

Translational oncology research models

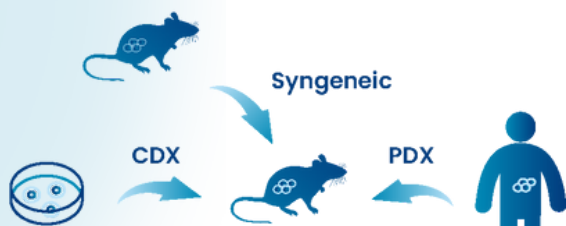
With over 30 years of experience in oncology, we have been pioneering in translational pharmacology preclinical cancer models to support your development of new therapies.

Preclinical translational research

In vivo models are essential tools in oncology research, providing critical insights into tumor biology and the efficacy of potential treatments. With state-of-the-art facilities and advanced technologies, we deliver reliable and reproducible results.

We have over 500 preclinical models available, covering 20 organ origins and up to 35 pathologies, including:

- **Syngeneic models:** Implanted tumor cells derived from the same genetic background than the host to preserve a functional immune system. This model is ideal for studying immunotherapies.
- **Cell line-derived xenograft (CDX) models:** Human tumor cells implanted subcutaneously or orthotopically into immunocompromised mice or rats. This model type allows researchers to study tumor growth and response to treatments in a controlled environment. CDX can be used in human immune cell-reconstituted mice for evaluating immunotherapies within an intact human immune system.
- **Patient-derived xenografts (PDX) models:** Human tumor tissues implanted directly from patients into mice without going through cell culture. This model type maintains the genetic and histological characteristics of the original tumor.



Typical readouts

- **Standard endpoints:** Tumor volume, body weight, survival, metastases
- **Multimodal imaging:** MRI, CT, PET, SPECT, optical, PET/MRI
- **Genomic:** dPCR, SNP, transcriptome, NGS
- **Liquid biopsy:** Biochemistry, serum tumor markers, CTC, Circ DNA
- **Protein expression:** IHC, cytometry, luminex, ELISA

We offer customized development of *in vivo* models tailored to your specific research needs, ensuring that you generate the most relevant and reliable data. Our efficacy studies are designed to evaluate the therapeutic potential of new cancer treatments, providing critical data to support your drug development process. Additionally, we conduct detailed PK/PD studies to understand the behavior of drugs within the body and their biological effects.

Oncodesign Services encompasses all the skills and technologies to move your project forward.

Orthotopic models

While many CDX and PDX tumor models grow subcutaneously in mice, sometimes a tumor model requires a specific kind of tumor microenvironment that can only be well recapitulated in the stroma of the primary organ. Orthotopic models allow more human-disease relevant tumor development and progression, including spontaneous metastasis, recapitulating late-stage tumors. MRI is typically used to size tumors for randomization and sometimes to track tumor growth. We have numerous *in vivo* imaging platforms, including MRI, PET, PET/MRI, SPECT and optical imaging to monitor tumor growth and pharmacological biomarkers.

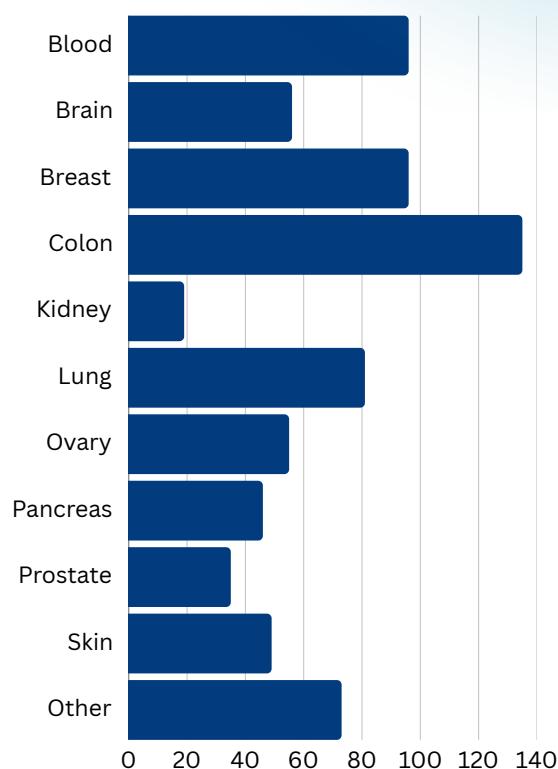
Metastatic models

For most cancer patients, a primary, solid tumor can be easily treated with surgery. However, many will observe reoccurrence and metastasis leading to death. For this reason, metastatic models remain an essential part of the oncology toolkit.

We offer a range of models that vary by injection site, which address certain parts of the complex metastatic cascade, from generation of circulating tumor cells (CTCs) to tumor growth at a distal site. The tumor burden and dissemination of metastatic tumors can be monitored using *ex vivo* examination of organs or *in vivo* imaging such as MRI, PET, PET/MRI, SPECT and optical imaging.

More information

Oncodesign Services is a leading CRO specializing in drug discovery and preclinical services. Our mission is to help researchers discover innovative therapies against cancers and serious diseases with high medical need. We have been performing translational science for over 30 years, providing the partnership required to help our clients progress from therapeutic target to advanceable preclinical candidates.



Above: Over 500 models readily available to use, covering 20 organ origins and up to 35 pathologies.

With over 30 years of translational experience, Oncodesign Services offers comprehensive preclinical solutions, a strategic pathway to accelerate your immuno-oncology program.

Next steps

Reach out to your relationship manager or contact us at:

- oncodesign-services.com
- contact@oncodesign-services.com

