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(54) Title: CRYOPRESERVATION OF HUMAN BLASTOCYST-DERIVED STEM CELLS BY USE OF A CLOSED STRAW
VITRIFICATION METHOD

(57) Abstract: An improved method for vitrification of biological cells, especially blastocyst-derived stem cells (BS cells). The method is very mild for the cells that remain viable after they have been thawed. The method comprises, i) transfer of the cells to a first solution (solution A), ii) optionally incubation of the cells in the first solution, iii) transfer the cells obtained in step i) or ii) to a second solution (solution B), iv) optionally incubation of the cells in the second solution, v) transfer of the cells obtained from step iii) or iv) into one or more closed straws with dimensions that allow a volume of at least 20 µl to be contained in them vi) sealing the one or more closed straws, and vii) vitrification of the one or more closed straws. An important feature of the present invention is the use of closed straw and that relatively large volumes can be efficiently vitrified and subsequently thawed.



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