

Correction

Correction: Vallverdú, J.; Rius, G. NeuroQ: Quantum-Inspired Brain Emulation. *Biomimetics* 2025, 10, 516

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There was an error in the original publication [1]; certain explanatory details and attributions required clarification.

A correction has been made to the following:

Section 3.2 Definition of Neuronal Planck Constant ($\hat{h}$), first paragraph:

Corrected paragraph:

We define the neuronal analogue of Planck's constant as

$$\hat{h} = m\sigma,$$

following Ghose and Pinotsis [2]. Here m is an effective inertial parameter related to the membrane capacitance and ionic mass transport dynamics, and σ is the standard deviation of membrane potential fluctuations. This definition emerges naturally from Nelson's stochastic mechanics, where diffusion coefficients serve as surrogates for intrinsic noise strength.

Section 7.1 Estimating ($\hat{h}$) from Neural Recordings

Our proposal to estimate $\hat{h}$ from patch-clamp membrane-potential variance together with an effective inertial parameter m follows the program introduced by Ghose and Pinotsis [2]. We adopt their rationale while adapting details to our dataset.

Figure 1 caption, sentence added

This pipeline follows the standard Nelson–Madelung construction; related expositions include Ghose and Pinotsis [2].

Reference [2] was updated from the preprint to the final article

Ghose, P.; Pinotsis, D.A. The FitzHugh–Nagumo Equations and Quantum Noise. *Comput. Struct. Biotechnol. J.* **2025**, *30*, 12–20. <https://doi.org/10.1016/j.csbj.2025.02.023>.

The authors state that the scientific conclusions are unaffected. This correction was approved by the Academic Editor. The original publication has also been updated.

Reference

1. Vallverdú, J.; Rius, G. NeuroQ: Quantum-Inspired Brain Emulation. *Biomimetics* **2025**, *10*, 516. [CrossRef] [PubMed]

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