

Discover our
capabilities:
oncology
therapeutic area



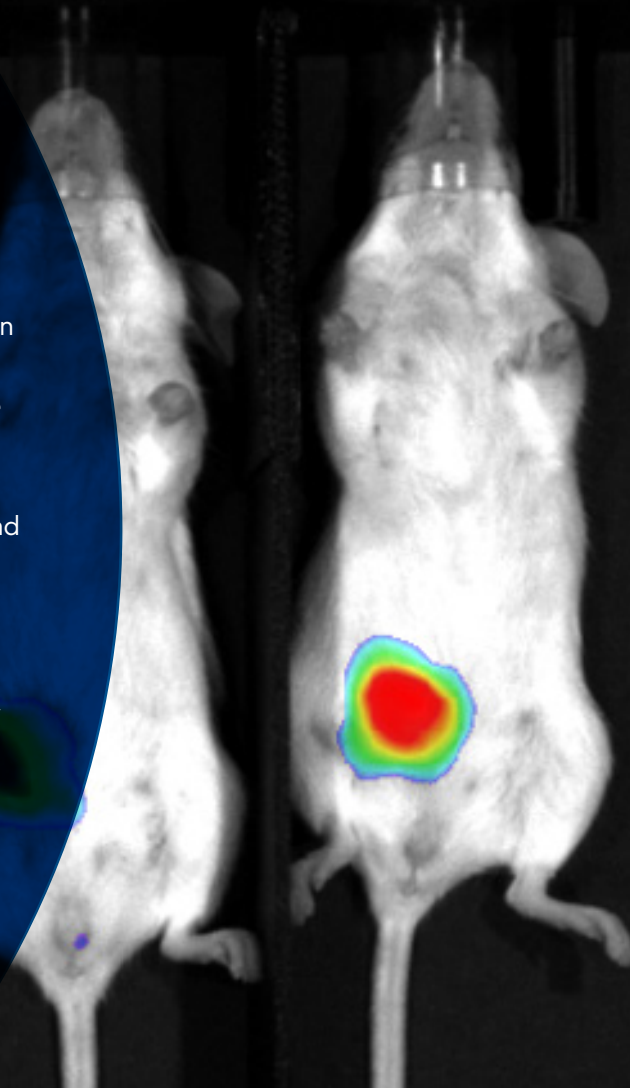
Shaping Oncology's Future through Discovery

Explore our capabilities in oncology and immuno-oncology drug discovery

The fight against cancer was at a core of our identity since our inception in 2007, with a significant achievement being the contribution to the development of INH1972, a first-in-class, orally bioavailable small molecule dual kinase inhibitor for the treatment of Acute Myeloid Leukaemia (AML), currently in Phase II clinical studies. Today, our multidisciplinary team comprising medicinal chemists, biochemists, in vitro/in vivo biologists, and DMPK scientists boasts extensive experience in the discovery of effective and safe small-molecule NCEs (including covalent ones), fragments, degraders, peptides, and protein anticancer therapies.

In our research, we use **primary cells** (PBMC, NKs, T-cells, innate immunity cells), **multiple cancer cell lines**, **iPS-derived cells**, and **co-cultures**. If needed, recombinant cell lines are generated by our team specialized in genetic engineering.

Assay cascades developed by our scientists include assays for on-target and off-target activity determination and are supported by primary biophysical and biochemical assays in standard and HTS format.



Compound design and synthesis

Multiparameter (MPO) optimisation
Phenotypic or Target-based Design and MoA

1st screening

Target-specific assay (Modulation, Degradation, PPI ternary complex)

2nd screening

Cytotoxic/Cytostatic/Proliferation phenotypic assays – 2D, 3D/spheroids (Cell cycle, Apoptosis, Angiogenesis, Migration)

In vivo efficacy

Rapid Screening model

Ex vivo

Human Whole Blood PD Assay

3rd screening

Functional and phenotypic readouts (ROS, Gene expression, Glycation, Immune checkpoint pathways, Target Occupancy, Biomarkers)

Selectivity and Safety screening

In vivo efficacy

Disease-relevant model (Xenografts, PDX)
Effective exposure, PK/PD, Biomarkers

Toxicology

Screening cascade in oncological projects

ADME tier 1

LogD
Kinetic Solubility
MDCK-MDR1 Permeability
Microsomal stability

PBPK modeling
and simulation

ADME tier 2

Rodent IV/PO PK
Hepatocyte stability (h/r),
PPB (h/r)

PBPK/PD modeling and simulation

ADME tier 3

CYP direct and MDI inhibition
Transporters
Advanced PK profiling

PBPK/PD modeling and simulation

We constantly improve research strategies for discovery of **efficient and safe** anticancer pharmaceuticals

We offer support in developing and conducting various assays tailored to the mode of action and characteristics of the anticancer medications in development:

- Cytotoxicity/Proliferation (cell lines, 2D and spheroids) – tumor or primary
- Cell cycle arrest and apoptosis assays
- Biomarkers *in vitro* / *ex vivo* / *in vivo*
- Angiogenesis, Migration and Invasion
- T_{reg} suppression/induction
- Trp catabolism
- Immune checkpoint blocking pathways
- ADCC, CDC, CAR-T assays
- mAbs assays (neutralization assays, Fab-associated function assays)
- Cytokine profiling (including multiplexing)
- Gene expression
- Battery of phenotypic/functional assays

In Vitro assays

In vivo models

In our state-of-the-art animal facility we design *in vivo* models tailored to your needs

A variety of **Xenograft models** has been skillfully developed by our experts:

- Murine Skin Melanoma B16F10 (sc)
- Murine Lewis Lung Cancer LLC (sc)
- Murine Breast Cancer 4T1 (orthotopic)
- Murine Glioblastoma GL261 (orthotopic)
- Human Prostate Cancer PC3 (sc)
- Human Breast Cancer MCF7 (orthotopic)
- Human Colorectal Cancer HCT116 (sc)

Several additional models are slated for development in the near future. Moreover, we are able to tailor customized models upon request, along with offering other essential services:

- Immuno-oncology models
- Target engagement and PK/PD studies
- Histopathology and quantitative digital pathology
- *In vivo* imaging
- Single-cell analysis



Translational research

for smooth transition into the clinic

Source of material: We have an established collaboration with several clinical hospitals and a network of experienced principal investigators following long-term patients. These connections provide us with access to **samples from both healthy volunteers and patients.**

Fresh samples: Our *ex vivo* studies and sample analyses can be performed within **30–90 minutes from sampling** from the patient, due to the proximity of our analytical facilities to the hospitals. There is no need for cryopreservation (samples can be fixed or frozen if needed).

Why work with us?



One-stop shop solution: We boast an **all-encompassing capability** ensuring execution of oncology drug discovery projects, spanning from target identification to the Investigational New Drug ("IND") stage.



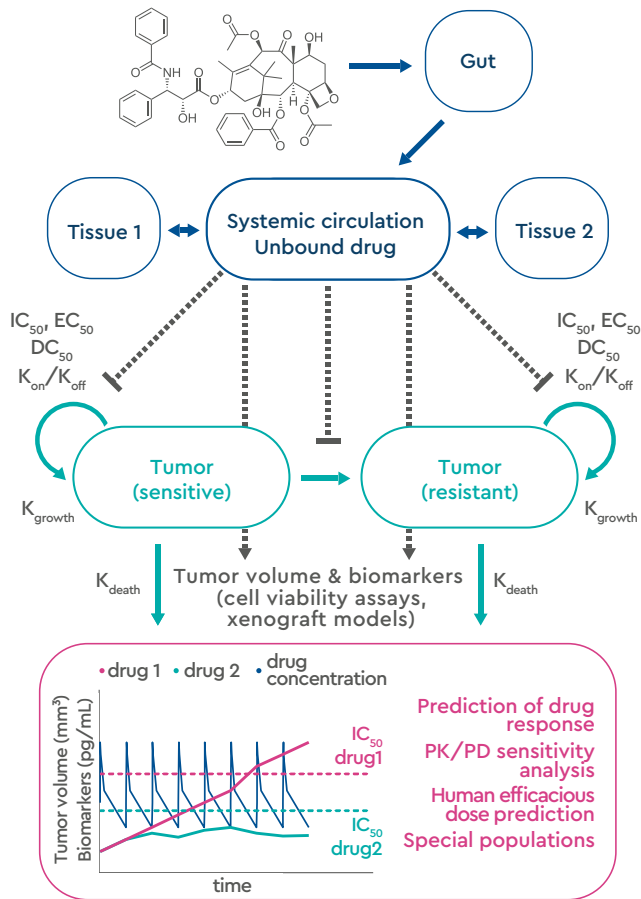
Extensive knowledge: Our scientists bring decades of collective experience in preclinical research with expertise that encompasses diverse target classes and different modalities including classic small molecules, but also covalent inhibitors, degraders, macrocycles, and peptides.

- **Over 65 patents and 250 publications**
- **Contribution to the delivery of 75 Pre-Clinical Candidates (PCCs), with 36 progressed to clinical trials**



Added value: Our experts offer more than just conducting experiments and gathering data; they also provide invaluable guidance and strategic insights to the project team in various areas, including:

- **Compound design and optimization**
- **Assay development and study design**
- **Data integration, modeling and simulation**



○ PK experiments, PK & PBPK models

○ *In vitro* & *in vivo* pharmacology models

○ Mathematical PK/PD modeling



Our **laboratories** and **offices**



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