

Response to Reviewer #2

Comments and Suggestions for Authors

The review article by Sebbane et al. is an incredibly thorough and creative review article about the plasminogen activator of *Yersinia pestis*. I found it to be a great resource and I know it will be received well by the scientific community.

We thank the reviewer for reading the manuscript thoroughly and appreciating his/her comments to improve the manuscript.

Point 1: Line 24 change to “inactivates”

Thank you for noticing this grammatical mistake. We modified the text accordingly (Line 24 of the revised manuscript).

Point 2: Line 62 and throughout avoid “stress out” this implies a stressed psychological state...I would simply say “we would like to stress here.” “We here...” We would like to point out here...”

We agree and changed the text accordingly (Line 63 of the revised manuscript).

Point 3: Line 129 change to “neither at the transcriptional nor at the translational level”

Thank you for noticing this mistake. We modified the text accordingly (Line 130 of the revised manuscript).

Point 4: Line 157: spell out LOS first time used

The text now specifies that LOS means “lipooligosaccharide” (Line 158 of the revised manuscript).

Point 5: Line 210: I am not sure what is implied with the word “fabulous” do you mean “complex”, “complicated”, “extensive”...I do not believe fabulous is the correct word choice.

We wanted to say “amazing” or “fascinating”. However, this personal feeling has been deleted (Line 211 of the revised manuscript).

Point 6: Line 258. As a child from the 1980s, I loved the pacman reference (just remove the K J)

Thank you for pointing this out. We change “packman” to read “pacman” (Line 259 of the revised manuscript).

Point 7: Line 264: avoid “stress out” see above

We agree with this comment and changed the text accordingly (Line 265 of the revised manuscript).

Point 8: Line 270: change to Convincing evidence

We changed the text accordingly (Line 271 of the revised manuscript).

Point 9: Line 273: delete “of” in “ over a dozen of Pla targets”

We changed the text accordingly (Line 274 of the revised manuscript).

Point 10: Line 310: Change to different portions of the passenger domain of YapG and YapE are released...

We changed the text accordingly (Line 311 of the revised manuscript).

Point 11: Line 335: consider changing to read ...which in addition to its role in the cleavage (activation) of plasminogen to generate plasmin, is also important...

Thank you for pointing this out. The text has been changed accordingly (Line 335 of the revised manuscript).

Point 12: Line 340: I may have missed it...spell out IDPRs first time?

"Intrinsically Disordered Protein Regions (IDPRs)" are first mentioned on line 98.

Point 13: Line 355: delete “it occurs that”

We changed the text accordingly (Line 356 of the revised manuscript).

Point 14: Line 381: change to *Y. pestis* genes

We changed the text accordingly (Line 382 of the revised manuscript).

Point 15: Line 388: delete “or not”

We changed the text accordingly (Line 389 of the revised manuscript).

Point 16: Line 410: I enjoyed the comparison with a Swiss army knife, I would just quotations “Swiss army knife”

We changed the text accordingly (Line 411 of the revised manuscript).

Point 17: Line 447. The sentence beginning “Therefore, whether *Y. pestis*...” is awkward, consider revising.

Thank you for pointing this out. The text has been changed to read “Therefore, whether Pla cleaves the plasminogen during bubonic plague, this cleavage can only partially explain the role of Pla in this form of the disease.” (Lines 448-450 of the revised manuscript).

Point 18: Line 463: what are 70-90% and 10-30% referring to? It was unclear to me.

We modified the text to attempt to clarify the sentence. Now it reads: " fleas seem to regurgitate bacteria in the extravascular part of dermis in 70-90% of the cases and in the intravascular part of the dermis in 10-30%". (Lines 463-465 of the revised manuscript)

Point 19: Line 488: I believe you should delete “not” ...Pla is dispensable

The reviewer is right. Thank you for pointing out this mistake. We deleted “not” (Line 489 of the revised manuscript).

Point 20: Line 519: Data is plural...change to “The later data are”

We corrected the text (Line 520 of the revised manuscript).