Correction to: Stimulation of dopamine D$_1$ receptor improves learning capacity in cooperating cleaner fish

João P. M. Messias, Teresa P. Santos, Maria Pinto and Marta C. Soares

CIBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos, Universidade do Porto, Vairão, Portugal


We recently discovered an error in the article cited above: we realized that the order of treatments did not seem to be counterbalanced in the cue discrimination task during the first two injection rounds, compared with the side discrimination task that was always properly counterbalanced. The effect of sequence order and treatment was tested and demonstrated to be non-significant to the results (Methods section) but nevertheless, the word random cannot apply to the cue experimental design. While we acknowledge that the cue learning sequence effects could, in theory, have contributed to the D1a significant results, as these fit the side learning results we believe that it is very unlikely that sequence rather than treatment caused the first results (also demonstrated statistically as we mentioned previously).

In addition, from our initial sample (12 cleaners), two individuals were excluded from all analysis (cue and side) because they were not in good health condition during the entire duration of experiment procedures.