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## Vaginal atrophy evaluated by histological analysis

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### Objectives:

- To evaluate vaginal morphological and histological changes in ovariectomized female rat, a relevant preclinical model of menopause
- To evaluate the thickness of the vaginal epithelium
- To examine the architecture and the cell shape of the vaginal epithelium
- Useful for the evaluation of the effect of drugs developed for menopausal symptoms, including vaginal atrophy, vaginal dryness, lubrication difficulties or dyspareunia.

### Summarized methodology:

Adult non-pregnant female Sprague-Dawley rats are ovariectomized bilaterally through a lumbar incision. The ovarian bundles are tied off with 3/0 polyester suture and the ovaries removed. The effectiveness of ovarian removal is checked under binocular microscope. The fascia and the skin are closed using 3/0 polyester suture. Two to four weeks after surgery, the vagina are collected and processed for histological and morphological analysis.

### Endpoints:

- Vaginal weight
- Thickness of the epithelium : surface area and number of epithelial layers
- Architecture of the epithelium : shape and morphology of epithelial cells

### Links to applicable therapeutic areas / targeted disorders:

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#### - Sexual pharmacology

\* FSD

#### - Menopause

\* Menopausal symptoms

\* FSD

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