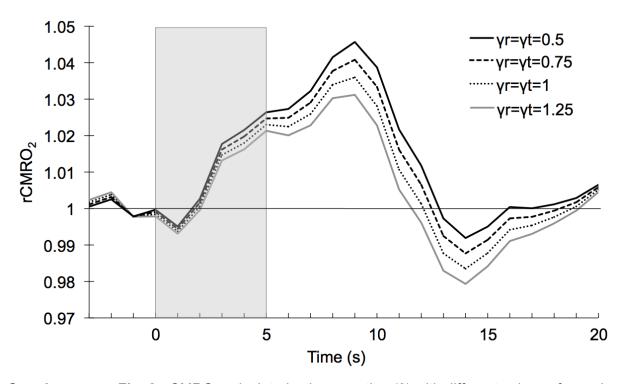
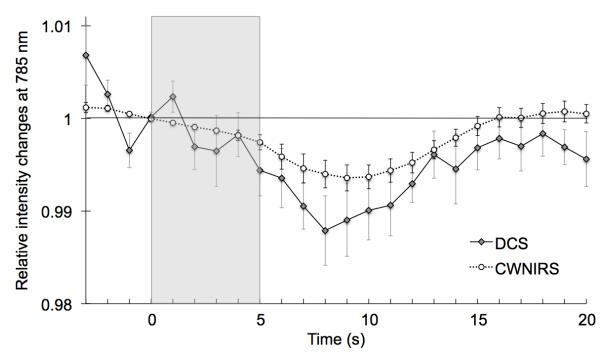


**Supplementary Fig. 1.** Average of the hemodynamic response obtained from 18 stimuli on subject 3 using CWNIRS. Source S2 is positioned over C3 in the 10-20 system. Red is HbO, blue is HbR, green is HbT.



Supplementary Fig. 2. rCMRO<sub>2</sub> calculated using equation (8) with different values of  $\gamma_r$  and  $\gamma_t$ .



**Supplementary Fig. 3.** Grand average of relative changes in DCS intensity and CWNIRS intensity  $\pm$  standard error. Pearson's correlation coefficient r = 0.86.