

Market-analysis shows the future potential of BONEBANK

What are the needs and requirements of public and industrial stem cell research? Which conditions apply to biobanking, the extraction of stem cells and their use? These are the questions pursued by us at Life Science Nord Management GmbH in our "Needs and Requirement Analysis," which provides information about research and development as well as the clinical and industrial applications of stem cells. Companies that are already using stem cell products on the market were also included in the analysis. Here we have to distinguish between two types of companies; those that distribute cell lines and primary cell products for basic research; and those that manufacture products for cell therapy purposes. As an intermediate conclusion of this analysis, we can say:

- The route from the laboratory to therapeutic applications for stem cells is complex and costly;
- A comprehensive characterisation of the cell product is necessary before use in a patient;
- The cell product must be of high quality and produced under GMP (Good Manufacturing Practice) requirements.

Focus on use in a scientific context

Many aspects can not yet be conclusively answered in our analysis, therefore the analysis will continue. In particular, the requirements regarding the quality of the cells must be clarified. Because for the first time now, BONEBANK-partners are isolating stem cells from previously discarded bone material left over after routine surgeries, it must be first ensured that the characteristics of these cells correspond to those of mesenchymal stem cells from pure bone marrow. BONEBANK is initially focussed on the use of the cells in a scientific context, before cell products for therapy can be produced under GMP conditions.

Future potential for innovative technologies such as 3D printing

The market analysis reveals other possible interesting applications for stem cells; one day they could not only be used as a direct therapeutic, but in combination with tissues, for example with innovative technologies such as 3D-printing. These prospects are future-oriented and underline the enormous potential of the BONEBANK stem cell biobank.

On the basis of these findings we will now develop a business model outlining the organisational structures and possible applications for the biobank in the German-Danish border region.

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