Uterine leiomyomas, commonly known as fibroids, affect 70% of women of reproductive age and 25% of women present significant symptoms such as abdominal uterine bleeding, pelvic pressure and reproductive dysfunction.

A xenograft mouse model is one of the recently described model1 with a translational value to humans and that can serve to evaluate the effect of compounds on human uterine leiomyoma lesions.

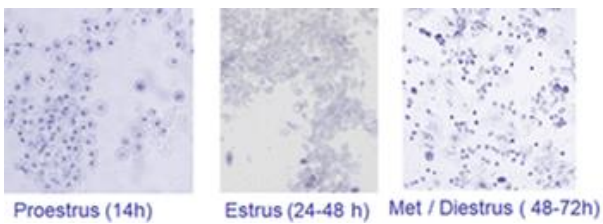
Species : mouse (intact or ovariectomized).

Summarized methodology

- Human uterine leiomyoma tissues are collected from premenopausal women and cut into cubes and sutured in peritoneum in each flank of an immunocompromised mouse. One week after implantation, the mice receive respective treatments. At the end of the treatment period, the leiomyoma xenografts are collected for further analysis.

Pathophysiological features and measurable endpoints

- Estrus cycle profile
- Histological evaluation and cell density analysis
- Immunohistochemistry: cell proliferation, apoptosis, specific receptor expression, etc…
- Gene expression analysis
- Uterine leiomyoma size and macroscopic analysis
- Quantification of compounds and/or biomarkers in plasma/serum or urine



Daily determination of the cycle with cresyl violet staining of vaginal smear.

Examples of estrous cycle profile of one Wistar (W) and GK rats showing the evolution of the cycle stage1.

Related Pelvipharm bibliography:

[1] Corachan *et al.* **Fertility and Sterility** (2020):113

NB: Pelvipharm will gladly study the feasibility to fit this experimental model to its client's needs.