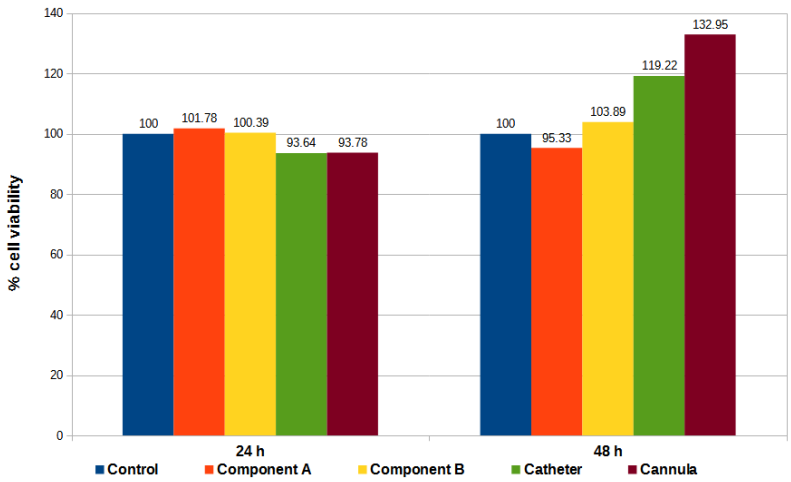
## Results overview

In the first stage of the EURONANOMED project was designed an implantable device suitable for filtration of beta-amyloid from cerebrospinal fluid.

The biocompatibility of the developed implantable device was tested in vitro, using a cell-based model and the outcome was measured by evaluation of live/dead cells by MTT assay. Every component was subjected to cytotoxicity evaluation by decomposing the device in its main components.

V79 cell line was used for biocompatibility testing, being cultivated and grown in DMEM with 10% FBS. Biocompatibility of the different components of the device was determined by extract method. The method consists in incubation of materials of interest in cell culture medium at 37$^{o}$C for 72 hours, in incubator. After the incubation period has expired, the extract is used for cell cultivation, after supplementation with FBS to meet the normal conditions for cell cultures.

Cell viability was determined at 48 hours since the treatment was applied, with an intermediary point at 24 hours. Evaluation of the cells viability was based on MTT assay, which is able to discriminate between live and dead cells based on the ability of live cells to metabolize MTT in formazan. Dead cells are not able to metabolize MTT due to failure in mitochondria function.




Viability of normal fibroblast cell cultures incubated in the presence of the growth medium in which different components of the device were incubated for 72 hours.

In order to comply with the regulations regarding the biocompatibility, components of the implantable device were tested using in vitro cellular models.

Biocompatibility test results shown that none of the components were cytotoxic, being fully compatible with cell survival.