

***Bfc*, a novel *Serpent* co-factor for the expression of *Croquemort*, regulates efferocytosis in *Drosophila melanogaster***

Thank you very much for providing me with a lined manuscript!

I see the authors have met the main criticisms, concerns and suggestions of the first review. At some points in the revised manuscript, however, further explanations have to be provided in order to make the results clearer. The manuscript is now clearly written, but the linguistic expression can be further improved and please check again the use of abbreviations especially in headings. This can certainly be compensated by some minor revisions that are listed below.

**Author summary**

Line 32: “. such...”

**Introduction**

Line 74: “Drosophila; ...”

**RNAseq identified 48 genes with similar expression patterns to *crq*, which was upregulated after incubation with ACs.**

Line 102-103: *crq* and ACs!

Line 153: The numbers in the Venn diagram differ from the information in the Figure Legend. In addition, there was a correction that should be shown on lines 141-142, but this line only shows the title of the figure legend.

Line 141: “The significantly-upregulated...”

***Bfc* is involved in efferocytosis and regulates *crq* expression in S2 cells.**

Line 184: Please avoid abbreviations as in the chapter heading when *Bfc* is used for the first time, the same as *crq* in the previous chapter heading.

**The expression of *Crq* is mediated by *Bfc in vivo*.**

Line 253-254: Please rephrase or explain.

Line 256: ...blot analysis of *Crq* protein levels... please add also *Bfc*!

Please correct the heading for Supplement 3.

***bfc* is required in macrophages for efficient efferocytosis.**

Line 282: Please explain the Result of the newly designed Figure S5 and not only mention it.

Line 299: meanwhile

The hint to Figure 3J is missing!

***Bfc* physically interacts with GATA factor *Srp*.**

Line 304: *Bfc* is expressed...

Line 307: “premisses it was a transcription factor” please rephrase “premisses it encodes a transcription factor”.

Line 312: “...examine the expression location of *Bfc*...” please rephrase “protein localization”.

Line 317: Fig 4B'-B'' please change because B' and B'' are not similar as B! The same for E and E' in Fig. 4.

Line 345: Please insert “as well as” after control S2 cells!

## **Bfc acts as a co-factor for the Srp transcription factor to regulate Crq expression and efferocytosis.**

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### **Srp directly binds the *crq* promoter through GATA site recognition enhanced by Bfc.**

Line 403-404: ...that **only** Srp-AD interacted **only** with the *crq*...

Line 408-409: ...mutated Srp Znf from Cys to Arg eliminated binding to the *crq* promoter (S7D and S7F Fig). This is not shown in S7f due to only binding of Srp-AD to the *crq* promoter!

Line 412-414: Our results showed that the ability of *crqM*-Gal4 **to activate the transcription of *crq*** was much weaker than *crq*-GAL4“

This statement sounds to me like the failure of a specific transcriptional activation of *crq* due to the mutated GATA site. But due to the mutated GATA site, all other UAS constructs such as unspecific *UAS-lacZ* or *UAS-GFP* constructs cannot be activated either, right?

Line 414: ...in *bfc* also has an insufficient activation to *crq*... Please rephrase to ...in *bfc* also leads to insufficient activation of *crq*...

Line 421: Please correct the red arrow in Fig. 6A to the indicated red arrowhead or vice versa.

Line 430: E´ please change because E´ is not the same as E!

Line 439-441: HA-Srp... Can you explain or please rephrase?

Line 445-447: Our results showed... Can you explain the results of Figure 6F in more detail or please rephrase?

## **Discussion**

Line 528: Meanwhile?

## **Material & Methods**

Line 776- 778: This technique... avoid such sentence please.

## **Supplemental Information**

Line 1125: S1 Fig. ACs were ~~successfully~~ induced... Please check for abbreviations used for the first time!

Line 1128-1129: ~~...as described in the method.~~

Line 1174-1175: S4 Fig. Title? Please indicate used arrowheads and indicate all micrometer steps. Please explain the newly designed Figure in the Results section and not only as a hint to S5.

Line 1206-1207: ~~Yeast two-hybrid shows the interaction between Bfc and C4 M of Srp.~~

Line 1209: ...interaction between C4 M of Srp and *crq* promoter. Please indicate „C4 M of Srp“ in S7F.

Line 1211: Please correct the heading of S7 to: “...of *UAS-Crq* expression in *Drosophila* embryos.” Since only expression patterns of effector lines are traced!

## **English**

Please check again the linguistic expression all over the manuscript.