

# Correction

## Correction: Lu, et al., Contrasting Effects of Ibotenate Lesions of the Paraventricular Nucleus and Subparaventricular Zone on Sleep–Wake Cycle and Temperature Regulation

In the article “Contrasting Effects of Ibotenate Lesions of the Paraventricular Nucleus and Subparaventricular Zone on Sleep–Wake Cycle and Temperature Regulation” by J. Lu, Y.-H. Zhang, T. C. Chou, S. E. Gaus, J. K. Elmquist, P. Shiromani, and C. B. Saper, which appeared on pages 4864–4874 of the July 1, 2001 issue, the authors have discovered an error in calculating the  $p$  values for the regression analyses shown in Figures 8 and 11 of this paper. The  $p$  values given would be appropriate if  $df = N/2$  (which is incorrect) rather than  $df = N - 2$  (which would be correct). For Figure 8, the corrected  $p$  values are: panel A,  $p < 0.0005$ ; panel B,  $p < 0.005$ ; and panel C,  $p < 0.05$ . For Figure 11, the corrected  $p$  values are: panel A,  $p$  remains  $> 0.05$  (no change); panel B,  $p < 0.05$ ; and panel C,  $p < 0.005$ . The authors apologize for any inconvenience that these errors may have caused, but the overall conclusions of the paper are not affected.

The following changes are needed:

### Legend for Figure 8:

**Was:** *Figure 8.* Correlation of the number of surviving neurons in the vSPZ with the circadian index of body temperature, sleep, and locomotor activity. For sleep and activity, there was a significant ( $p < 0.05$ ) linear correlation of circadian index with the number of surviving neurons in the vSPZ, whereas the circadian index of body temperature did not show a significant correlation ( $p > 0.05$ ), suggesting that alterations of body temperature rhythm may have been caused by the lesions including tissue beyond the vSPZ counting box.

**Should be:** *Figure 8.* Correlation of the number of surviving neurons in the vSPZ with the circadian index of body temperature, sleep, and locomotor activity. For sleep and activity, there was a strong linear correlation of circadian index with the number of surviving neurons in the vSPZ, whereas the circadian index of body temperature had a weaker correlation, suggesting that alterations of body temperature rhythm may have been caused by the lesions including tissue beyond the vSPZ counting box.

### Results

Last sentence on p. 4867–first sentence on p. 4869:

**Was:** Furthermore, across the entire group of animals with 20–70% loss of neurons bilaterally in the SPZ, we found that the number of Nissl-stained neurons in the vSPZ was significantly correlated with the circadian indices of sleep ( $r = 0.80$ ;  $p < 0.01$ ) and activity ( $r = 0.63$ ;  $p < 0.05$ ) but not that of body temperature ( $r = 0.51$ ;  $p > 0.05$ ).

**Should be:** Furthermore, across the entire group of animals with 20–70% loss of neurons bilaterally in the SPZ, we found that the number of Nissl-stained neurons in the vSPZ was more closely correlated with the circadian indices of sleep ( $r = 0.80$ ;  $p < 0.0005$ ) and activity ( $r = 0.63$ ;  $p < 0.005$ ) than that of body temperature ( $r = 0.51$ ;  $p < 0.05$ ).

First and second sentence, third paragraph, right-hand column, p. 4869:

**Was:** The correlation analysis showed a significant linear correlation of the number of surviving neurons in the dSPZ with the CI of body temperature ( $r = 0.71$ ;  $p < 0.05$ ) but not sleep ( $r = 0.24$ ;  $p > 0.05$ ) or activity ( $r = 0.58$ ;  $p > 0.05$ ) (Fig. 11). Taken together, dSPZ lesions significantly reduced circadian rhythms of body temperature by ~60–70% but had much smaller effects on locomotor activity that were not statistically significant.

**Should be:** The correlation analysis showed a significant linear correlation of the number of surviving neurons in the dSPZ with the CI of body temperature ( $r = 0.71$ ;  $p < 0.005$ ) but not sleep ( $r = 0.24$ ;  $p > 0.05$ ) although there was a weaker correlation with activity ( $r = 0.58$ ;  $p < 0.05$ ) (Fig. 11). Taken together, dSPZ lesions significantly reduced circadian rhythms of body temperature by ~60–70% but had much smaller effects on locomotor activity.

### Discussion

First sentence of Discussion, p. 4871:

**Was:** The principal findings of this study were that lesions of the vSPZ profoundly disrupted the circadian rhythms in sleep and locomotor activity but had smaller effects on body temperature that did not correlate significantly with vSPZ cell loss.

**Should be:** The principal findings of this study were that lesions of the vSPZ profoundly disrupted the circadian rhythms in sleep and locomotor activity but had smaller effects on body temperature.

Last full sentence, left hand column, p. 4872:

**Was:** More importantly, the loss of cells in the vSPZ correlated closely with the loss of sleep circadian rhythm but did not reach statistical significance for correlating with the loss of body temperature rhythm.

**Should be:** More importantly, the loss of cells in the vSPZ correlated closely with the loss of sleep circadian rhythm but correlated more weakly with the loss of body temperature rhythm.

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