

**A CRO FOR
PRECLINICAL
SERVICES IN
ONCOLOGY**



About Us

Spin-off of the Team Anticancer Antibodies Centre de Recherche en Cancérologie (CRCL)

Company

CRO created in May 2015,
specialized in proof-of-
concept studies in oncology



Location

Hôpital Edouard Herriot
Lyon, France



Regulation

- CIR agreement 2020-2023
- Fully authorized animal house and personnel



Team

Scientists and efficient team
recognized for its expertise in
onco-pharmacology at the
international level



Customers

French and international
clients composed of
pharmaceutical,
biotechnology companies
and academic institutions



Track-record

- 100+ studies
- 40 sponsors
- 5 ongoing partnerships



OUR TEAM



Charles Dumontet, MD-PhD
Scientific Consultant



Marie Tautou, PhD
Study Director & Head of
Business Development



Charline Perrouin
Business Development
Manager



Doriane Mathé
Study Manager



Pierre-Antoine Choffour
Study Manager



Marine Fellmann
Study Manager



Mélina Gauthier
Study Assistant



Jade Ruard
Study Assistant



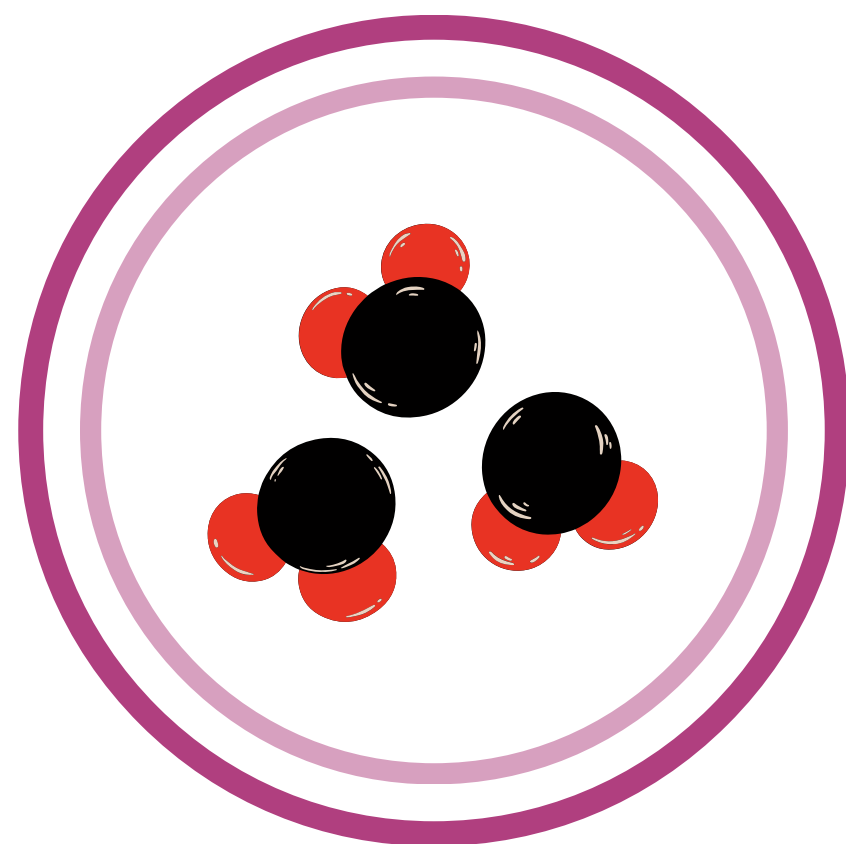
Stecy Chhor
Study Assistant



THERAPEUTIC AREAS

Oncology and immuno-oncology

Small molecules

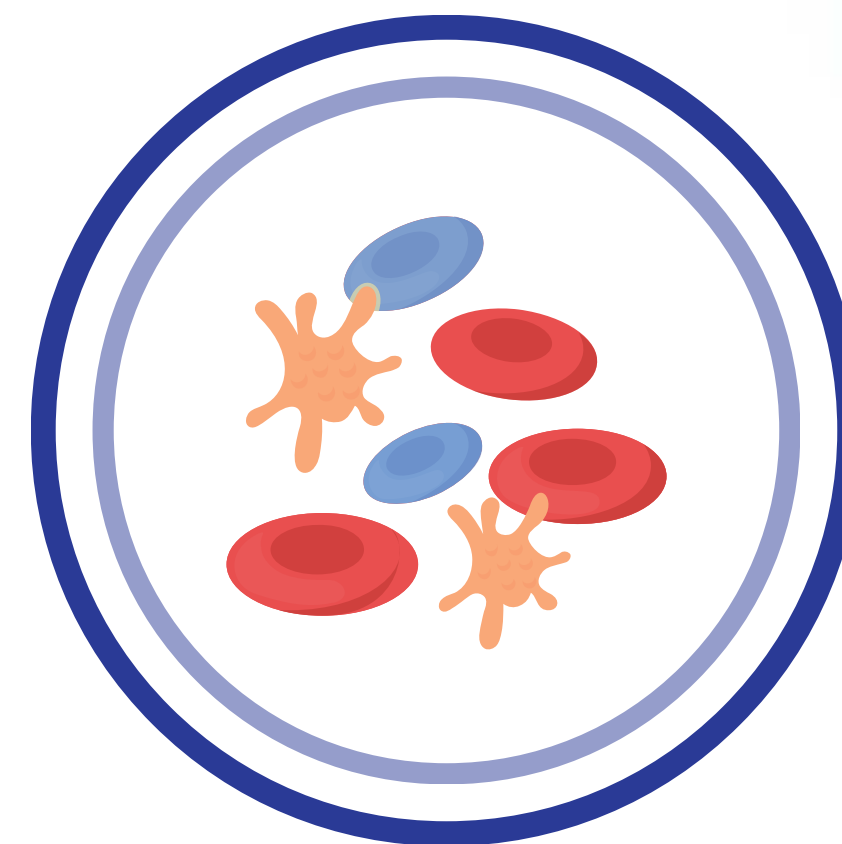


Biological molecules

Antibodies, peptides



Cellular and gene therapies





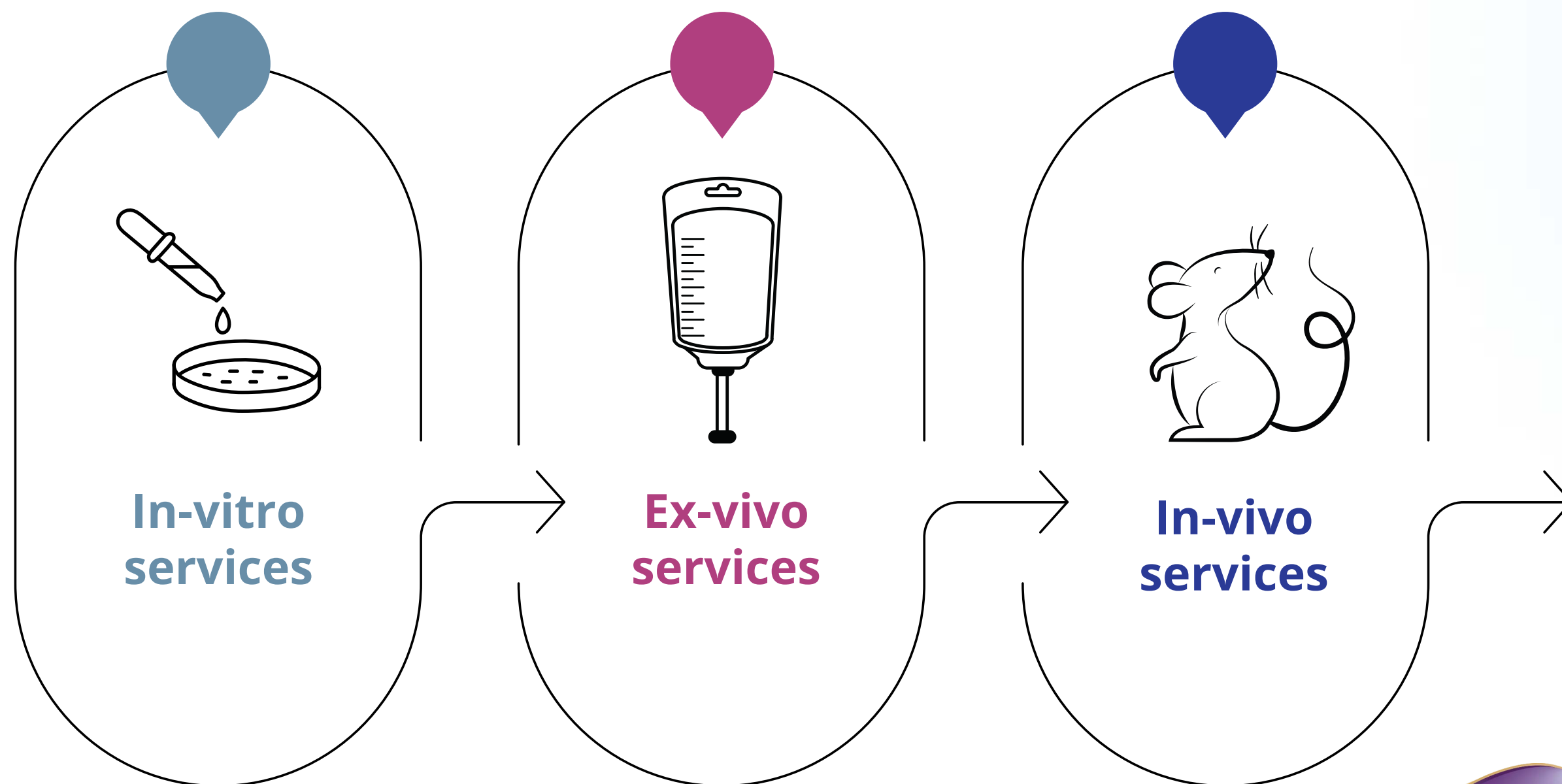
OUR SERVICES

Antineo's services



Optimize and accelerate
the development of our
customers' compounds

**Provide advices,
expertise and services**



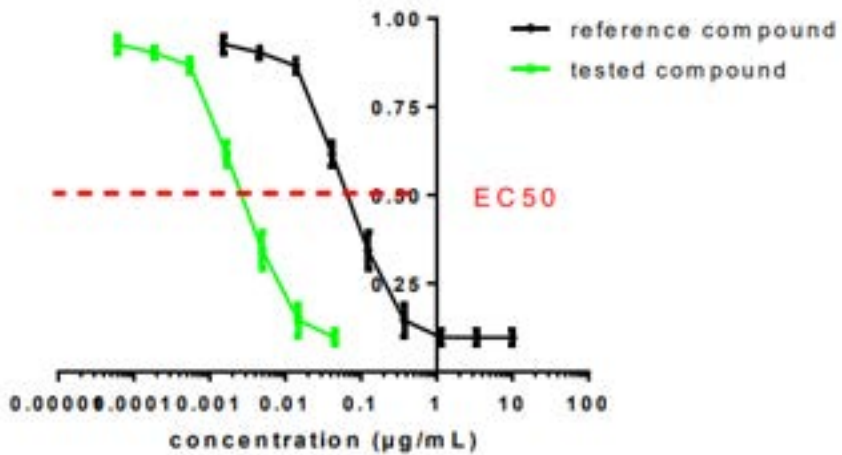
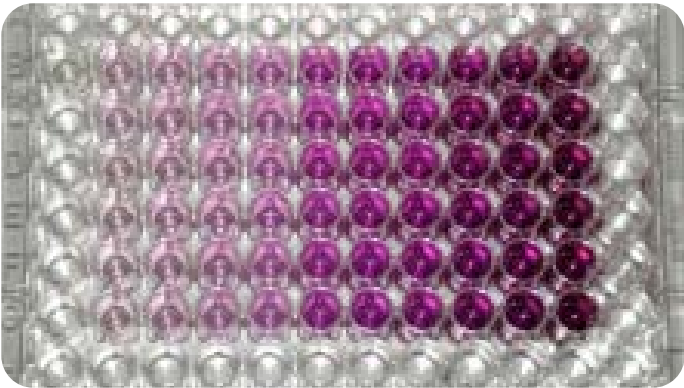
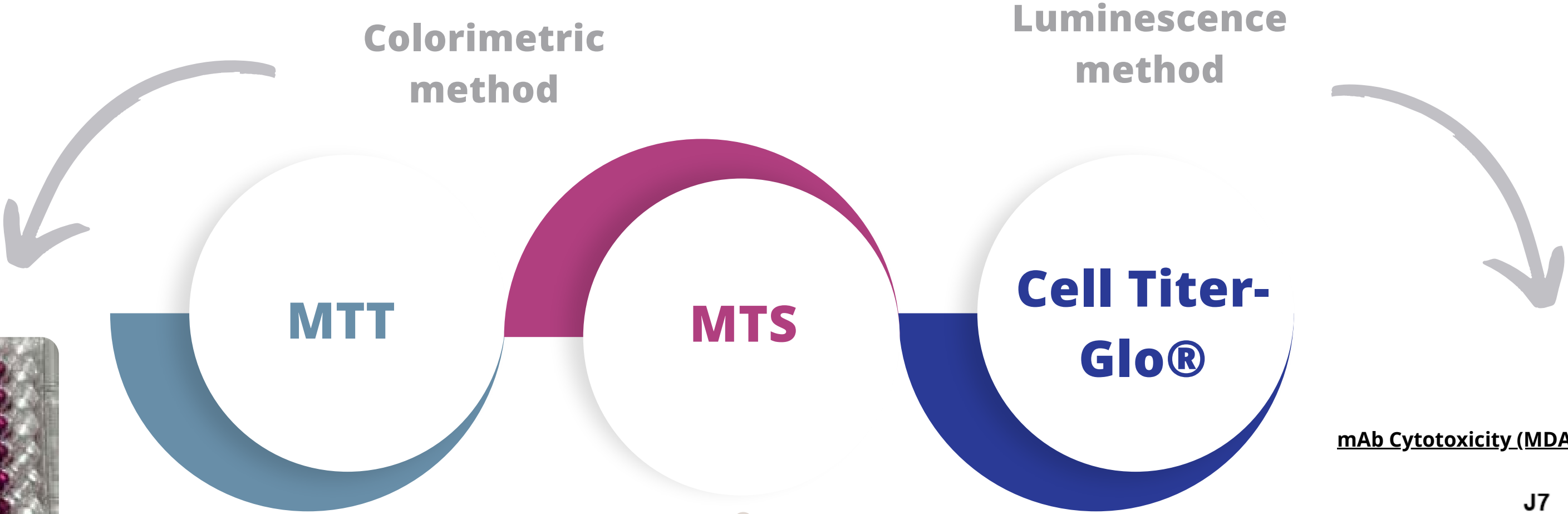


IN-VITRO SERVICES

Cytotoxicity assays

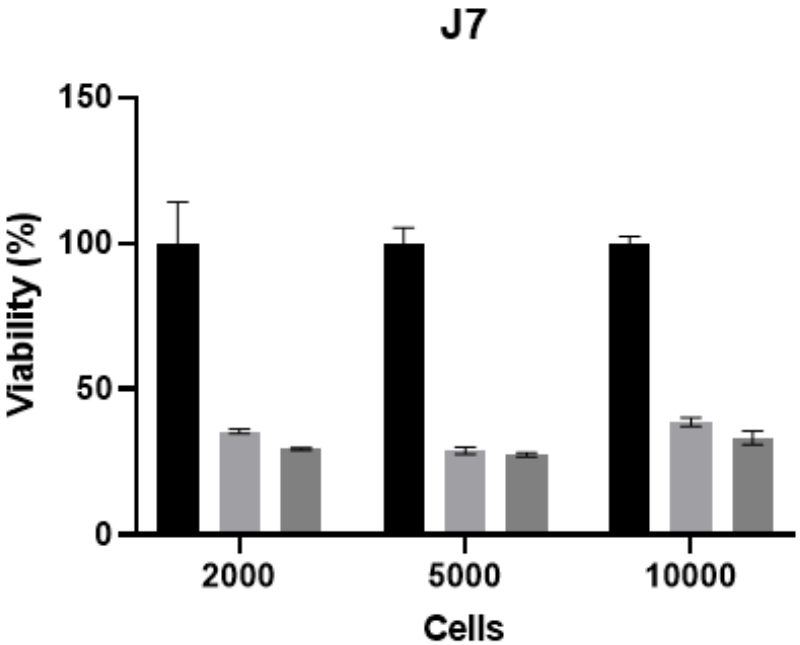


Determination of IC50 / EC50
Synergy / Antagonism assay



Cell viability / Cell metabolic activity /
Cytotoxicity / Cell proliferation

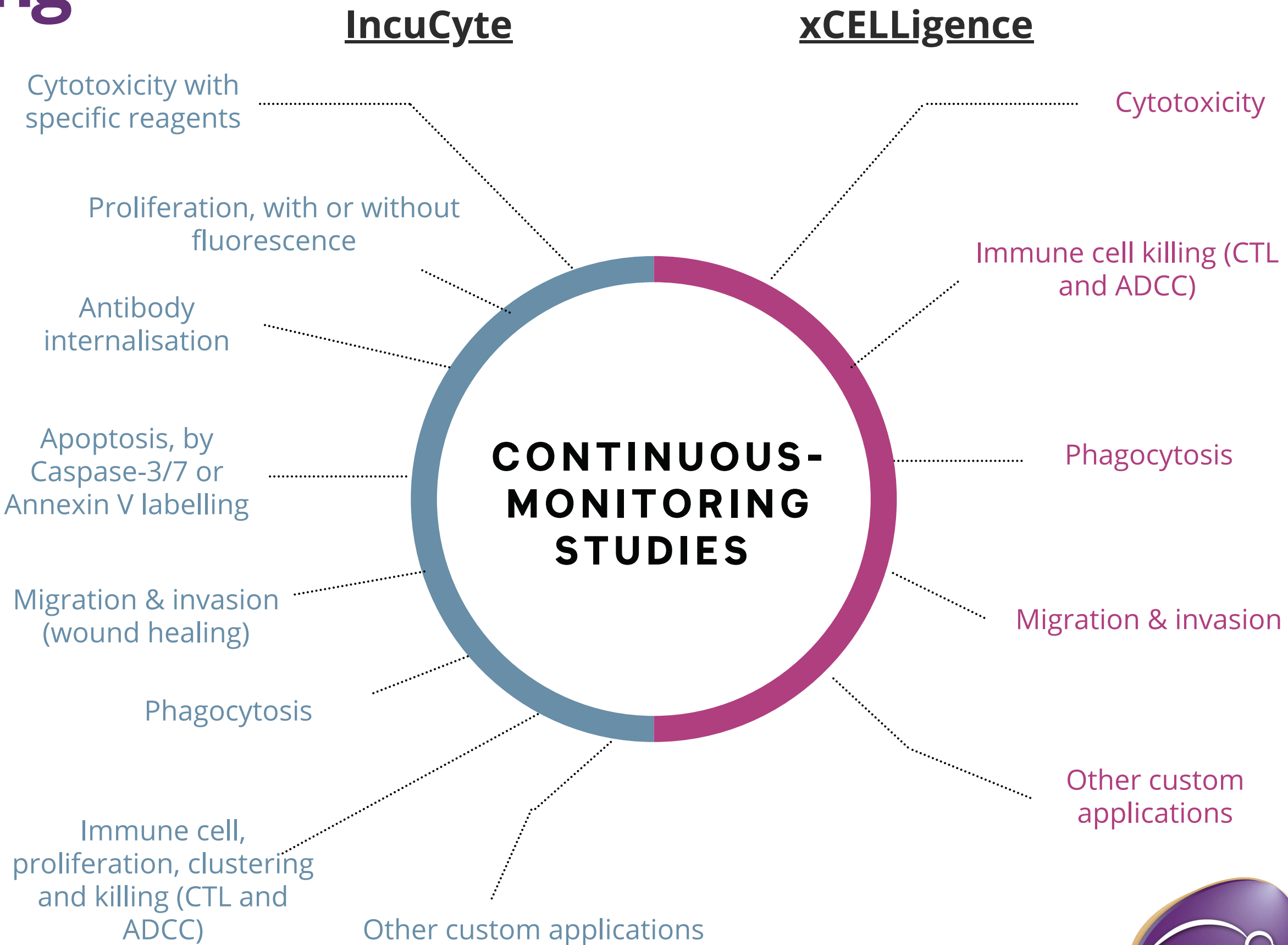
mAb Cytotoxicity (MDA-MB-231)



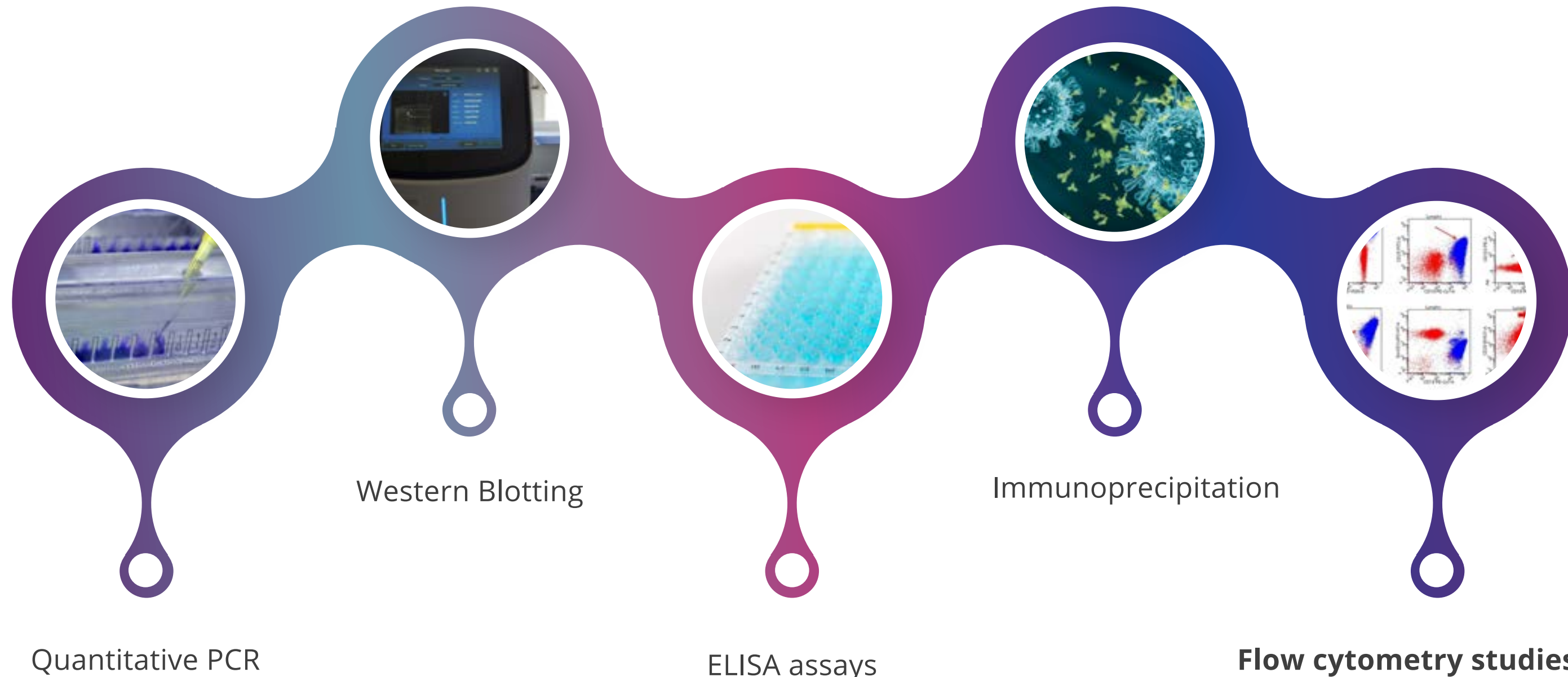
Continuous-monitoring studies



Realize a real-time analysis of a variety of cellular and immunological processes



Characterisation of samples



XXXXXXXXXX
XXXX
XXXX
XXXX



VS



4 panels : 16, 18, 22, 29 markers

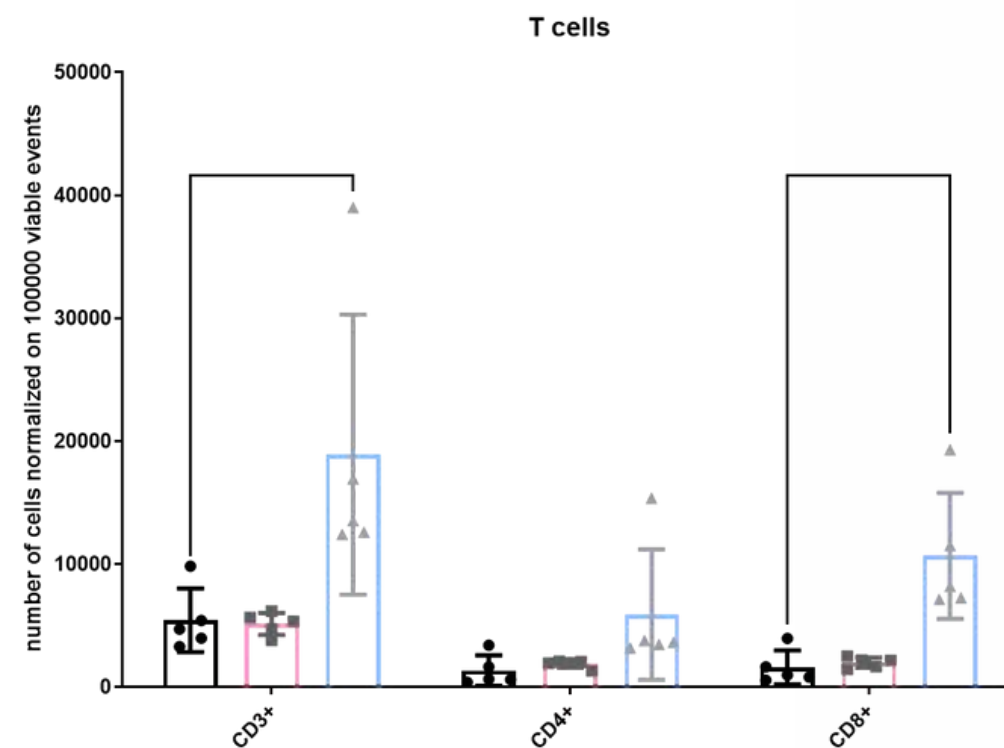
Number of cells normalized on 100000 viable events

Legend:

- MC38 WT
- MC38 aPD-1 R
- MC38 aPD-L1 R

Cell populations (X-axis):

- CD45+
- CD3+
- Non Treg
- CD4+
- CD4+ Tcm cells
- CD4+ Treg cells
- CD4+ Tnaive cells
- CD4+ Treg cm cells
- CD4+ Treg em cells
- CD4+CD8+
- NKT
- CD8+
- CD8+ Tcm cells
- CD8+ Tnaive cells
- CD11b+
- CD11b+ B cells
- CD19+
- CD19-
- CD11b+
- Ly6C+
- Ly6C+
- cdC
- others
- CD206+
- MHC II+
- TAM
- M1-iike
- M2-iike
- M-MDSC
- Sirpa+ MHC II+
- Sirpa+ MHC II+
- Sirpa+ MHC II+
- Sirpa+ MHC II+
- Ly6G+
- CD11b+
- gDC
- NK cells





EX-VIVO SERVICES

Immunology services



Isolate the cells of interest and characterise your target molecule by Flow Cytometry

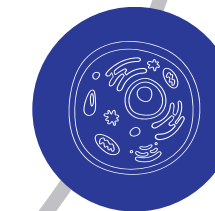
- **Analysis on fresh samples** : on blood products (blood bags) and by products (buffy coat)
- Most assays can be performed as **end point** and **continuous-monitoring** studies



T cell based assays



Myeloid Cells based assays



ADCC assays with fresh NK cells



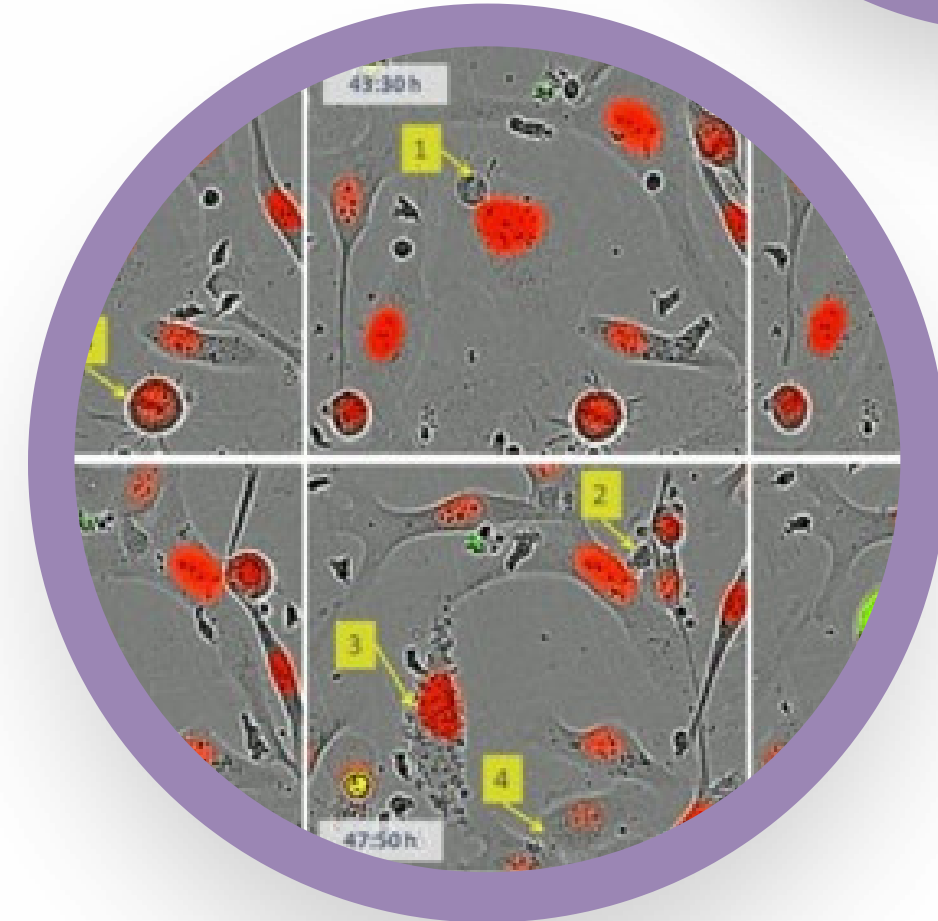
ADCP assays with fresh myeloid cells

Development of immunotherapies



Highlight the target and decipher the mechanisms of action of therapeutic antibodies

- **Immunology ex vivo assays** (T cell activation by IFN γ measurements, CTL assays, Macrophage polarisation etc.)
- In vitro or ex vivo **ADCC, ADCP and CDC assays** (calcein release)
- Original methods for **in vivo assessment of ADCC and CDC activities**
- Original in vitro and in vivo assays for **bispecific antibodies** (anti-CD3)
- A unique panel of tumour models presenting **secondary resistances to immunotherapies**





IN-VIVO SERVICES

Standard of care therapies

- As reference for the tested compound
- For comparison studies
- For combinaison / synergy studies

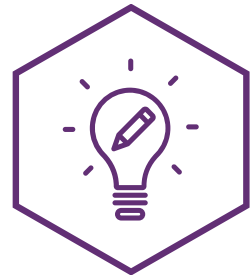
Choice of tumor models

- 100+ cell-derived xenograft models
- 40 murine syngeneic models for immuno-oncology
- Subcutaneous or orthotopic implantation

Protocol adapted to our clients' compounds

- Route (IV / IP / PO)
- Galenic formulations (liposome encapsulation)
- Schedule of injection
- Schedule and duration of follow-up
- Weekly updates
- Choice of end-point (with control or individual ethical end-points)

In-vivo analysis



Recommendations on the choice of the best indication and model



Systemic and haematological toxicity of your compounds in rodents (VetScan / MS9)



Pharmacokinetics properties in mouse and rat



Antitumor efficacy in human or mice tumour models



Combination / comparison with gold standards



Demonstrate the antitumor activity of a novel agent in animal models, as well as defining the dosage and schedule that is both efficient and non-toxic



Orthotopic models*



Immunophenotyping of the tumour micro environment



An original offer of secondary resistances to reference therapies (CDX and syngeneic)



The development of models of resistance

* [Denis, M. \(2021\). Impact of mouse model tumor implantation site on acquired resistance to anti-PD-1 immune checkpoint therapy.](#)



ORIGINAL RESISTANT TUMOR MODELS

CDX Models

Lymphoma

- Follicular Lymphoma - (RL model : *Rituximab* / *GA101* / *R-CHOP* / *R-DHAP*)
- Mantle Cells Lymphoma - (Granta model : *Rituximab*)
- Diffuse large B cells lymphoma - (Toledo model : *Rituximab*)
- Burkitt's lymphoma - (Raji model : *Rituximab*) / Daudi model : *cal101*)

Myeloma

Plasma cells myeloma
RPMI8226 model

- *Daratumumab*

Breast

Tubular Adenocarcinoma
BT474

- *T-DM1*

MDA-MB-361 model

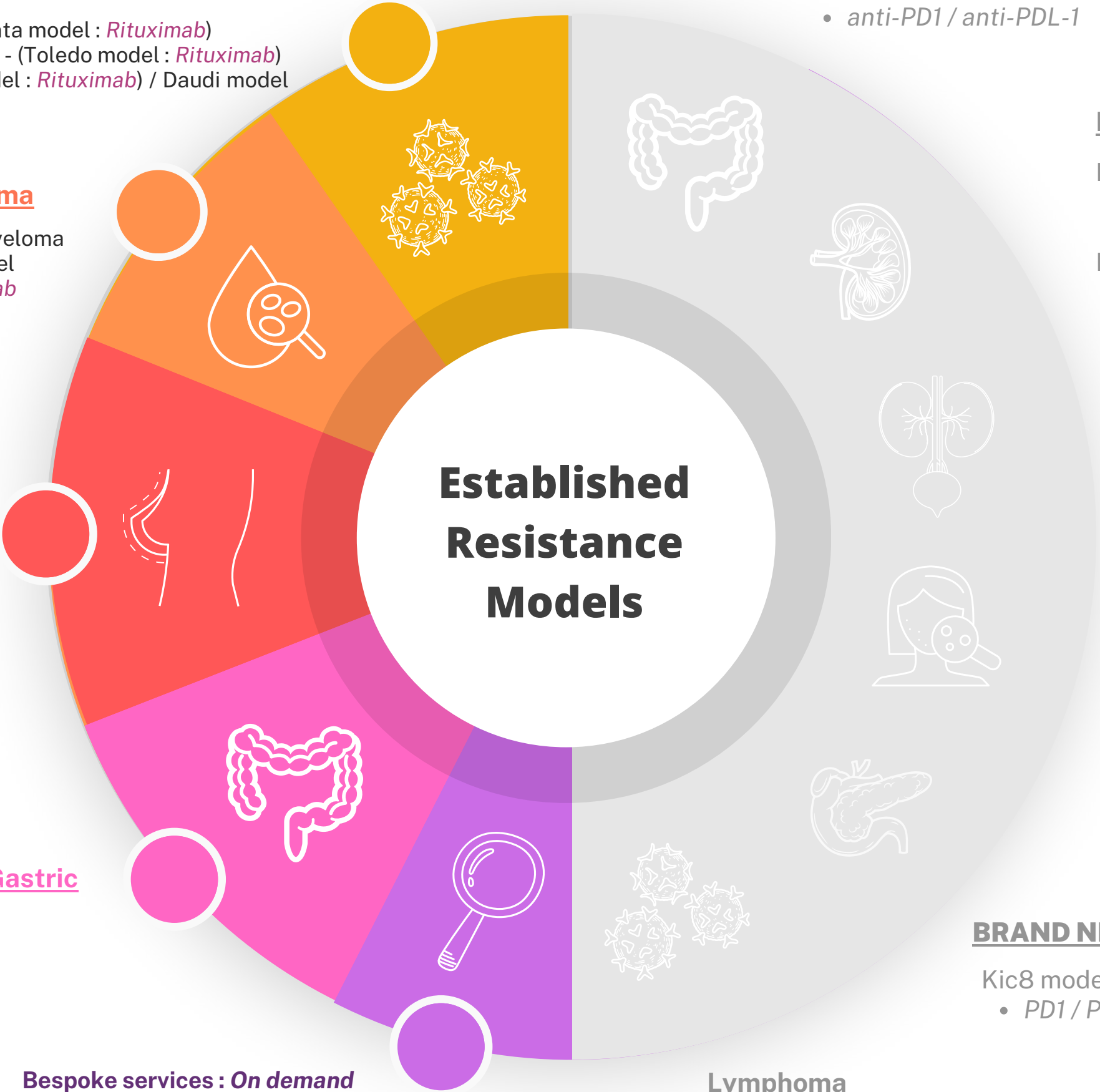
- *Trastuzumab* *T-DM1*

Colorectal / Gastric

Gastric carcinoma
NCI-N87

- *Trastuzumab*

**Bespoke services : On demand
development of resistant models
(Syngeneic or CDX models)**



Colon

MC38 model

- *anti-PD1* / *anti-PDL-1*

Syngeneic Models

Bladder

MBT-2 model

- *anti-PD1*

MB49 model

- *anti-PD1* / *anti-PDL-1*

Kidney

RENCA model

- *anti-PD1* / *anti-PDL-1*

Melanoma

B-raf

- *anti-PD1* / *anti-PDL-1*

N-Ras

- *anti-PD1* / *anti-PDL-1*

Tyr N-Ras models

- *anti-PD1* / *anti-PDL-1*

BRAND NEW : Pancreas

Kic8 model

- *PD1* / *PDL1* / *Gemcitabine*

Lymphoma

P388 model

- *anti-PD1* / *anti-PDL-1*

CDX Models

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Myeloma

Plasma cells myeloma
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Breast

Tubular Adenocarcinoma
BT474

- *T-DM1*

MDA-MB-361 model

- *Trastuzumab T-DM1*

Colorectal / Gastric

Gastric carcinoma
NCI-N87

- *Trastuzumab*

Bespoke services : *On demand development of resistant models (Syngeneic or CDX models)*

Lymphoma

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- *anti-PD1* / *anti-PDL-1*

BRAND NEW : Pancreas

Kic8 model

- *PD1* / *PDL1* / *Gemcitabine*

Lymphoma

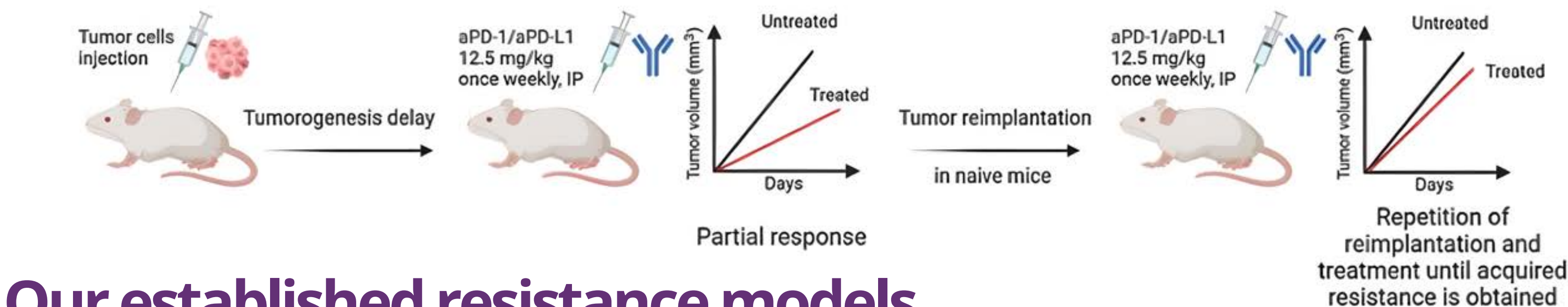
P388 model

- *anti-PD1* / *anti-PDL-1*

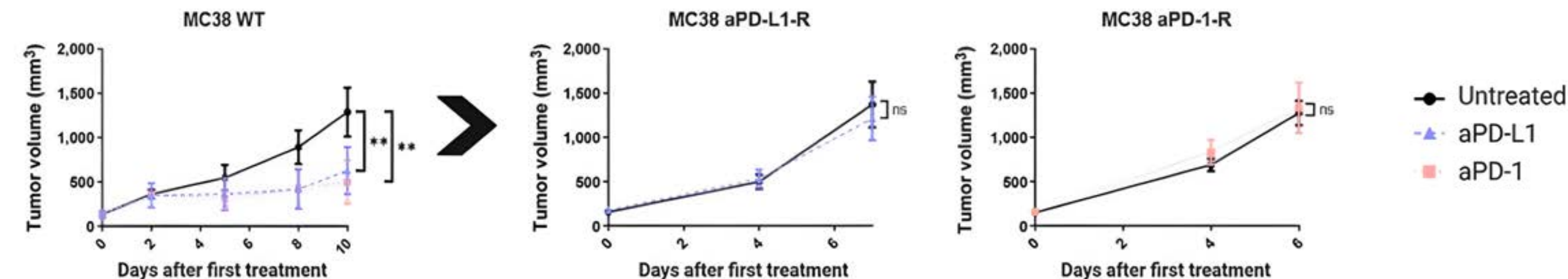
Syngeneic Models

Established
Resistance
Models

Acquired resistance to anti-PD(L)1



Our established resistance models



* Denis, M. (2021). *Impact of mouse model tumor implantation site on acquired resistance to anti-PD-1 immune checkpoint therapy*.



Partner platforms



CIQLE

Microscopy platform for
Immunohistochemistry
(IHC)



IMTHERNAT

PET-Scan
(Radiolabelling)



**PROFIL
EXPERT**

High throughput
sequencing,
microdissection and
single cell technologies

HawkCell

Platform for Magnetic
Resonance Imaging
(MRI)



ANAQUANT

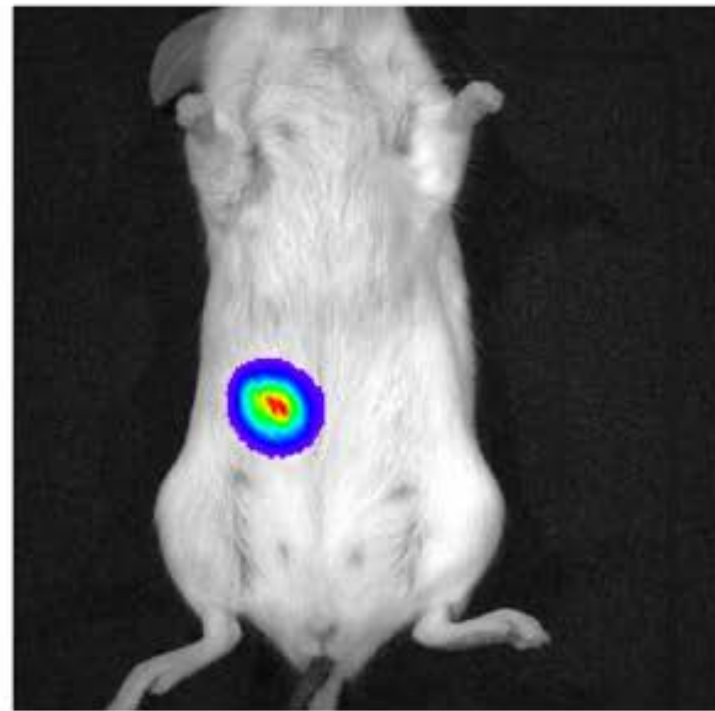
Detection and
quantification of
proteins by mass
spectrometry



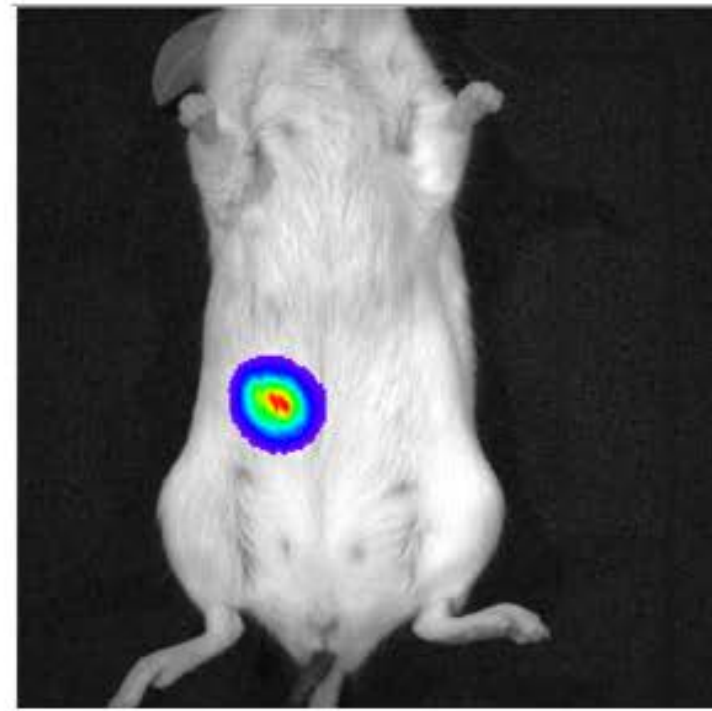
OUR NEWS

Imageur - IVIS® Lumina Series III

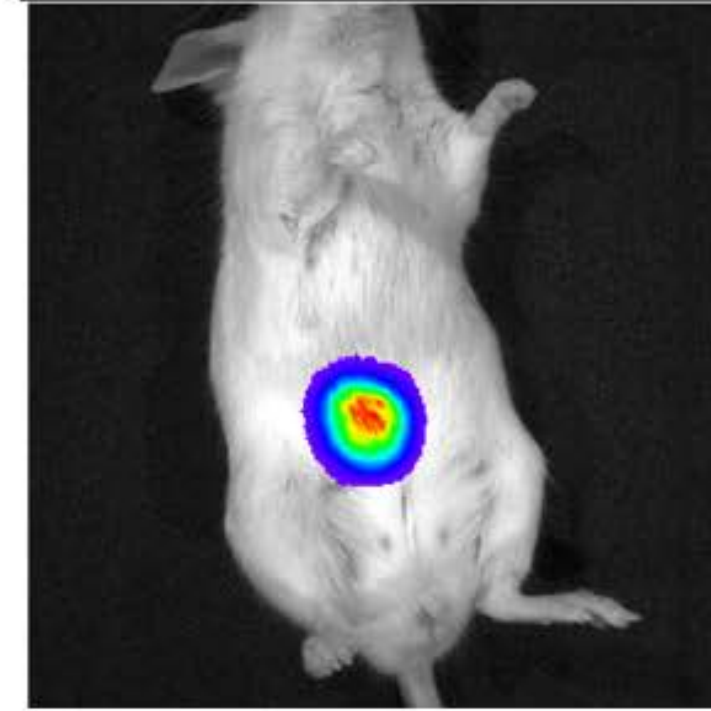
MDA-MB-231 cell line



15/03/2023



23/03/2023



30/03/2023



- **In vivo and 3D imaging** of the tumors/metastasis
- **Precise tumor monitoring and follow-up**
- **Animal saving**



Hepatic metastases of an
MDA-MB-231 Luciferase
(+) model by intrasplenic
implantation

April 2023

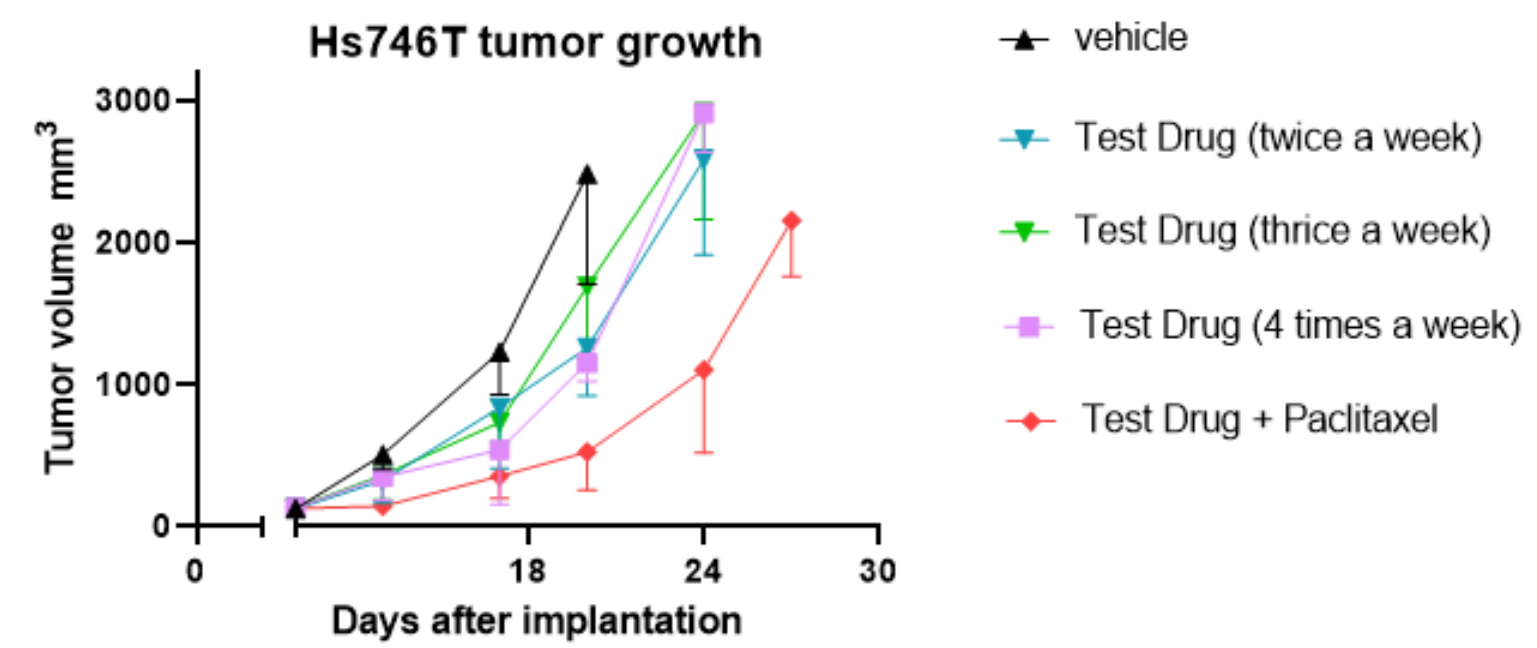
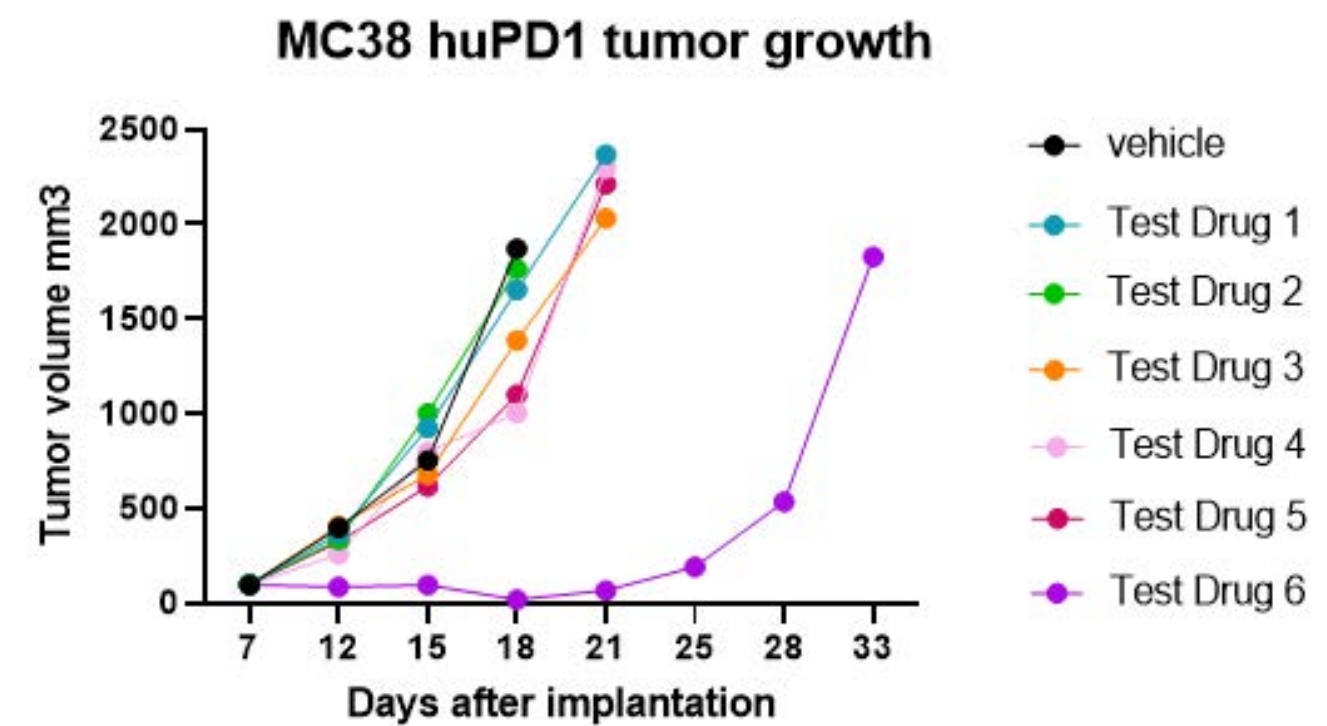
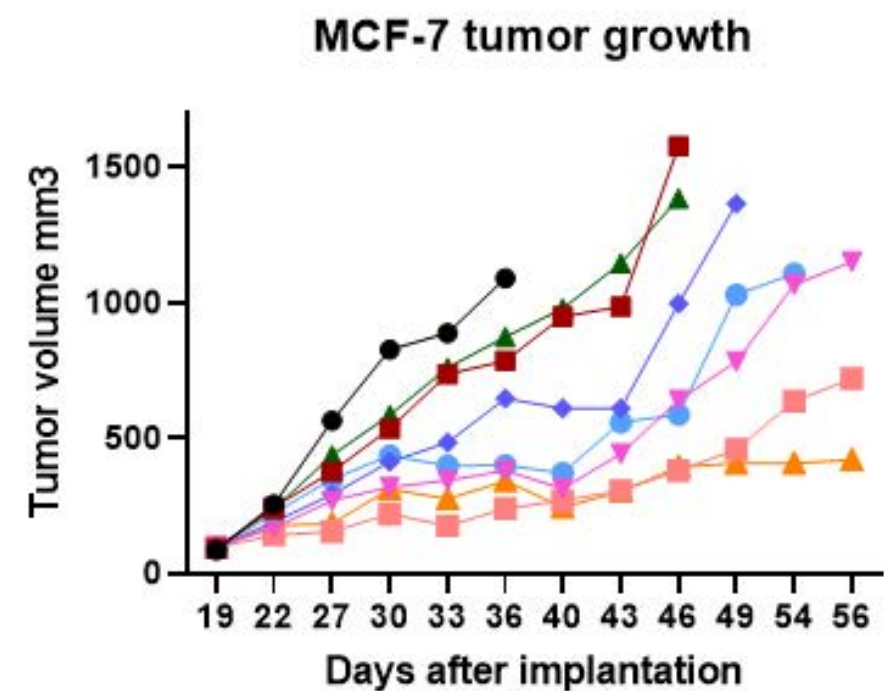
Corporate presentation

Antineo

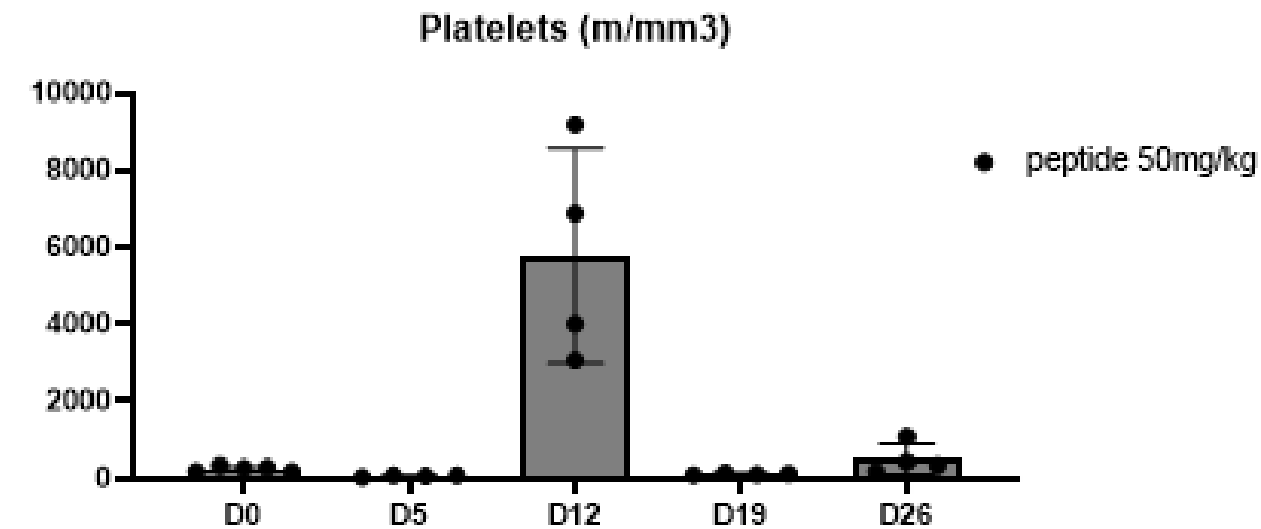
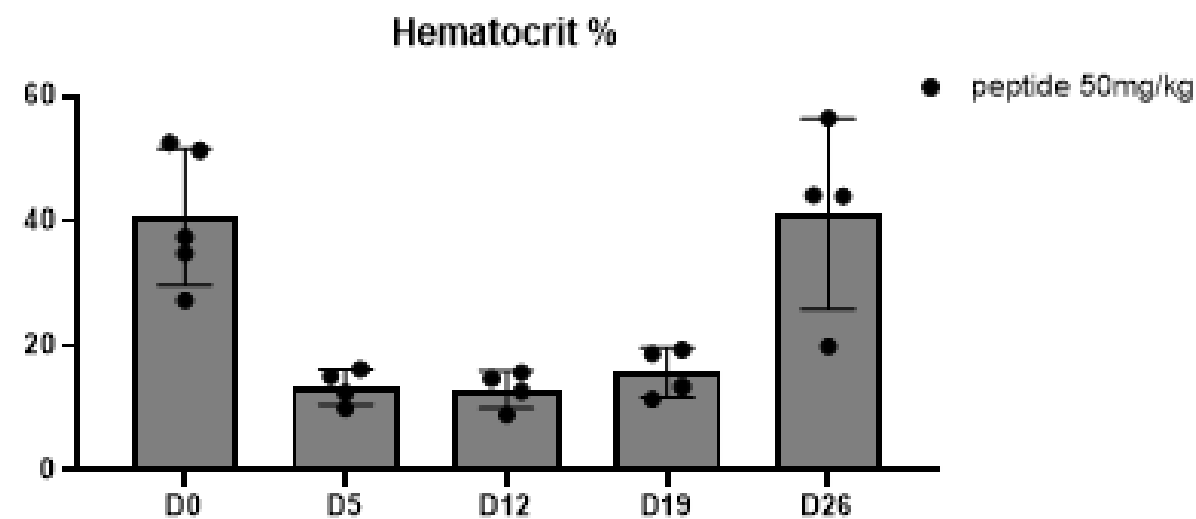
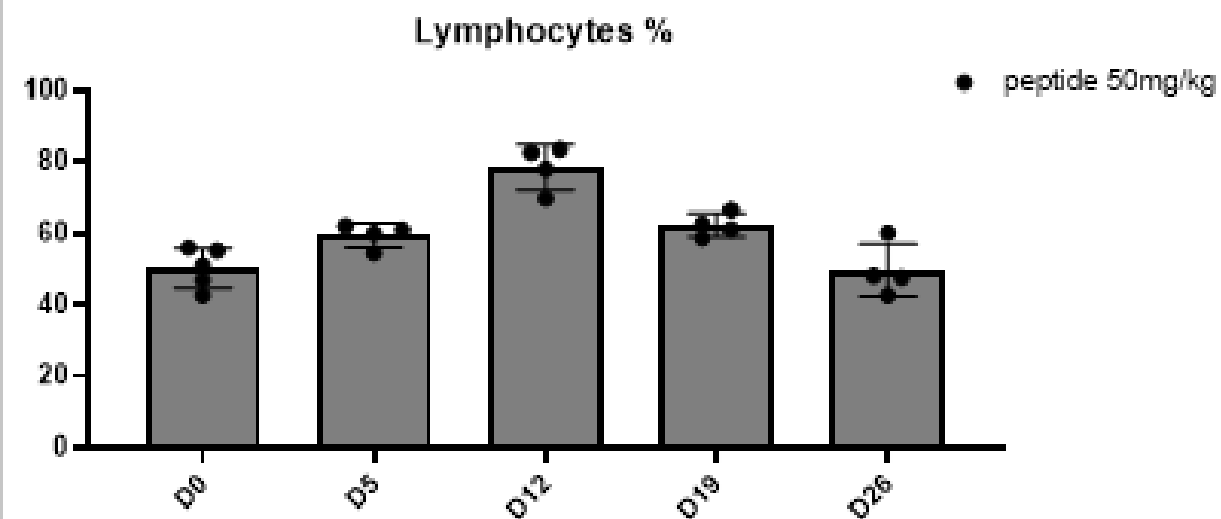


CASE STUDIES

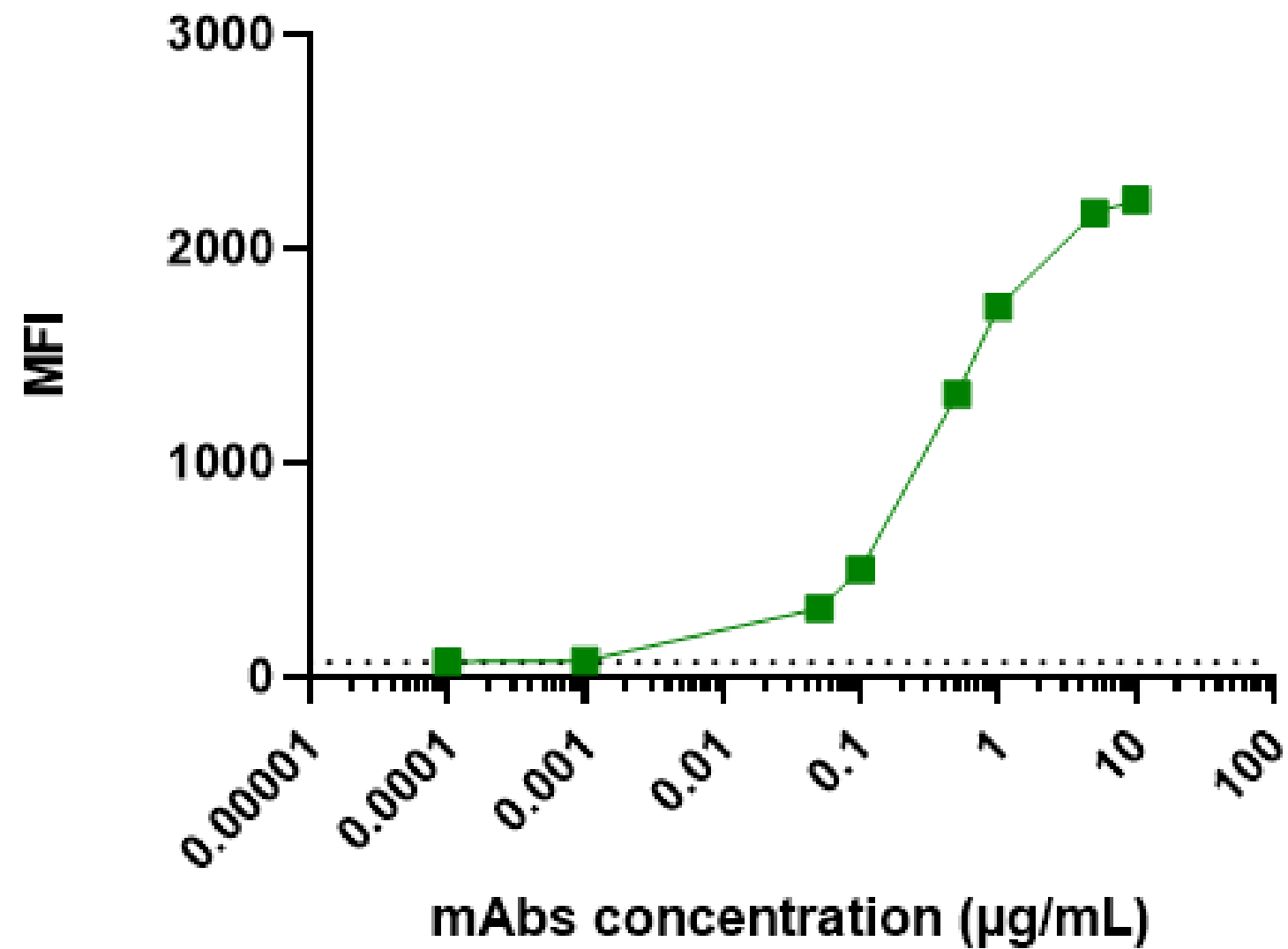
Efficiency study



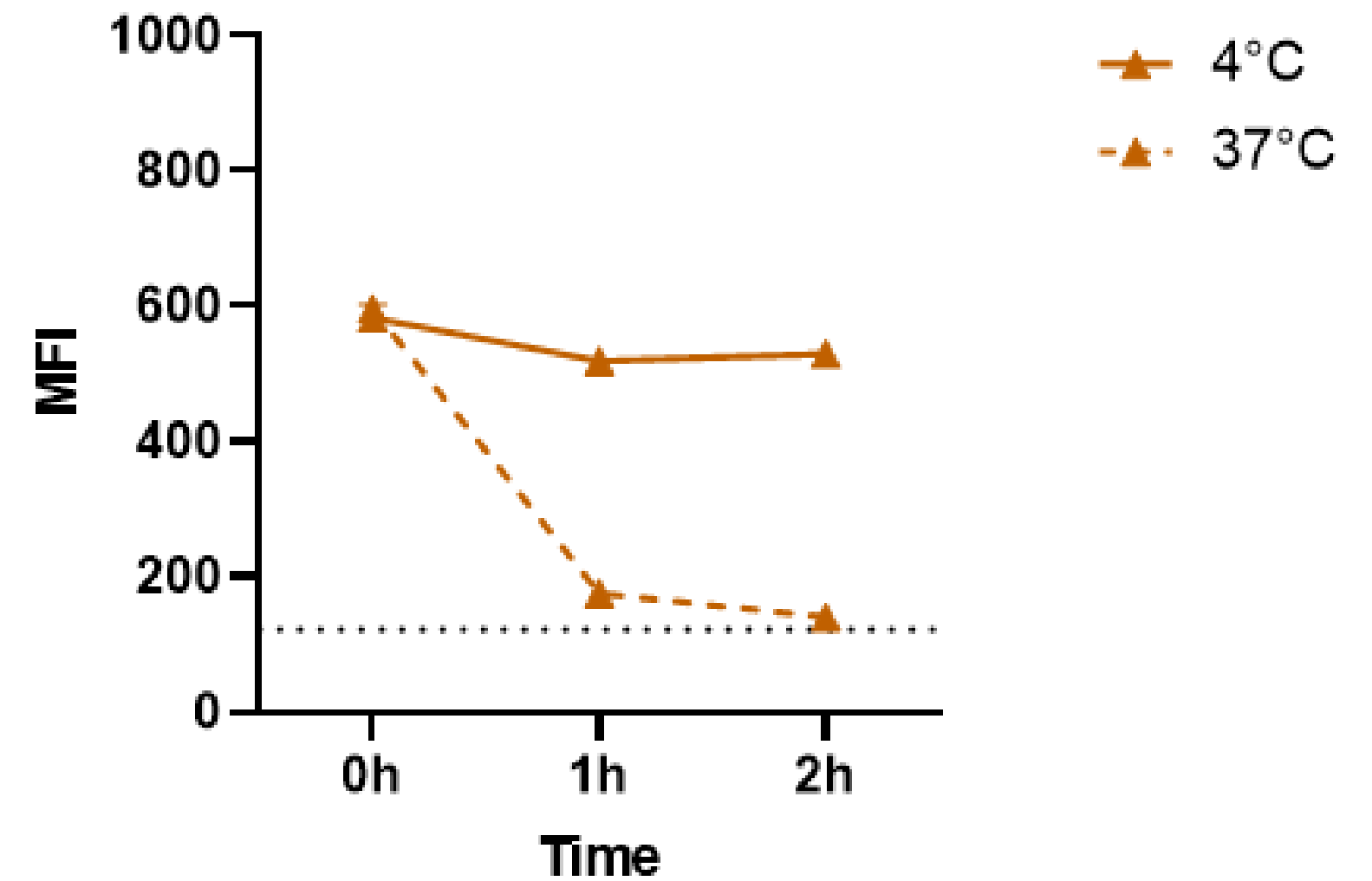
Toxicity study – Haematological analysis



mAb Titration assay (SK-BR3)

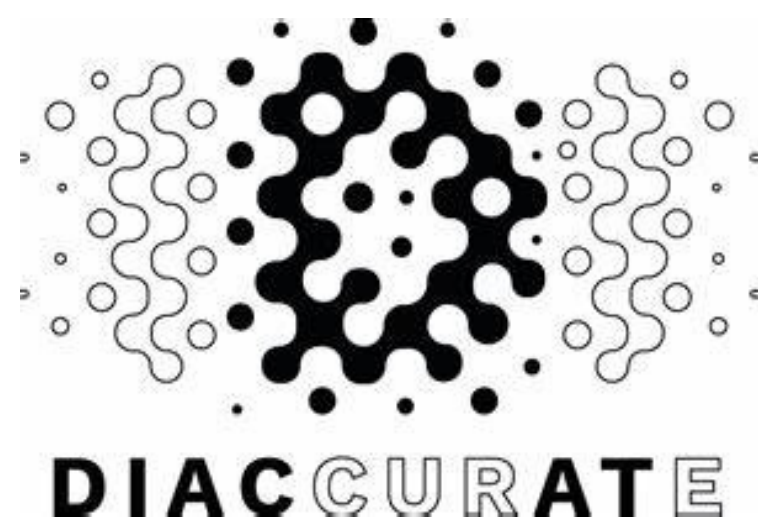


mAb Internalization assay (SK-BR3)





**THEY
TRUST US!**



THANK YOU!



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 [Antineo](https://www.linkedin.com/company/antineo)