Laboratoire
de Biophotonique
et Pharmacologie

CNRS UMR 7213

Directeur : Yves MELY

Illkirch, june 1st 2012

Title: ***Implication of α5β1 integrin in EGFR oncogenic function in human glioblastoma.***

Team : Intégrine et Cancer, LBP - UMR CNRS 7213, Université de Strasbourg

Fellowship : PhD fellowship from Université de Strasbourg

Duration: 2012-Octobre/ 2015-Septembre

PhD Project :

Glioblastoma (GBM) are the most aggressive brain tumors and remain desperately resistant to chemotherapy. Despite the frequent over-expression or activation of the tyrosine kinase EGF receptor, targeted therapies failed to improve patient overall survival. Our team has recently showed that α5β1 integrin, a cell adhesion receptor that is over-expressed in the most advanced glioma, is a promising new therapeutics target. Integrins are known to crosstalk with tyrosine kinase receptors. Our project aims to examine whether α5β1 plays an important function in the EGFR oncogenic activity and if its over-expression is involved in GBM resistance to anti-EGFR drugs. The PhD student will be in charge of the study of the crosstalk signaling pathway between these two cell surface receptors in GBM cell lines (including recycling experiments) and of the setup of new imaging tools aiming to quantify the formation α5β1/EGFR complex at cellular level, in cultured cells and in tumor sections. An important task of the project will be to determine if α5β1 antagonists developed in our team can sensitize α5β1 over-expressing glioma to anti-EGFR chemotherapeutic drugs, both in cultured cell (signaling, cell proliferation and survival, migration and invasion) and in animal models.

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Publications:

From the team : Janouskova, Cancer Res 2012 (epub) ; Cosset, Int. J. Cancer, 2012, 131 :601-11, Markintova, Int. J Cancer, 2010 127 :1240-8
From the PhD supervisor : Faure, J. Cell. Sci, 2012 (epub), Taboubi, Mol Biol Cell, 2010 21:946-55 ; Sadok, Mol Cell Biol, 2009 29:3915-28

Profil : Highly dynamic and motivated candidate with strong background in cell biology, molecular biology or physiopathology.

Contact: Send a complete CV and a referent coordinate to:

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