universität innsbruck

Forschungsinstitut für
Biomedizinische Alternsforschung

Position for a master student in the Humoral Immunology (Derudder) group at the Institute for Biomedical Aging Research

Starting date: February 2018

Objective:

Dissecting the role of the miR-150 – c-Myb axis in B cell physiology.

Background:

B cells are a prominent component of the immune system, especially due to their ability to produce antibodies upon stimulation. The development and function of these cells are controlled by a variety of genetic programs. Effectors of these programs are regulated by transcription factors and small non coding RNAs, like miRNAs, that dampen protein production. In this context, miR-150 has been reported to modulate B cell development and its effect has been suggested to stem from the repression of the transcription factor c-Myb. Yet, there is no evidence for such a direct regulation in B cells *in vivo*. In addition, a role for a miR-150 – c-Myb axis in B cell function, i.e. responses to stimulation, remains to be clarified.

Project:

Establishing whether or not the repression of c-Myb by miR-150 is critical in B cells *in vivo* using a genetic mouse model in which the direct control of c-Myb expression by miR-150 is prevented. The master student will be in charge of investigating the consequences of the lack of direct c-Myb repression by miR-150 on B cell physiology (development and function) at the molecular and cellular levels.

For more information, contact: Emmanuel.Derudder@uibk.ac.at