

ONCOLOGY

Subcutaneous xenograft tumor model

Subcutaneous xenograft tumor model into immunodeficient animals are valuable tools for assessing in vivo efficacy and testing PK/PD of potential anti-cancer drugs. In this model human cancer cells are subcutaneously implanted into the back of nude mice. Tumors grew locally encapsulated in a connective tissue capsule¹.

Species: Nude athimic *nu/nu NU(NCr)-Foxn1^{nu}*

Number of animals/group: 10 animals

Route of administration: upon request:

Treatment mode: upon request

Inoculated cell: upon request

Main Read-outs: Body weight, tumor volume and weight, images of animals, images of tumors and survival rate.

Facultative read-outs: PK/PD, histopathology, immunohistochemistry, RT-PCR analysis of biomarker messenger RNA, hematology and others.

Validation Data

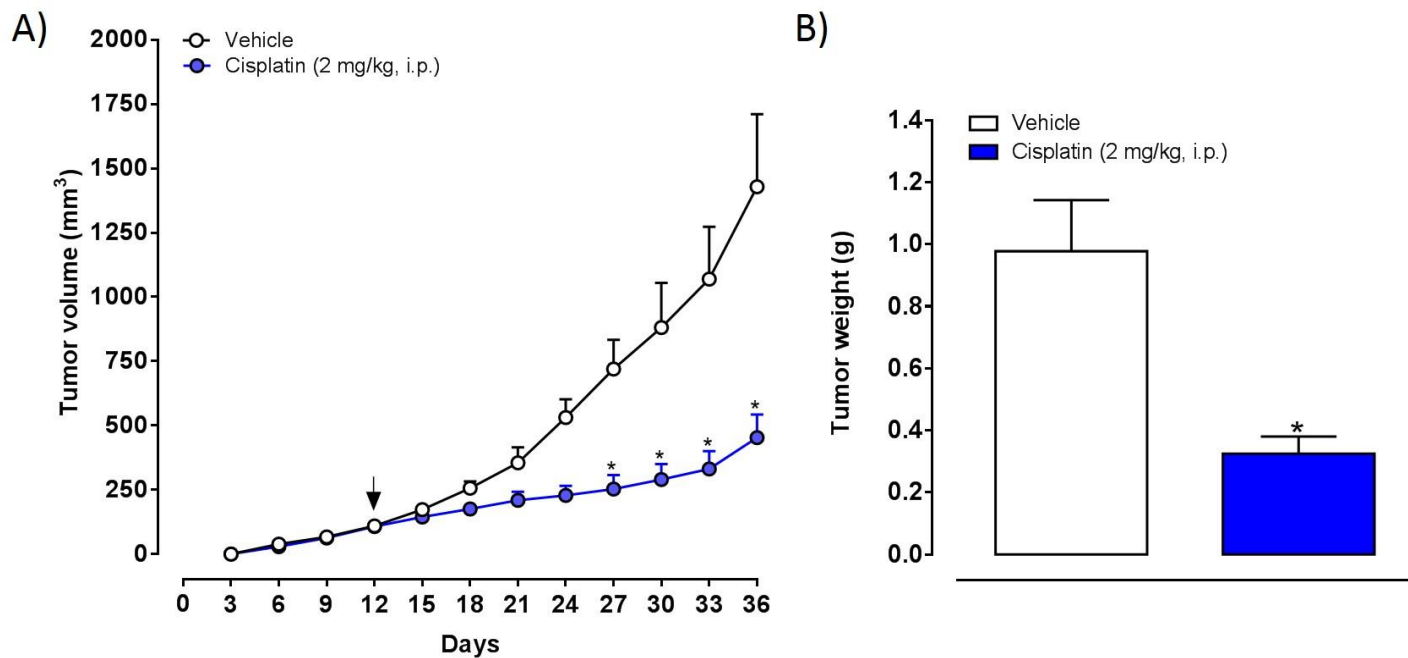


Figure: Tumor growth rate (A) and tumor weight (B) for A375 (melanoma) cells inoculated into nude mice. Cisplatin was used as reference item (control group). Each point or column represents the mean ± SEM of 10 mice per group. Statistical analyses was used t-test or two-way ANOVA with a post-hoc Bonferroni. *, P < 0.05, versus vehicle group.

To avoid bias and to allow reproducibility all in vivo experiments follow the ARRIVE guidances². Mice colony from Charles River Laboratories are breed and maintained in SPF conditions. The project includes study plan and final report. Raw data are inspected by quality assurance unity. The experimental procedures was previously approved by the CIEnP Committee on the Ethical Use of Animals.

References:

- ¹Morton C, Houghton P. Establishment of human tumor xenografts in immunodeficient mice. Nature Protocols | Vol.2 No.2 2007.
- ²Kilkenny C, Browne WJ, Cuthill IC, Emerson M, Altman DG. Animal research: reporting in vivo experiments: The ARRIVE guidelines. PLoS Biol. 8 (6): e1000412, 2010.