acetylcholine (Ach)[5] were used as the cellular context to fairly compare basic sensor characteristics such as Ca^{2+} sensitivities, which turned out to be indistinguishable between GCaMP and GCaMP-X_C (Supplementary Fig. 11a). To closely examine the kinetics, the approach we employed was to induce Ca^{2+} dynamics mimicking that of one single action potential (AP), by fast break-in with brief ZAP stimulus, aided with strong Ca^{2+} chelators of 10 mM BAPTA in patch-recording pipettes. This way, a Ca^{2+} transient was created with fast onset and offset. GCaMP6m and GCaMP6m-X_C resulted into indistinguishable characteristics of peak $\Delta F/F_0$, SNR, rise time t_r and decay time t_d (Fig. 6b). Their t_r values were about the same (~0.1 s), further confirmed by an alternative approach to induce faster ($t_r < 0.1$ s) Ca^{2+} influx via voltage-gated $Ca_V2.2$ channels (Supplementary Fig. 12), which