The mission of the Berlin Institute of Health at Charité (BIH) is medical translation: transferring biomedical research findings into novel approaches to personalized prediction, prevention, diagnostics and therapies and, conversely, using clinical observations to develop new research ideas. The aim is to deliver relevant medical benefits to patients and the population at large. The BIH was founded in 2013 and is funded 90 percent by the Federal Ministry of Education and Research (BMBF) and 10 percent by the State of Berlin. Since 2021 the BIH has been integrated into Charité as its so-called third pillar.

For the workgroup of Prof. Dr. Ludovic Vallier we are looking as soon as possible temporary for a

**Ph.D. Student in Cellular Plasticity (f/m/d)**

The Vallier lab based at the BCRT will take advantage of human induced pluripotent stem cells and primary organoids to understand liver development in human and to generate cells with a clinical interest for modelling diseases and for cell-based therapies applications. More precisely, we investigate the molecular mechanisms controlling cell fate decisions during human development and exploit the resulting knowledge to produce liver cells especially hepatocytes and cholangiocytes.

**Your work area:**

The candidate will work on a project aim to study divergence between species concerning cellular plasticity. There are growing evidence that cellular plasticity could vary between human and other species explaining resistance to disease such as cancer or increased regenerative capacity. However, the molecular interplays involved in such divergence remain to be fully uncovered. Here, we propose to address this question by taking advantage of liver organoids generated from human and mouse. We will first compare the functional capacity of mouse and human organoids to transdifferentiate especially under WNT condition. We will then compare their transcriptome and their epigenome. For that, we will perform a diversity of genome wide analyses including RNA-Seq, ATAC-Seq, ChIP-Seq for histone mark and DNA methylation. The resulting data will be then combined to uncover factors which can modulate plasticity. Gain and loss of function experiments will be performed to functionally validate key candidates.

**What you bring with:**

To achieve this project, the candidate will need the following skills:

- Master or equivalent in cell or stem cell biology.
- Experience in tissue culture especially with in human pluripotent stem cell culture and liver organoids.
- Experience with animal models
- Experience in flow cytometry, qPCR, expression profiling, confocal imaging, CRISPR/Cas9 genome editing, and ChIP-Seq.
- Experience in working independently while keeping a strong team spirit.
- Strong self-motivation, organizational skills, and ability to lead and develop scientific projects.
- Scientific curiosity, analytical thinking, and interest in contributing to projects.
- Ability to work in a team of young scientists, to be flexible, and flourish in a fast-paced environment.

**What we offer:**

- A part-time position (25,35h/week) limited for 3 years
- Remuneration taking into account personal requirements up to TVöD VKA-K EG13
- Flexible working hours and the possibility of mobile working within Germany and abroad in accordance with internal regulations (in consultation with the legal team)
- Various support services to help you combine work and family life (childcare, voio)
- 30 vacation days per year (with a five-day week)
- Very good training and further education opportunities
- Mobile citizens’ office on site
- Additional benefits customary in the public sector (e.g. annual bonus, company pension scheme (VBL))
- Very easily accessible and attractive workplace in the location name, Föhrer Straße 15 Campus CVK, 13353, Berlin

We live diversity!

BIH strongly encourages qualified women to apply. Applicants with severe disabilities and those of equal status will be given preferential consideration in the event of equal suitability. Please submit your application via the BIH career portal https://jobs.bihealth.org by 23.05.2024, quoting the reference number BIH-26.24.
**Note:** If you have a foreign university degree, please note that it may be necessary to obtain a certificate from the ZAB. You can find more information at: [https://www.kmk.org/zab/central-office-for-foreign-education.html](https://www.kmk.org/zab/central-office-for-foreign-education.html)

For those born after 1970, proof of measles immunity/measles vaccination is required.

For technical queries regarding the job advertisement, please contact Mr. Prof. Dr. Ludovic Vallier (mail: ludovic.vallier@bih-charite.de).

For more information on BIH, please visit [www.bih-health.org](http://www.bih-health.org)