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## **METHOD AND DEVICE FOR FORMING A THREE-DIMENSIONAL ARRANGEMENT OF BIOLOGICAL CELLS**

**Key words:** biological cells, stem cells, 3D cell culture, tissue engineering, regenerative medicine

In cell biological research and development, cells are usually cultured on a two dimensional surface. These growth conditions do not correspond to the native conditions provided by tissues and organs as they lack three dimensional cell to cell and cell to matrix interactions. Therefore, there is interest to replicate three-dimensional cell arrays synthetically for the purpose of in vitro study of biological cells, cell therapy or tissue engineering.

### **The Invention**

The invention relates to a novel method for producing three dimensional, e.g. tubular or spherical shaped arrangements of cells by culturing cells on a substrate that exhibits an architecture allowing it to be deformed in a predetermined manner wherein the deformation of the substrate is brought about by the attractive forces exerted by the cells on the substrate and each other.

### **Market potential**

- Tissue engineering
- Cell therapy
- Bioassays, Test systems

### **State of Development**

Proofs of principle studies have been performed.

### **Branch**

Medical technology, Clinical technology, Pharma

### **Patent situation**

Patent granted (EP, D)

### **Offer**

Co-operation, Contract research, License, Sale

**Contact**

Dr. Philipp Ciba

Phone: +49 451 384448 29

[philipp.ciba@emb.fraunhofer.de](mailto:philipp.ciba@emb.fraunhofer.de)