



Position Profile for Chinese Applicants running for 2019 Helmholtz – OCPC – Program

PART A (Info about the Position)

Helmholtz Centre and institute: German Cancer Research Center (DKFZ)

Title of the project: Targeting cancer stem cells

Project leader: Hai-Kun Liu

Web-address: <https://www.dkfz.de/en/normale-und-neoplastische-stammzellen/index.php>

Description of the project (max. half page):

One critical question in the cancer stem cell field is to block the cancer stem cells but not harming normal stem cells during therapy. Using a proteomic approach, we recently discovered a novel enzyme regulating dormant cancer stem cell in glioblastoma, and this gene is not expressed by normal neural stem cells. Surprisingly, blockage of this target leads to inhibition of essential pathways regulating tumor growth. We also generated CreERT2 knock in mice, which allow lineage tracing of dormant cancer stem cells during therapy. The project aims to use this mouse model to identify the molecule signatures of these cells, and perform lineage tracing in different tumor models to identify dormant cancer stem cell populations in other tumors. We are also collaborating with pharmaceutical companies to develop drug inhibitors, thus this project will involve some collaborations with industry for validation of compounds using our mouse models.

The Liu lab is funded by ERC (European Research Council), DFG (Deutsche Forschungsgemeinschaft), the Helmholtz Association, and has close interactions with Pharmaceutical Industry. The lab provides an international, interactive, inspiring and supportive environment. Former members of the lab already returned to China to start their own labs through different prestigious talent programs.

Required qualification of the post-doc:

- PhD in Biology
- Experience with mouse genetics, metabolic assay, stem cell culture, molecular biology,
- Additional skills: lipid biology



PART B (Materials and Procedures)

The applicants shall submit the following documents to a Chinese postdoc station affiliated to a research institution or a university, after passing through the internal selection, the qualified application shall be forwarded to OCPC, and then to Helmholtz for evaluation:

- 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 (General Conditions)

Additional requirements on the postdoctoral fellows:

- Chinese citizenship from Mainland China (allows application while staying abroad)
- Max. age of 35 years, PhD degree not more than 5 years by submission of application
- Very good command of English language
- Strong ability to work independently and in a team, Highly motivated.