# EV-MIME

**Use of therapeutic extracellular vesicles as advanced treatment for metastatic triple negative breast cancer and pancreatic cancer.**

ERGANEO
L'AVENIR EST FAIT D'AUDACE

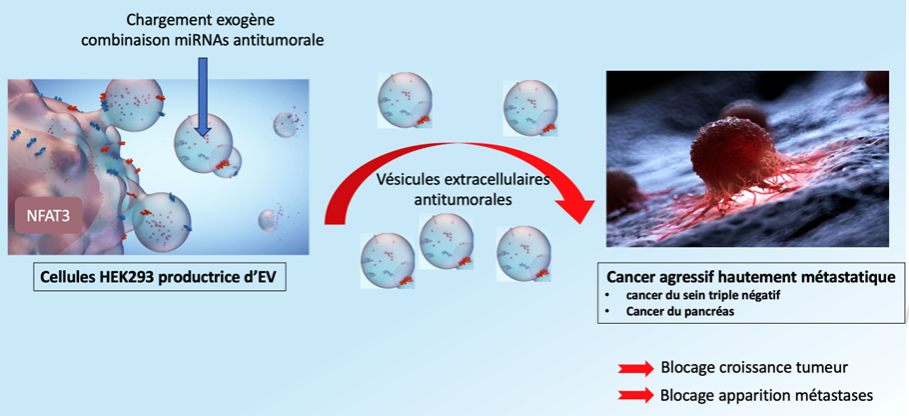
## PRESENTATION

Extracellular Vesicles (EVs) are produced from HEK293T cells that highly express NFAT3 transcription factor that inhibits cancer cell mobility and are loaded with a combination of miRNAs inhibiting tumor growth and cell mobility. *In vitro* evaluation revealed that these EVs significantly (80%) decrease invasive capacity of triple negative breast (MDA-MB-231, SUM-59PT) and pancreatic (BXPC3, MIA-PACA-2) cancer cell lines. These results were confirmed *in vivo* in a triple negative breast cancer mouse model.

## APPLICATIONS

- Adjuvant therapy for triple negative breast cancer or pancreatic cancer as a single agent or in combination with other drugs
- Neoadjuvant therapy for triple negative breast cancer or pancreatic cancer as a single agent or in combination with other drugs

Extracellular Vesicles - NFAT3 - miRNA
Triple negative breast cancer - Pancreatic cancer




## COMPETITIVE ADVANTAGES

Mostly, the potential competitors' approaches are at the early stage (proof of concept (PoC) to preclinical stages) and absence of available data does not allow direct comparison with this product.

## DEVELOPMENT PHASE

- Completed *in vivo* PoC1: treatment of an athymic nude mouse model xenografted with a triple negative breast cancer line (MDA-MB-231) with EVs derived from HEK293T cells over-expressing NFAT3.
- On going *in vivo* PoC2: treatment of an athymic nude mouse model xenografted with a triple negative breast cancer line (MDA-MB-231) with an anti-tumor combination of miRNAs.

## INTELLECTUAL PROPERTY

Two patent applications:
WO2017167788A1 and WO2022136226A1

## PUBLICATIONS


- de Camargo LCB *et al.* Sci Rep 2020 (10), 8964.
- Fougère M. *et al.* Oncogene. 2010 (15), 2292-301.
- Coillard L. *et al.* Front Oncol. 2022 (12), 804868.
- Silva, A., *et al.* Adv Drug Deliv Rev. 2021 (179), 114001.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