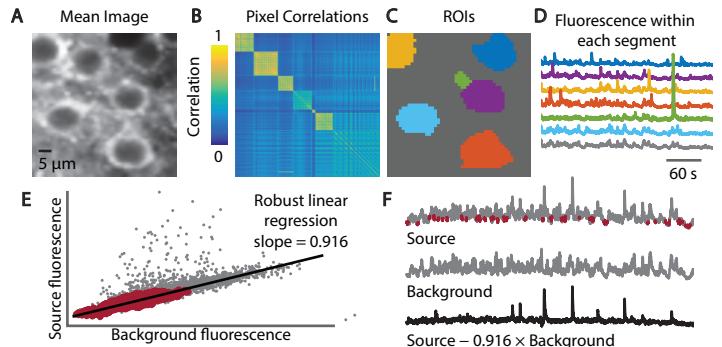
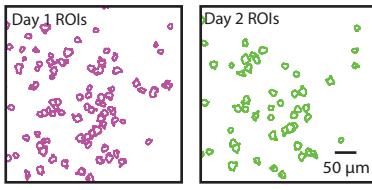


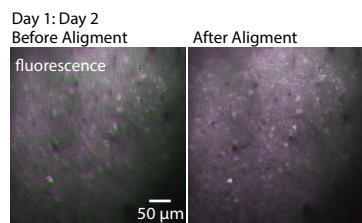
Within Session Processing



G Following within session processing, there is a distinct ROI map on each imaging day.



Across Session Processing



Likelihood of ROI matches across days is ranked based on proximity of centroids in aligned ROI maps and correlation of fluorescence images in window around ROI centroids. Matches were then manually verified and adjusted using an interactive gui that allowed the user to scroll through most likely matches.

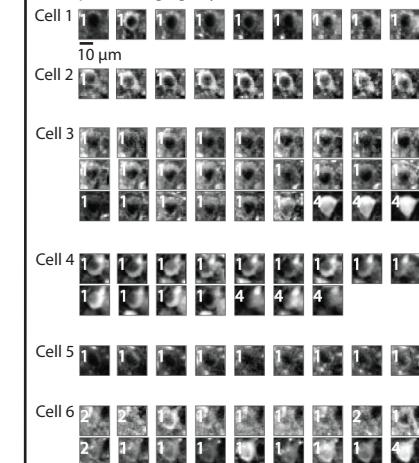
I Quality of Match Assessment

ROI matches across all sessions were then manually ranked based on likelihood of match. Only cells ranked 1 or 2 were used for across session analyses.

KEY

- 1) Same cell
- 2) Likely same cell
- 3) Cannot be confirmed
- 4) Nuclear fluorescence

Separate Imaging Days →



J Statistics of Cells with Good Matches

This method resulted in an incomplete map of all cells across all sessions. Cells that were not active, out of focus or filled in on a given session did not have a defined mask for that particular imaging day and were therefore missing from the aligned cell set across imaging days. Cells were more likely to have a defined mask on sessions that were nearby in time because of expression changes throughout the imaging period.

