

## Reviewer Report

**Title:** The state of Medusozoa genomics: current evidence and future challenges

**Version:** Original Submission    **Date:** 1/13/2022

**Reviewer name:** Lucas Leclaire

### Reviewer Comments to Author:

This manuscript offers a reanalysis of all available nuclear genomic data published on medusozoans. It represents a well thought, and timely review of the available data, systematically comparing genomic features (repeated elements, intro/exon/gene size and numbers, chromosome numbers...) and genomic assemblies (available data, assembly quality and size...) in the different medusozoan classes. It largely confirms the results obtained from analysis of single species. It also provides useful guidelines for future standardization of genomic projects focused on medusozoans.

Minor comments and suggested corrections:

Line 118: How was "compiled all genomic and HTS metadata reference in this review", manually? If not, please provide the scripts used for this task.

Line 236: correct "contente"

Line 326: The sentence starting with "Moreover, even..." is unclear. Please clarify or delete.

Line 389: correct "proyects"

Figure 1: it would be useful to indicate in this figure genome sizes calculated from genomic assemblies, in addition to genome sizes calculated from flow cytometry and feulgen densitometry estimations; either as a new column or using another color in C

SM\_Table2: Supplementary Material S2 - Table S1 - please correct in the title "condidering".

## Methods

Are the methods appropriate to the aims of the study, are they well described, and are necessary controls included? Choose an item.

## Conclusions

Are the conclusions adequately supported by the data shown? Choose an item.

## Reporting Standards

Does the manuscript adhere to the journal's guidelines on [minimum standards of reporting?](#) Choose an item.

Choose an item.

## Statistics

Are you able to assess all statistics in the manuscript, including the appropriateness of statistical tests used? Choose an item.

### **Quality of Written English**

Please indicate the quality of language in the manuscript: Choose an item.

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