



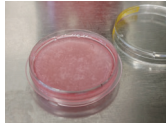
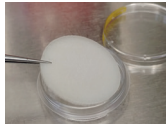
## Silicone-Scaffolds

- Three-dimensional growth areas for cell cultivation
- Optimal growth environment represents low modulus of elasticity
- Special carrier surfaces come closer to their natural environment than two-dimensional structures
- Realistically depicts the growth area
- Allows even supply to the cells
- Manufacturing takes place using a generative manufacturing process

Do your Cells need more room?

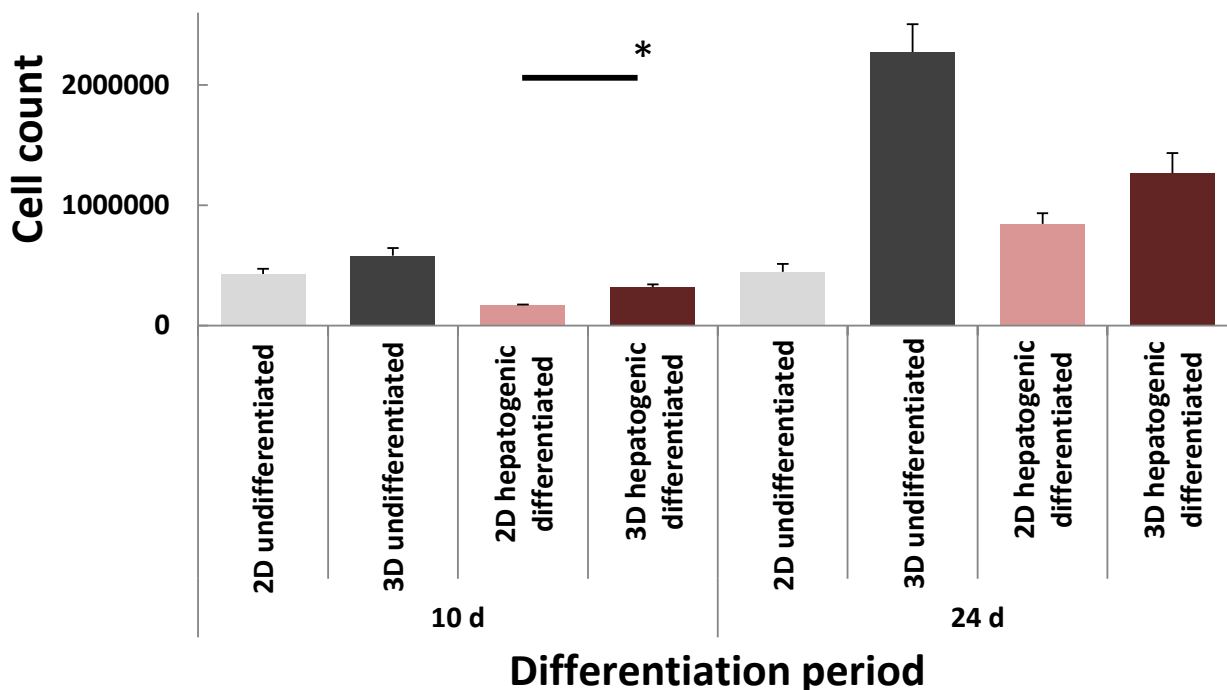
**We** have the answer!

# SILCULT – THE SCAFFOLD TECHNOLOGY FOR 3D CELL CULTURE



- Optimal fit: dimensions can be adapted to any standard cell culture shape
- Structure adaptable to customer requirements (strand density, thickness and architecture)
- Surface treatment of the growth areas to increase the hydrophilic properties
- Tripling the growth area – 3D growth support
- Oxygen transport i.a. positive for the supply of cells
- Simple manual handling as known from traditional culture
- Easy sterilization (Ethanol)
- Coating with structural proteins possible (fibronectin, collagen, ...)
- Consists of 100% medically certified silicone
- Product free from animal components (BSE / TSE-free)
- Heat/Cold & Chemical resistant

## Comparison of cell numbers 2D vs 3D culture during differentiation



Development of the cell number. Sowing 15,000 human mesenchymal stromal cells from the adipose tissue per well at the beginning of the cultivation. Significantly higher cell numbers on SILCULT - Silicon-scaffold compared to 2D culture after 10 d hepatogenic differentiation and significantly higher cell numbers of undifferentiated cells on SILCULT - Silicon-scaffold compared to 2D culture after 24 d culture with identical initial cell number. (MW  $\pm$  SF; \*  $p < 0.05$ )

Data from the University of Leipzig

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