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Supplementary Information - Table 1: Statistics			
Figure Number	**Sample size (n=mice otherwise stated)**	**Test**	**P value**
1e; Control vs MnPOx	9,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0046
1g(left); SFO stim-Water intake-CNO vs Vehicle	5,5	Mann-Whitney (two-tailed)	0.0079
1g(middle); -Water-Water intake-CNO vs Vehicle	10,9	Mann-Whitney (two-tailed)	<0.0001
1i(middle right); Drinking- CNO vs Vehicle	6,6	Paired t-test (two-tailed)	0.0001
1i(top right); Plasma Osmolality 0^{th} vs 15^{th} minute	5,5	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0059
1i(bottom right); Plasma Na^{+} – 0^{th} vs 15^{th} minute	5,5	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0008
2e(left); -Water – Light OFF vs Light ON	7	Paired t-test (two-tailed)	<0.0001
2e(left); Prandial thirst – Light OFF vs Light ON	7	Paired t-test (two-tailed)	0.0004
3a(right); Area Under Curve – eYFP vs GCaMP6s	6,6	Mann-Whitney (two-tailed)	0.0022
3b(bottom left); Area Under Curve - Empty vs Saline	7,6	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0015
3b(bottom left); Area Under Curve - Empty vs Silicone Oil	7,6	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0144
3b(bottom left); Area Under Curve -Empty vs Water	7,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0080
3c(bottom left); Area Under Curve - Empty vs Sucrose	6,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0016

3c(bottom left); Area Under Curve - PB vs Sucrose	6,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0133
4b; Area Under Curve – HydroGel vs Water	5	Paired t-test (two-tailed)	0.0051
4b; Total ingestion time – HydroGel vs Water	5	Paired t-test (two-tailed)	0.0132
4b; Intake per min – HydroGel vs Water	5	Paired t-test (two-tailed)	0.0003
4c; Start of bout – HydroGel vs Water	5	Paired t-test (two-tailed)	0.0272
4c; End of bout – HydroGel vs Water	5	Paired t-test (two-tailed)	0.0332
4e (left); Area Under Curve – 2s x 15 vs 30s	6,6	Mann-Whitney (two-tailed)	0.0022
4e (middle); Intake per min– 2s x 15 vs 30s	6,6	Mann-Whitney (two-tailed)	0.0022
4e (right); Total intake (licks) – 2s x 15 vs 30s	6,6	Mann-Whitney (two-tailed)	0.0043
5c(left); Number of licks – Vehicle vs CNO(-Water)	8	Paired t-test (two-tailed)	0.0083
5c(right); Licking time – Vehicle vs CNO	8	Paired t-test (two-tailed)	0.0116
Extended Data 1d(left); - Water intake – eYFP vs ChR2 (MnPO)	5,8	Mann-Whitney (two-tailed)	0.0016
Extended Data 1d(left); - Water intake – eYFP vs ChR2 (OVLT)	5,4	Mann-Whitney (two-tailed)	0.0159
Extended Data 2c(right); - Water intake – Control vs MnPOx	9,9	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0173
Extended Data 2d(left); - SFO stim – CNO vs Vehicle	5,3	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0242
Extended Data 2d(left); - SFO stim – CNO vs No i.p.	5,6	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0170
Extended Data 2d(middle); - Water – CNO vs Vehicle	7,5	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0119

Extended Data 2d(middle); - Water – CNO vs No i.p.	7,3	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0191
Extended Data 2f (middle); - Water intake(licks) – CNO vs Vehicle	4,4	Paired t-test (two-tailed)	0.0128
Extended Data 2f (right); - Plasma Osmolality- 0^{th} vs 15^{th} minute	5,5	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0037
Extended Data 2f (right); - Plasma Na^{+}- 0^{th} vs 15^{th} minute	5,5	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0023
Extended Data 6c(right); - Water intake – eYFP vs ChR2 (Light ON)	6,7	Mann-Whitney (two-tailed)	0.0012
Extended Data 6c(right); - Water intake – eYFP vs ChR2 (Light OFF)	6,7	Mann-Whitney (two-tailed)	0.0012
Extended Data 6c(right); - Water intake – ChR2 (Light ON) vs ChR2 (Light OFF)	7,7	Paired t-test (two-tailed)	0.0346
Extended Data 6d(right); - Resting potential (mV) -Ex4 vs +Ex4	6 neurons	Paired t-test (two-tailed)	0.0012
Extended Data 6e;- Plasma GLP1 (pM) - Control vs FD+F	6,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test	0.0287
Extended Data 7a(bottom left); - Area Under Curve – Empty vs Saline	7,6	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0036
Extended Data 7a(bottom left); - Area Under Curve – Empty vs Water	7,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0018
Extended Data 7a(bottom right); - ΔF change – Empty vs Water	7,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0003
Extended Data 7a(bottom right); - ΔF	6,7	Kruskal-Wallis One-way ANOVA test	0.0471

change – Saline vs Water		post-hoc correction for multiple comparisons (Dunn's test)	
Extended Data 7a(bottom right); - ΔF change – SO vs Water	7,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0065
Extended Data 7b(bottom left); - Area Under Curve – Empty vs Sucrose	7,5	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0031
Extended Data 7b(bottom left); - Area Under Curve – PB vs Sucrose	7,5	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0186
Extended Data 7c(left); - Area per Lick – Empty vs Saline	7,6	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0074
Extended Data 7c(left); - Area per Lick – Empty vs SO	7,6	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0029
Extended Data 7c(left); - Area per Lick – Empty vs Water	7,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0193
Extended Data 7c(right); - Area per Lick – Empty vs Sucrose	6,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0100
Extended Data 7c(right); - Area per Lick – PB vs Sucrose	6,7	Kruskal-Wallis One-way ANOVA test post-hoc correction for multiple comparisons (Dunn's test)	0.0222
Extended Data 7e(right); - Water intake – CNO vs Vehicle	5	Paired t-test (two-tailed)	0.0085
Extended Data 8f(right); - Number of licks – eYFP vs Casp3	6,4	Mann-Whitney (two-tailed)	0.0095