Author's response to reviews

Title: The Role of Syk Signaling in Antifungal Innate Immunity of Human Corneal Epithelial Cells

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1. Please add some context of the study to the background section of the abstract.

**Answer:** Done.

Change “To investigate the expression and function of spleen-tyrosine kinase (Syk) in human corneal epithelial cells with Aspergillus fumigatus (A. fumigatus) infection” into “Fungal keratitis is a kind of intractable and sight-threatening diseases. Spleen-tyrosine kinase (Syk) is a non-receptor tyrosine kinase, which plays an important role in the signaling pathway of the receptors. In the current study, we investigate the expression and function of Syk in human corneal epithelial cells with Aspergillus fumigatus (A. fumigatus) infection.”

2. Please Rename funding statement as Acknowledgment.

**Answer:** Done.

Rename “funding” as “Acknowledgment”.

**There are still some changes in the figure legends and the authors’ information.**

1. Delete the “(A)” in the Figure 2.

Figure 2. Syk and p-Syk in THCEs before or after A. fumigatus hyphae stimulation. There was no significant difference between infected cells and normal control cells for Syk protein expression. p-Syk was elevated in the infected THCEs compared with the control at 30, 45, and 60min (A). p-Syk levels were upregulated after 30 min incubation with A. fumigatus
hyphae and sustained for 45 and 60 min (B) (p<0.01, p<0.01, p<0.01 separately). ** p<0.01, * p<0.05 compared with normal control.

2. Add “Change of protein and mRNA with or without the pretreatment of Syk inhibitors.” behind the Figure 3.

**Figure 3.** Change of protein and mRNA with or without the pretreatment of Syk inhibitors. After pretreated with PRT062607 and Piceatannol for 30 min before A. fumigatus hyphae stimulation, activation of Syk was inhibited by 1μM PRT062607 (p<0.05), 2μM PRT062607 (p<0.01), 5μM Piceatannol (p<0.05), 10μM Piceatannol (p<0.01) (A) compared with untreated cells. mRNA expression of IL-1β, IL-6, IL-8 and CXCL1 induced by A. fumigatus hyphae were significantly suppressed (B). mRNA expression of IL-1β, IL-6, IL-8, CXCL1 downregulated significantly by 1μM PRT062607, 2μM PRT062607, 5μM Piceatannol, 10μM Piceatannol. ** means p<0.01, * p<0.05.

4. We added another author in the manuscript, she made a great contribution in writing and revising the paper.

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5. The first author’s affiliation changed, so we added “Department of Ophthalmology, the Affiliated Hospital of Xuzhou Medical College, Xuzhou 221000, Jiangsu Province, China” as her second affiliation.

If there is any question please don’t hesitate to let me know.
Thank you and best regards.

Yours sincerely,

Guiqiu Zhao