Breast tumor model: EMT6
syngeneic – metastasis

IN VIVO TESTING SERVICES

➢ Metastasizing mouse tumor models

In metastatic tumor models, tumor spreading originates either from a primary tumor or is artificially induced by intravenous or intracardial tumor cell injection. The metastatic pattern is dependent on the tumor cell line with a preference of lung metastasis in case of intravenous injection. For human tumor cell lines immune-compromised mice are used with the advantage to study classical antitumoral test compounds. In contrast, murine tumor cell lines can be grown in immune-competent mice (syngeneic), providing a functional immune system to assess novel immunotherapeutic approaches.

➢ Tumor cell line EMT6_Luc

Origin: mouse BALB/c
Description: mammary carcinoma

➢ Study outline

EMT6-luc cells are injected intravenously and cell growth is monitored via whole body in vivo bioluminescence. The animals are randomized into treatment groups according to the luciferase signal. During the study, tumor growth is monitored via bioluminescence once per week, animal behavior is monitored daily and animal weights are measured three times per week.

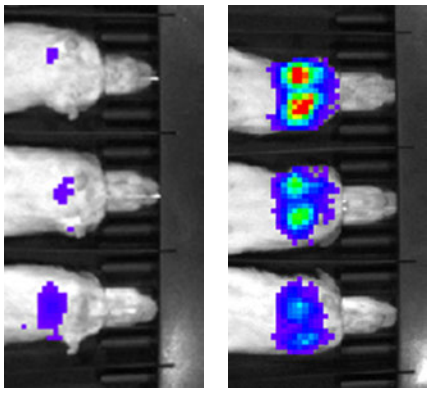

***Figure 1:**. In vivo BLI of mice with intravenous injected EMT6_Luc cells were measured 3 days (left) or 17 days (right) after implantation.*

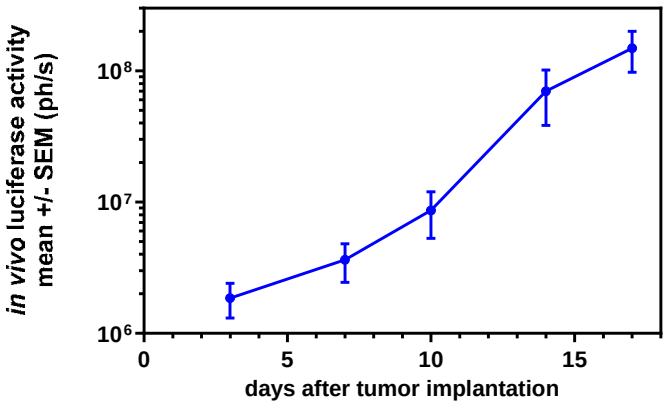

***Figure 2:**. In vivo BLI of EMT6_Luc cells growing as metastasis in vivo, luciferase activity, mean values +/- SEM*

➢ Quality assurance

- Routine authentication of tumor cell lines by STR profiling
- Mycoplasma testing of tumor cells by PCR just prior to implantation
- Routine health monitoring of sentinel animals (according to FELASA guide lines)
- Animal work according to the 5R rules (reduce, refine, replace, responsible, remember)

Note: Graphs depicted are derived from study examples. Each study is a biological system of its own and subject to intrinsic variation.