

## www.hesub.eu



HESUB project combines several individual technologies from previous FP projects into one product that is capable of producing enough stem cells for one therapeutic treatment per day per unit. The HESUB product concept is a Single-Use-Bioreactor, which integrates a nanofibre porous scaffold optimised for the proliferation of cells and a sensor package that measures a range of key parameters. Which provides cost-efficient production of human stem cells for therapeutic treatment or a range of diseases.



Finished 50 ml scaffold volume HESUB all pre-assembled and packed in dual film bags before precision Ebeam irradiation. Sensors for pH, DO, Glucose, Lactate installed in the media reservoir. Ready for use.



Cells arranged in scaffold being electrospun organic fibres into discs assembled inside 2 envelopes in SUB.

HESUB's update the current 2D 1) Stobbe Tech A/S, Denmark Project acronym: HESUB
technology for culturing satellite   2) The Electrospinning Company Ltd,   Project full title: "High Efficient,
cells by a perfused Single-Use- United Kingdom Single Use-Bioreactor simulating
Bioreactor. Allowing propagation <sup>3</sup> PreSens Precision Sensing GmbH, mammalian tissue conditions for
and/or differentiation of large Germany expression and proliferation"
numbers of satellite cells that 4) 3H Biomedical, Uppsala, Sweden HESUB is funded by the
retain myofibre regeneration 5 Kunglige Tekniska Högskola, Royal European Union 7th framework
properties of satellite cells. Institute of Technology, Sweden programme under grant # 601700.