UNIL | Université de Lausanne

Postdoctoral position in immunology in Switzerland

to investigate how lymphoid organs and stromal cells regulate adaptive immunity.

The laboratory of Prof. Sanjiv Luther at the Center for Immunity and Infection of the University of Lausanne is looking for a highly motivated and skilled candidate to join the team of typically 5-8 scientists who all work on various aspects of secondary lymphoid organs (lymph nodes and spleen), where lymphocyte responses are initiated and regulated, as well as effector sites, such as intestinal lamina propria cancer tissues. Our aim is to better understand the microenvironments in which antigen-specific lymphocytes get activated, differentiate into effector or memory cells, and are maintained. This process is essential for immune defense against pathogens and tumors.
Lymphoid tissue microenvironments are compartmentalized to a large extent by fibroblasts which are the main resident stromal cell type. While these cells have been ignored by immunologists for a long time, we and others have shown that these cells are key players in adaptive immunity. They not only produce extracellular matrix but many cytokines and other factors that control dendritic cell and lymphocyte behavior. All lab projects center around the discovery and study of such stromal cell factors (like Notch and its ligands, IL-33, PGE2 etc.) with the aim to uncover new functions for these fibroblasts in adaptive immunity and find novel treatment strategies in disease settings.

Requirements:
- PhD in immunology; first author publication(s) or submitted manuscript(s)
- skilled and careful experimentator mastering immunological techniques and analysis software
- fluent in English, communicative, team player, motivation to learn and perform at a high level
- good work organization, dynamic, curious, creative, goal-oriented

Techniques:
cutting-edge cellular and molecular immunology techniques, modern mouse genetics, disease models

We offer:
- high profile research center in immunology and oncology (> 40 labs), access to many technology platforms; regular courses and seminars on site; many nationalities; English as main language
- competitive salary, friendly and collaborative lab team; exciting projects in a dynamic field
- good chance to publish several peer-reviewed papers
- 10min away by Metro from the center of Lausanne
- Lausanne is a beautiful city at the lake of Geneva; surrounded by stunning mountains and vineyards

Selected references:

1) Aparicio Domingo, P., … Luther, S.A. (**2020**). Fibroblastic reticular cell derived IL-33 is dispensable for lymph node homeostasis but critical for antiviral CD8 T cell responses. ***Eur. J. Immunology****, in press. DOI: 10.1002/eji.201948413.*
2) Schaeuble, K., ….Speiser, D.E., Zehn, D., Luther, S.A. (**2019**). Attenuation of chronic antiviral T-cell responses through constitutive COX2-dependent prostanoid synthesis by lymph node fibroblasts. ***PLoS Biology*** 17(7): e3000072.
3) Dubey, L.K., Ludewig, B., Luther, S.A. [1], Harris, N.L.[1] (**2019**). Helminth infection elicits the formation of extrafollicular CXCL13 producing reticular cells. ***Cell Reports*** 27(8):2442-2458.e5. ([1] co-last authors).
4) Huang, H.-Y., …. Buckley, C.D., Donnadieu, E. [3], Luther, S.A. [3] (**2018**). Identification of a new subset of lymph node stromal cells involved in regulating plasma cell homeostasis. ***Proc. Natl. Acad. Sci. USA***, *115(29): E6826-E6835.*
5) Chung, J., … Blazar, B.R., Brennan, T.V., Ludewig, B., Bishop, D.K., Siebel, C.W., Radtke, F., Luther, S.A., Maillard, I. (**2017**) Stromal cell niches prime T cell alloimmunity through Delta-like Notch ligands. ***J. Clin. Invest.*** *127: 1574-88.*
6) Fasnacht, N. [1], Huang, H.-Y. [1], Koch, U. [1], …. Ludewig, B., Luther, S.A. [2], and Radtke, F. [2] (**2014**). Specific fibroblastic niches in secondary lymphoid organs orchestrate distinct Notch-regulated immune responses. ***J. Exp. Med.****, 211(11): 2265-79.* ([1] co-first authors, [2] co-last authors)
7) Yang, C.-Y., Vogt, T., … Luther, S.A. (**2014**). Trapping of naive lymphocytes triggers rapid growth and remodeling of the lymph node fibroblast network during immune response. ***Proc. Natl. Acad. Sci. USA***, *111 (1): E109-118.*
8) Link, A., Vogt, T.K., Favre, S., Britschgi, M.R., Acha-Orbea, H., Hinz, B., Cyster J.G. and Luther, S.A. (**2007**). Fibroblastic reticular cells in lymph nodes regulate naïve T cell homeostasis. ***Nature Immunol.*** 8 (11): 1255-65.

Lab website, including all publications: https://www.unil.ch/ib/home/menuinst/research/luther--sanjiv.html
Application: only via the University website (https://www.unil.ch/ib/home/menuguid/open-positions.html)
If you have questions: please contact me via email, sluther@unil.ch