

### Supplementary Material

	0.5 ms				4 ms					
	<i>Epiretinal</i> ( $\mu A$ )		<i>IPL</i> ( $\mu A$ )		<i>IPL</i> ( $\mu A$ )		<i>OPL</i> ( $\mu A$ )		<i>Subretinal</i> ( $\mu A$ )	
	Direct	Network	Direct	Network	Direct	Network	Direct	Network	Direct	Network
Anodic	10 $\pm$ 5.6	21 $\pm$ 12	7.6 $\pm$ 3.9	14 $\pm$ 8	3.0 $\pm$ 1.5	3.2 $\pm$ 1.8	<b>3.0 <math>\pm</math> 1.8</b>	<b>1.3<math>\pm</math>0.6</b>	4.0 $\pm$ 1.7	2.9 $\pm$ 1.8
Cathodic	<b>2.4<math>\pm</math>1.4</b>	<b>7.2<math>\pm</math>4.3</b>	5.3 $\pm$ 3.1	8.2 $\pm$ 5.4	2.1 $\pm$ 1.2	1.9 $\pm$ 1.2	4.0 $\pm$ 1.9	3.2 $\pm$ 2.1	23 $\pm$ 11	25 $\pm$ 13

Table 1. Thresholds of the direct and network-mediated (ML) responses with anodic and cathodic stimuli and electrodes located in epiretinal, IPL, OPL and subretinal positions. 0.5 ms pulses were used for targeting direct stimulation of RGCs: Optimum configuration for direct stimulation (epiretinal cathodic) is outlined with red. 4 ms pulses were used for targeting network-mediated stimulation in IPL, OPL and subretinal positions. Optimum configuration for network stimulation (OPL anodic) is outlined with red.