生物物理学 II　Handout No. 11

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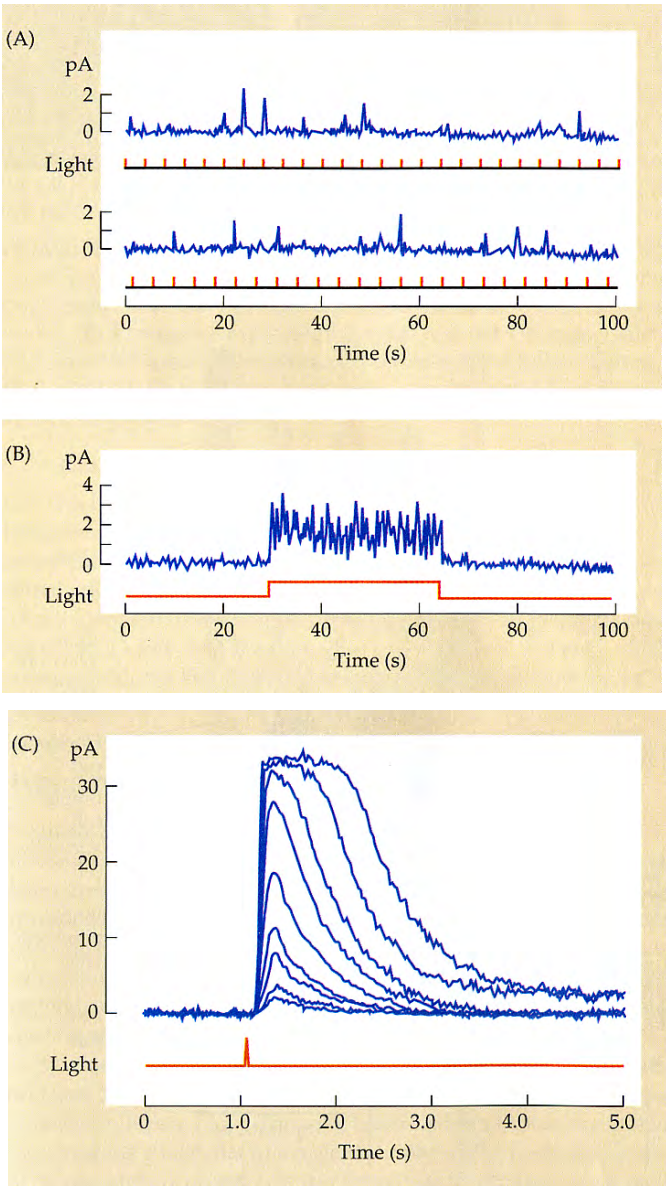

FIGURE 19.14 Recordings Made by Suction Electrode from Monkey Rod Outer Segment. (A) Responses to dim flashes (applied as indicated in the red traces labeled "Light") are shown in the two current traces. The currents fluctuate in a quantal manner. Smaller deflections are the currents generated by single photons interacting with visual pigments. Often photoisomerizations failed to occur. (B) Steady, more intense illumination (bottom trace) gives rise to a burst of signals. (C) Records from a rod in a monkey retina with flashes of increasing intensity. These currents are the counterpart of voltage traces shown in Figure 19.5B. (From Baylor, Nunn, and Schnapf, 1984.)

②

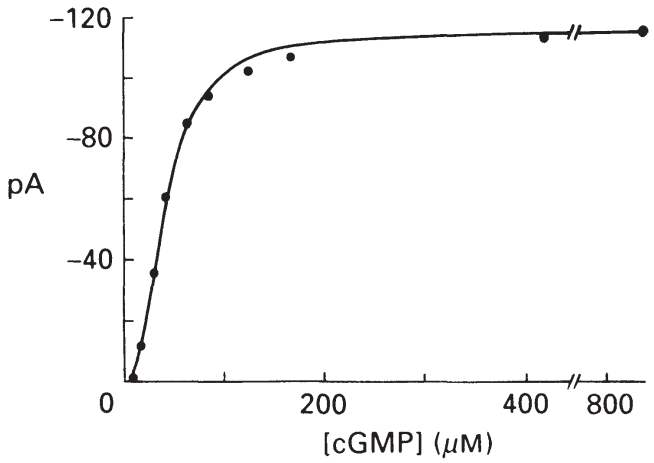

Fig. 18.44. The relation between cyclic GMP concentration and inward current in a dialysed rod outer segment. Each point on the curve was determined as in fig.18.43 b. (From Y au and Nakatani, 1985.)

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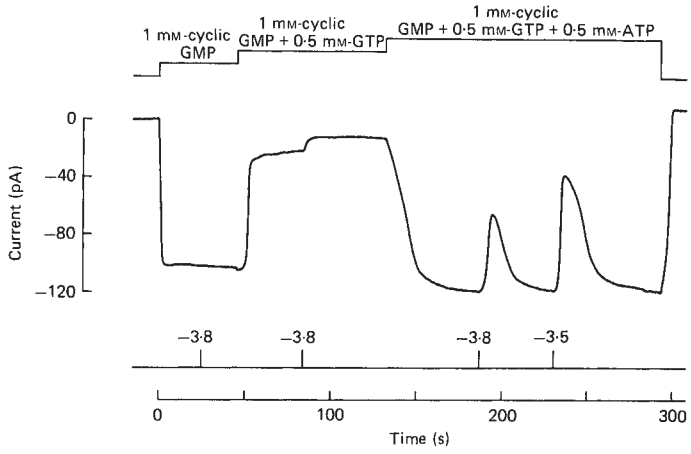

Fig. I3. Effect of light on the cyclic GMP-activated current in the presence of GTP and ATP. No IBMX was present in any of the solutions. The number above each flash monitor indicates the log attenuation of the light intensity. The '-3.8' flash delivered about 11 photons μm^{-2} (500 nm), which is close to an intensity that would normally just saturate the response in an intact toad rod (cf. Fig. 1) . The '-3.5' flash delivered about 24 photons μm^{-2}. Length of truncated outer segment within the pipette = 25 μm.

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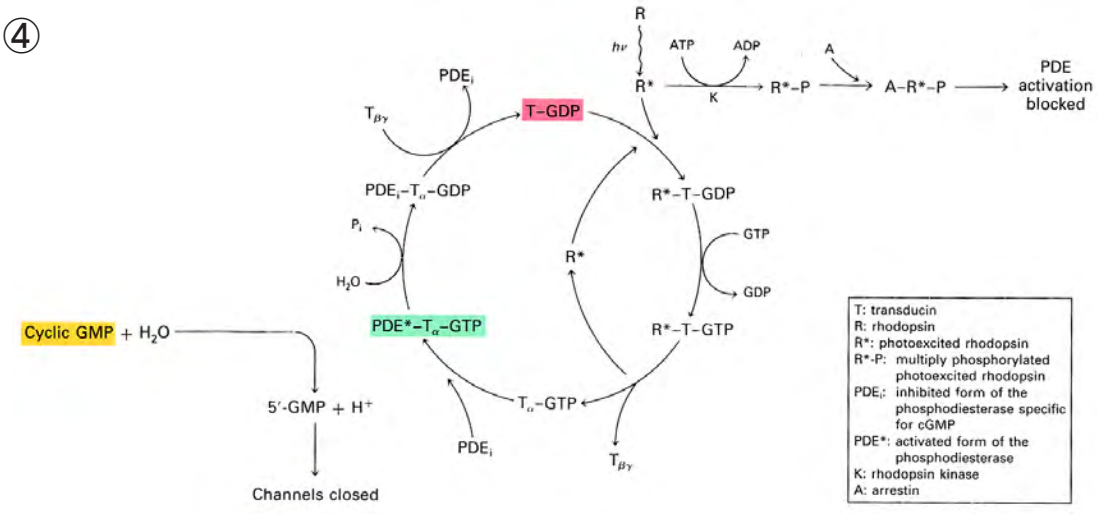

Figure 13-22
Light-activated transducin cycle in visual excitation. [After L. Stryer, J.B. Hurley, and B.K.-K. Fung. *Trends Biochem.* Sci. 6(1981) :245.]