

# Olfactory Laterality Is Valence-Dependent in Mice

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## Supplementary Data

**Table S1.** Proportion of mice using their right nostril first compared to random nostril use (50%) in NMRI mice: Confidence intervals (CI) and odds ratio (Binomial tests).

Odour	CI		Odds ratio
Female	0.36	0.81	1.5
Vanilla	0.36	0.81	1.5
Water	0.41	0.85	0.54
Garlic	0.41	0.85	0.54
Rat	0.41	0.85	0.54

**Table S2.** Proportion of mice using their right nostril first compared to random nostril use (50%) in C57BL/6J mice: Confidence intervals (CI) and odds ratio (Binomial tests).

Odour	CI		Odds ratio
Female	0.32	0.78	1.37
Vanilla	0.36	0.81	1.5
Water	0.27	0.73	1
Garlic	0.27	0.73	1
Rat	0.41	0.85	0.54

**Table S3.** Comparisons of first nostril used for each odour in both strain (Cochran test): effect size (maximum-corrected measure of effect size:  $\eta^2Q$ ).

Strain	$\eta^2Q$
NMRI	0.07
C57BL/6J	0.05

**Table S4.** Comparisons to Chance levels (0) for each odour in NMRI mice: Confidence intervals (CI) and effect size (Cohen's  $d$ ; one-sample t-tests).

Odour	CI		Cohen's $d$
Female	0.10	0.52	0.15
Vanilla	-0.10	0.25	0.22
Water	-0.23	0.19	0.05
Garlic	-0.30	0.02	0.40
Rat	-0.59	-0.03	0.84

**Table S5.** Comparisons to Chance levels (0) for each odour in C57BL/6J mice: Confidence intervals (CI) and effect size (Cohen's  $d$ ; one-sample t-tests).

Odour	CI		Cohen's $d$
Female	0.17	0.63	0.90
Vanilla	0	0.39	0.47

Water	-0.27	0.14	0.15
Garlic	-0.31	0.09	0.25
Rat	-0.73	-0.16	1.06

**Table S6.** Comparisons of mean LI for each odour between strains: Confidence intervals (CI) and effect size (Cohen's d) for Welch two-samples t-tests.

Odour	CI		Cohen's d
Female	-0.21	0.38	0.23
Vanilla	-0.14	0.37	0.29
Water	-0.33	0.24	0.12
Garlic	-0.22	0.28	0.07
Rat	-0.50	0.24	0.27

**Table S7.** Comparisons of mean absLI for each odour between strains: Confidence intervals (CI) and effect size (Cohen's d) for Welch two-samples t-tests.

Odour	CI		Cohen's d
Female	-0.12	0.31	0.33
Vanilla	-0.05	0.24	0.43
Water	-0.10	0.22	0.25
Garlic	-0.05	0.21	0.39
Rat	-0.15	0.44	0.45