

OPTICAL IMAGING AGENT TO ASSIST WITH ANTI-TUMOR SURGERY

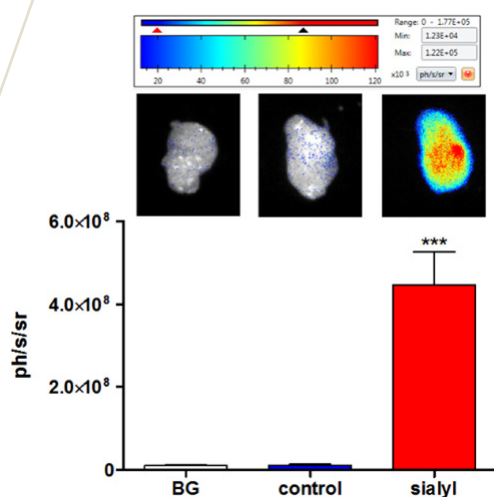
Development of a fluorescent imaging agent targeting E-selectin for delineate tumor margins during resection surgery.

ERG\NEO

L'AVENIR EST FAIT D'AUDACE

PRESENTATION

While surgery is the main line of treatment for most solid tumors, incomplete tumor resection frequently occurs and represents an additional risk for relapse. The main challenge for surgeons is then to distinguish the surgical boundary between the lesion and the surrounding healthy tissues in an accurate manner. The research team has developed a new specific imaging agent emitting in the tissue transparency zone and targeting E-selectin, a well-known inflammation marker frequently overexpressed in several solid cancers. The imaging agent is capable to specifically detect colorectal tumor in vivo in a mouse xenograft model. This new agent can be used with portable optical imaging systems in the operating room to delineate tumor areas in order to assist surgeons in real time during resection.



Imaging agent - Tumor specificity - Tumor resection surgery
Near-infrared fluorescence - E-selectin

APPLICATIONS

- Solid tumor resection
- Real-time surgical assistance by fluorescence imaging
- Diagnosis of tumors

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COMPETITIVE ADVANTAGES

- Specificity toward E-selectin, a well-known inflammation marker frequently overexpressed in solid tumors (colorectal, breast, pancreas, etc)

DEVELOPMENT PHASE

- ✓ In vitro proof of concept showing specificity for E-selectin
- ✓ In vivo proof of concept in a colorectal xenograft model showing delineation of tumor tissue

INTELLECTUAL PROPERTY

Priority Patent Application filed in Feb 2018

PUBLICATIONS

- P. Chaumet-Riffaud et al. Bioconj Chem 2010
- Yongmin Zhang, Carb. Res. (2014) 383, 89-96