

Review of: "Interfering with contextual fear memories by post-reactivation administration of propranolol in mice: a series of null findings"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

Congratulations on this initiative. Below are some potentially helpful suggestions and comments:

- 1) Over time, we have observed that the dose of some drugs (e.g., midazolam) needs to be increased to observe the same anxiolytic-like effects in the elevated plus-maze test in rats. Similar results have been observed for post-training potentiating yohimbine effects on contextual fear memory consolidation (we have not yet systematically examined this question in either case, though). Based on the above, I would test a dose range, for example, between 3.0 and 30 mg/kg of propranolol;
- 2) It is fundamental to ensure that there has been sufficient memory destabilization; otherwise, the post-evocation treatment will produce no changes. In this context, previous works are showing that pre-retrieval administration of d-cycloserine can potentiate memory destabilization and, thus, the effects of noradrenergic drugs (e.g., clonidine) on reconsolidation were significant;
- 3) What is the freezing time ratio between the conditioning context and a neutral one (discrimination index)? In addition to age and strength, memory specificity (or generalization) is likely to influence the destabilization-reconsolidation process.

Sincerely yours,

Leandro J. Bertoglio