

Fig. S1. Mean \pm s.e.m. spike amplitudes generated by the sucrose-sensitive cell to increasing concentrations of sucrose in 10 mmol l⁻¹ KCl (data set as in Fig. 10).

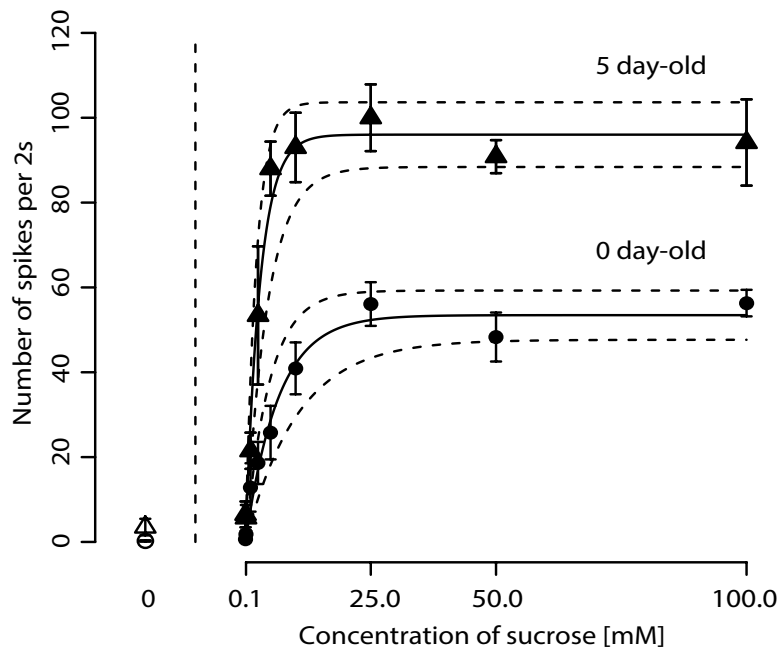


Fig. S2. Asymptotic models of the number of spikes (mean \pm s.e.m.) per 2 s emitted by the sucrose-sensitive receptor cell in trichoid T1 sensilla on the labellum of 0-day-old (circles) and 5-day-old (triangles) female *A. gambiae* to stimulation with 0, 0.01, 0.1, 1, 2.5, 5, 10, 25, 50 and 100 mmol l⁻¹ sucrose presented in increasing concentrations in water. The dotted lines indicate the 95% confidence intervals of the models. The response to water alone (open symbols on left) is not taken into account in the models (five to 13 mosquitoes tested per concentration, data sets as in Fig. 12).

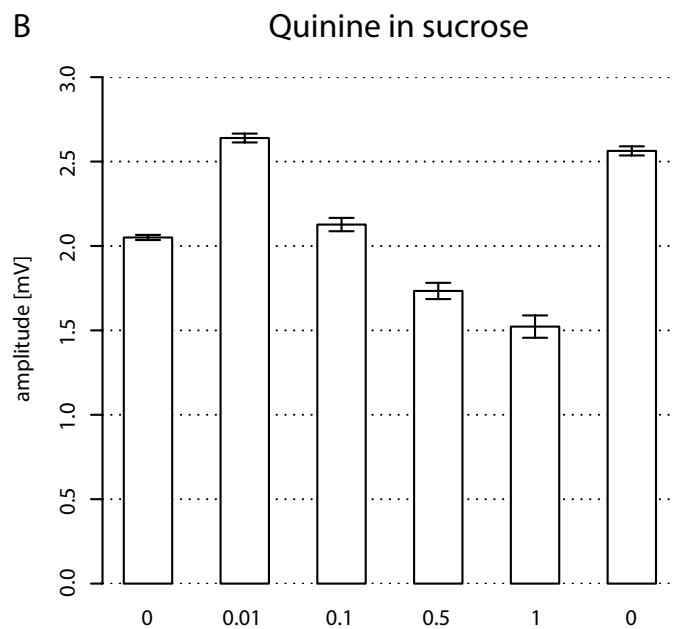
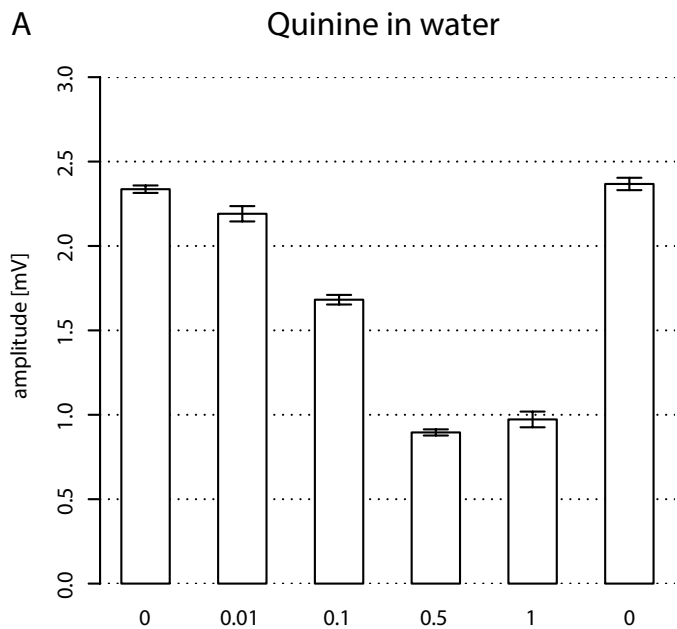


Fig. S3. Mean \pm s.e.m. spike amplitudes of the water receptor cell (A) and the sucrose receptor cell (B) as a function of increasing concentrations of quinine (data sets as in Fig. 15B,F).

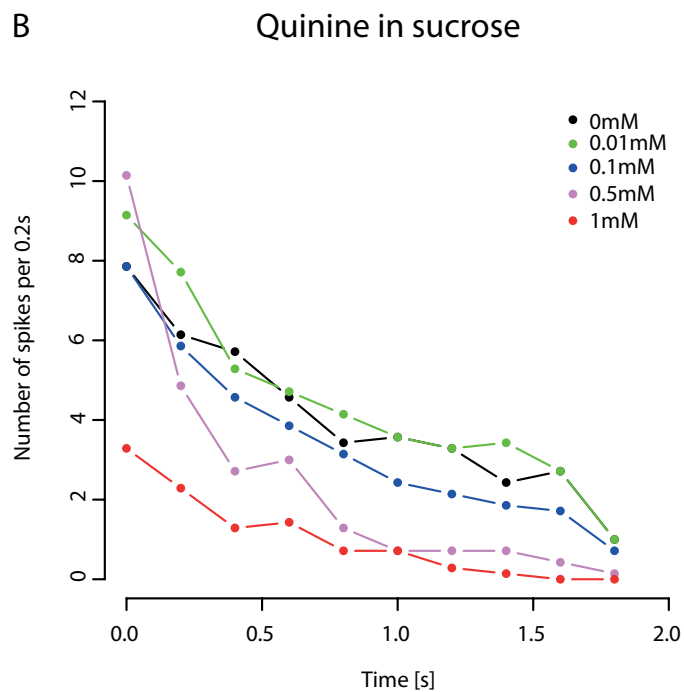
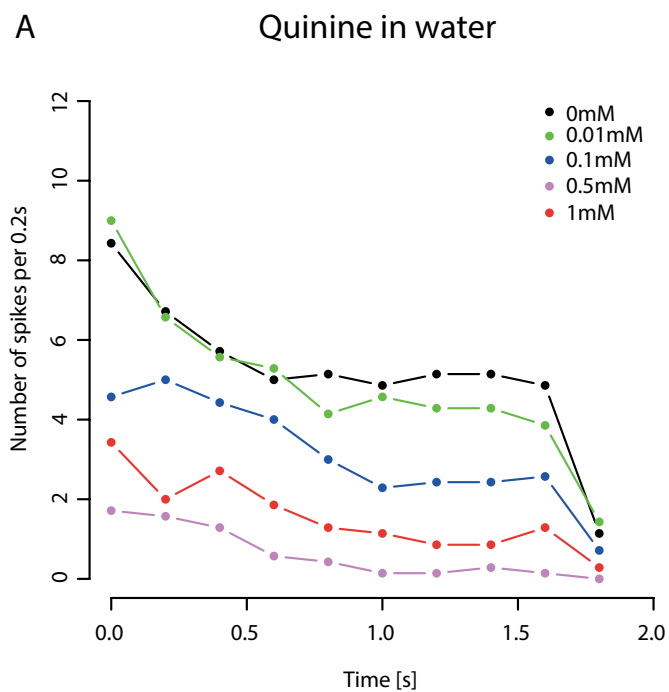


Fig. S4. Mean number of action potentials per 0.2 s in 2 s recordings from the water cell (A) and the sucrose cell (B) for 0, 0.01, 0.1, 0.5 and 1 mmol l^{-1} quinine diluted in water (A) and in 5% sucrose plus 10 mmol l^{-1} KCl (B) (data sets as in Fig. 15B,F).