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(54) Title: METHOD FOR REPROGRAMMING CELLS

(57) **Abstract:** The invention relates to a method for determining the conditions required for reprogramming of a first cell type to a second cell type, which comprises the steps of: separately exposing a first plurality of test units each comprising a cell to different TFs or combinations of TFs and labelling the cells to indicate exposure to said TFs or combinations of TFs; pooling the plurality of test units, and subdividing the pool of test units to form a second plurality of test units; separately exposing the second plurality of test units to different TFs or combinations of TFs; identifying the cell type of the cells in the test units and deconvoluting the labels to identify the identity, sequence and timing of TFs to which the cells have been exposed; optionally, using the data from the foregoing step to inform the choice of TFs used in initial step, and repeating as required; and identifying a cell of the second cell type, and deconvoluting the labels to thereby identify the identity and sequence of TFs required to reprogram a cell of the first cell type into a cell of the second cell type.



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