TECHNO OFFER

Surgical assistance by new Cherenkov luminescence

medical imaging / Cherenkov luminescence / CLI / oncology / surgery / tumor

CONTEXT

Cherenkov luminescence imaging (CLI) is only used to visualize less deep (about 1 mm) or exposed tissues (tumour exeresis assistance).
The classical CLI signal is usually weak and widespread.

The objective of our new approach is to improve signal strength and decrease unspecific signals in order for the surgeon to better identify the tumor location. Also, our technology will allow to generate signals that can be visualized in deeper tissues when compared to classic CLI.

DESCRIPTION

The core innovative step is to go from a multimolecular approach as used in classic CLI to a monomolecular approach.

The molecule that we developed contains its own radiation source that leads the molecule to generate Near Infra Red (NIR) radiation. This NIR can then be detected to visualize the tumor. This molecule can also be linked to specific antibodies, for instance, to target it against tumor cells only.

Mononuclear targeted CLI, thanks to its NIR radiation, can be applied on deep tissues (invasive tumour, metastasis) without surgery (diagnostic) or during surgery for total tumour exeresis.

COMPETITIVE ADVANTAGES

- **Targeting tumor and metastasis**
- **Intravenous application**
- **Application on deeper tissues**

Markets & applications

Medical imaging :

- Diagnostic Assistance in oncology
- Surgical Assistance in oncology
- Preclinical studies

Development stage

TRL 3
Targeting the molecular structures with antibodies are ongoing - *In vivo* studies are to come

Intellectual property

French patent application submitted on October 26th, 2018

Target partnership

Patent licensing

CONTACT-US

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