

Supplemental Table S1. Treatment groupings

Cohort 1	Number of mice	
	Total	Fixed for immunohistochemistry
Treatment		
Non-stress + vehicle (saline)	10	5
ACMS + vehicle	10	5
ACMS + imipramine	10	5
Non-stress + vehicle (10% DMSO-containing saline)	10	10
ACMS + vehicle (10% DMSO-containing saline)	10	10
ACMS + SYK-623	10	10
Non-stress + vehicle (saline)	10	10
ACMS + vehicle	10	10
ACMS + NTI	10	10

Cohort 2	Number of mice	
	Total	Tissue sampling for immunohistochemistry
Non-stress + vehicle (10% DMSO-containing saline)	9	9
ACMS + vehicle (10% DMSO-containing saline)	9	9
ACMS + SYK-623	9	9

Animals with following conditions were excluded from each experiment.

**All experiments:** Body weight loss exceeding 15% compared to the start of the experiments.

**Tissue weight and immunohistochemical staining:** Partial loss or damage of tissue during extraction. Residual blood in the brain post-fixation (indicating insufficient fixation).

**Tail suspension test:** Escape by climbing their tail or adhesion tape. Fall due to the peeling of adhesive tape.

**Y-maze:** Total arm entries less than 9 times. Exploration in the same direction.

**Novel arm recognition test (Modified Y-maze):** Total arm entries less than 9 times.

**Novel object recognition test:** Less than 20 seconds of exploration time towards the objects during the training session, or a bias in interest towards the object on one side.

**Open field test:** Total distance of less than 1000 cm.