





Figure S4. Validation of knockdowns

(A,C) Western blot of (A) Oct4/Pou5f1, Esrrb, Nanog and (C) Jarid2 with Actin as control. (B,D) Alkaline phosphatase staining after two days knockdowns with shRNAs. (E) Comparison between mRNA and protein levels of Oct4/Pou5f1, Nanog and Esrrb in regular and knockdown mESCs. (F) Comparison of *in silico* and experimental knockdown of Jarid2. Simulation (left), experimental (middle) and comparison (right) results of Jarid2 knockdowns. (G-H) Differential links regulating *Fgf5* and *Cdx2* before (G) and after (H) relearning using the RT-PCR knockdown data. (I) Percentage of input data points flipped, or entries in the adjacency matrix of the network scrambled, plotted against relative accuracy of comparing simulations from learned Boolean models calibrated by the single cell data and the initial topology, with experimental knockdown results. Black line represents results of flipped expression data points from the binarized single cell data with intact network topology, grey line represents results of scrambled network wiring with intact single cell data.