

# MSc Thesis Position

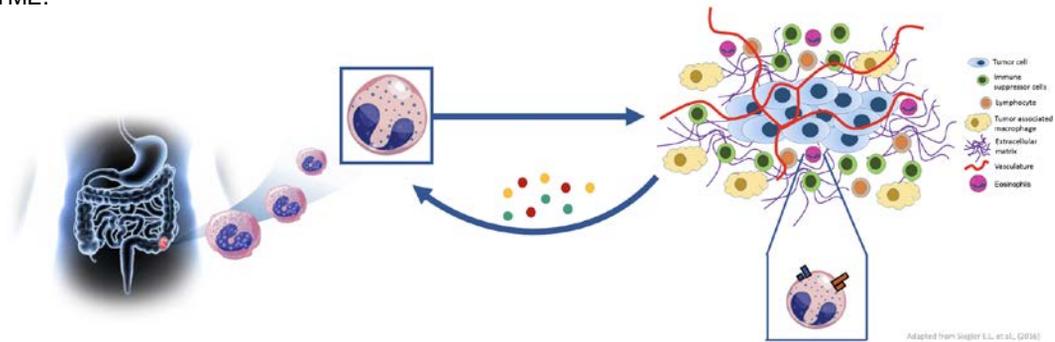
## INVESTIGATING AND EXPLOITING THE ANTI-TUMOR PROPERTIES OF EOSINOPHILS IN COLORECTAL CANCER

Prof. Dr. Isabelle Arnold

Institute of Experimental Immunology

### BACKGROUND:

Colorectal cancer (CRC) is the third most common cancer worldwide and the fourth leading cause of cancer-related deaths. Despite the promises of new immune-based therapeutics aimed at reactivating anti-tumor immunity, many patients do not respond to treatment and it has become increasingly clear that immune cells in the tumor microenvironment (TME) play a cardinal role in preventing or promoting the development of CRC. **Eosinophils** are an integral part of the TME and multiple epidemiological studies have linked eosinophil infiltration into tumors to increased prognosis and survival in several cancers, including CRC. However, the contribution of eosinophils to tumor control and anti-tumor immunity is largely unexplored. Therefore, there is an urgent need to better define the roles and molecular regulators of eosinophil activities within the TME.



### PROJECT OUTLINE AND TECHNIQUES:

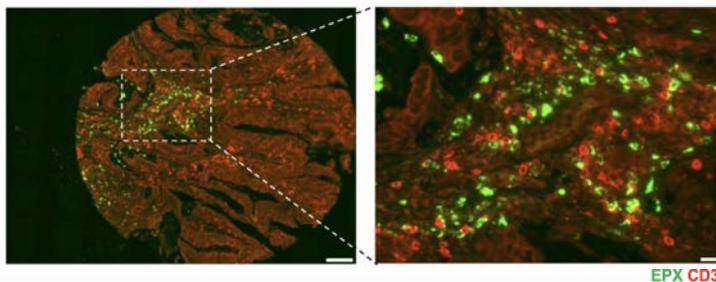
In our laboratory, we use a combination of experimental inflammation and cancer models, molecular biology, microscopy, sequencing as well as high-dimensional and conventional flow-cytometry techniques – together with new tools specifically targeting the eosinophil lineage – to investigate how eosinophils modulate the immune landscape within the TME and control tumor growth.

Specifically, the aims of this project are:

- to examine the role of eosinophils in intestinal tumors and CRC
- to investigate the mechanistic basis of eosinophil regulation in the tumor context

### ENVIRONMENT AND QUALIFICATIONS:

We are looking for candidates with a genuine interest in immunological research and a high level of motivation. You will be part of a young and dynamic international research group embedded in the Institute of Experimental Immunology. You will be able to participate to weekly group meetings, progress report seminars and literature sessions, and enjoy a comprehensive scientific education in a vibrant research environment.



### APPLICATIONS:

Interested candidates should send their CV and a brief motivation letter to [arnold@immunology.uzh.ch](mailto:arnold@immunology.uzh.ch)

Email: [arnold@immunology.uzh.ch](mailto:arnold@immunology.uzh.ch)

Website: [www.immunology.uzh.ch](http://www.immunology.uzh.ch)

Starting date: flexible

Duration: 9 or 12 months



University of  
Zurich <sup>UZH</sup>