

## ***Interactive comment on “Fluorescent Bioaerosol Particle, Molecular Tracer, and Fungal Spore Concentrations during Dry and Rainy Periods in a Semi-Arid Forest” by Marie Ila Gosselin et al.***

**Anonymous Referee #4**

Received and published: 6 October 2016

The article is of high quality providing a novel information relevant to the ACP addressing the atmospheric biological (fungal) tracers. The novelty is in correlations reported for periods affected by rain between fungal biomarkers obtained from offline measurements and fluorescent aerosol particle concentrations obtained by direct online measurements. The description of experimental work is sound and detailed supporting the good quality of the paper.

In my opinion, the article would gain if additional data with regard to total PM mass concentrations were reported. For example Table 3 presents % contribution of biomarkers with regard to particulate matter and spore mass. The estimated PM mass data presented along with the rest of the data would help to clarify relationship to overall chem-

C1

ical characterization of PM if The data reported are comprehensive. Still are there also data available for the same period reporting on the occurrence of organic carbon and thus allowing for discussion of traditionally reported chemical characterization of organic particulate matter? Authors report on taxonomic differences in fungal DNA during wet and dry periods. Could such differences be attributed to the ability of different fungal species to survive in different humidity conditions?

---

Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2016-743, 2016.

C2