

Review of: "Synthesis of 1, 2-Disubstituted Benzimidazoles at Ambient Temperature Catalyzed by 1-Methylimidazolium Tetrafluoroborate ([Hmim] BF₄) and Investigating Their Anti-ovarian Cancer Properties Through Molecular Docking Studies and Calculations"

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Potential competing interests: No potential competing interests to declare.

The authors have synthesized 1, 2-disubstituted benzimidazoles and used molecular docking studies and calculations to characterize them. I do recommend the authors conduct the viability/growth inhibition assays to confirm the docking data.

Some notes should be revised:

1. Some typos are present (e.g., "Lee Pinsky's rules" – should be "Lipinski's rules," "6LAD protein" or "6lad"...). Please revise the manuscript.
2. Authors postulated in the Experimental section, "NMR spectra were recorded on a Bruker Avance DPX-400 (1H NMR 400 MHz and 13C NMR 101 MHz) spectrometer in pure deuterated dimethyl sulfoxide (DMSO-d₆) solutions." Please provide these data and characteristics of the developed compounds.
3. Provide more information on the molecular docking study. One sentence is insufficient ("The ligand-receptor interaction pictures were created using Schrödinger 2018.10 software.").
4. Propose to modify the name of the section title "Molecular docking study of anti-ovarian cancer activity of synthesized 1, 2-disubstituted benzimidazoles" as authors have discussed the ADME properties of the developed compounds.
5. What software was used to generate data from tables 3-5?
6. What do the authors mean by "Central nervous system (CNS)" in Table 4?
7. Please provide the docking information for some commercial drugs used for the therapy of ovarian cancer.
8. Confusion arises from the data presentation in the section "Comparison of the prepared catalyst with reported ones" that follows "Investigating how protein 6LAD PDB binds to its natural ligand in the treatment of ovarian cancer." Please reorganize the section order.
9. Authors used different styles for references. Please revise.