

POST-DOC POSITION (CEITEC MU, BRNO): LONG NON-CODING RNAs (lncRNAs) IN LEUKEMIAS

We are looking for a motivated Post-Doc for a project funded by ERC Grant (Marek Mraz lab, www.ceitec.cz/mrazlab).

The project goal is to understand the role of noncoding RNAs in the regulation of microenvironmental interactions in B cell malignancies. The lab is deciphering novel mechanisms of BCR signaling regulation mediated by microenvironmental signals, CD20, p53, and the signals from T cells (Pavlasova et al. Blood, 2016; Pavlasova et al. Leukemia, 2018). We showed for the first time that non-coding RNAs, namely microRNAs (miRNAs), regulate the BCR signaling which opened an interesting field of research (Musilova et al. Blood, 2018; Mraz et al. Blood, 2014; Cerna et al. Leukemia, 2018). Now we would like to reveal the role of lncRNAs in BCR signaling and other microenvironmental interactions of leukemias.

We have identified candidate long-noncoding RNAs (lncRNAs) that might act as novel regulators of the crosstalk of BCR signaling/T-cell interactions/adhesion in B cell malignancies. This will be further investigated by the post-doctoral researcher using techniques such as genome editing (CRISPRi), RNA sequencing, functional studies with various in vitro (primary cells and cell lines), and in vivo models. The research is also relevant for pre-clinical development of novel RNA-based therapeutic trials, and resistance mechanisms to BCR inhibitors.

WHAT DO WE OFFER:

- project funded by the prestigious ERC grant = high risk and high gain, state-of-the-art instruments, stable funding, a competitive salary, collaboration with top experts in the field
- You will work in a team of young investigators that challenge some long-standing problems in hematology (we have access to a large biobank of primary samples).

Your profile:

- Motivated smart people that have the “drive” to work independently, but also willing to learn from other people in the lab and collaborate.
- Candidates should have PhD degree (or expected within 3 months of applying) in Molecular biology, Oncology, Biochemistry, or similar field.
- The Post-Doc position is for 2-4 years. Post-Doc position will start in 2020 (negotiable). Apply as soon as possible.
- The position is NOT associated with any teaching obligations.
- We welcome applications from all national (Czech) and international applicants.

TO APPLY:

- To apply please send CV with two references and a full list of publications to the PI Marek Mraz: **marek.mraz@email.cz (Subject: Post-Doc position).**
- Information about the laboratory at: **<http://mrazlab.ceitec.cz/positions.html>**

OTHER INFO: The research is funded by ERC Starting grant, and will be conducted at CEITEC MASARYK UNIVERSITY. Our laboratory extensively collaborates with the University Hospital Brno in the same campus to obtain primary samples from patients. The campus provides a vibrant, multidisciplinary, and highly collaborative scientific environment. The lab is located in Brno, the second-largest city in Czech Republic that has the biggest concentration of biomedical research in the region. Brno is one of the major cultural hubs, with a vibrant and lively atmosphere housing ~60.000 students. The city has a very good public transport and plenty of interesting places to visit within the reach of trains (within a small distance of several major cities such as Prague, Vienna, Bratislava, Budapest) and close to international airports.

POST-DOC POSITION (CEITEC MU, BRNO): REGULATION OF CELL MIGRATION IN B CELL LEUKEMIAS AND LYMPHOMAS

We are looking for a motivated Post-Doc for a project funded by ERC Grant (Marek Mraz lab, www.ceitec.cz/mrazlab).

The project goal is to understand the molecular machinery that regulates the migration of malignant B cells between different niches such as lymphoid and bone marrow niche and peripheral blood. This is of great interest, especially in chronic lymphocytic leukemia (CLL). In CLL, but also in other lymphomas, the malignant B cells permanently re-circulate from peripheral blood to lymph nodes and back, and blocking this recirculation can be used therapeutically since malignant B cell depend on signals in immune microenvironment. However, the factors that regulate this are mostly unclear. The lab established several models for in vitro and in vivo studies of microenvironmental interactions and their interplay (unpublished in vivo model; Pavlasova et al. *Blood*, 2016; Pavlasova et al. *Leukemia*, 2018; Musilova et al. *Blood*, 2018; Mraz et al. *Blood*, 2014; Cerna et al. *Leukemia*, 2018).

We have identified candidate molecules that might act as novel regulators of the B cell migration or the balance between homing and survival in peripheral blood. This will be further investigated by the post-doctoral researcher using technics such as genome editing (CRISPR), RNA sequencing, use of primary samples, functional studies with various in vitro and in vivo models. The research is also relevant for understanding resistance mechanisms to BCR inhibitors, pre-clinical development of novel drugs and their combinations (several patents submitted by the lab).

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- You will work in a team of young investigators that challenge some long-standing problems in hematology (we have access to a large biobank of primary samples).

Your profile:

- Motivated smart people that have the “drive” to work independently, but also willing to learn from other people in the lab and collaborate.
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