

### ➤ Subcutaneous tumor models

Subcutaneously implanted tumor cells represent a convenient means to test novel potential anti-cancer drugs *in vivo*. A large variety of human and murine cell lines derived from both, solid tumors or leukemias, covering a wide range of tumor geno- and phenotypes, have been adapted to grow in mice, and thus allow testing of a compound in the appropriate tumor model.

### ➤ B16-F10 cells (CPQ-20)

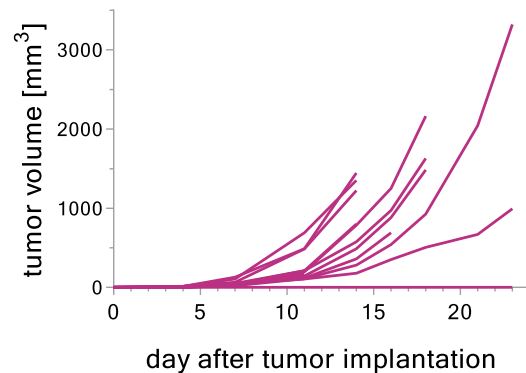
Origin: skin / mouse C57BL/6  
Description: melanoma

### ➤ Study outline

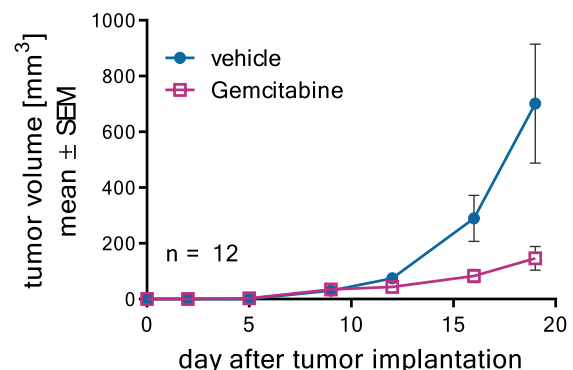
- subcutaneous implantation of B16-F10 cells into the left flank
- randomization into treatment groups according to tumor sizes
- tumor sizes are measured via calipering twice weekly
- animal behavior is monitored daily
- animal weights are measured three times weekly
- Accessory services: tumor wet weight and volume measurement at necropsy, blood sampling, immune cell frequency determination in the tumor and lymphatic tissues by flow cytometry, paraffin embedding of tumor tissue, histological & pathological analysis, cytokine determination, provision of tumor tissue for target validation

### ➤ Study example - Gemcitabine

One group of mice bearing subcutaneous B16-F10 tumors was treated with Gemcitabine, the other group with vehicle. Treatment started after randomization when tumor volumes had reached a mean size of approximately 30 mm<sup>3</sup>.



**Figure 2:** Growth of B16-F10 tumors *in vivo*. Single tumor volume data depicted



**Figure 3:** B16-F10 tumors were treated with Gemcitabine. Tumor growth was monitored by calipering.