Supplementary Figure 4  Scatter plots of the correlation index\textsuperscript{50} (CI) as a function of the inter-cell distance for each of the cell pairs recorded at P7. We chose to sample from the array with an inter-electrode spacing of \textasciitilde 200\,\mu m. Thus, a given cell’s signal only appeared on one electrode and the location could not be triangulated using the signals from neighboring electrodes. As a result, one can see clustering around particular inter-cell distances constrained by the electrode array geometry. An inter-cell distance of zero means that two or more cells were identified on a single electrode. The red trend line through the data points is a fit of an exponential $CI = Ae^{-x/L}$. Raster plots of \textasciitilde 20 min recordings are also shown for each age. Each row represents a separate electrode, with neighboring electrodes listed next to one another. Within each row, vertical lines represent a spike from the corresponding cell. The interval of time surrounding the wave event is shown in the red highlighted region in the bottom part of each figure.