Postdoctoral position in T cell tumor immunology in the Lillemeier laboratory at the University of Freiburg (Germany)

(**https://lillemeier.biologie.uni-freiburg.de**)

The Lillemeier Lab is seeking a highly motivated and innovative postdoctoral fellow to investigate novel strategies for cancer immunotherapies.

Our group is interested in how T cell activity and function is regulated during immune responses. Ongoing research focuses on the activating T cell receptor (TCR) and inhibitory PD-1 receptor pathways. We are identifying novel molecular mechanisms through multidisciplinary approaches that combine cellular immunology with microscopy, biophysics and biochemistry. Specifically, we have discovered that post-translational modifications control the activities of ZAP70 kinase and SHP2 phosphatase through conformational changes and receptor interaction dynamics. The goal of this postdoctoral position is to characterize these novel mechanisms in mouse tumor models *in vivo* to determine if they are suitable targets for future immunotherapies.

The successful candidate will investigate the effects of mutant T cell signaling molecules on anti-tumor responses using novel mouse tumor models *in vivo*. These tumor models have been previously established by the Lillemeier group specifically for these projects. In addition, the T cell signaling mutants will be characterized through *ex vivo* immunological assays and multidimensional profiling of the tumor infiltrating immune cells.

The Lillemeier lab is highly collaborative with strong ties to the immunology community in Freiburg and beyond. Thus, this postdoctoral position will be an excellent fit for a team player who is interested in collaborative research. The successful candidate will use a state-of-the-art spectral flow cytometer in the Lillemeier lab, and also have access to multiple well-equipped core facilities.

Requirements:

- PhD in immunology, virology, cell biology or related field.
- Publication(s) in peer-reviewed journals.
- Expertise in mouse work, ideally with tumor models. A license to work with animals in the EU (e.g. FELASA certificate) is preferred.
- Expertise in multi-parameter flow cytometry. If required, additional training for spectral flow cytometry will be provided.
- Experience with in vitro immunological assays and tissue culture.
- Familiarity with RNA sequencing and/or TCR repertoire analysis will be useful, but is not required.

This full-time postdoctoral position is available immediately (or as soon as possible) for an initial term until 31st of December 2025 with possibility of extension.

We are particularly pleased to receive applications from women for the position advertised here.

To Apply:

Please include a brief letter of motivation, a description of current research accomplishments and future research interests/goals (not more than one or two pages), CV with publication list and 3+ contact details for referees in **a single pdf file**. Send your application in electronic form to: lillemeier@bio.uni-freiburg.de