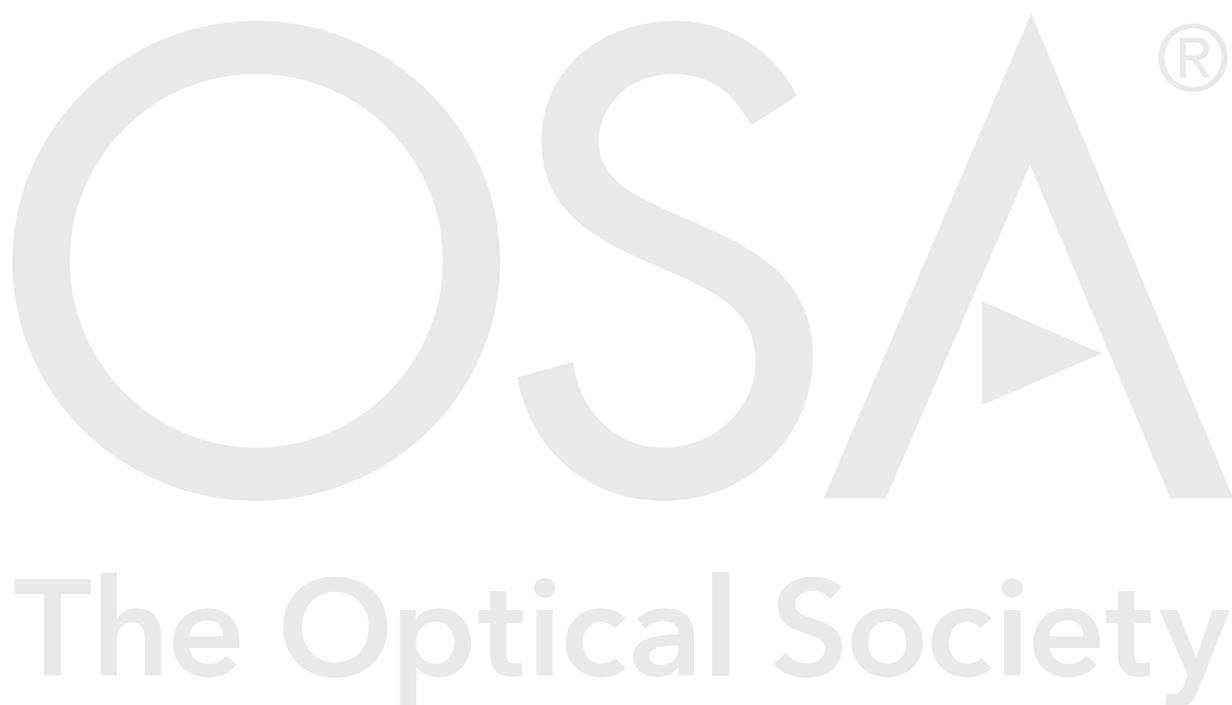


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# **Influence of anatomical features of different brain regions on the spatial localization of fiber photometry signals: supplemental document**

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1. Supplementary Figure 1

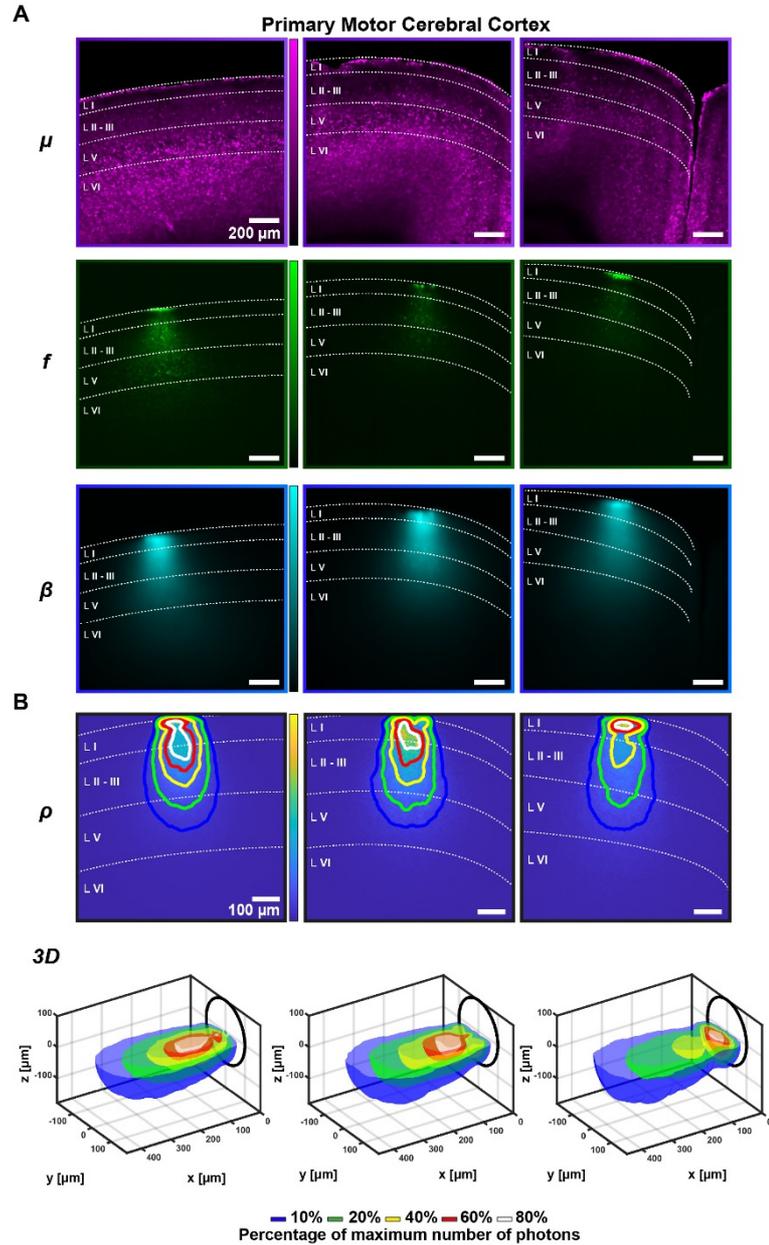


Fig. S1. (A) Representative  $\mu$ scope PMT image, fiber PMT image and the illumination field of primary motor cerebral cortex. Scalebar in all the panels (A) is 200  $\mu\text{m}$ . (B) (top) Photometry collection efficiency field with comparison of iso-intensity surfaces at 10%, 20%, 40%, 60%, and 80% of the maximum number of photons are shown (in blue, green, yellow, red, white respectively); (bottom) their 3D configuration as surfaces of revolution obtained by rotating the isolines around the fiber axis. Scalebar in all the panels (B) (top) is 100  $\mu\text{m}$ . Images of  $\mu$  and  $f$  in panel (A) were adjusted for visualization's sake.

2. Supplementary Figure 2

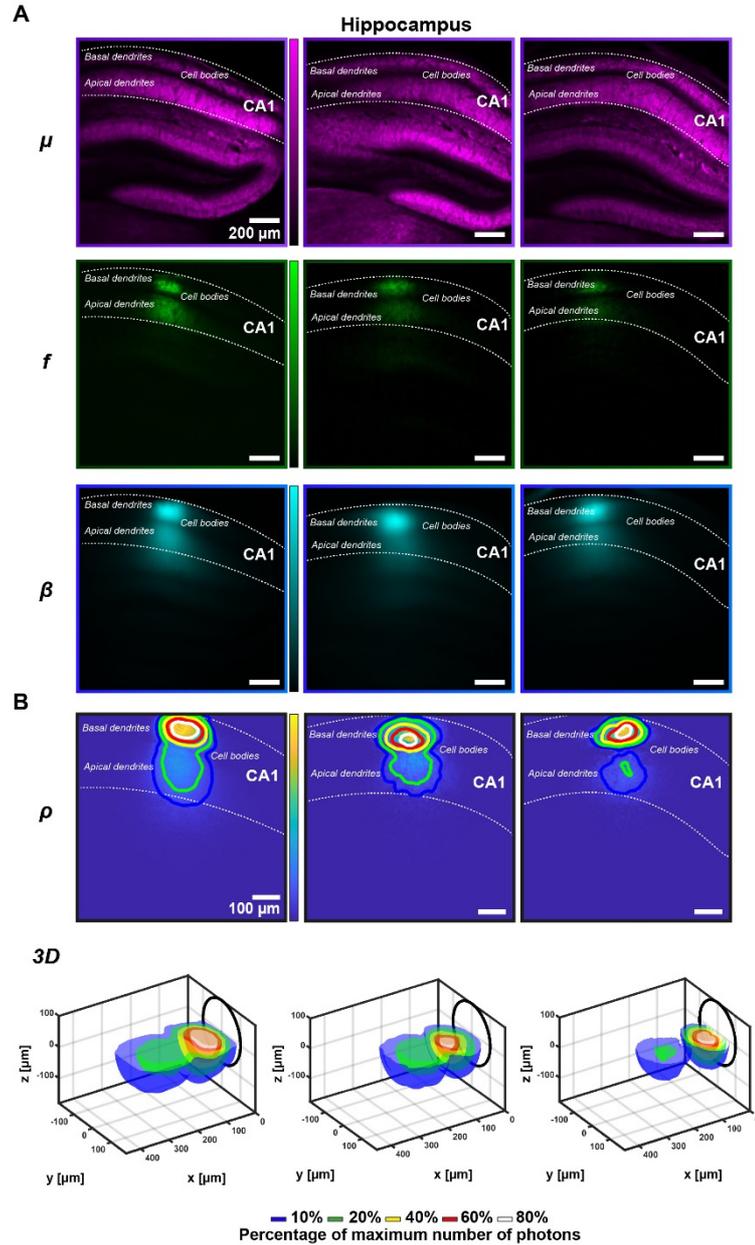


Fig. S2. (A) Representative  $\mu$ scope PMT image, fiber PMT image and the illumination field of hippocampus. Scalebar in all the panels (A) is 200  $\mu$ m. (B) (top) Photometry collection efficiency field with comparison of iso-intensity surfaces at 10%, 20%, 40%, 60%, and 80% of the maximum number of photons are shown (in blue, green, yellow, red, white respectively); (bottom) their 3D configuration as surfaces of revolution obtained by rotating the isolines around the fiber axis. Scalebar in all the panels (B) (top) is 100  $\mu$ m. Images of  $\mu$  and  $f$  in panel (A) were adjusted for visualization's sake.

### 3. Supplementary Figure 3

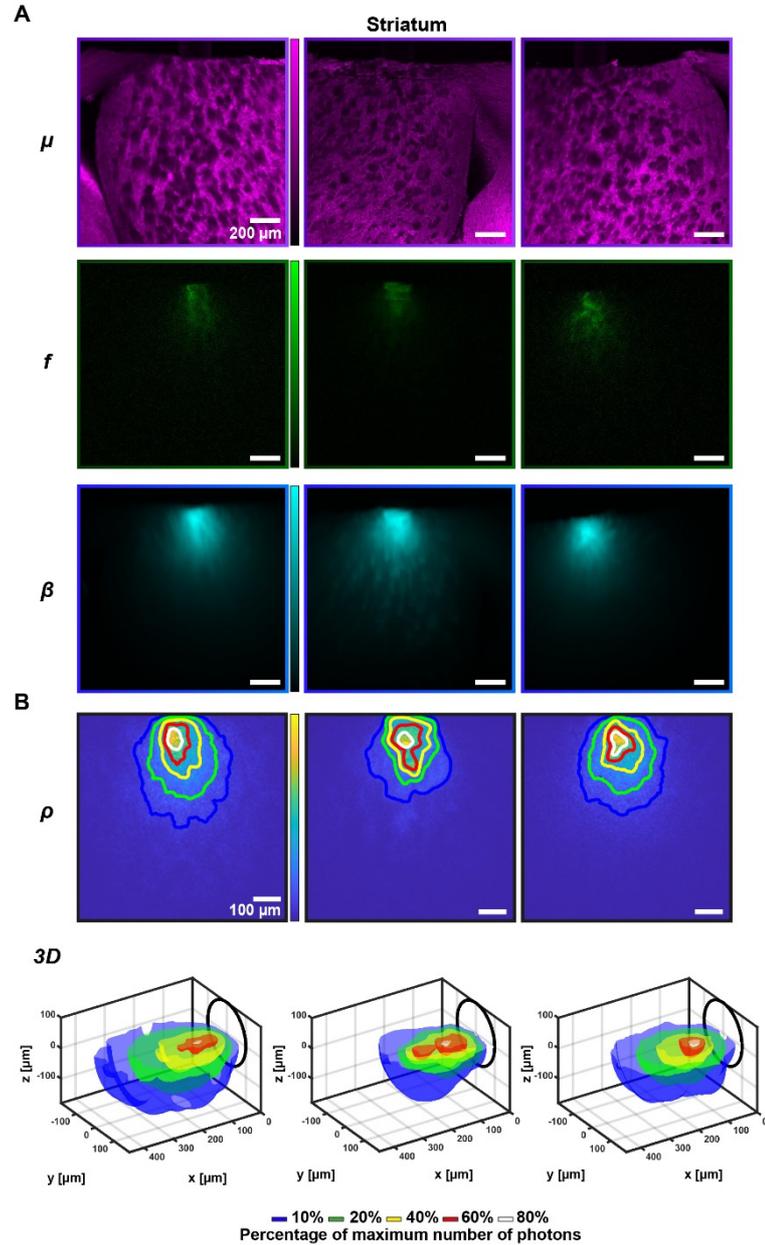


Fig. S3. (A) Representative  $\mu$ scope PMT image, fiber PMT image and the illumination field of striatum. Scalebar in all the panels (A) is 200  $\mu\text{m}$ . (B) (top) Photometry collection efficiency field with comparison of iso-intensity surfaces at 10%, 20%, 40%, 60%, and 80% of the maximum number of photons are shown (in blue, green, yellow, red, white respectively); (bottom) their 3D configuration as surfaces of revolution obtained by rotating the isolines around the fiber axis. Scalebar in all the panels (B) (top) is 100  $\mu\text{m}$ . Images of  $\mu$  and  $f$  in panel (A) were adjusted for visualization's sake.