| Q1 | Are all written measures that summarize data variability defined? |
| Q2 | Are any written measures that summarize data variability defined as SEM? |
| Q3 | When null-hypothesis testing is used, are p-values for all primary analyses, main effects and interactions reported or implied? |
| Q4 | When null-hypothesis testing is used, are reported or implied p-values exact for all primary analyses, main effects and interactions? |
| Q5 | If ANOVA-type analyses are used, are all reported or implied post-hoc p-values exact? |
| Q6 | Are all plotted measures that summarize variability defined? |
| Q7 | Are any plotted measures that summarize variability defined as SEM? |
| Q8 | For all figures that plot measures that summarize data/variability, are the raw data used to calculate the variability plotted? |
| Q9 | Does the paper report any exact p-values that are between 0.05-0.1? |
| Q10 | Are any of the exact p-values that are between 0.05-0.1 interpreted as trends or statistical significance? |
Q1 Are all written measures that summarize data variability defined?

**DEFINITIONS**

Measures that summarize data variability.
These include the standard deviation (SD), the standard error of the mean (SEM), 95% CI, the interquartile or similar range (IQR) and the range.

**SCOPE**
Numerical values reported in the main text of the article, tables or figure legends.

When authors report that 'All measures/results' or 'Measures/results' are reported as mean±SEM, mean±SD, median [IQR], etc., consider this to apply to all written measures that summarize data variability.

**POSSIBLE ANSWERS**

**NA**
No such measures are reported.

**0 or no**
Such measures are reported, but the type of at least one cannot be determined.

**1 or yes**
Such measures are reported and the type of all measures can be determined.

---

**0 (no)**

"Their mean age was 27.3 (4.5)."

"The cats weighed 1.6±0.4 kg (mean ±SEM), and the amount of food they ate varied considerably (100 g/day [50-375])."

"Their mean age was 32±4. Stimulus intensity was adjusted for each subjects (1.3±0.4mA) before the start of the next trial. [...] The effect of brain stimulation on hot dog cravings is reported as mean ± SEM."

"Figure 3. Response rate. There was a marked increase in the response rate of blue turtles (a). This may reflect their slow cervical reflex (23.4±4.8 ms)."

**1 (yes)**

"Their mean age was 27.3 (4.5) (mean (SD))."

"The cats weighed 1.6±0.4 kg (mean ±SEM), and the amount of food they ate varied considerably (100 g/day [50-375]; median [range])."

"Their mean age was 32±4. Stimulus intensity was adjusted for each subjects (1.3±0.4mA) before the start of the next trial. [...] Results are reported as mean ± SEM."

"Figure 3. Response rate. There was a marked increase in the response rate of blue turtles (a). This may reflect their slow cervical reflex (23.4±4.8 ms; mean±SEM)."

**TABLE 1.**

<table>
<thead>
<tr>
<th>GROUP</th>
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</tr>
</thead>
<tbody>
<tr>
<td>treatment</td>
<td>98 (5)</td>
</tr>
<tr>
<td>control</td>
<td>106 (7)</td>
</tr>
<tr>
<td>placebo</td>
<td>94 (4)</td>
</tr>
</tbody>
</table>

**TABLE 1.**

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</tbody>
</table>

* values are mean (SD)
<table>
<thead>
<tr>
<th>POSSIBLE ANSWERS</th>
<th>0 (no)</th>
<th>1 (yes)</th>
</tr>
</thead>
</table>
| NA               | "Their mean age was 27.3 (4.5)."
|                  | "The cats weighed 1.6±0.4 kg (mean ±SD), and the amount of food they ate varied considerably (100 g/day [50-375]; median [range])."
|                  | "Their mean age was 32±4. Stimulus intensity was adjusted for each subjects (1.3±0.4mA) before the start of the next trial. [...] The effect of brain stimulation on hot dog cravings is reported as mean ± SD." | "Their mean age was 27.3 (4.5), mean (SEM)."
|                  | "The cats weighed 1.6±0.4 kg (mean ±SEM), and the amount of food they ate varied considerably (100 g/day [50-375]; median [range])." | "Their mean age was 32±4. Stimulus intensity was adjusted for each subjects (1.3±0.4mA) before the start of the next trial. [...] Results are reported as mean ± SEM." |
When null-hypothesis testing is used, are p-values for all primary analyses, main effects and interactions reported or implied?

**DEFINITIONS**

**Main effects and interactions.** Results of ANOVA-type statistical tests.

**Primary analyses.** Statistical tests that are not post-hoc tests of an ANOVA-type analysis. Examples include t-tests, Chi-square tests, Pearson's product-moment correlations, regression-type analyses. If several t-tests are performed when an ANOVA would be more appropriate, these t-tests will be considered as primary analyses.

**Implied.** For example "There was no main effect of group" or "The was no age difference between groups" or "The group by time interaction was non-significant". Simply stating ANOVA before reporting post-hoc results does NOT count.

**SCOPE**

Reported or implied p-values may be located in the main text of the paper, tables or figures.

**POSSIBLE ANSWERS**

**NA**

The paper does not include primary analyses, main effects or interactions.

**0 or no**

The paper includes primary analyses, main effects or interactions, but at least one of these does not have a reported or implied p-value.

**1 or yes**

The paper includes primary analyses, main effects or interactions, and all of these have reported or implied p-values.
**Q3** When null-hypothesis testing is used, are p-values for all primary analyses, main effects and interactions reported or implied?

<table>
<thead>
<tr>
<th>0 (no)</th>
<th>1 (yes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;The cells were inhibited by the DOWN-receptor at time-point 2, 3 and 6 (Dunnett post-hoc test, p&lt;0.05).&quot;</td>
<td>&quot;The DOWN-receptor had a <strong>significant</strong> impact on cell excitability, causing significant inhibited at time-points 2, 3 and 6 (Dunnett post-hoc test, p&lt;0.05).&quot; (implied)</td>
</tr>
<tr>
<td>&quot;The cells were inhibited by the DOWN-receptor at time-point 2, 3 and 6 (ANOVA, Dunnett post-hoc test, p&lt;0.05).&quot;</td>
<td>&quot;The DOWN-receptor had a significant impact on cell excitability ((F(42,2)=22.4, p=0.012)), causing significant inhibited at time-points 2, 3 and 6 (Dunnett post-hoc test, p&lt;0.05).&quot; (reported)</td>
</tr>
</tbody>
</table>

* Figure 3. Plotted are the results for cortical and spinal cells when exposed to different concentration of factor #452-Zion. As can be seen, the membrane potential of spinal cells was significantly less when the concentration was 11, 12 and 13 % (* p<0.05).
Q4 When null-hypothesis testing is used, are reported or implied p-values exact for *all* primary analyses, main effects and interactions?

**DEFINITIONS**

**Main effects and interactions.** Results of ANOVA-type statistical tests.

**Primary analyses.** Statistical tests that are *not* post-hoc tests of an ANOVA-type analysis. Examples include t-tests, Chi-square tests, Pearson's product-moment correlations, regression-type analyses. If several t-tests are performed when an ANOVA would be more appropriate, these t-tests will be considered as primary analyses.

**Implied.** For example "There was no main effect of *group*" or "The was no age difference between groups" or "The *group* by *time* interaction was non-significant".

**Exact.** Refers to $p = 0.xxx$ (e.g., $p=0.012$, $p=0.564$, $p=0.002$) and $p<0.001$.

**SCOPE**

Reported or implied p-values may be located in the main text of the paper, tables or figures.

**POSSIBLE ANSWERS**

**NA**
The paper does not report primary analyses, main effects or interactions.

**0 or no**
No.

**1 or yes**
Yes.
When null-hypothesis testing is used, are reported or implied p-values exact for all primary analyses, main effects and interactions?

**0 (no)**

"The DOWN-receptor had a significant impact on cell excitability, causing significant inhibition at time-points 2, 3 and 6 (Dunnett post-hoc test, p<0.05)."

"The DOWN-receptor had a significant impact on cell excitability (p<0.05), causing significant inhibited at time-points 2, 3 and 6 (Dunnett post-hoc test, p<0.05)."

"The ANOVA revealed a main effect of time (P<0.05) and a main effect of group (p<0.01), but no time by group interaction (p>0.05)."

"The ANOVA revealed a main effect of time (P=0.012), but there was no main effect of group or time by group interaction."

"The subjects weight was significantly correlated with age (r=0.12), income (r=0.09) and foot length (r=0.56). The other correlation were not significant."

---

**1 (yes)**

"The DOWN-receptor had a significant impact on cell excitability (F(42,2) =22.4, p=0.012), causing significant inhibition at time-points 2, 3 and 6 (Dunnett post-hoc test, p<0.05)."

"The DOWN-receptor had a significant impact on cell excitability (F(42,2) =22.4, p=0.012), causing significant inhibited at time-points 2, 3 and 6 (Dunnett post-hoc test, p<0.05)."

"The ANOVA revealed a main effect of time (P=0.012) and a main effect of group (p<0.001), but no time by group interaction (p=0.545)."

"The ANOVA revealed a main effect of time (P=0.012) and a main effect of group (p<0.001), but no time by group interaction (p=0.545)."

"The subjects weight was significantly correlated with age (r=0.12, p=0.012), income (r=0.09, p=0.0258) and foot length (r=0.56, p<0.001). However, weight was not correlated with IQ (r=0.16, p=0.556) or perceived index finger length (r=0.01, p=0.06)"
If ANOVA-type analyses are used, are all reported or implied post-hoc p-values exact?

**DEFINITIONS**

**Implied.** For example "Values at 10 and 15 min were significantly different from baseline".

**Exact.** Refers to $p = 0.xxx$ (e.g., $p=0.012$, $p=0.564$, $p=0.002$) and $p<0.001$.

**SCOPE**

Reported or implied post-hoc p-values may be located in the main text of the paper, tables or figures.

**POSSIBLE ANSWERS**

**NA**

The paper does not report or imply any post-hoc comparisons.

0 or no

No.

1 or yes

Yes.
Are all plotted measures that summarize variability defined?

**DEFINITIONS**

Measures that summarize data variability. These include the standard deviation (SD), the standard error of the mean (SEM), 95% CI, the interquartile or similar range (IQR) and the range.

**SCOPE**

Figures that are included are those that visually summarize data variability, whether it be for multiple samples from a single subject, or data from multiple subjects.

**POSSIBLE ANSWERS**

NA
The paper does not contain such figures.

0 or no
No.

1 or yes
Yes.
**Q7** Are any plotted measures that summarize variability defined as SEM?

### DEFINITIONS

**Measures that summarize data variability.** These include the standard deviation (SD), the standard error of the mean (SEM), 95% CI, the interquartile or similar range (IQR) and the range.

### SCOPE

Figures that are included are those that visually summarize data variability, whether it be for multiple samples from a single subject, or data from multiple subjects. **Do not** consider figures without measures that summarize variability.

### POSSIBLE ANSWERS

**NA** The paper does not contain such figures.

**0 or no** No.

**1 or yes**
Q8 For **all** figures that plot measures that summarize data/variability, are the raw data used to calculate the variability plotted?

**DEFINITIONS**

**Measures that summarize data variability.** These include the standard deviation (SD), the standard error of the mean (SEM), 95% CI, the interquartile or similar range (IQR) and the range.

**SCOPE**

Figures that are included are those that visually summarize data variability, whether it be for multiple samples from a single subject, or data from multiple subjects.

Figures that connect sequential values with a line **are not** to be considered.

**POSSIBLE ANSWERS**

**NA**

The paper does contain such figures.

**0 or no**

No.

**1 or yes**

Yes.
Q9 Does the paper report any exact p-values that are between 0.05-0.1?

**SCOPE**
This relates to exact p-values (p=0.1; p=0.0742) reported in the main text of the article, tables and figures.

**POSSIBLE ANSWERS**
**NA**
The paper does not report p-values.
**0 or no**
No.
**1 or yes**
Yes.

Q10 Are any of the exact p-values that are between 0.05-0.1 interpreted as trends or statistically significant?

**SCOPE**
This relates to exact p-values (p=0.0742) reported in the main text of the article, tables and figures. !! If there is spin, consider copying the relevant text in the Comment section.

**POSSIBLE ANSWERS**
**NA**
The paper does not report exact p-values between 0.05-0.1.
**0 or no**
No.
**1 or yes**
Yes.

<table>
<thead>
<tr>
<th>0 (no)</th>
<th>1 (yes)</th>
</tr>
</thead>
</table>
| "The effect of heat was not significant (p=0.062)." | "There was a trend for heat to effect the outcome (p=0.062)."
| "The effect of heat was significant (p=0.062)." | |