



CENTER FOR INTEGRATIVE INFECTIOUS DISEASE RESEARCH



**HEIDELBERG
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HOSPITAL**

The laboratory of Prof. Dr. Oliver T. Fackler, Center for Infectious Diseases, Integrative Virology, CIID, University Hospital Heidelberg, Germany recruits a

Postdoctoral fellow

to work on

HIV-1 infection of resting CD4 T cells

CD4 T cells are the primary target cells of HIV infection. Productive infection only occurs upon T cell activation while cellular barriers prevent HIV replication in resting CD4 T cells (Pan et al., 2013, Cell Res). Since resting CD4 T cells are largely refractory to genetic manipulation, we lack knowledge about the mechanisms that protect resting CD4 T cells from infection with HIV-1. Together with the laboratory of Prof. Oliver Keppler in Munich, we thus aim at identifying the nature of these barriers and the consequences of occurring infections for innate immune recognition of HIV-1 by this cell type.

Using HIV-2 Vpx as a tool to overcome host cell restrictions allowed us to identify SAMHD1 as an important barrier for HIV-1 infection of resting CD4 T cells but also revealed the presence of additional, yet uncharacterized blocks to the viral life cycle (Baldauf et al., 2012, Nature Medicine; Baldauf et al., 2017, PNAS). Our recent development of a methodology for efficient genome editing of resting CD4 T cells without affecting their low activation state will now allow us to identify resting CD4 T cell-specific restriction and dependency factors and dissect their molecular function in the HIV-1 life cycle.

These analyses will exclusively rely on the use of primary human cell and replication competent HIV-1 (BSL3) and will involve advanced virology, immunology, biochemistry and microscopy approaches. Prior experience with the purification and manipulation of primary human lymphocytes and/or with experimental HIV-1 infection is required. The position for a postdoctoral fellow (TVL E13, 100%) is funded by a grant from the Deutsche Forschungsgemeinschaft and is available for interested candidates that would like to join our efforts in this exciting area of research.

The laboratory is located in the new Center for Integrative Infectious Disease (CIID) research building with its state-of-the-art imaging facility at the heart of the Heidelberg life science campus. We offer an international and highly interactive environment to address projects at the interface of immunology, biochemistry, cell biology, and virology. We are searching for highly motivated candidates with genuine curiosity, passion for science, and motivation to develop a productive postdoctorate into an independent scientific career. Please send your applications until October 30 to:

Dr. Kathrin Bajak

Scientific coordinator in the laboratory of Prof. Dr. Oliver T. Fackler

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