

# Xenograft for everyone

A new approach to xenograft mouse studies...

You decide the price of your xenograft experiment. We perform high quality xenograft experiments exactly as you wish and with exactly the amount of help and service you want.



## Pipeline Xenograft Assay

It can't get any easier  
Xenograft standard assay  
9 mice

### Pipeline assay I - test a compound

You send us a compound and we test how it affects tumor growth in an established xenograft model.

### Pipeline assay II - test a cell line

You send us a cell line and we test its ability to establish tumor growth in standard immunodeficient mice.

## Pipeline Xenograft Study

### Design it yourself

Save service and money.

You design your own xenograft study in our Pipeline Study Designer.

Contact us to acquire the Pipeline Study Designer.

*High quality xenograft study without scientific guidance in the study design.*

### Pipeline expert design

We design your experiment based on your demands and wishes.

Through years of experience and literature search we guarantee optimal experimental setup according to selection of mice strain, cell lines, inoculation and dosage procedure among others.

*High quality xenograft study designed and evaluated by experienced scientific staff.*

## Pipeline tailor-made study

Don't ask us what we can do - tell us what you would like us to do!  
Pipeline Biotech has been doing this for the last 10 years - we offer high quality innovative solutions developed by experienced scientific staff.

*High quality animal cancer studies designed, optimized, evaluated and interpreted by experienced academic staff.*



# Xenograft for everyone

We want **to help scientists help patients** - we do this by offering ethically responsible preclinical studies. The last 10 years Pipeline Biotech has performed customer tailor-made preclinical studies in rodents, which is the heart of Pipeline Biotech - in addition we also want to

make xenograft studies available to more people



We want xenograft studies to be an option for the chemist, clinician or molecular biologist with limited cell or animal laboratory experience or the low budget research group.

We therefore introduce **high-quality low-cost** Pipeline xenograft products by standardizing laboratory procedures and order processing.

Furthermore, Pipeline xenograft studies are even cheaper if the **clients design their own experiments** or use the established Pipeline Xenograft

## **Xenograft studies are superior to cell culture experiments in several ways**

- Cells are grown in three dimensions with "native" cell-cell interactions
- The influence of stroma cells are intact
- Appropriate amount of growth-factors and hormones
- Parameters as invasiveness and vascularization are measurable

## **The benefits of outsourcing animal experiments**

- High quality - low risk of infections (GLP and GMP approved laboratories)
- We are responsible for the experimental handling → No mistakes
- High quality supervision of the mice (detect small but relevant clinical alterations)

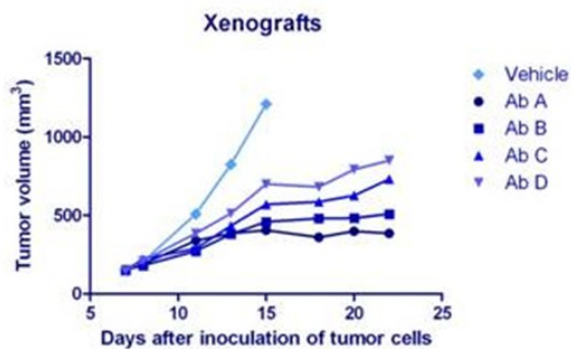
# Pipeline Xenograft - examples



## Pharmacological studies - Compound testing

### Relevant issues:

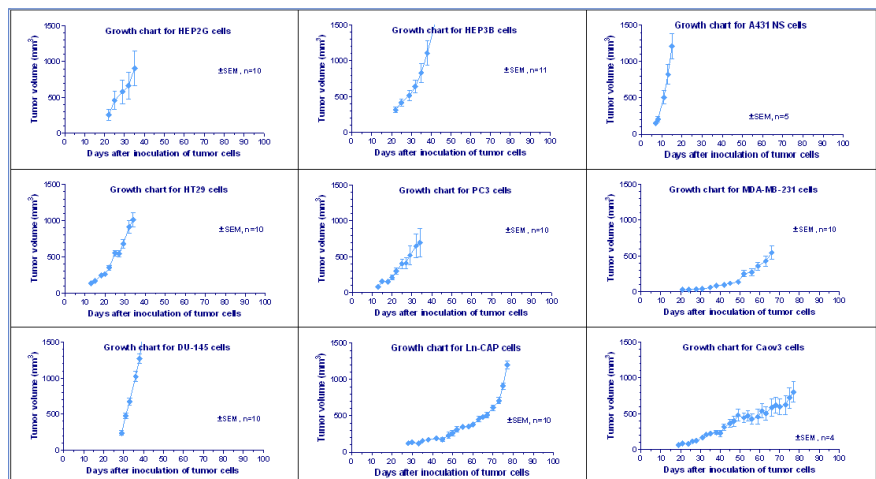
- How does the test compound affect tumor growth?
- Does the test compound inhibit tumor invasion or metastasis?
- How does the test compound localize in the tumor?
- Define drug characteristics;
  - Bioavailability
  - Toxicity
  - Efficacy
  - Potency



## Tumorigenicity studies - Cell line xenograft models

### Relevant issues:

- How does a cell line establish as xenografted tumors?
- Definition of the tumor doubling time.
- Localization of specific proteins in the tumor.
- Changes in gene and miRNA expression upon treatment or gene manipulation?
- How does gene manipulation in a cell line affect parameters as;
  - Tumor growth
  - Invasiveness
  - Metastasis



# Additional Analyses

Extraction of all relevant information out of each xenograft study is preferable - we therefore offer a panel of additional analyses both during the experiment and after study termination.

## During experiment

- Clinical observations every day.
- Haematology analysis (blood cell count).
- Clinical chemistry profile (of urine and plasma).

## At termination

- Evaluate the degree of metastasis.
- Visual characterization of the tumor (necrosis etc.).
- The tumor is divided and preserved for further analysis;
  - Cryo-preservation (for cell culture)
  - In formalin (for histopathological and immunostaining analysis)
  - In RNAlater, QIAGEN (for RNA and DNA isolation)

