



Oncodesign is an innovative biotechnology company dedicated to the discovery of novel anticancer therapies. Using a pharmacological-based “Qualifying” approach aimed at the in vivo exploration and optimization of the therapeutic potential of individual molecules, we are able to offer the pharmaceutical industry a flexible, rapid, reliable and efficient means of identifying and selecting the most effective anticancer drugs possible for clinical use

Preclinical
Oncology
Pharmacology
Imaging

EXPERTISE IN PRECLINICAL CANCER PHARMACOLOGY

- 12 years experience in preclinical drug development
- From target ID to human clinical trials in a single location
- Translational research platform to determine biomarkers of activity for clinical use
- High level of flexibility, reactivity and communication
- Collaborations with 15 of the top 20 Pharmaceutical companies worldwide
- Consulting and training programs in preclinical pharmacology

EXPERIENCE & DEVELOPMENT SOLUTIONS

Oncodesign has worked with over 190 pharmaceutical and biotechnology companies located in 17 different countries since our inception in 1995. During this time, our team of 60 employees, including 12 PhD’s and 2 PharmD’s has conducted more than 800 studies and research programs. The average collaboration of over three years with our clients is indicative of our commitment to each client on an individual basis, the quality of our work, and the level of confidence that our clients have given us.

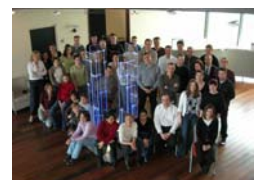
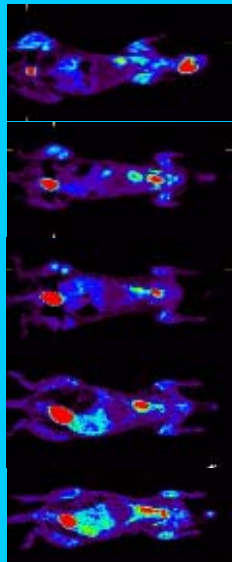
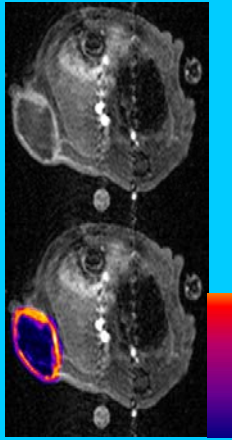
Oncodesign has the expertise and capabilities to offer various solutions to your preclinical drug development needs.

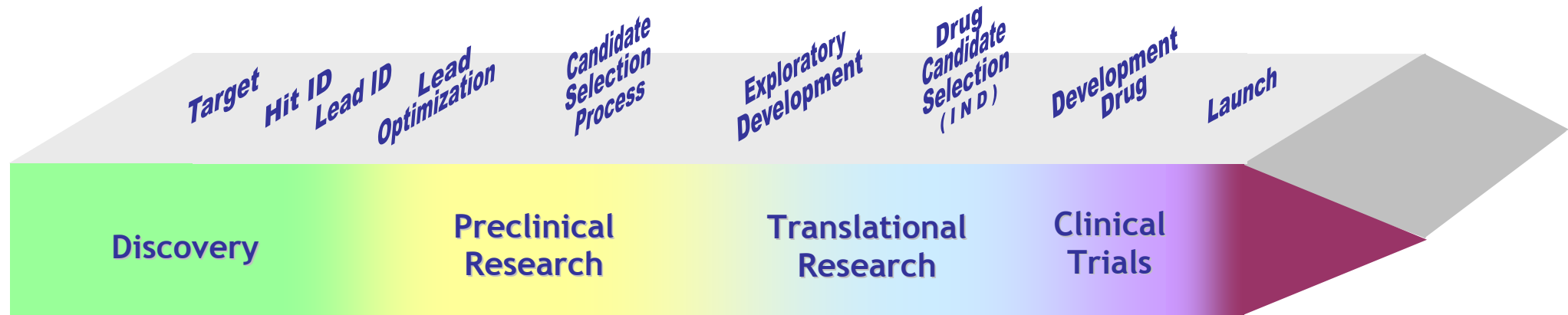
Study: validation of the efficacy of molecules that have already demonstrated a certain level of anticancer activity.

Research Program: identification and investigation of the therapeutic potential of uncharacterized molecules. This includes the conception and implementation of full preclinical research programs where a global budget is dedicated to the entire program.

TRANSLATIONAL ONCOLOGY

Translational research is the translation of basic research and preclinical observations into clinical investigations and the transfer of clinical observations to the laboratory for further research and development. Oncodesign is uniquely positioned with a complete anticancer evaluation platform to specifically address this central theme in oncology, with a specific emphasis on the use of small animal functional MRI and μ PET imaging to develop surrogate biomarkers for the clinical use. With our internal expertise in target validation, molecular and cellular biology, histopathology, preclinical formulation, in vitro and in vivo anticancer evaluation, *Nude* rat models and small animal imaging, in coordination with a network of scientific partners specialized in tissue resources, chemical synthesis, pharmacogenomics and transgenic animals, as well as access to a local Phase I anticancer clinic, we are able to operate as a full-service translation research facility to provide surrogate biomarkers and relevant endpoints for clinical trials.





Target Identification Target Validation

- siRNA, overexpression, constitutive or inducible
- In vitro* & *in vivo* validation
- Phenotypic and functional assays

Cellular Screens

- 280 tumor cell lines
- Fresh primary tumor samples
- Cytotoxicity assays (MTS, SRB, BrDU)
- Clonogenicity assays
- FACS (Apoptosis, cell cycle...)
- ⁵¹Cr release assay (ADCC, CDC)

In vivo Screening

- Preclinical formulation
- MTD/MTD (drug alone or combination)
- PK (HPLC-MS/MS, ICP-MS, ELISA, radiolabeled)
- 200 SC mouse models (syngenic & human tumors)

In vivo Pharmacology

- Orthotopic & metastatic models
- Transgenic & chemoinduced models
- Xenografted *Nude* rats
- Optimization of administration schedule
- Combination with reference drugs

Molecular Pharmacology

- Q-RTPCR, WB
- Proteomic analysis platform
- IHC on TMAs
- Serum Biomarkers

Molecular Biomarkers

- Angiogenesis (functional Histology & IHC)
- Hypoxia quantification
- Immunological response characterization (cytokines, cellular populations' activation...)
- Immune cells infiltration in tumors (IHC)

Imaging Biomarkers

- MRI (4.7T) under SPF conditions (morphology, Ktrans, BOLD, ADC, VSI...)
- μ PET (FDG, FLT, FMISO...)
- Optimization of combination (Pharmacological Active Dose, schedule, sequences, delays...)

PK / PD

- Nude* rats
- Correlation between PD, PK, mechanistic effect, toxicity (hemato & neuro) and metabolism
- Use of classical techniques or imaging techniques

Phase I/IIb

- Pr. P. Fumoleau
- 4 MDs, 5CRAs, 1 nurse
- 8 beds
- Clinical MRI and PET

Research facilities

- 3000m² research centre
- located in the heart of Dijon's university, clinical and technological area
- comprised of 700m² of SPF animal husbandry
- 500m² of laboratories
- an amphitheater equipped with a videoconferencing system

OncoDesign's Technological Platform