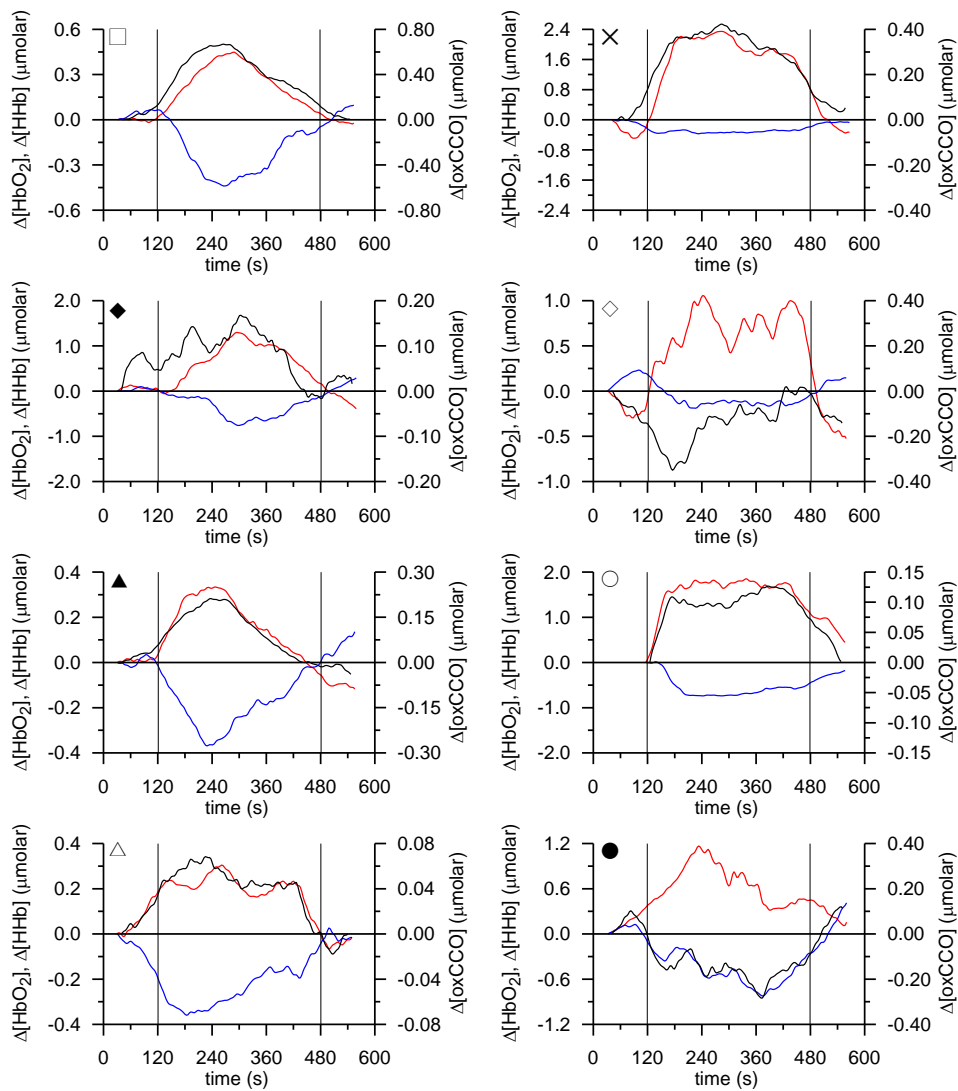
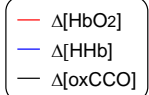
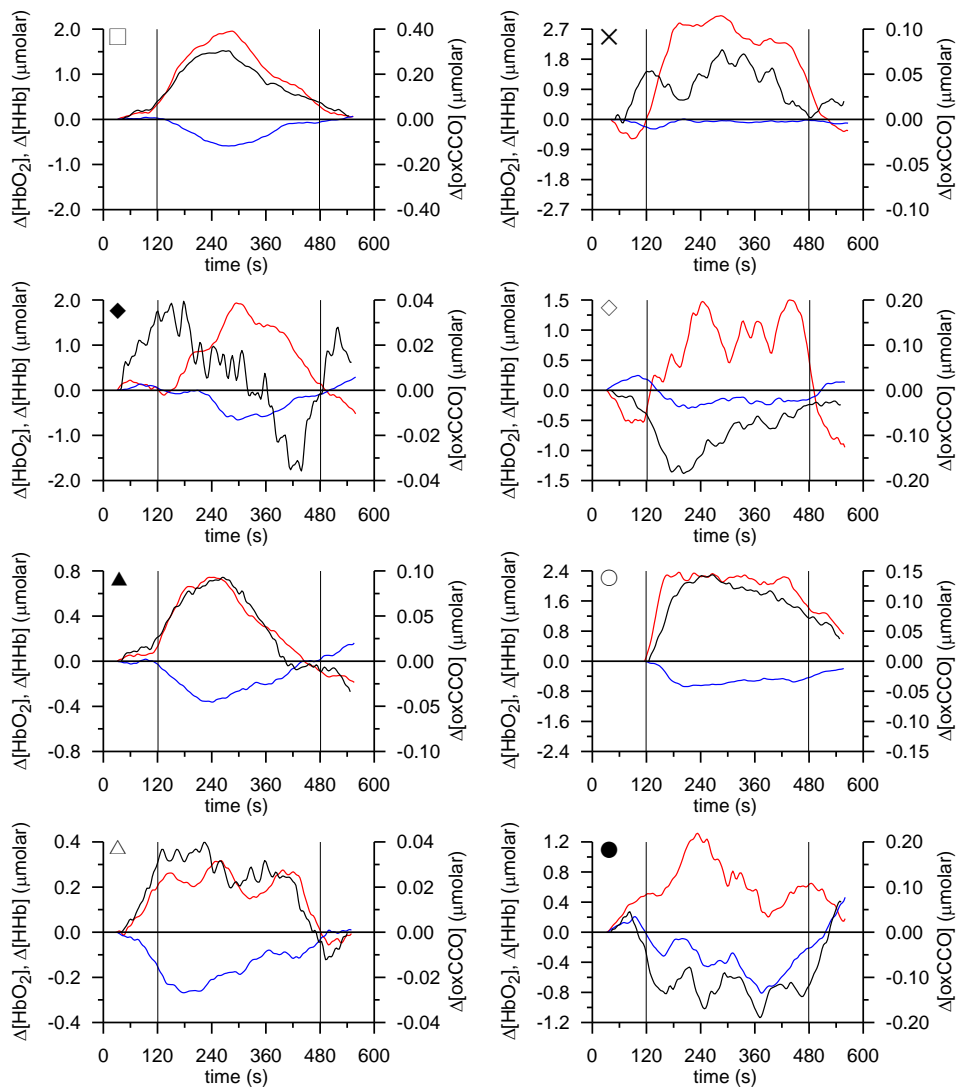
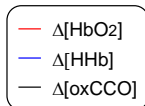


Detector 1



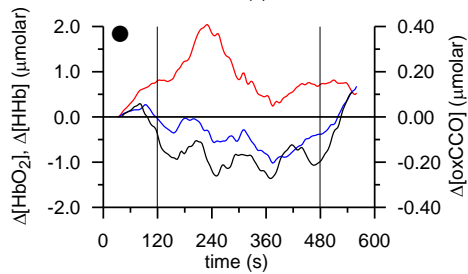
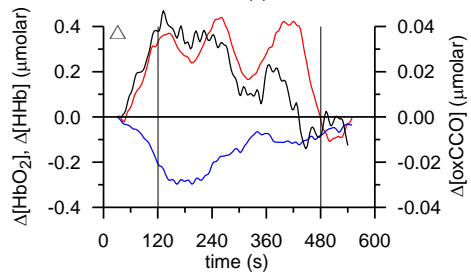
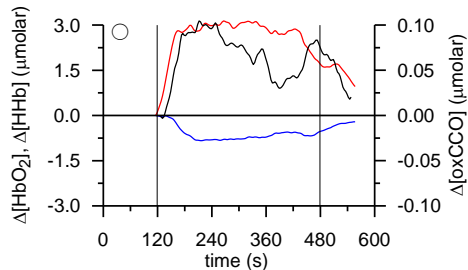
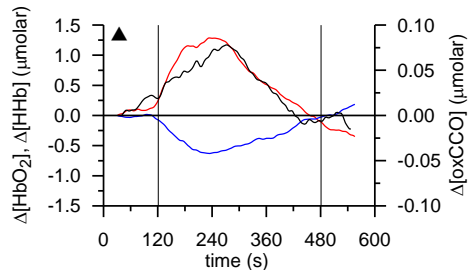
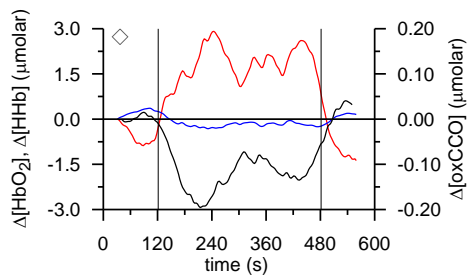
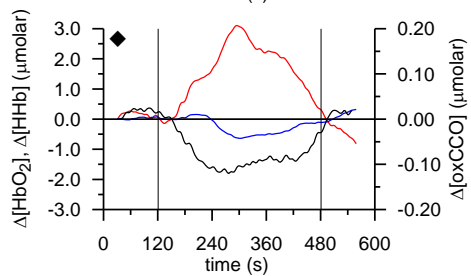
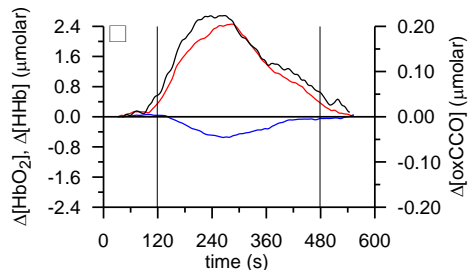
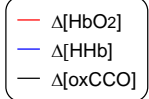
(a)

Detector 2

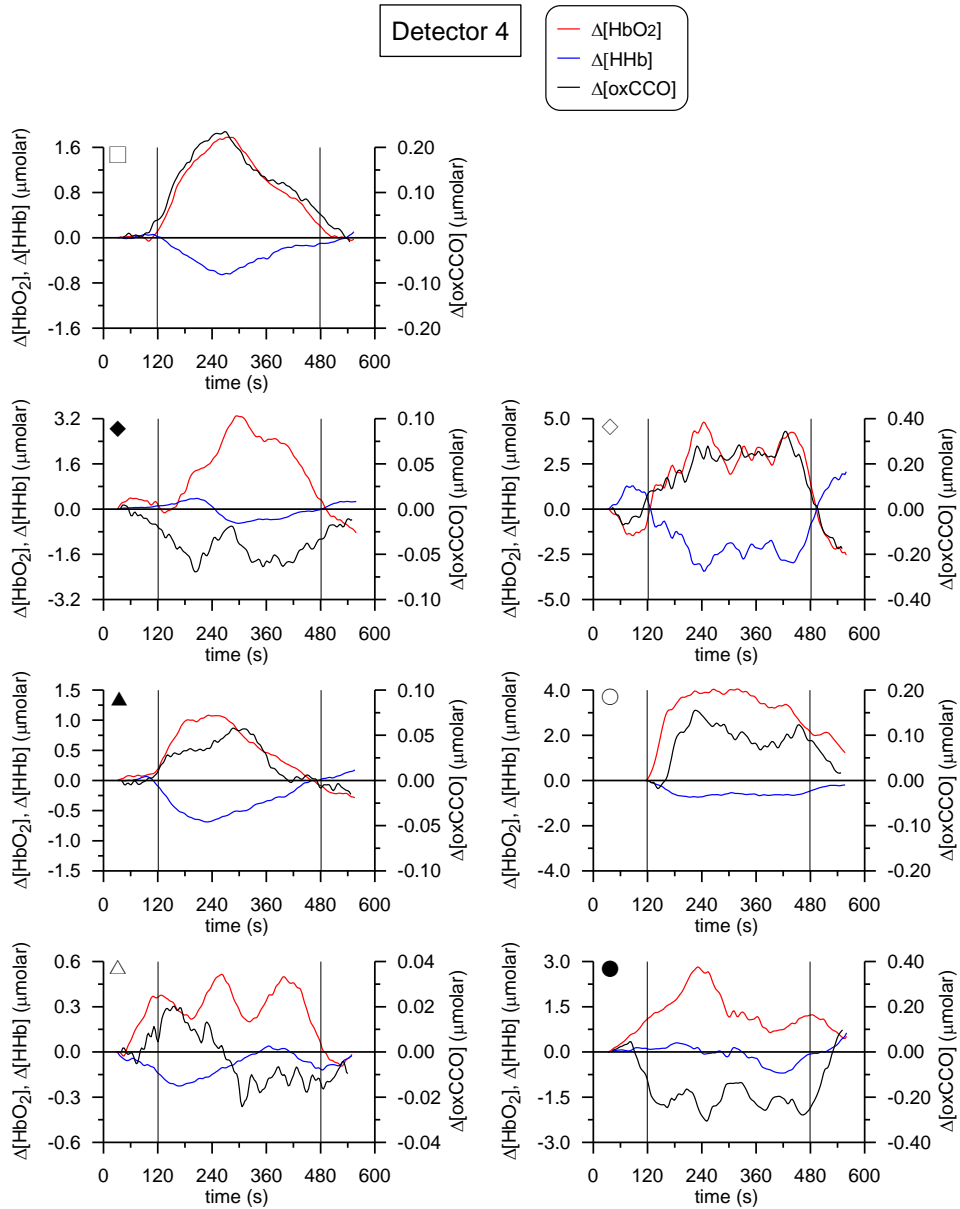


(b)

Detector 3



(c)



(d)

Supplement Fig. 1: Individual time-courses of $\Delta[\text{HbO}_2]$, $\Delta[\text{Hb}]$ and $\Delta[\text{oxCCO}]$ from detectors 1 (a), 2 (b), 3 (c) and 4 (d) for the 8 subjects who showed hemodynamic response consistent with functional activation. The vertical lines at 120 s and 480 s denote the onset and end of anagram exercise. The symbols at the top left-hand-side corner of each plot indicate the correspondence with Fig. 3, 4 and 5.

No hemodynamic response consistent with functional activation was recorded in detectors 3 and 4 for subject 'X' and these data are not shown.

The signals are presented after being filtered with a Butterworth filter and smoothed with a 60-second sliding average window, as described in the Methods. Because the data shown are 60-second sliding averages, there is an apparent lack of baseline for subject 'O'; this subject indeed had a baseline shorter than 120, which is further exaggerated when presenting 60-second averages.