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Author Correction: Noninvasive Self-diagnostic Device for Tear Collection and Glucose Measurement

Seung Ho Lee¹, Yong Chan Cho² & Young Bin Choy^{1,2,3}Correction to: *Scientific Reports* <https://doi.org/10.1038/s41598-019-41066-8>, published online 18 March 2019

This Article contains an error.

The Authors missed out a previous study on a similar topic. The additional reference is listed below as reference 1, and should appear in the text as below.

In the Discussion section,

“Tear glucose measurement has been suggested as a potential, noninvasive strategy of blood glucose prediction^{8,10,32}. Most of the previous studies focused on developing sensors with a higher accuracy since the glucose concentration in tears is known to be lower than that in the blood^{13,33,34}. However, to our knowledge, studies on devices for practical, self-diagnostic applications is scarce. In this context, a device allowing concurrent tear collection and glucose measurement could be useful and convenient for users. Such a device would be more advantageous if the measurement could be reliable even with a small quantity of tear fluid as this would allow for a short time of tear collection, hence less invasiveness on the preocular tissues.

Therefore, we proposed the tear-glucose device herein as a noninvasive self-diagnostic tool for prediction of blood glucose levels.”

should read:

“Tear glucose measurement has been suggested as a potential, noninvasive strategy of blood glucose prediction^{8,10,32}. Most of the previous studies focused on developing sensors with a higher accuracy since the glucose concentration in tears is known to be lower than that in the blood^{13,33,34}. A previous paper by Kownacka *et al.*¹ reported results of phase II clinical trial for a device for continuous glucose monitoring in tear fluid, which needs to reside at the preocular surface while being wired to the reader. However, a device allowing sampled tear collection and glucose measurement could be also useful and probably more convenient for users. Such a device would be more advantageous if the measurement could be reliable even with a small quantity of tear fluid as this would allow for a short time of device contact for tear collection, hence less invasiveness on the preocular tissues.

Therefore, we proposed the tear-glucose device herein as an alternative noninvasive self-diagnostic tool for prediction of blood glucose levels.”

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Reference

1. Kownacka, A. E. *et al.* Clinical Evidence for Use of a Noninvasive Biosensor for Tear Glucose as an Alternative to Painful Finger-Prick for Diabetes Management Utilizing a Biopolymer Coating. *Biomacromolecules* **19**, 4504–4511, <https://doi.org/10.1021/acs.biomac.8b01429> (2018).



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