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CORRECTION

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Correction to: Modulation of the cAMP Response by Gα_i and G$\beta\gamma$: A Computational Study of G Protein Signaling in Immune Cells

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Correction to: Bull Math Biol (2014) 76:1352–1375
https://doi.org/10.1007/s11538-014-9964-4

The original version of this article unfortunately contained mistakes.

Subsequent to publication, we discovered that Fig. 4a has an error. The corrected figure is shown below. The source of this error is that one of the model parameters (C_1) was not reset to its baseline value prior to figure generation. Unfortunately, this led us to wrongfully conclude that the relation between C5a signaling and cAMP production varies with the concentration of PGE2. Instead, we find that cAMP is similarly sensitive to C5a signaling at all concentrations of PGE2 tested. The primary conclusion of our manuscript that cAMP production is most sensitive to C5a signaling when the expression of beta-gamma subunits is limited was not impacted by this error.

While correcting this error, we identified additional inconsistencies in parameter names/values.

- Parameter values are not consistent across all subfigures of Fig. 3, and the value C5a was incorrect in the caption. It should have been C5a = 1 nM.
- Table 2 gives an estimate of the parameter AC^{tot} in myocytes. It should also give the baseline value used in our numerical experiments, which was 1 nM.
- In the appendix, under the subsection labeled EP receptors and PGE2, the parameter K_3 is mislabeled as K_5.
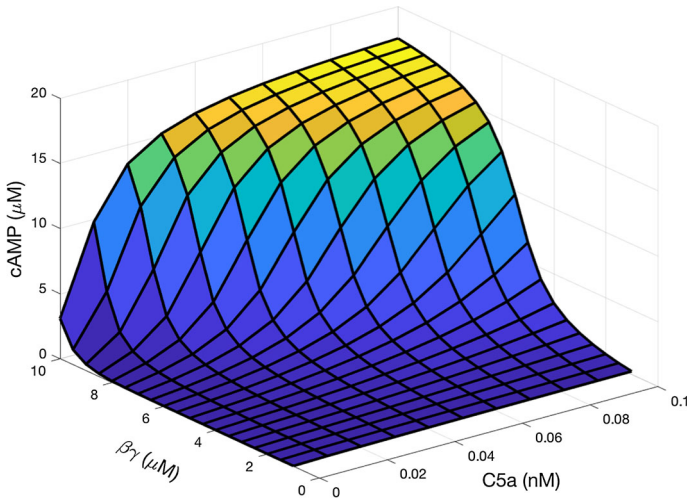

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Fig. 4 a Surface plot for cAMP at 20 minutes as a function of C5a and $\beta\gamma$ (PGE2=2nM)

A corrected version of our manuscript can be found at https://www.mtsu.edu/faculty/rachel-n-leander/. Improved codes for generating surface plots are available at https://github.com/rnleander/G_protein.

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