

**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

BioParc Rockefeller
Bâtiment BIOSERRA 2
Lyon

Regulation

- CIR agreement 2020-2025
- 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

- 200+ studies
- 40 sponsors
- 6 ongoing partnerships





OUR TEAM



Renaud Marin-Sidgwick
CEO



Charles Dumontet, MD-PhD
CSO - Consultant



Marie Tautou, PhD
Study Director
Head of Business Development



Charline Perrouin
Business Development Manager
Head of Communications



Doriane Mathé
Study Manager



Pierre-Antoine Choffour
Study Manager



Marine Fellmann
Study Manager



Jean-Philippe Druet
Executive Assistant



Mickaël Zergane
Study Assistant



Jade Ruard
Study Assistant



Stecy Chhor
Study Assistant



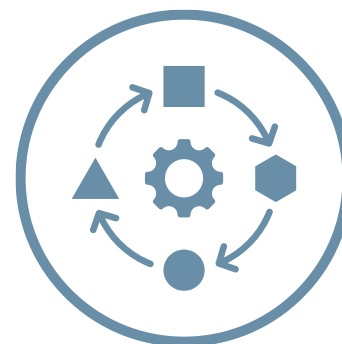
Aurélie Cadiou
PhD student



Flore Sarraute
Apprentice



OUR STRENGTHS



OUR VERSATILITY

The reactivity, adaptability and flexibility of a human-sized compagny.



OUR PERSONALIZED ADVICE

A Scientific Advisory Board of clinical experts to understand your needs and projects.



SECONDARY RESISTANCE MODELS

Secondary resistance models to standards of care established and characterized through RNAseq and immunophenotyping of the tumor microenvironment.



OUR COMPETITIVE PRICES

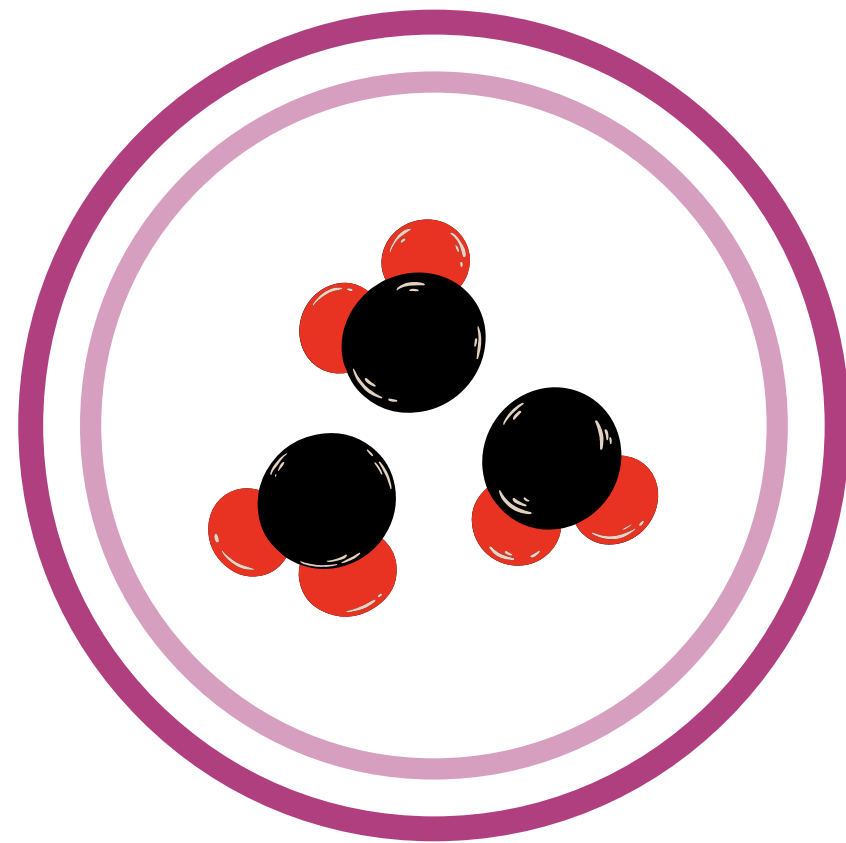
To provide our customers with excellent value for money compared to the competition.



THERAPEUTIC AREAS

Oncology and immuno-oncology

Small molecules



Biological molecules

Antibodies, peptides



Cellular and gene therapies





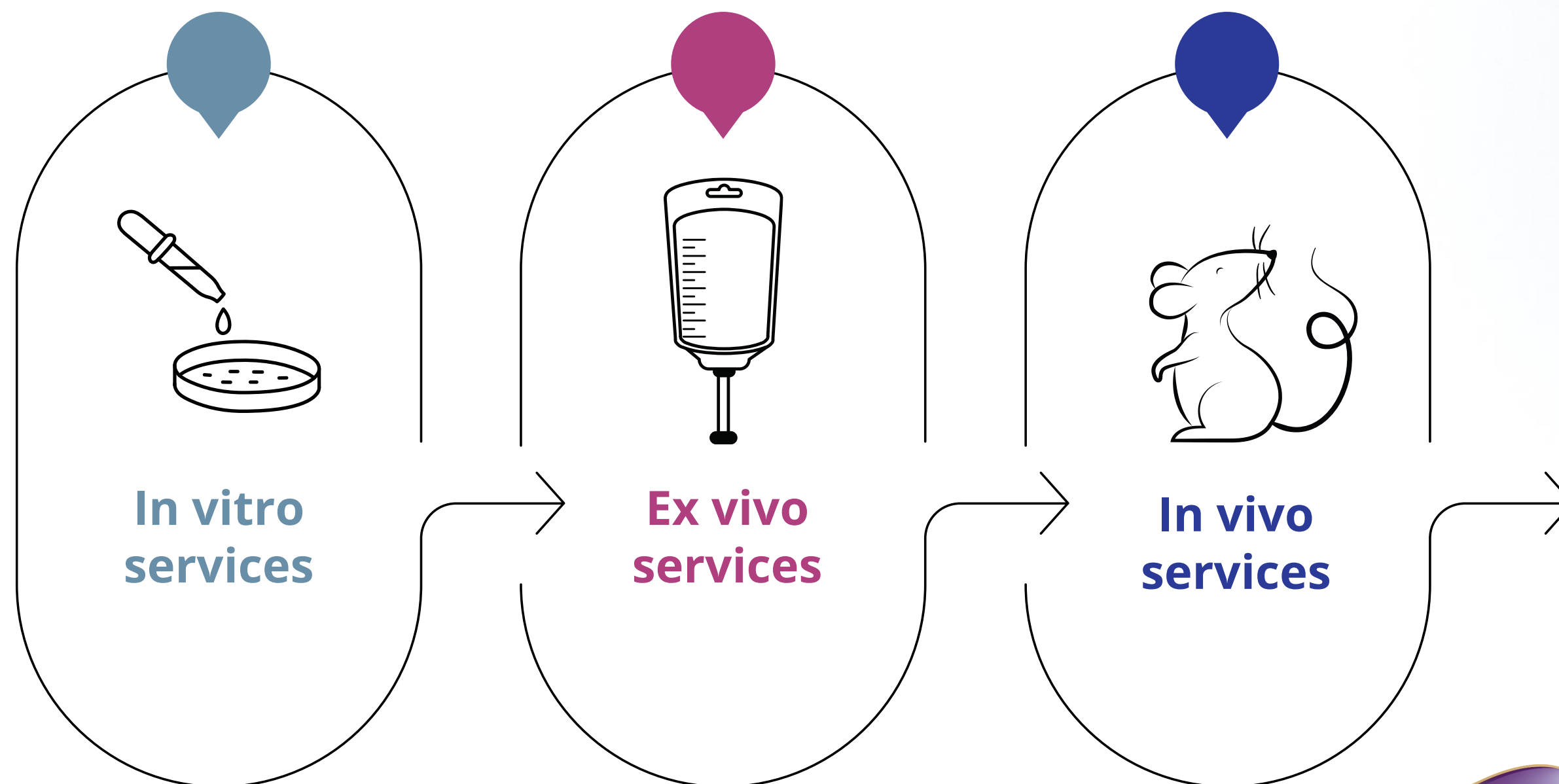
OUR SERVICES

Antineo's services



Optimize and accelerate
the development of our
customers' compounds

**Provide advice, expertise
and services**



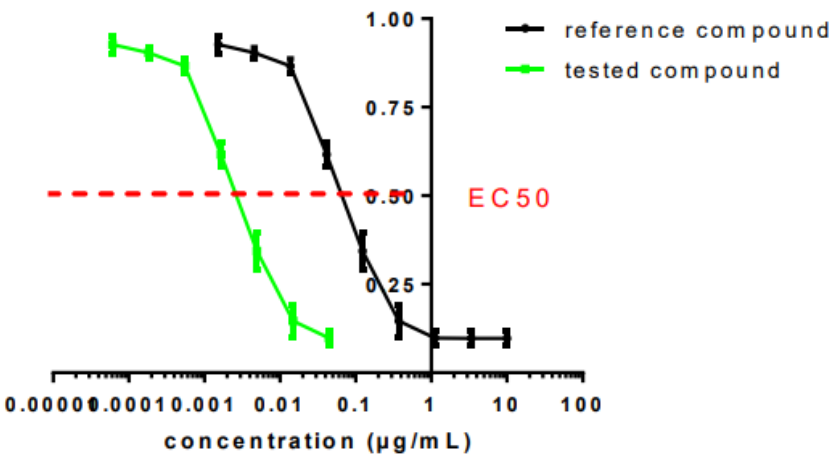
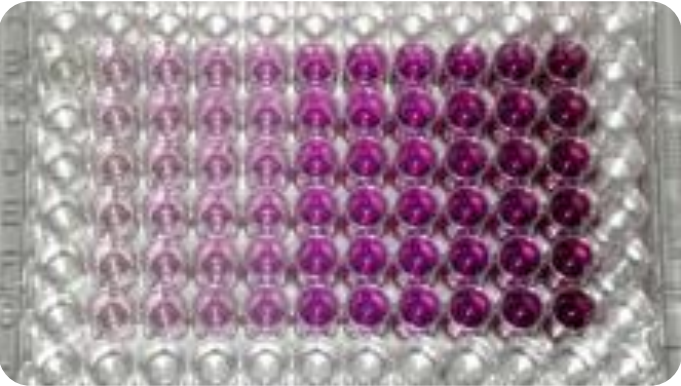
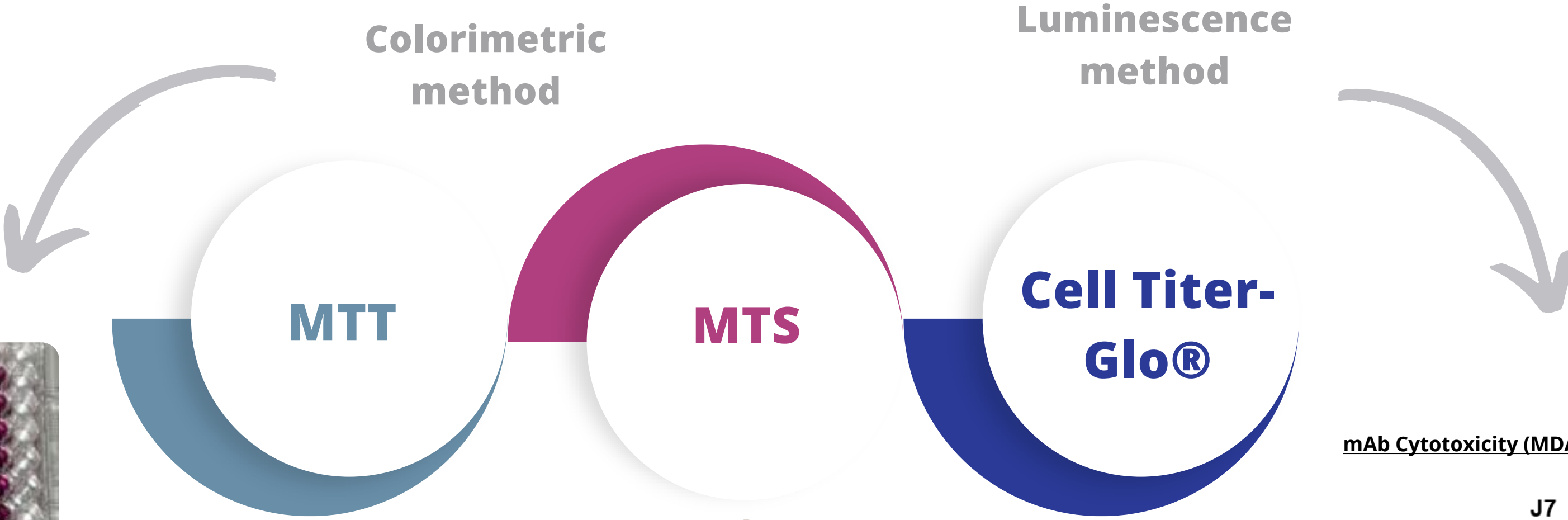


IN VITRO SERVICES

Cytotoxicity assays

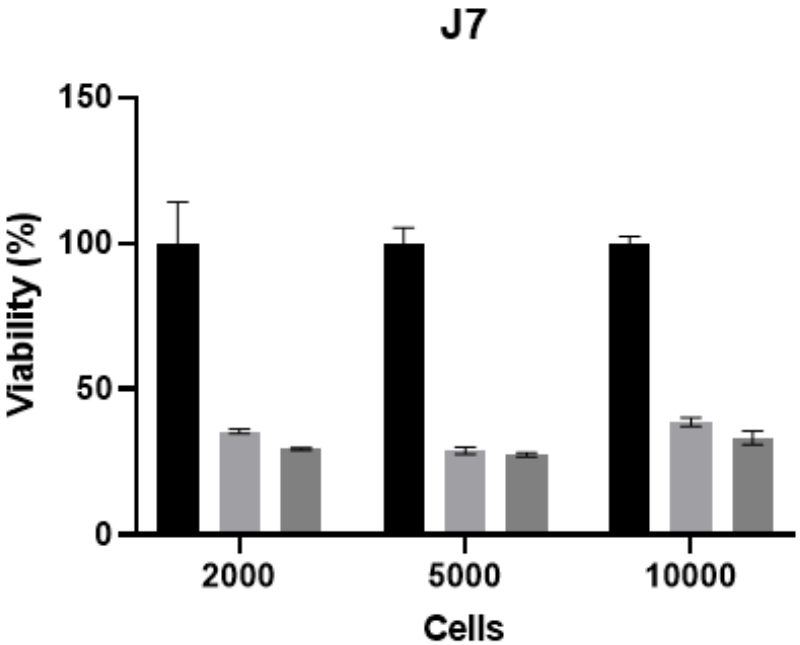


Determination of IC50 / EC50
Synergy / Antagonism assay



Cell viability / Cell metabolic activity /
Cytotoxicity / Cell proliferation

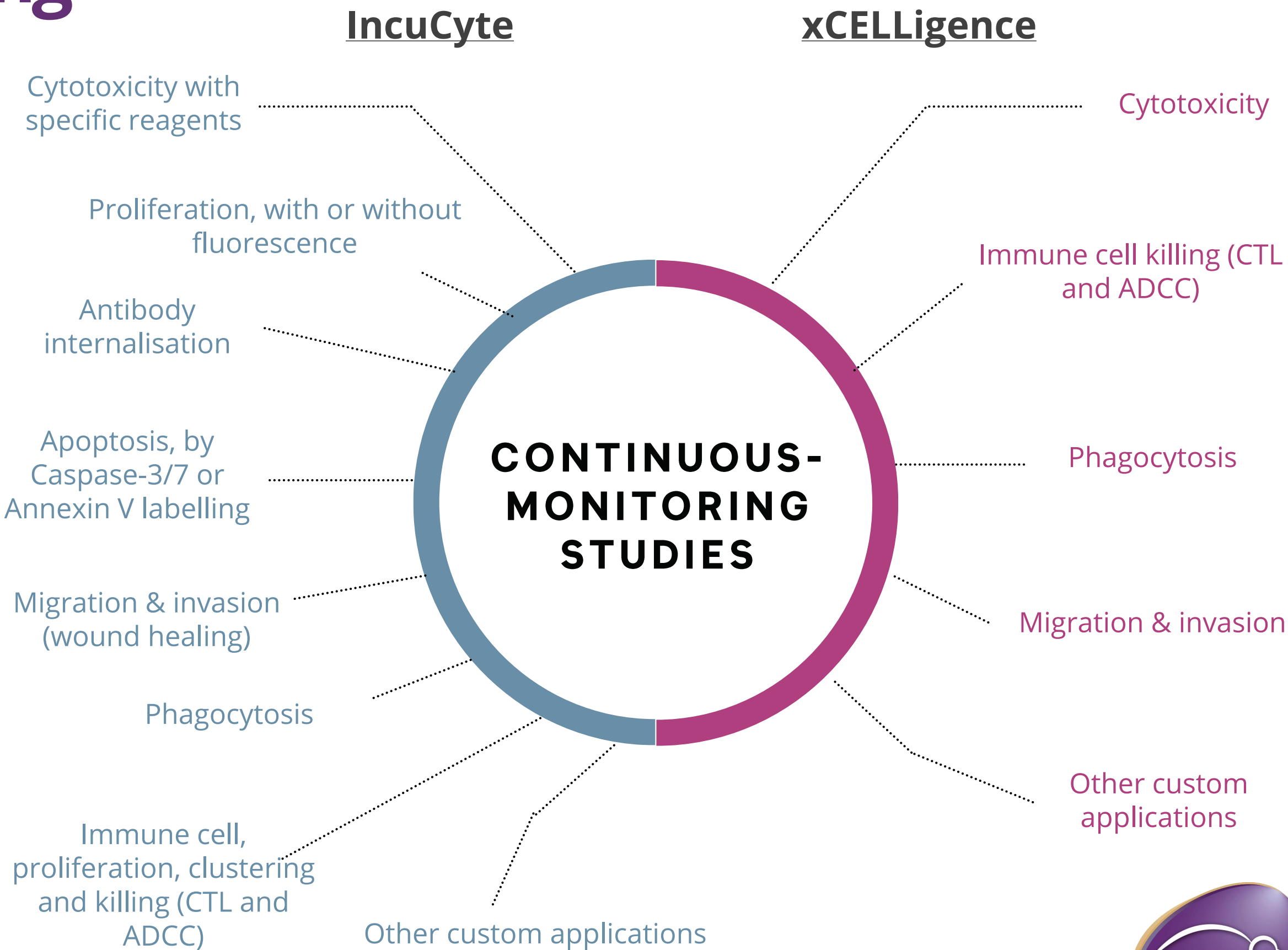
mAb Cytotoxicity (MDA-MB-231)



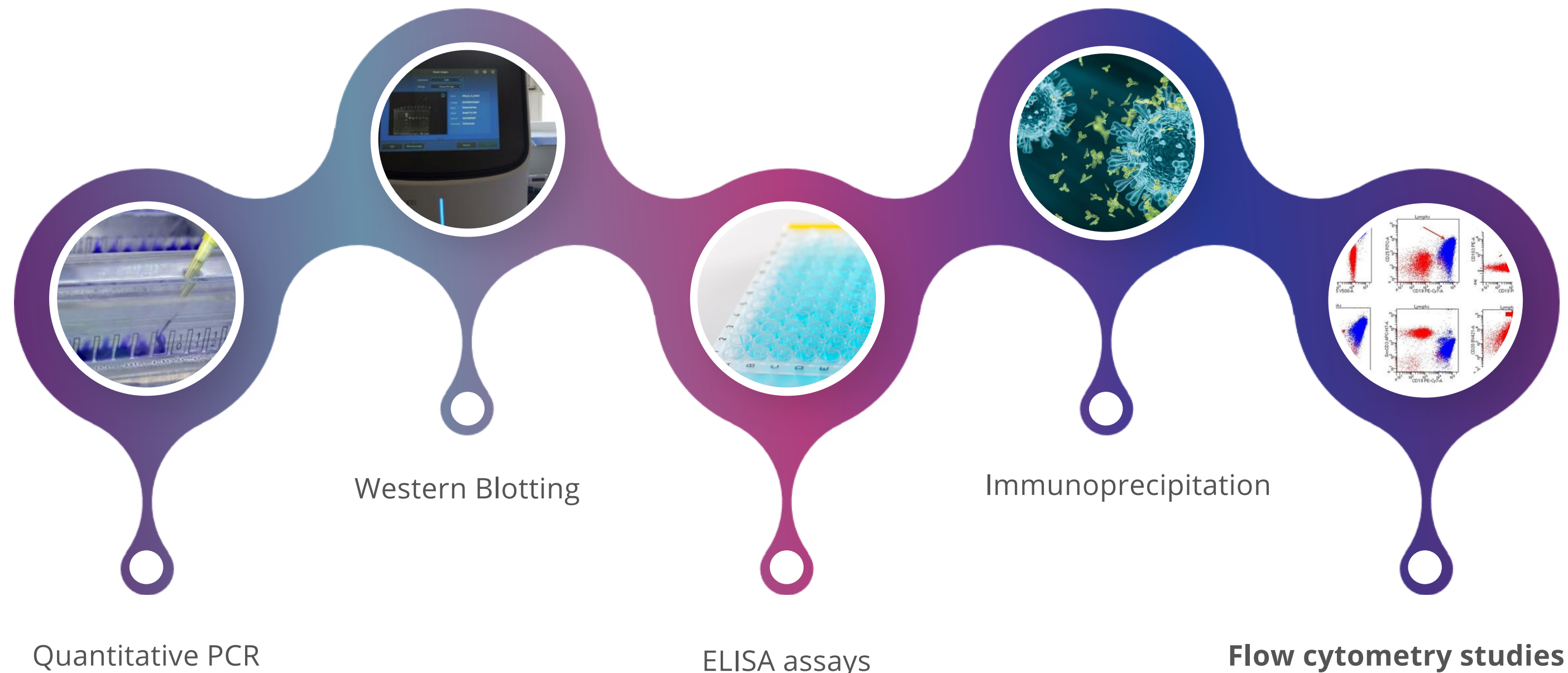
Continuous-monitoring studies



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



Characterisation of samples



Flow Cytometry - (FACS)



Qualitative and quantitative
multiparametric analyses

BD FACS CANTO™

Classical

3 lasers : 8 markers* maximum

LSR FORTRESSA™

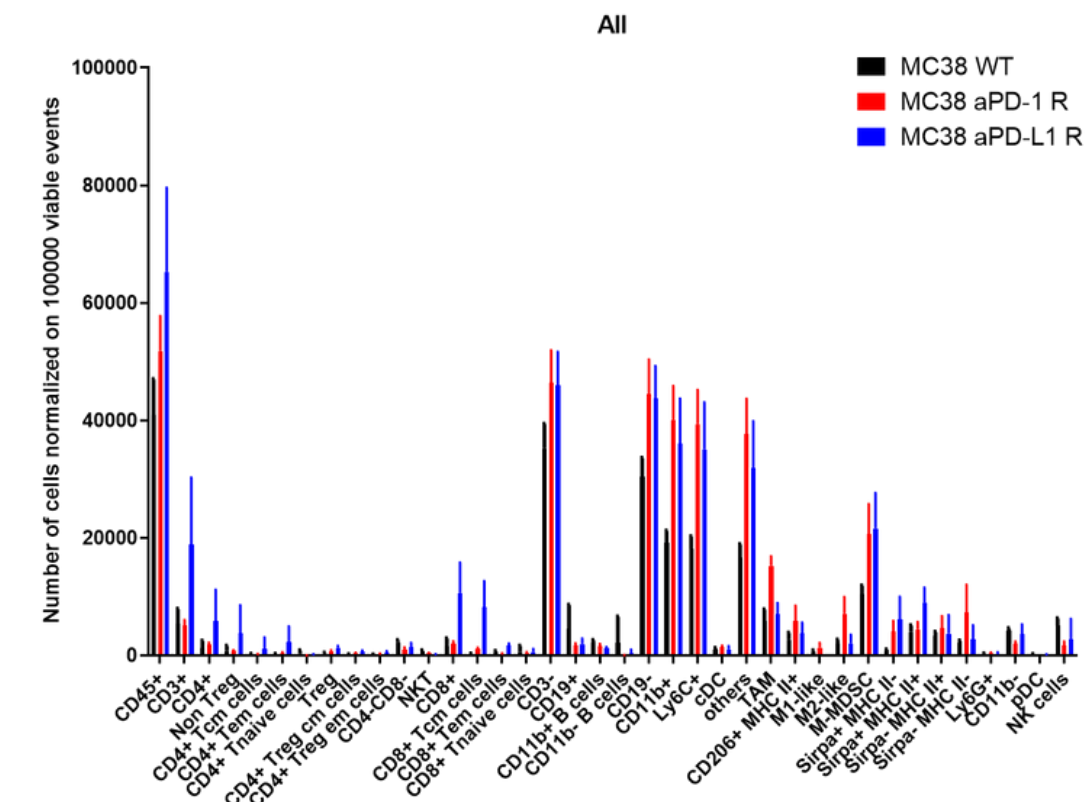
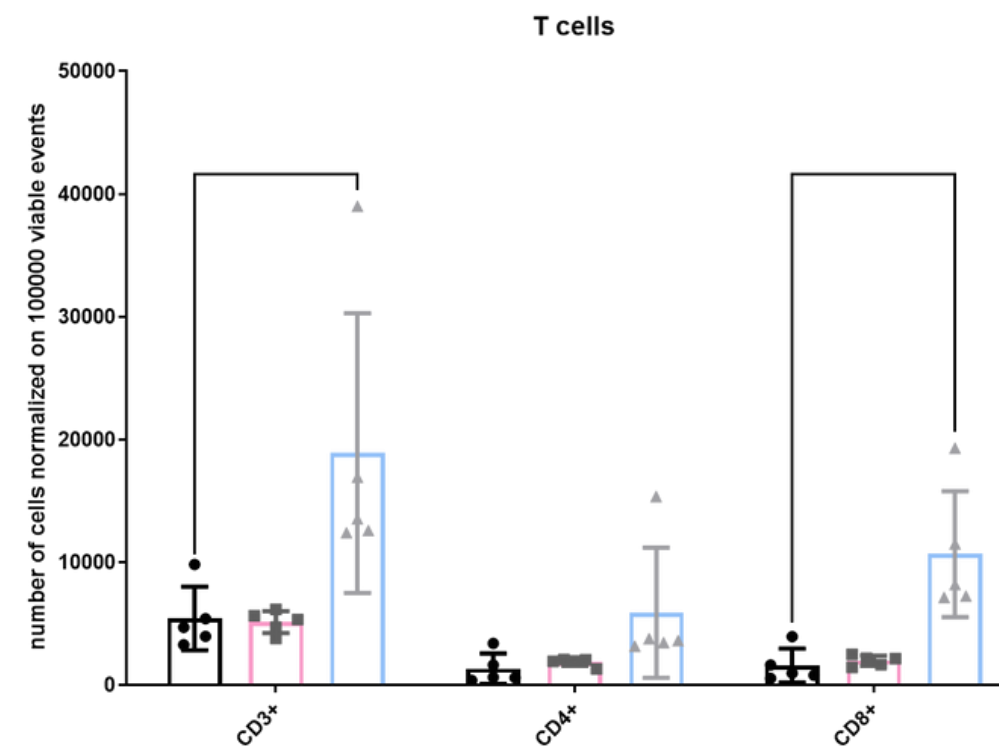
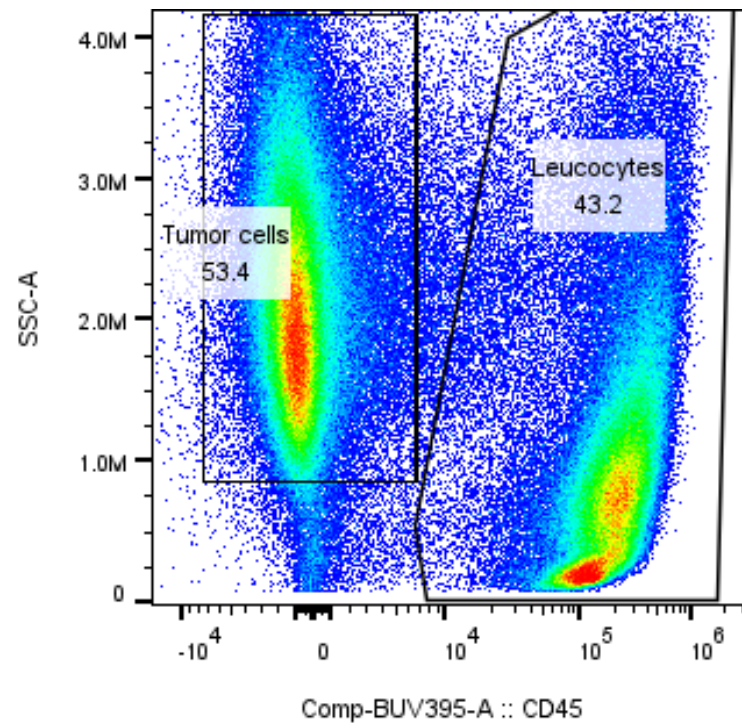
Classical

4 lasers : 18 markers* maximum

CYTEK

Spectral

5 lasers : up to 29 markers*





EX VIVO SERVICES

Immunology services

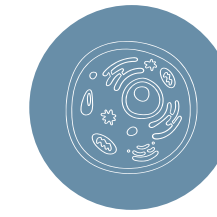


Isolate the cells of interest and characterise your target molecule by Flow Cytometry

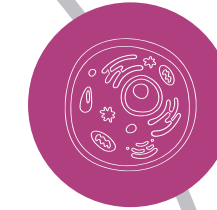


Partnership

- **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



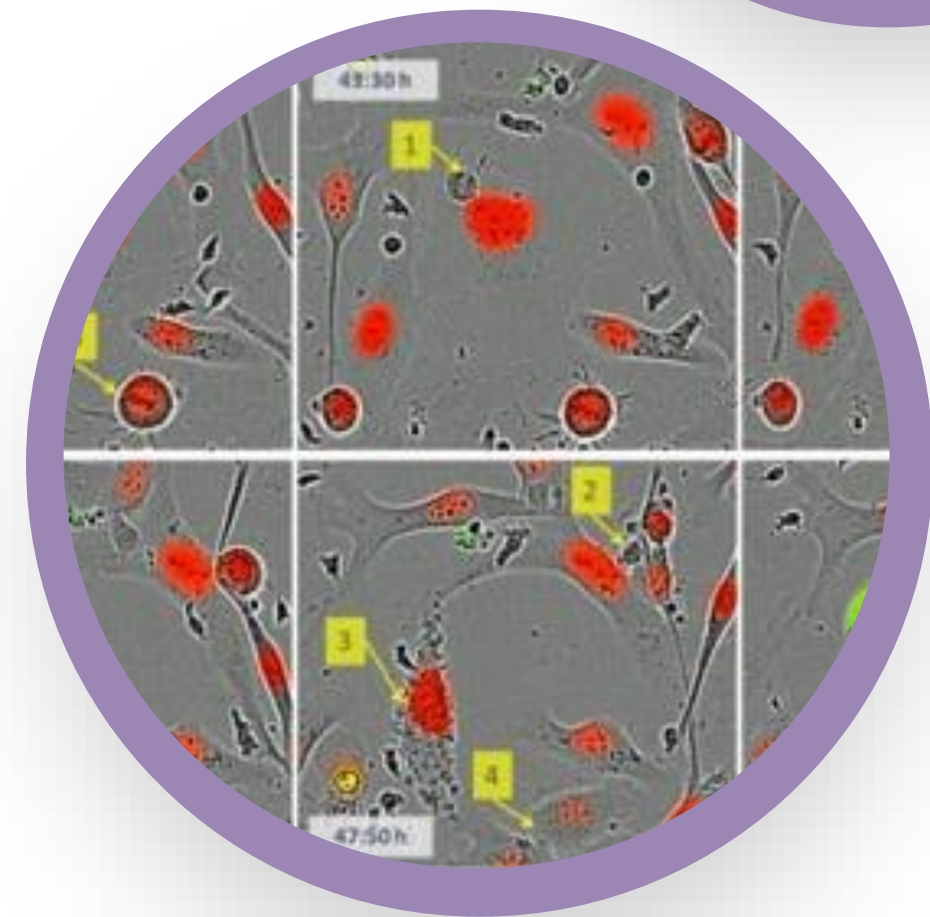
ADCP assays with fresh myeloid cells

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**
- Titration / Internalization / By-stander effect (ADC) ...
- Original in vitro and in vivo assays for **bispecific antibodies** (anti-CD3)
- A unique panel of tumour models presenting **secondary resistances to immunotherapies**



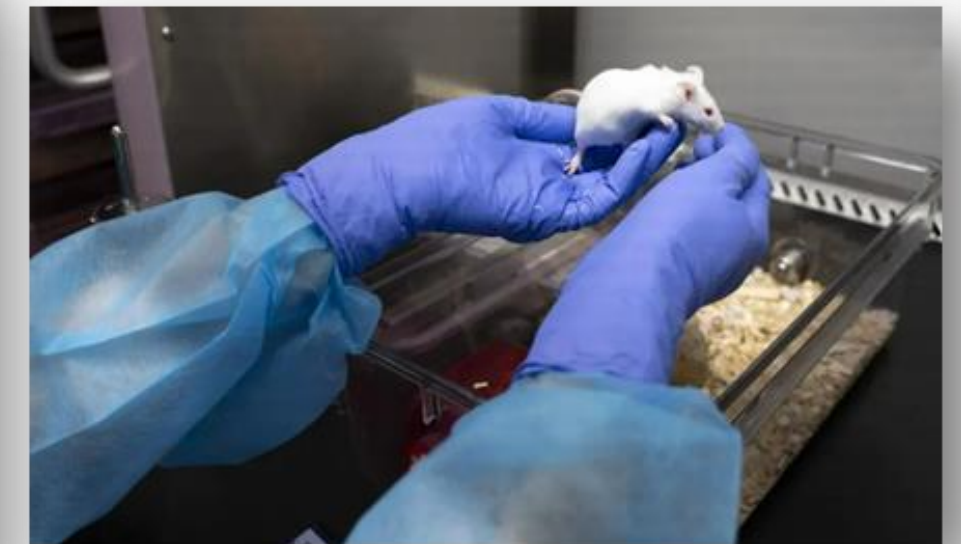


IN VIVO SERVICES

Animal facilities

- **High standards facility** with strictly controlled environment
- **Multiple types of experiments** : study cancer progression, assess the effectiveness and innocuity of novel therapies,...
- **Wide range of animal models** from **immune-competent** (C57Bl/6, CD1...) to **immune-deficient** (SCID-CB17, NSG, NOG, NOD-SCID...) and **humanized models** (BRGSF-HIS, huNOG-EXL)

- Capacity **over 3,000 mice**
- **Ethical compliance** and **expertise in animal experimentation**



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

01

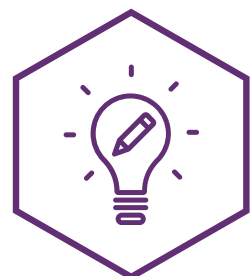
02

03

Protocol adapted to our clients' compounds

- Route (IV / IP / PO / IT)
- 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)



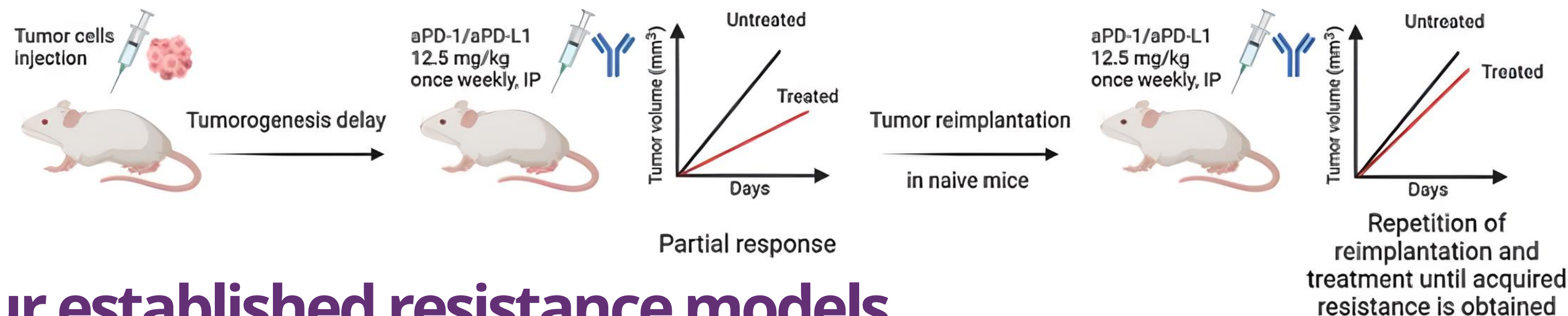
The development of models of resistance

*[*In Vivo Syngeneic Tumor Models with Acquired Resistance to Anti-PD-1/PD-L1 Therapies](#)*

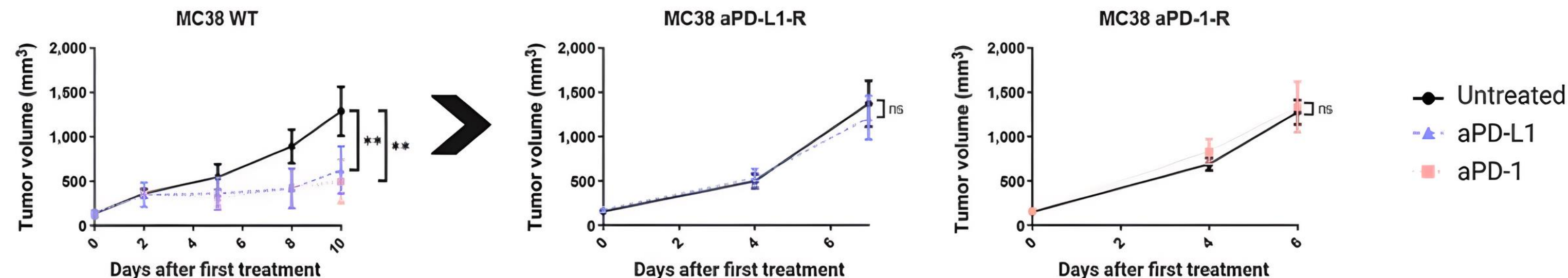


ORIGINAL RESISTANT TUMOR MODELS

Acquired resistance to anti-PD(L)1



Our established resistance models



**In Vivo Syngeneic Tumor Models with Acquired Resistance to Anti-PD-1/PD-L1 Therapies*

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 : *CAL-101*

Myeloma

Plasma cells myeloma RPMI8226 model
• *Daratumumab*

Multiple myeloma MM.1S
• *Daratumumab*

Breast

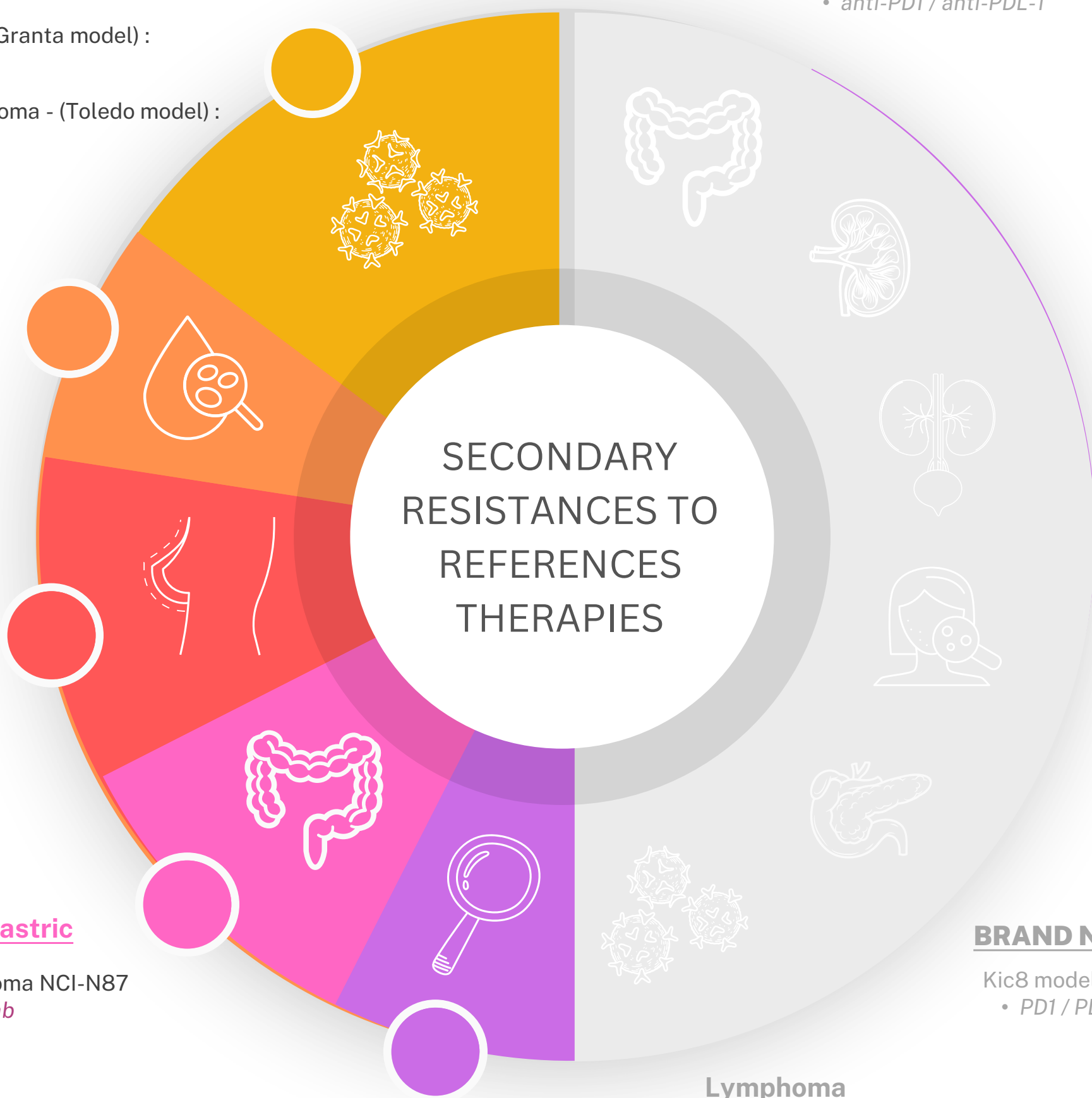
Tubular Adenocarcinoma BT474
• *T-DM1*

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*

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

Lymphoma

Follicular Lymphoma - (RL model) :
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Colorectal / Gastric

Gastric carcinoma NCI-N87
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Bespoke services : *On demand development of resistant models (Syngeneic or CDX models)*

Syngeneic Models

Colon

MC38 model
• *anti-PD1 / anti-PDL-1*

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*

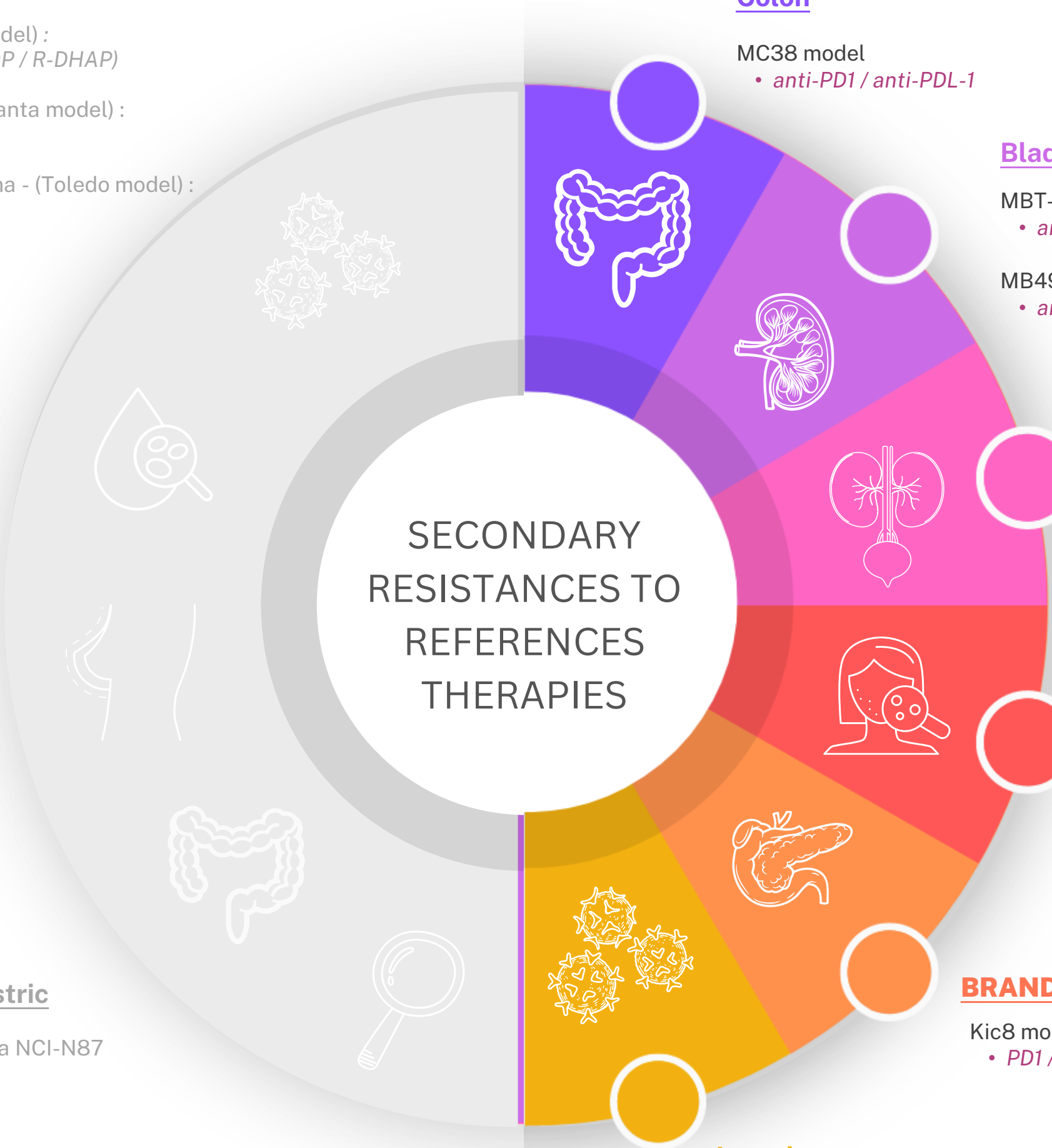
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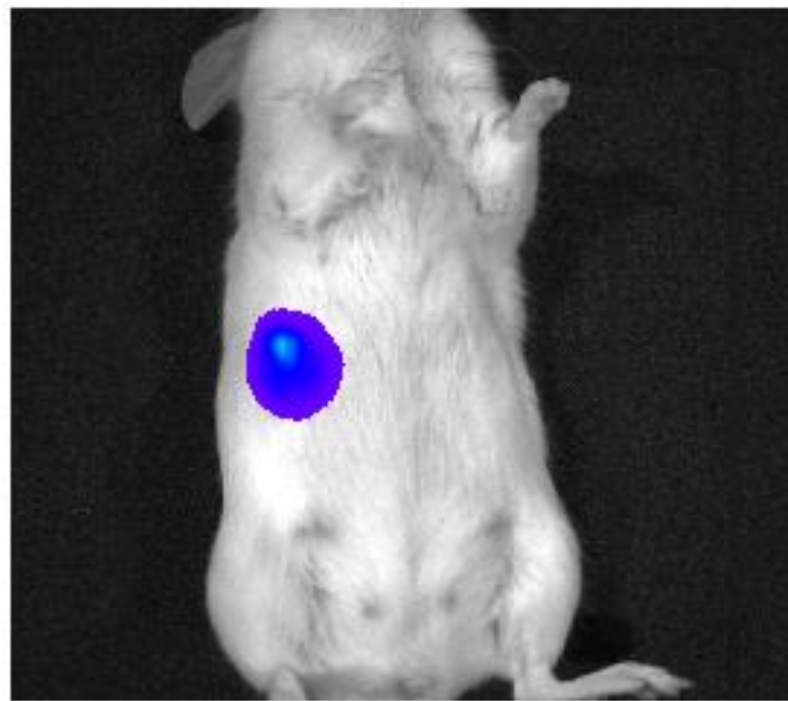




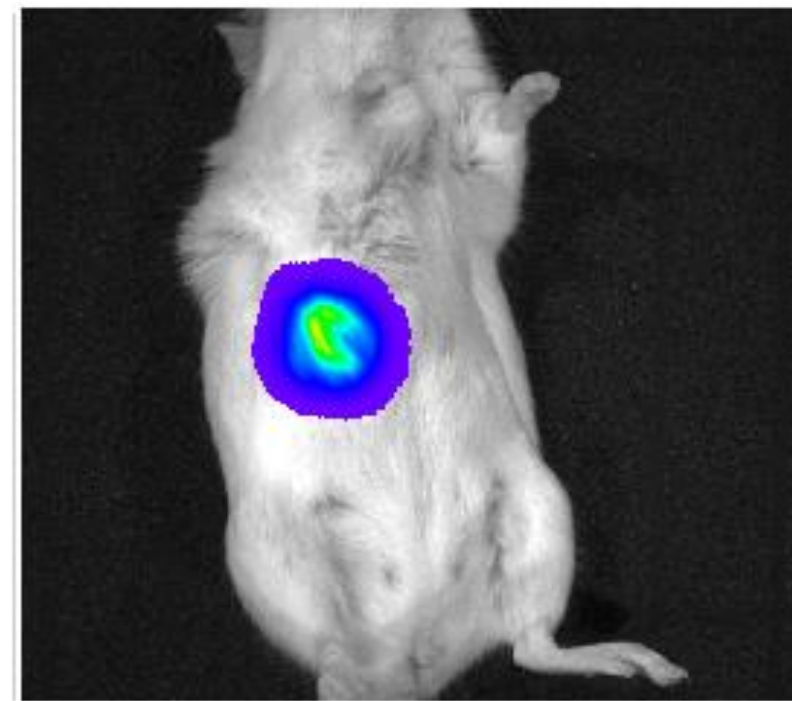
OUR NEWS

IVIS® Lumina Series III Imager

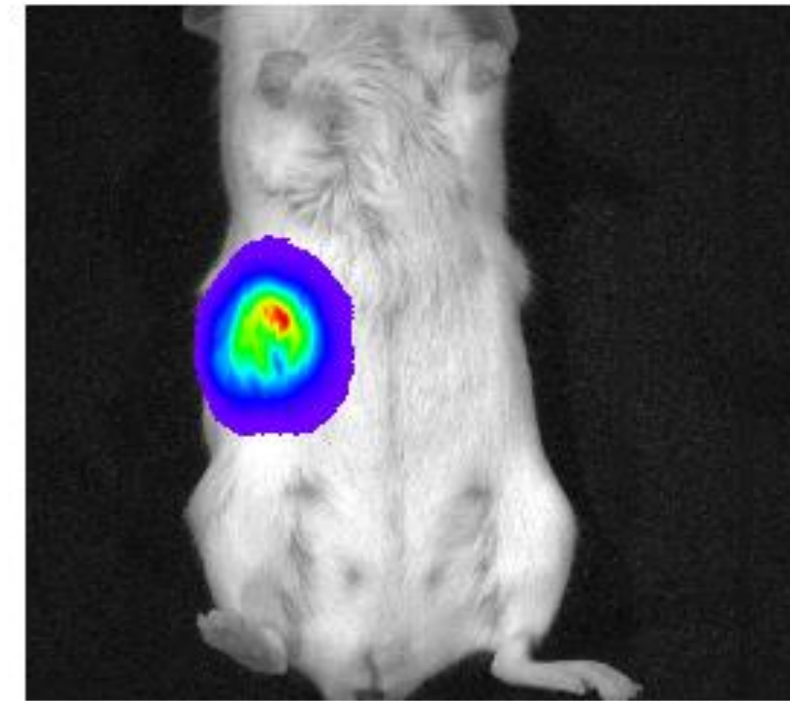
MDA-MB-231 cell line



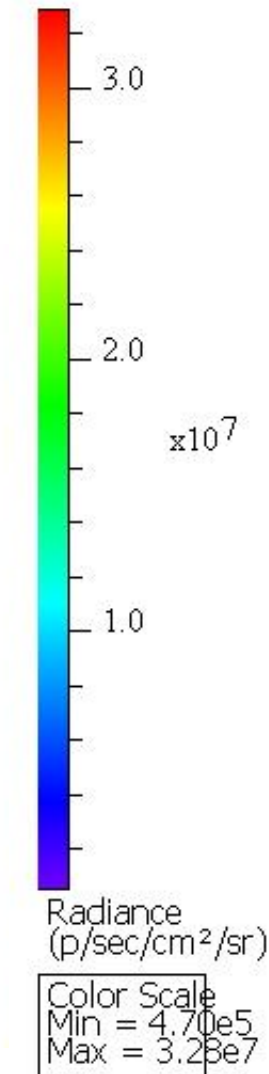
2023-04-05



2023-04-12



2023-04-26



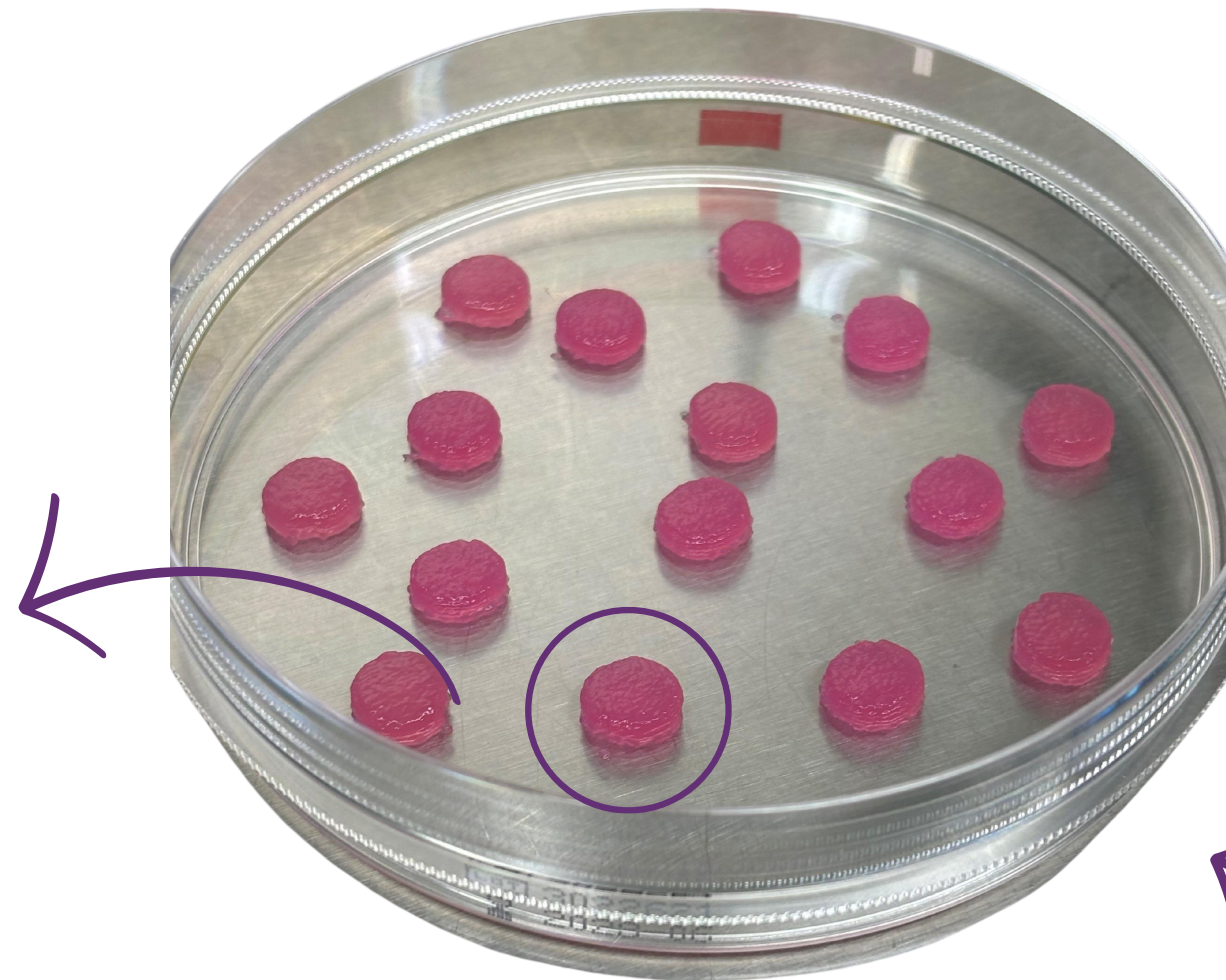
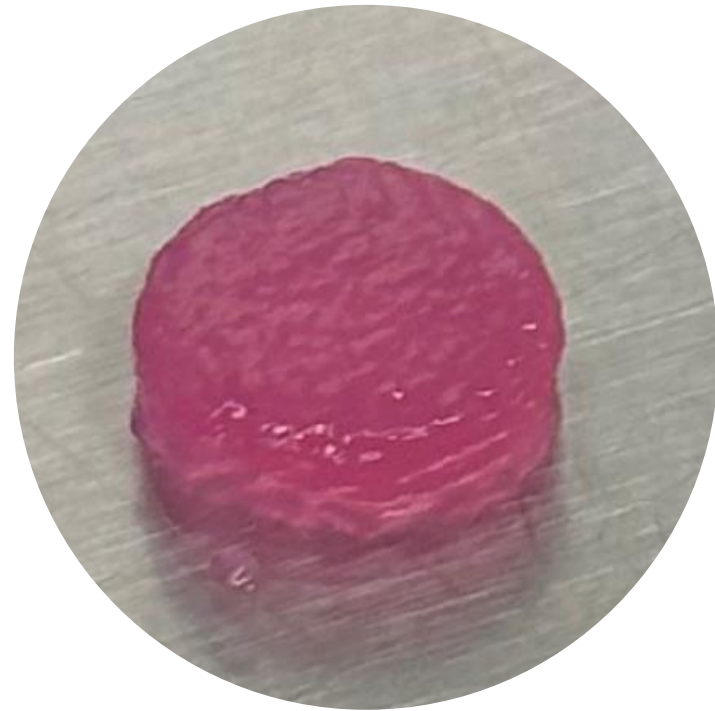
- **In vivo and 2D imaging** of the tumors/metastasis
- **Precise tumor monitoring and follow-up**
- **Animal saving**
- **Biodistribution and efficacy studies**



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

3D Bioprinting - *Ongoing development*

BT 474-GFP cell line



- Recapitulate the tumor microenvironment - (TME)
- High-throughput screening
- Minimising animals used and costs

Partner platforms



CIQLE

Microscopy platform for
Immunohistochemistry
(IHC)



**PROFIL
EXPERT**

High throughput
sequencing,
microdissection and
single cell technologies

HawkCell

HAWKCELL

Platform for Magnetic
Resonance Imaging
(MRI)



IMTHERNAT

PET-Scan
(Radiolabelling)



ANAQUANT

Detection and
quantification of
proteins by mass
spectrometry



**PAREAN
BIOTECHNOLOGIES**

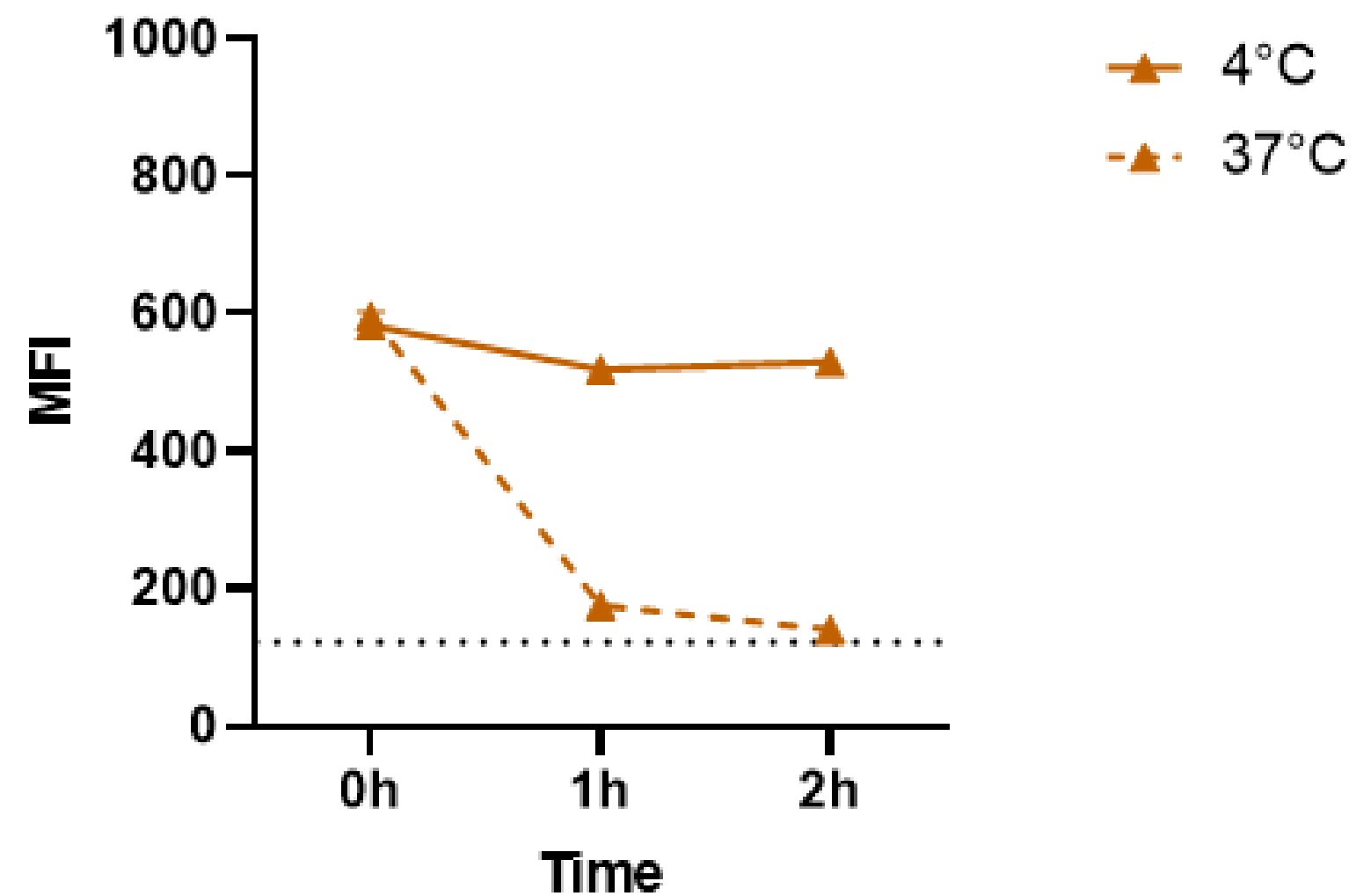
Immune omics analysis
(Single cell)



CASE STUDY

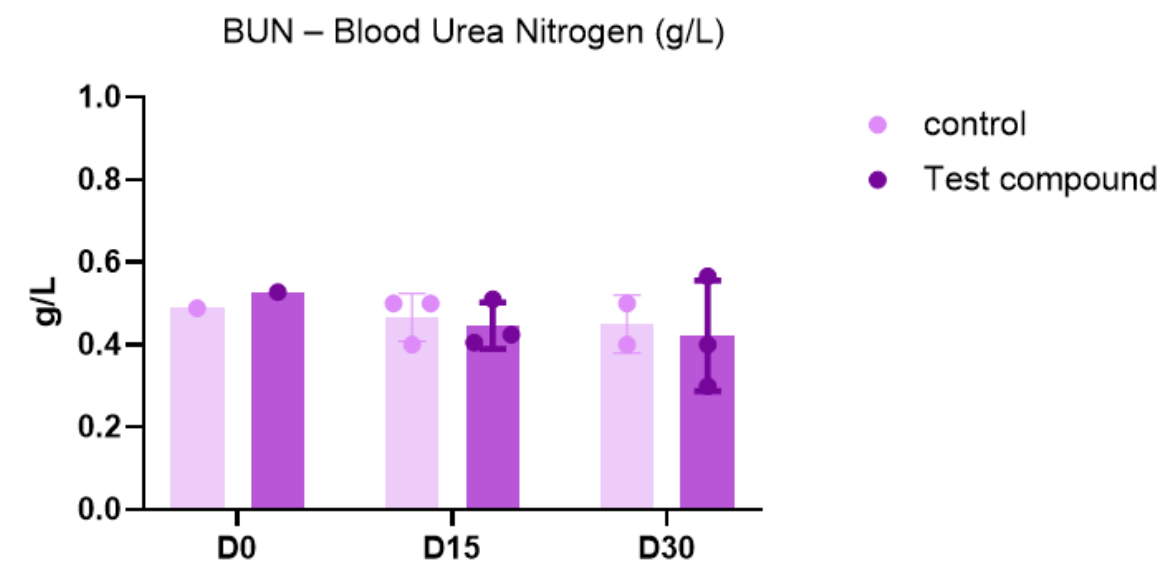
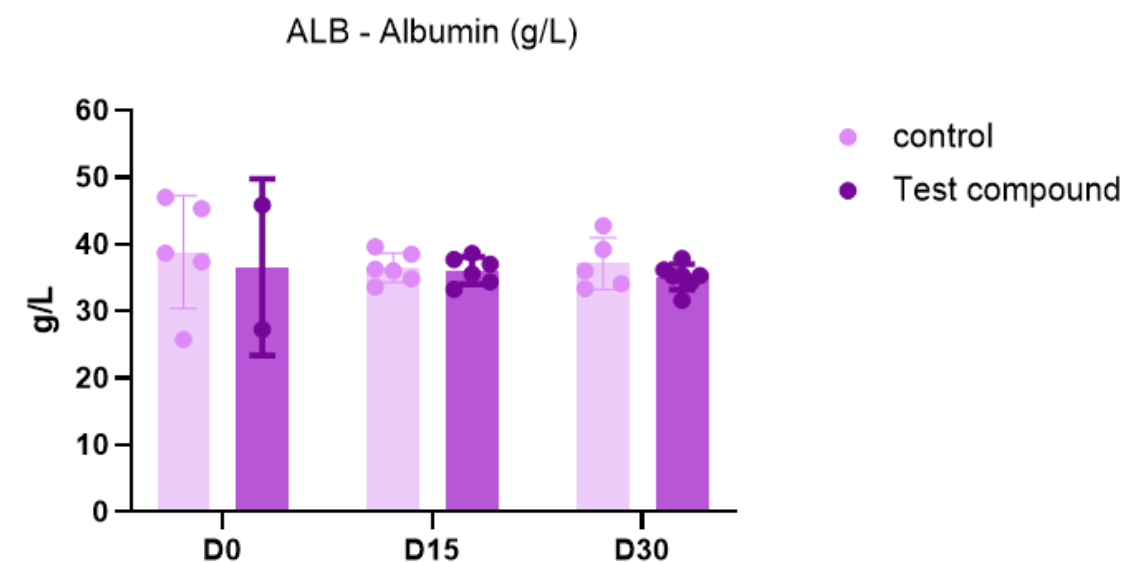
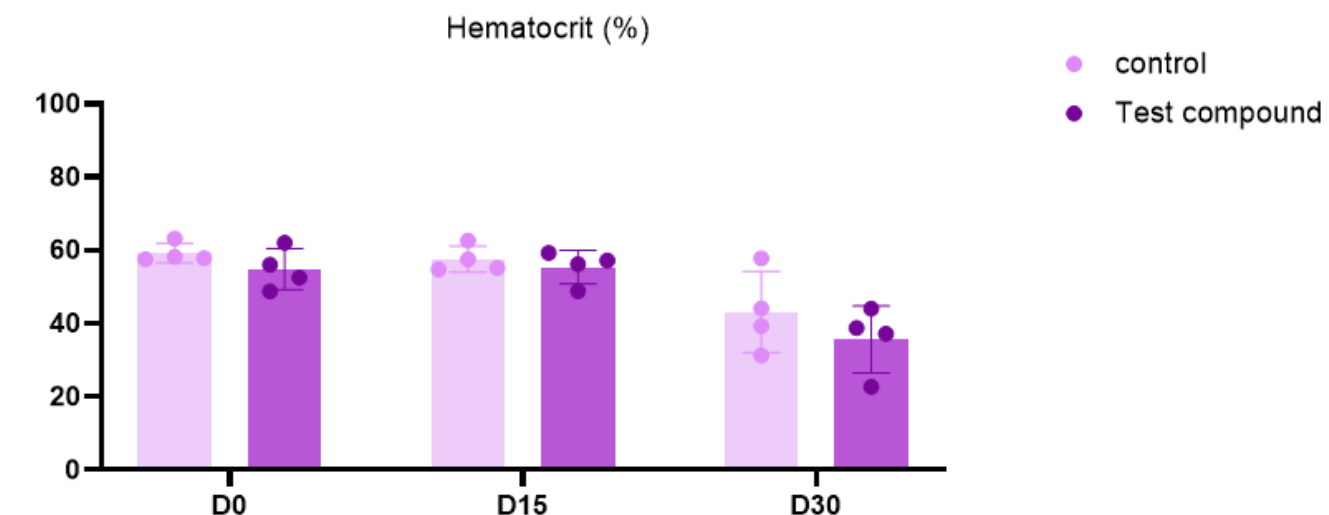
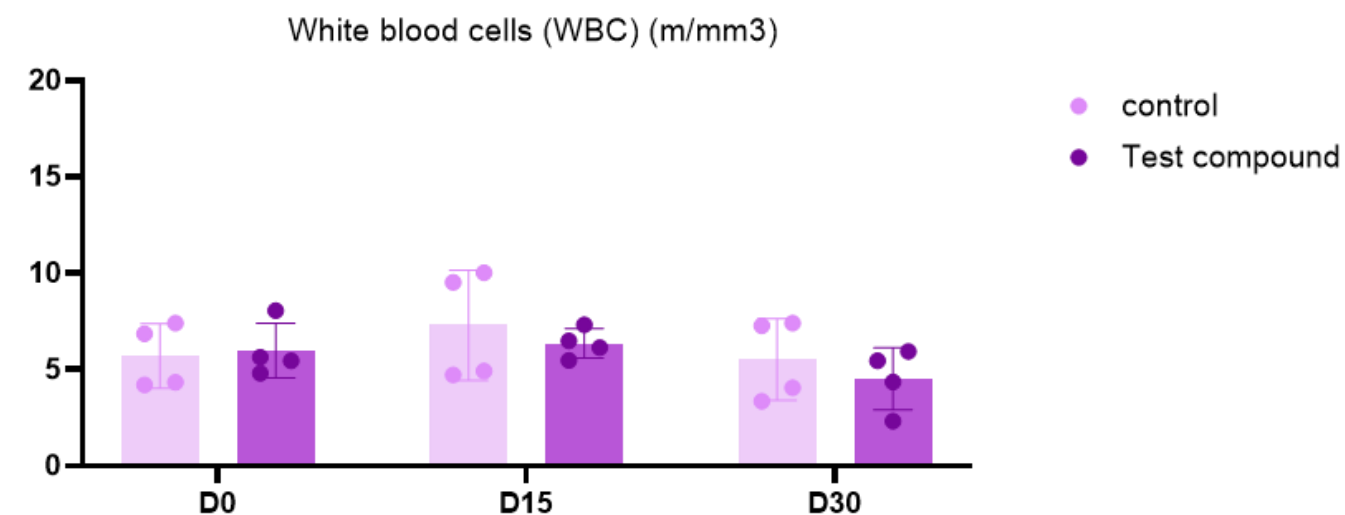
ADC internalization assay

Flow cytometry - Breast cancer cell line



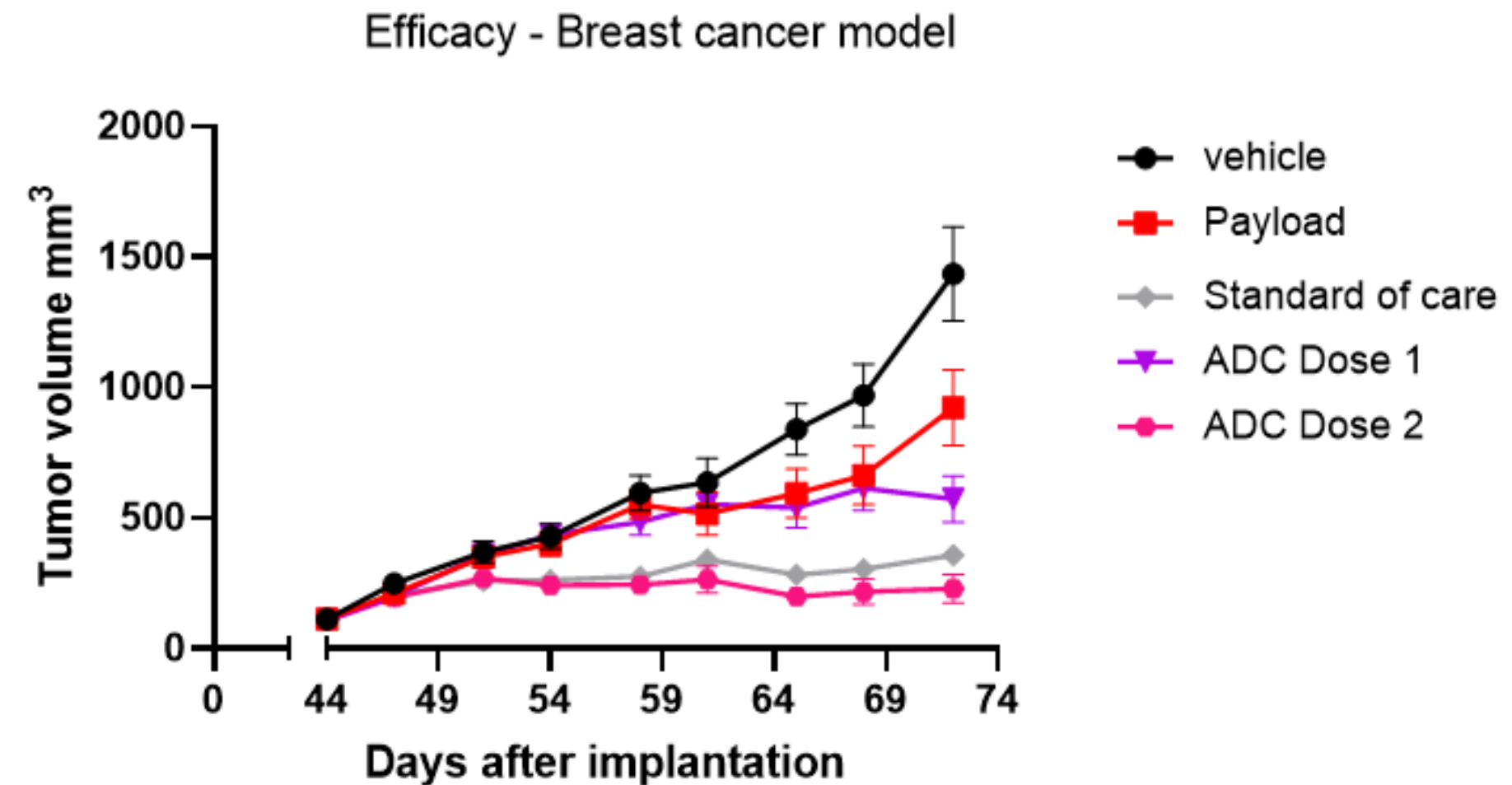
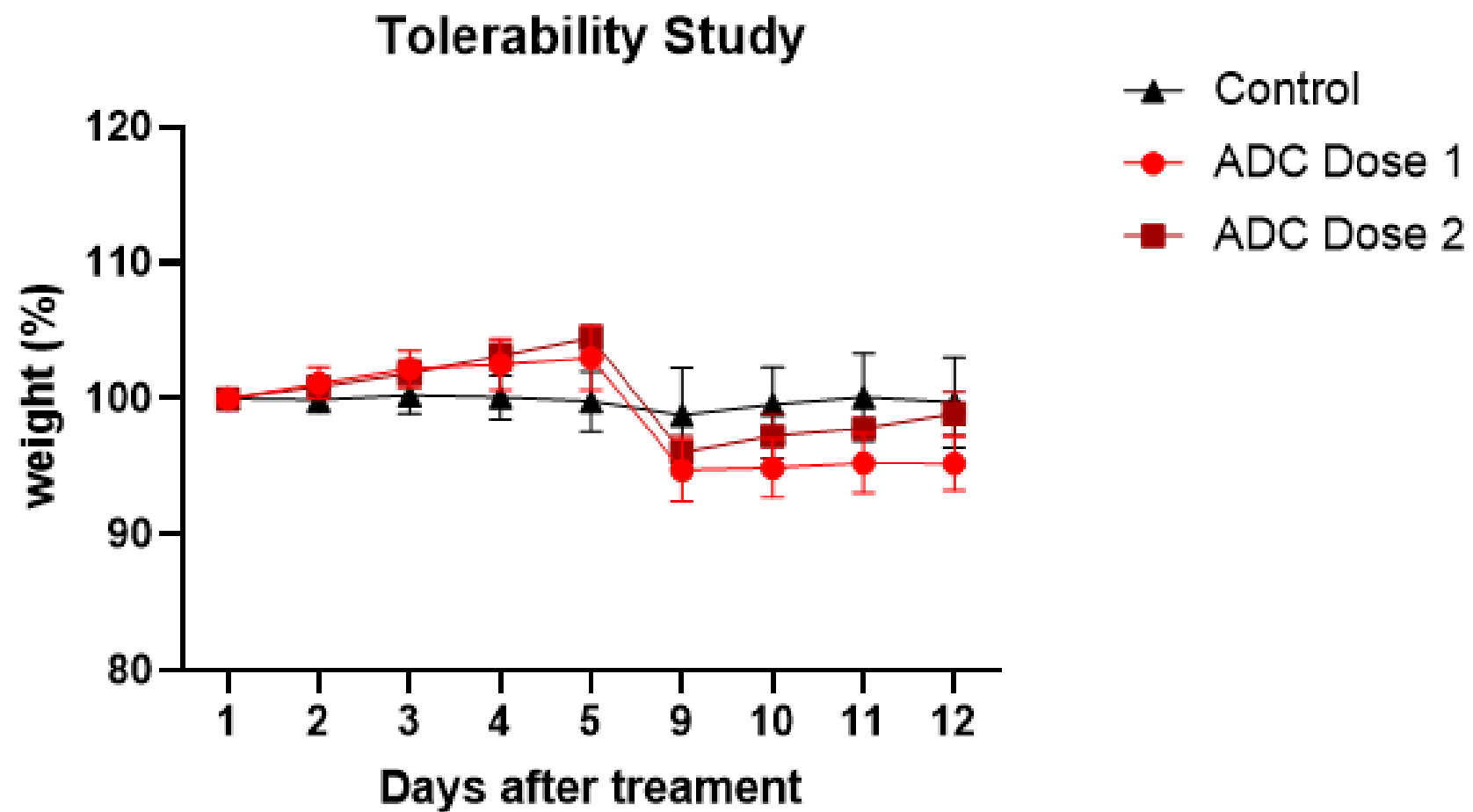
The ADC was correctly internalized in target cell line

Toxicity study – Haematological analysis



The ADC exhibited no sign of toxicity in target mouse model

Tolerability and efficacy studies



The ADC was well tolerated in vivo and exhibited a higher antitumoral efficacy than the standard of care



**THEY
TRUST US!**

EVEXTA BIO

SAYENS SATT
CATALYSEUR D'INNOVATIONS

yomi
PHARMA

ad advanced
biodesign

mablink

Stroma Care

Roche

Breach Bio

CASINVENT

GAMAY MABS
PHARMA

Jalon
THERAPEUTICS

PULSALYS

CRCL CENTRE DE
RECHERCHE EN
CANCÉROLOGIE
DE LYON


January 2025

Corporate presentation


Antineo

THANK YOU!



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