

Expanded View Figures

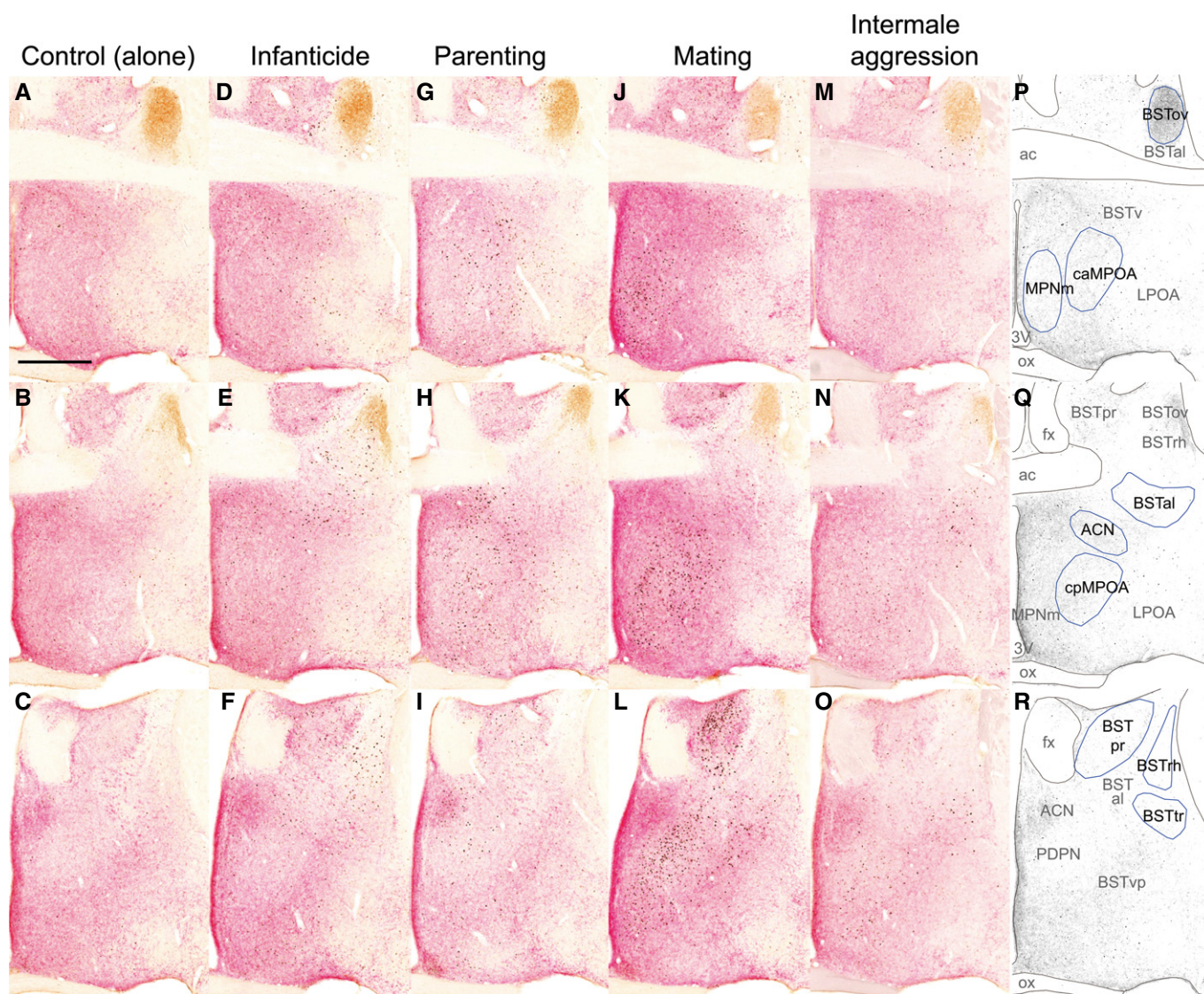


Figure EV1. Distribution of c-Fos-ir neurons in the preoptic-BST region after various social behaviors (low magnification of Figure 2).

A–O Representative photomicrographs for c-Fos (black), VIP (brown) and galanin (pink-red) triple staining of control, infanticidal, parenting, mating and intermale aggression groups. All panels are coronal sections arranged from rostral (top) to caudal (bottom) order. The distances from bregma to the sections were +0.22 mm (top), +0.1 mm (middle) and –0.08 mm (bottom), respectively. Scale bar = 0.5 mm.

P–R Area names and locations where the c-Fos-ir neurons were counted (indicated by blue lines).

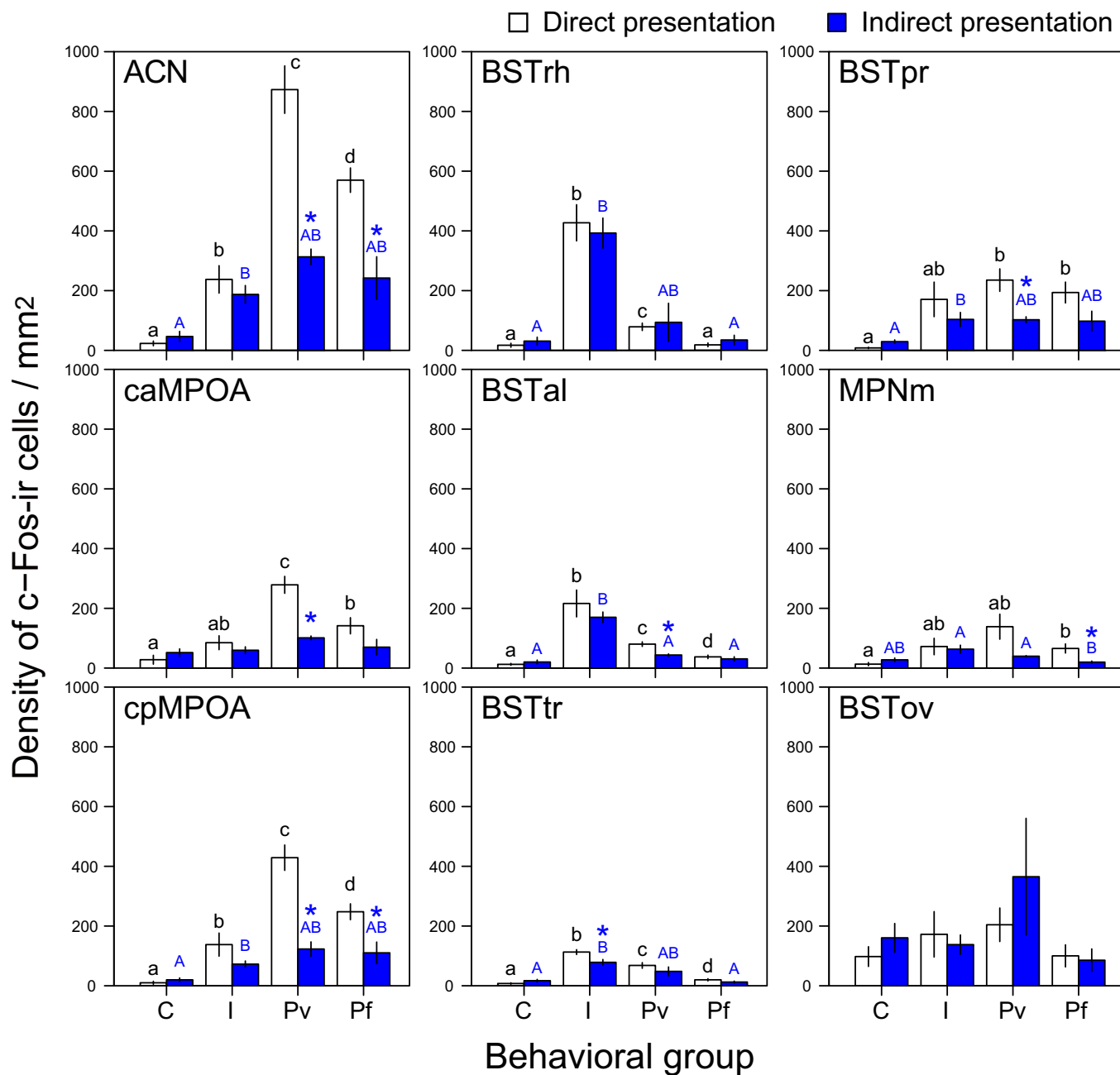


Figure EV2. Comparison between direct and indirect pup presentation and the effect on c-Fos expression.

Mean (\pm SE) density of c-Fos-ir neurons in each area induced by direct exposure of pups (white) and indirect exposure of pups within mesh balls (blue). Letters above each bar indicate significant differences between each behavioral group (i.e., bars with a same letter are not significantly different by Welch's ANOVA). Asterisks denote significant differences among exposure types (direct, exposed pups; indirect, pups within mesh balls). C: control no exposure to pups but a sham action of opening and closing the cage top (white in C, $n = 8$), exposure to a mesh ball (blue in C, $n = 9$); I: infanticidal virgin males exposed to pups directly (white in I, $n = 7$) or indirectly (blue in I, $n = 14$); Pv: parentally behaving virgin males exposed to pups directly (white in Pv, $n = 6$) or indirectly (blue in Pv, $n = 2$); Pf: parentally behaving fathers exposed to pups directly (white in Pf, $n = 11$) or indirectly (blue in Pf, $n = 8$).

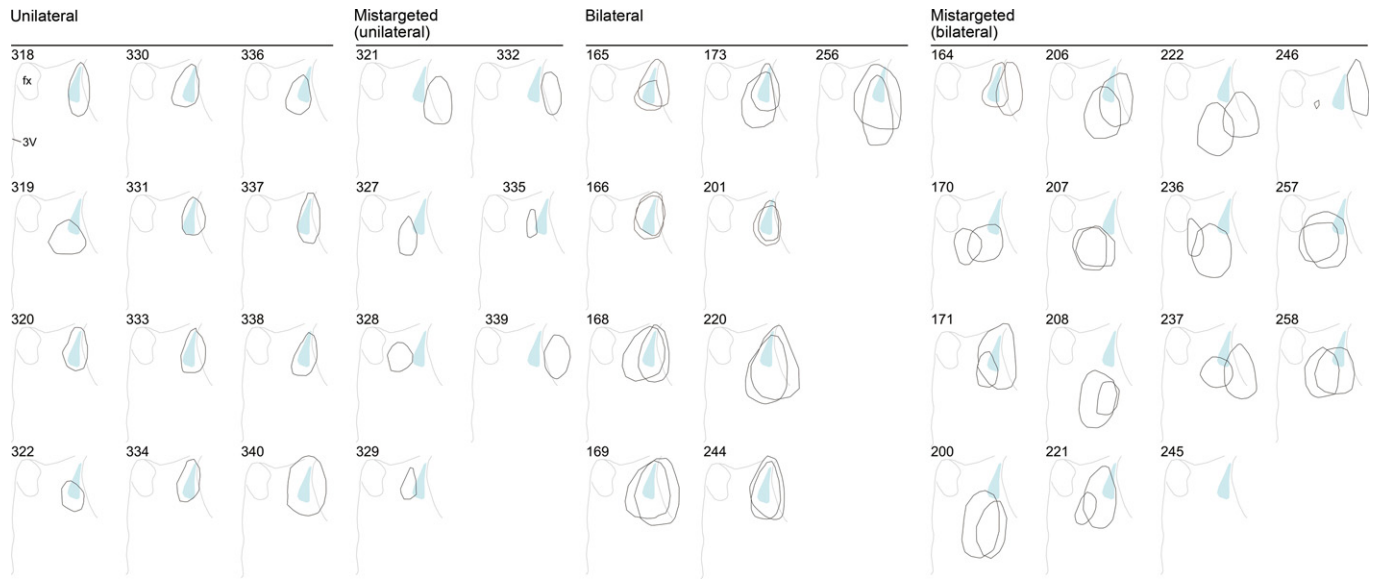


Figure EV3. Individual lesion mapping for the BSTRh in virgin males.

Superimposition of the left and right BSTRh lesioned areas of individual male mice with ID numbers, classified into “mis-targeted,” “unilateral” and “bilateral” groups. BSTRh conservative contours are shown as the light blue areas. Numbers are the IDs of individual mouse.

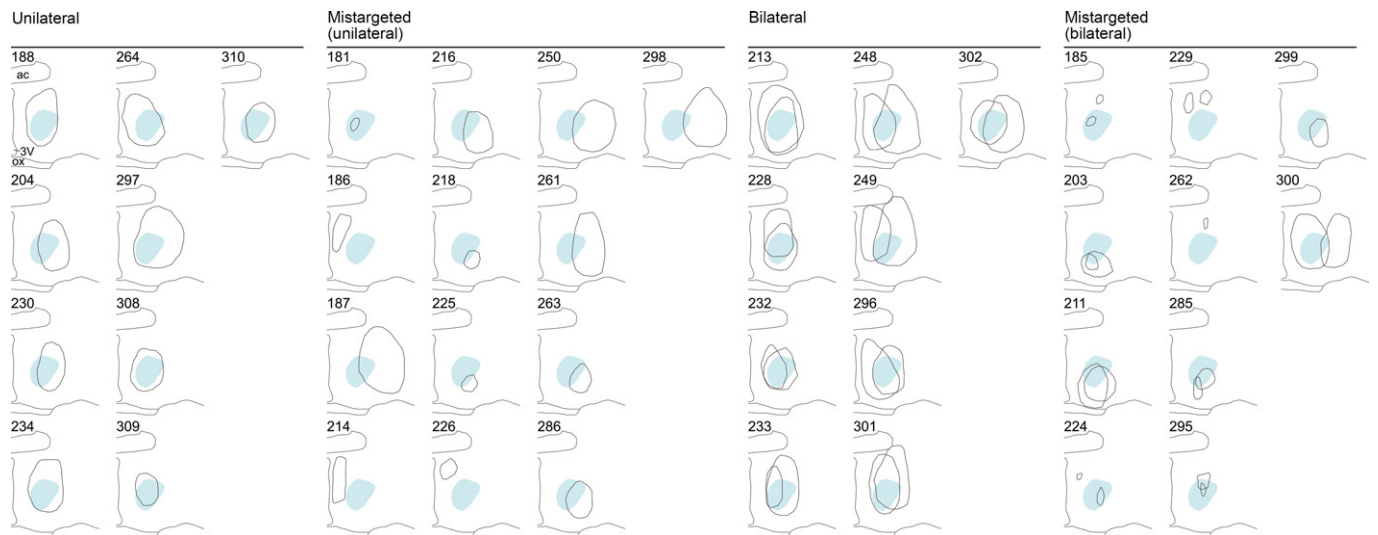


Figure EV4. Individual lesion mapping for the cMPOA in father males.

Superimposition of the left and right cMPOA lesioned areas of individual male mice with ID numbers, classified into “mis-targeted,” “unilateral” and “bilateral” groups. cMPOA conservative contours are shown as the light blue areas. Numbers are the IDs of individual mouse.