

**Dear Prof. Denis Tagu,**

Here I stat my review comments on the Preprint:

**Title:** Evidence for shared ancestry between Actinobacteria and Firmicutes bacteriophages.

### **General report**

The article provides a comparative genomics study bacteriophages infect Actinobacteria and Firmicutes.

The authors draft their work on a 15-page long manuscript and reference 29 relevant publications, mostly original papers with a minimum of reviews. The article satisfies the formal criteria. Information is correctly referenced. Figures are generally well designed with clear legends, but some time with few details (Figures 3 and 4). Information within the introduction section isn't enough for the research topics studied. The whole introduction section is written in less than one-page long, ignoring reviewing essential topics such as sequencing technologies. The materials and methods section is well written.

The aims are clear and fulfilled by the interpretation of the results. The results are mostly descriptive and well discussed.

English is not my first language, and I do not claim particular competence. However, I think that the paper is clearly written and logically structured.

### **Recommendations**

I recommend the author to use in the future a more advanced Algorithm to compute his phylogenetic trees than BioNJ. Algorithms such as Maximum-Likelihood and/or Baysian are showing more robust results. Also, better visualization for the phylogenetic tree always highly appreciated.

Overall, i appropriate the time and effort of authors to produce such results. Then, i recommend the preprint.

In České Budějovice, 21.01.2020

Abdoallah Sharaf, Ph.D.