

Description of Additional Supplementary Files

File name: Supplementary Movie 1

Description: Raw recording of two behaving fish in the social experimental assay, imaged from below.

File name: Supplementary Movie 2

Description: Two behaving fish in the social experimental assay, tracked with annotated features.

File name: Supplementary Movie 3

Description: Neural activity from one recorded brain plane, shown together with the angular position of the conspecific (blue cross; value indicated in white). Movement timings of the focal fish and conspecific are indicated in red and blue, respectively.

File name: Supplementary Movie 4

Description: Simultaneous large-scale recording from eight brain planes, arranged from top left (higher plane) to bottom right (lower plane).

File name: Supplementary Movie 5

Description: Trajectory of an example fish in the social preference assay before and after ablation of pallial neurons, demonstrating reduced social preference following ablation.