Reviewer Report

Title: MOBFinder: A tool for mobilization typing for plasmid metagenomic fragments based on a language model

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Reviewer name: Haruo Suzuki

Reviewer Comments to Author:

I recommend that the authors consider revising based on the following points.#)the unpaired Wilcoxon signed-rank two-sided test.-> should be corrected to either"Wilcoxon rank-sum test" or "Mann-Whitney U test"https://en.wikipedia.org/wiki/Mann%E2%80%93Whitney_U_test"Wilcoxon rank-sum test" redirects here. For Wilcoxon signed-rank test, see Wilcoxon signed-rank test.https://en.wikipedia.org/wiki/Wilcoxon_signed-rank_testNot to be confused with Wilcoxon rank-sum test.#)Since MOBscan can only predict the MOB type with plasmid proteins, we annotated the plasmids in the test set with Prokka, then manually submitted them to the MOBscan website for MOB type annotation.Given that MOBScan operates as an online tool and cannot be executed locally, the calculation of MOBScan's run time was confined to the duration spent on preprocessing with Prokka locally." (Please refer to Line 313-319 in the revised manuscript).-> Actually, it can be executed locally using the scripts included in https://github.com/santirdnd/COPLA/. It may not be necessary to run MOBscan locally (it may be okay that they manually submitted them to the MOBscan website), but I'll inform you regardless.#)In the comparison, it was observed that MOBscan did not perform well, achieving low accuracy and kappa values across sequences of varying lengths, while MOB-suite exhibited marginally better performance than MOBscan when handling sequences of greater length (Figure 3A, 3B). (Please refer to Line 418-421 in the revised manuscript).-> Do the authors' results contradict the following general expectation? MOB-typer utilizes BLAST, whereas MOBscan utilizes hmmscan, and therefore, MOBscan is expected to retrieve more distantly related proteins than MOB-typer.#)MOB-suit and MOBscan are represented by blue lines, orange lines and gray lines respectively.-> should be"MOB-suite"#) I suggest receiving English language editing before publishing the paper."For the MOB typing, MOBscan [18] uses the HMMER model to annotated the relaxases and further perform MOB typing."-> should be"For the MOB typing, MOBscan [18] uses the HMMER model to annotate the relaxases and further perform MOB typing."

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