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VOLTAGE CLAMP ANALYSIS OF ACETYLCHOLINE PRODUCED END-PLATE CURRENT FLUCTUATIONS AT FROG NEUROMUSCULAR JUNCTION

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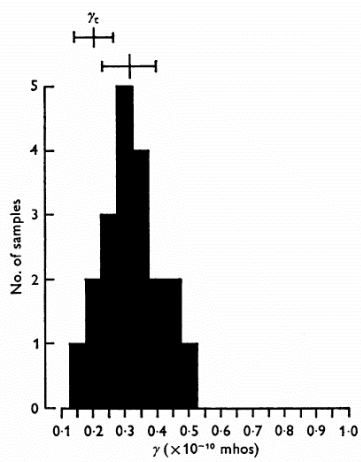

Fig. 12. Histogram of the conductance of individual open ACh channels from one end-plate. Single channel conductance γ is calculated from the low frequency asymptotes of the e.p.c. fluctuation spectra fit using the cut-off frequency predicted from the continuous line in Fig. 9*C* according to eqn. (6). Mean $\gamma = 0{\cdot}32 \pm 0{\cdot}009$ (S.E.) $\times 10^{-10}$ mhos and bar depicting $\pm 1\sigma$ is shown. The grand mean $\bar{\gamma} = 0{\cdot}205 \pm 0{\cdot}0063$ (S.E.) $\times 10^{-10}$ mhos is shown above with a bar over $\pm 1\sigma$. The grand mean is based on eighty-four estimates from eight end-plates each, of which were analysed over a wide range of membrane potentials.

Figure 1. Recording of spontaneous minis (top) and an evoked EPP (bottom); the latter is suprathreshold and elicits an action potential in the postsynaptic muscle fibre

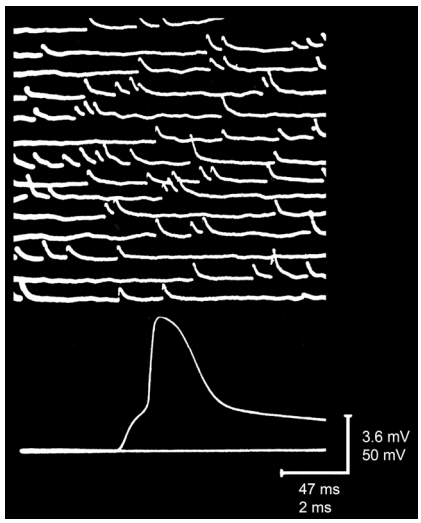

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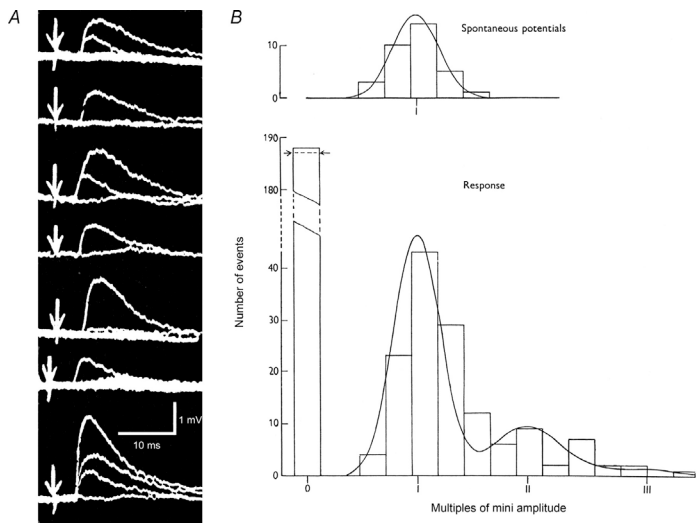
Figure 2. Quantal transmitter release



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