

2018

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Work packages

1. Generating a conditional Nufip2 knockout by CRISPR Cas9-mediated gene editing.

We will employ a homology directed repair strategy to establish a conditionally targeted Nufip2 allele in the mouse germline.

2. Determining the relative expression levels of Nufip2 in immune cells.

Within a knockout/wild type comparison, we will determine the relative expression levels of Nufip2 in different cells of the hematopoietic system.

3. Analyzing cooperative Nufip2/RNA binding sites in the transcriptome of T cells.

Using the PAR CLIP technology we will determine Nufip2 specific binding sites in the transcriptome of T cells by comparing WT to Roquin 1/Roquin 2 DKO or Fmr1 / T cells.

4. Phenotyping of Nufip2-deficient mice.

We will determine phenotypes that arise from Nufip2 deletion in the hematopoietic system or in peripheral T cells.

5. Elucidating the molecular mechanisms of Nufip2 functions.

We will identify the Nufip2 regulated target genes and determine their regulation by Nufip2, Roquin or FMRP.

Description of existing or sought Chinese collaboration partner institute (max. half page):

Our research unit is currently building up collaborations with several research groups in China. I have close interactions with researchers in Xiamen University, Xiamen and Tongji Medical College, Huazhong University of Science and Technology, Wuhan working on post transcriptional gene regulation in T cells. During the 6th Chinese German Symposium on Immunology in Hangzhou, where I have been invited to, I interacted with the community of Chinese immunologists and I would be happy to receive a postdoc from this network.

Required qualification of the post-doc:

We are searching for a highly motivated postdoctoral research fellow with enthusiasm for molecular immunology. She or he should have

- a PhD in biology, biochemistry or molecular medicine
- experience in immunology, biochemistry and molecular biology
- interest in studying immune responses in mice
- the ability to work independently in an international team
- good skills in English (speaking and writing)

PART B

Documents to be provided by the post-doc, necessary for an application to OCPC via a postdoc-station:

- Detailed description of the interest in joining the project (motivation letter)
- Curriculum vitae, copies of degrees
- List of publications
- 2 letters of recommendation
- Proof of command of English language

PART C

Additional requirements to be fulfilled by the post-doc:

- Max. age of 35 years
- PhD degree not older than 5 years
- Very good command of the English language
- Strong ability to work independently and in a team