



## PhD Position in Molecular Immunology / Skin Immunity at the Heidelberg University Hospital

### Department of Dermatology | Heidelberg University Hospital

**We are looking for** a highly motivated enthusiastic PhD student holding a Master's degree (or equivalent) in immunology, molecular medicine, biomedicine, biology, cellular biology, biochemistry or comparable. Knowledge and interest in immunology are of advantage. Experience with *in vivo* models and FELASA certificate would be a plus but are not mandatory. We seek for an applicant with high intrinsic motivation and the ability to work independently, but also being a teamplayer. Good English skills (written and oral communication) are required.

### Activities and responsibilities

**Project Title:** The role of EBI2 in Skin Inflammation and Infection

### Project Description:

T cells play a pivotal harmful role in auto-inflammatory / allergic skin diseases such as psoriasis or atopic dermatitis. On the other hand, T cells are indispensable to fight viral or bacterial infections such as *S. aureus*. We study how and which specific T cell subsets enter the skin in auto-inflammatory diseases and infection by the use of different mouse models (e.g. CHS or experimental infection).

T cells use several receptors which guide them to the places of ongoing inflammation in the skin. Our data indicate that the G-protein coupled receptor EBI2 plays an important role in this process. EBI2 and its ligand  $7\alpha,25$ -dihydroxycholesterol form a chemotactic system acting in fine-positioning of immune cells in lymphoid organs in homeostasis and inflammation. The successful candidate will study how exactly EBI2 expression impacts and shapes inflammatory and infectious diseases by using full body knock-out and cell-type specific conditional knockout mice (Cre/loxP- system).

The project offers a wide range of methods from molecular biology to immunology such as flow cytometry (FACS), qRT-PCR, histology, Western blotting, ELISA, cytokine bead array, expression profiling, mouse handling and models of inflammation / infection etc..

### We offer:

We offer employment as a research assistant (Doktorand/in) (m/f/d) according to the German TV-L 13 (65 %) for initially 3 years funded by the German Research Foundation (DFG). The PhD thesis will be embedded in the graduate program of the Heidelberg university ([HBIGS](#)) and in training opportunities by the [SFB Transregio 156](#).

Our research group belongs to the research division of the Dermatology department of the University hospital Heidelberg. The research department is an interactive group of dynamic international researchers with weekly progress report meetings and journal clubs.

Start of employment is possible from September 2020. Please apply online with a letter of motivation, certificates, topic of the master and bachelor thesis, CV, references and if available publications.

For further information regarding this vacancy:

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