Table 4
Model parameter values that best simulated flash photocurrents in dark adapted tiger salamander rods.[a]

	Parameters	Category	Units	Rod 1		Rod 2		Rod 3	
VP*	Intensity	Statistical	VP*	53	3509	53	3509	53	3509
GRK	γ_{max}	Adjustable	μM/s	3.03		2.7	3.0	2.9	
	μ_0	Invariant	μM/s	0.5					
	ω_γ	Invariant		0.1					
T*	ψ_0	Adjustable	1/s	[b]73		80		62	
	ω_{act}	Invariant		[c]0.69					
PDE*	ε_{sub}	Invariant	μM/s per molecule	[d]0.0083					
	k_{cat}		1/s	[e]5×10^3					
	α_{PDE}	Adjustable	1/s	[f]0.59		1.0	0.83	0.89	0.78
GC	V_{GC}^{max}	Adjustable	μM/s	[g]26.1		26.2		26.4	
	$^{GC}K_{Ca}$	Invariant	μM	0.2					
	n_{GC}	Invariant		1.5					
Ca^{2+} influx	$^{in}J_{Ca}$	Statistical	μM/s	19.5		16.8		13.1	
	P_f	Invariant		[h]0.14					
Ca^{2+} buffer	K_{HA}	Adjustable	μM	[i]0.056					
	C_H	Adjustable	μM	5		8.5		8	
	B	Adjustable		1		1		2	
Ca^{2+} efflux	J_{Ca}^{max}	Statistical	pA	18.3		18.5		18.74	
	K_{Ca}^{exc}	Invariant	μM	[j]1.6					

[a] Values of parameters first used to compute dark current are not repeated here. They have the same values listed in Table 1.
[b] ψ_0 experimental mean value in rods is ~100 s^{-1} (Leskov et al., 2000).
[c] Experimental data (Gibson et al., 2000).
[d] The ε_{sub} value superficially appears to be 10-fold higher than the β_{sub} value experimentally measured by Leskov et al. (2000) and frequently quoted. However, both values reflect the same PDE hydrolytic activity, k_{cat}, they are simply defined in different units.
[e] Assigned k_{cat} value measured in biochemical assays. [(Dumke et al., 1994; D'Amours and Cote, 1999; Zhang et al., 2003; Muradov et al., 2009). ε_{sub} is calculated from this assigned value and the salamander rod outer segment cytoplasmic volume (1 pL).
[f] Similar to experimental time constant measured in truncated toad rod outer segments (~2 s)(Rieke and Baylor, 1998).
[g] The same parameter has the value 13 μM/s in truncated frog rods (Koutalos et al., 1995a) and 29 μM/s. in truncated carp rods (Takemoto et al., 2009).
[h] Experimental value (Ohyama et al., 2000).
[i] Experimental mean values are $K_{HA} \ll 0.7$ μM, C_{HA} 37 μM and B 16 (Lagnado et al., 1992).
[j] Assigned from the experimentally known value (Lagnado et al., 1992; Sheng et al., 2000).