Review of: "Critical Review on Carbon Nanomaterial Based Electrochemical Sensing of Dopamine the Vital Neurotransmitter"

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Potential competing interests: No potential competing interests to declare.

The structure and title of this article are both interesting and useful for the scientific community.

1. A few typos were noticed, and some sentences started with a numbered reference rather than the name of the investigator and year.

2. Please italicize all Latin terminologies such as in vitro, in vivo, in silico, ex vivo, etc.,

3. There were several recent references that were not included, such as **https://doi.org/10.1002/celc.202400021**) and (https://doi.org/10.3390/bios13060578).

4. In section 2, the last two lines of the first paragraph, there was a conversion of ng.mL to uM which seems to be wrong. Please recalculate the conversion. In the same sentence, you mention that the concentration of dopamine is higher in urine than in blood, but the numeric values show otherwise.

5. The legend of figure 1 talks about the chemical properties of common neurotransmitters and metabolites, but the image does not correspond.

6. In section 4.1, you talk about electrochemical sensors for dopamine, and you discuss various parameters used for the efficacy of POC devices. Most PoC devices are parametrized on the basis of sensitivity, specificity, and replicability of results. You have dealt with all the other parameters except specificity. Please indicate how specific each CN modified electrode is for dopamine detection in terms of percentages such as 90% specific.

7. Please note that some sentences begin with a numeric reference number, which is not really how in-text citations are used. Please correct sentences that begin with the reference number [89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 102]. Use proper in-text citations such as Smith, J. et al., 2021, or in 2021, Smith et al. proposed……