidisciplinary expertise is required (Artyomov et al., Cell Metab 2020).
- Targeting metabolic processes therapeutically will, unlike the approach of global immunosuppression, specifically and selectively target cells with high metabolic demands whilst not affecting other immune cells hence potentially reducing unwanted side effects (Pålsson-McDermott et al., Cell Res 2020).
- The university should clearly state the requirements for defending a PhD thesis and should consider them to be different between epidemiological, clinical, and fundamental (biomedical) research.
- 10. A PhD project is a pressure cooker that confronts you with your shortcomings and thereby facilitates personal growth in a short period of time.
- 11. The beauty in the world is not lost through scientific reductionism but is transformed into an alluring mosaic of shards.