**noguiguru**

**Proposal 3**

**Reviewers Comments**

**Proposal for a transcriptomic analysis of bacteriome-specific expression profiles by sex in the tsetse fly *Glossina morsitans***

Authors proposed to utilize original unpublished data to do transcriptomic analysis of *tsetse fly* (*Glossina morsitans).* Proposal has a great idea and good potential for success. The aim is to identify differential expression between male and female of *tsetse* of genes expressed in midgut tissue, called bacteriome. The ultimate goal is to identify transcriptome differences between genes related to symbiotic activity with bacteria *Wigglesworthia glossinidia (Wigglesworthia).* ***Significance*** of this work laid in assumed relationship to life cycle and feeding strategies of tsetse fly, that is a vector in transmission of African sleeping sickness. However, it would be valuable to mention at the end of the background, how may the findings between male and female *G. morsitans* tie back to the disease and perhaps at the beginning mention the disease prevalence. ***Innovative aspect*** of this work is that the transcriptome, analyzed using proposed genomic tools, specialized from the bacteriome tissue, was not done or published before. ***Investigators*** were well defined, and work load seems to be evenly distributed, although the compartmentalization of steps may lead to authors’ learning limited to only their step of the pipeline. ***Approach*** was well laid out with discussion of details in each steps and possible challenges and troubleshooting. Noteworthy to add to the proposal is the sample size of each group (male and female). In the section, where authors discuss possible contamination with RNA from *Wigglesworthia,* going back to FASTQC will not help to solve the problem; perhaps Centrifuge or some other software could be useful. Or, perhaps the genome size of *Wigglesworthia* may be very small compared to *G. mortisans,* so authors could provide those numbers to reassure themselves and reviewers that it may not be a significant issue. The **environment** was not clearly laid out for Ballgown.