

Postdoctoral position: Tumor immunology and cancer immunotherapy

Position description:

A postdoctoral fellowship position is available in the area of tumor immunology and cancer immunotherapy. The position is in the laboratory of Prof. Massimiliano Mazzone within the Vesalius Research Center (VRC), Laboratory of Tumor Inflammation and Angiogenesis at the University of Leuven and VIB (Leuven, Belgium).

Candidates are sought to join a basic and translational research program focused on understanding the molecular mechanisms underlying immune cell localization and immunosuppression within the tumor and the modes of resistance to cancer immunotherapy.

Research focus:

The research led by the candidate will focus on immunometabolic control of the anti-cancer immune response and how this can influence the outcome of immune checkpoint blockade in cancer therapy.

Requirements:

The ideal candidates must have a PhD in Cell Biology, Molecular Biology or (Tumor) Immunology. Solid knowledge of T cell and macrophage immunobiology and experience in the area of in vivo cancer biology. The required skills include: mouse models, immunohistochemistry, flow cytometry. Experience in medicinal chemistry and/or immunometabolism approaches would be a plus.

Candidates must be proficient in oral and written English, excellent communication, and multi-tasking skills, and be team-oriented, proactive and results driven. Candidates are invited to apply for competitive fellowships during their stay in the lab.

The position can start on March 1st 2017 at the earliest. Interested candidates should send their résumé, containing a list of publications, a summary of past research, contact information of 2 or 3 referees, and a motivation letter to Prof. Massimiliano Mazzone (email: massimiliano.mazzone@vib-kuleuven.be).

About the lab:

The Laboratory of Tumor Inflammation and Angiogenesis offers a dynamic working environment within a stimulating scientific surrounding in an international, young, enthusiastic, motivated team (with English as main language). The laboratory is aiming to work on high-impact projects and research that can be translated into the clinical practice. The laboratory is part of the Vesalius Research Center (VRC), a multidisciplinary research center focusing on cancer, genetics, metabolism and stroma. VRC offers many Core facilities including: Imaging, Molecular Biology, Metabolomics, Histology, Aquatic facility (zebrafish & tadpoles), transgenesis and mouse facility, etc. Technical support is granted within the lab. Remuneration is competitive.

Relevant publications:

Wenes M, Shang M, Di Matteo M, Goveia J, Martín-Pérez R, Serneels J, Prenen H, Ghesquière B, Carmeliet P, **Mazzone M[#]**. Macrophage metabolism controls tumor blood vessel morphogenesis and metastasis. *Cell Metabolism*, <http://dx.doi.org/10.1016/j.cmet.2016.09.008>.

Hamm A, Prenen H, van Delm W, Di Matteo M, Wenes M, Delemarre E, Schmidt T, Weitz J, Sarmiento R, Dezi A, Gasparini G, Rothé F, Schmitz R, D'Hoore A, Iserentant H, Hendlisz A, and **Mazzone M[#]**. Tumor-educated circulating monocytes are powerful candidate biomarkers for diagnosis and disease follow-up of colorectal cancer. *Gut*, **65**(6): 990-1000 (2016).

Finisguerra V, Di Conza G, Di Matteo M, Serneels J, Costa S, Thompson R, Wauters E, Walmsley S, Prenen H, Granot Z, Casazza A, and **Mazzone M[#]**. MET in neutrophils is required for their anti-tumoural activity. *Nature*, **522**(7556): 349-353 (2015).

Casazza A, Laoui D, Wenes M, Rizzolio S, Bassani N, Mambretti M, Deschoemaeker S, Van Ginderachter J, Tamagnone L, and **Mazzone M[#]**. Impeding macrophage entry into hypoxic tumor areas by Sema3A/Nrp1 signaling blockade inhibits angiogenesis and restores anti-tumor immunity. *Cancer Cell*, **24**(6), 695-709 (2013).

Takeda Y, Costa S, Delamarre E, Roncal C, Leite De Oliveira R, Squadrito ML, Finisguerra V, Deschoemaeker S, Bruyère F, Wenes M, Hamm A, Serneels J, Magat J, Bhattacharyya T, Anisimov A, Jordan B, Alitalo K, Maxwell P, Gallez B, Zhuang Z, Saito Y, Simons M, De Palma M, and **Mazzone M[#]**. Macrophage skewing by PHD2 haploinsufficiency prevents ischemia by inducing arteriogenesis. *Nature*, **479**(7371), 122-116 (2011).