

Post-doctoral position in the lab of Prof. Ho at the Ludwig Center for Cancer Research Lausanne Branch/Department of Fundamental Oncology at University of Lausanne

Job description

We are looking for a highly motivated postdoctoral candidate to join our lab in Immunometabolism Lab. Immunometabolic regulations orchestrate immune responses in both innate and adaptive immune cells during vaccination, infection and tumorigenesis. However, the detailed understanding of the underlying mechanisms by which immunometabolic regulations modulate signaling pathways and epigenetic landscape of immune cell remain largely unclear. To this end, both new experimental and computational approaches are playing an important role for exploring these questions in new dimensions. The task of the recruited post-doc will be to elucidate mitochondrial dynamics in immune cells during infection and in the tumor microenvironment and help understanding how these processes influence signaling cascades and epigenetic reprogramming in immune cells. The successful candidate will have access to core facilities and resources at University of Lausanne and Swiss Cancer Center in Lausanne. Combining cutting-edge cancer immunology program with strong collaborations with bioengineering will position us in a unique niche to make substantial contributions in immunometabolism.

Together with our clinical, metabolomics, proteomic and bioinformatics collaborators, we are located on the Epalinges campus of UNIL. Lausanne offers one of the best translational research environments in the field of cancer immunology with several world-renowned Institutes (Ludwig Center for Cancer research Lausanne Branch, ISREC at EPFL, Oncology Department at CHUV). Ho lab is also funded through academic and industrial supports, including Swiss National Foundation, Swiss Cancer League, Cancer Research Institute, Melanoma Research Alliance, Roche and Actelion. This position will also have potential to collaborate with industrial scientist for project development.

Profile requirements

PhD in Biology, Immunology, Molecular Biology with demonstrated experience in T cell biology and epigenetics and at least one first-author paper in a peer-reviewed journal. Experience with cellular immunology and cancer immunology is a plus.

The candidate should have a strong interest in cancer and immunology-related research and excellent collaborative skills with experimental biologists. Good knowledge in molecular biology, immunology and the ability to work in English (oral + written) are required.

Application

Please send your full application including motivation letter, CV, list of publications and the name of two references to: ping-chih.ho@unil.ch. Interviews are expected to take place in Autumn 2017.

Starting date

Between October 1st 2017 to March 1st 2018

Duration of contract

1 year (renewable for a maximal duration for 5 years).

Website

<https://www.unil.ch/dof/en/home/menuinst/research-groups/ho.html>

Reference

Pu-Ste Liu, Haiping Wang, Xiaoyun Li, Tung Chao, Stefan Christen, Wan-Chen Cheng, Giusy Di Conza, Tony Teav, Chih-Hung Chou, Magdalena Vavakova, Charlotte Muret, Hsien-Da Hung, Julijana Ivanisevic, Sarah Maria-Fendt, **Ping-Chih Ho** (2017) Integration of α -Ketoglutarate/succinate balance controls macrophage polarization through immunometabolic and epigenetic reprogramming. (Accepted in *Nat. Immunol.*)

Ping-Chih Ho, Jessica Dautz Binhuniak, Andrew N. Macintyre, Matthew M. Staron, Xiaojing Liu, Robert Amezcuita, Yao-Chen Tsui, Guoliang Cui, Goran Micevic, Jose C. Perales, Steven H. Klenstein, E. Dale Abel, Karl Insogna, Stefan Feske, Jason W. Locasale, Marcus W. Bosenberg, Jeffrey C. Rathmell, and *Susan M. Kaech (2015) Phosphoenolpyruvate is a metabolic checkpoint controlling Ca^{2+} -NFAT signaling and anti-tumor T cell responses. *Cell* 162; 1217-1228.

Haiping Wang, Fabien Franco, and **Ping-Chih Ho** (2017) Regulatory T cells in tumors: the origin, function, therapeutic potential and emerging concepts. *Trends in Cancer* (in press).

Ping-Chih Ho and Susan M. Kaech (2017) Reenergizing T cell anti-tumor immunity by harnessing immunometabolic checkpoints and machineries. *Current Opinions in Immunol.* 46; 38-44. Tung Chao, Haiping Wang, and **Ping-Chih Ho** (2017) Mitochondrial control and guidance of immune responses of innate and adaptive immune cells. *Frontiers. in Immunol.* (In press).

Daniel E. Speiser, **Ping-Chih Ho** and Gregory Verdeil (2016) Regulatory circuits of T cell function in cancer. *Nat. Rev. Immunol.* 16; 599-611.

Ping-Chih Ho, Pu-Ste Liu (2016) Metabolic communication in tumors: a new layer of immunoregulation for immune evasion. *Journal for Immunotherapy of Cancer* 4; 4-12.