**Table 1**
Model parameter values that best simulate dark current in rods and cones.[a]

| | Parameters | Units | [b]Cones | [c]Rods |
|---|---|---|---|---|
| CNG ion channel | $I_{dark}$ | pA | $27.3 \pm 10.5$ | $70.1 \pm 18.9$ |
| | $cGMP_{dark}$ | μM | [d]$27.9 \pm 14.2$ | $10.9 \pm 1.6$ |
| PDE | $^{dark}V_{PDE}$ | μM/s | [e]$6.5 \pm 1.48$ | $4.26 \pm 1.0$ |
| | $K_m$ | μM | [f]$26$ | $10$ |
| | $\varepsilon_{dark}$ | μM/s | [g]$12.6 \pm 0.9$ | $8.2 \pm 1.9$ |
| GC | $^{dark}V_{GC}$ | μM/s | [h]$6.5 \pm 1.48$ | $4.26 \pm 1.0$ |
| Ca²⁺ influx | $_{in}J_{Ca}^{dark}$ | μM/s | [i]$15 \pm 5.8$ | $16.3 \pm 4.3$ |
| | $P_f$ | | [j]$0.34$ | $0.14$ |
| Ca²⁺ efflux | $_{out}J_{Ca}^{dark}$ | μM/s | [k]$15 \pm 5.8$ | $16.3 \pm 4.3$ |
| Free [Ca²⁺] | | μM | [l]$0.4$ | $0.6$ |

[a] Values listed are referred to as "statistical". They were measured experimentally in each and every one of the cells under investigation and the results averaged.

[b] Striped bass single cones, mean $\pm$ SD, $N = 18$.

[c] Tiger salamander rods, mean $\pm$ SD, $N = 20$.

[d] Computed from the circulating dark current (Text Equations (1.1) and (1.2). $I_{max} = 2500$ pA in cones (Rebrik et al., 2000), 1500 pA in rods (Hestrin and Korenbrot, 1987).

[e] Computed from the rate of dark current change when PDE or GC are suddenly and completely blocked, using text Equations (1.1), (1.2) and the cytoplasmic free cGMP in the dark. The values listed are the mean of experimental measurements in intact tiger salamander rods (Hodgkin and Nunn, 1988; Koutalos et al., 1995b) and bass cones (Holcman and Korenbrot, 2005).

[f] Experimental data. In rods (Dumke et al., 1994; Leskov et al., 2000; Muradov et al., 2010). In cones (Gillespie and Beavo, 1988; Muradov et al., 2010).

[g] From text Equation (1.3).

[h] In darkness, GC and PDE enzymatic activities are the same.

[i] Computed from the circulating dark current. Text Equation (1.6).

[j] Experimental data for both rods and cones (Ohyama et al., 2000).

[k] In darkness Ca²⁺ influx and efflux rate are the same.

[l] Assigned from experimental data. Rods (Gray-Keller and Detwiler, 1994; Younger et al., 1996). Cones (Sampath et al., 1999).