**Figure S1.**  The Suppressed-by-Contrast computation, related to Figure 1. Additional information on the computation performed by the SbC RGC in relation to excitatory and inhibitory balance.

**Figure S2.**  Pharmacology of inhibitory current in the SbC RGC, related to Figure 1. Highlights the pharmacology used to isolate the GABAergic and glycinergic inhibitory input onto the SbC RGC

**Figure S3.** Current-voltage relationship of the CRH-1 amacrine cell, related to Figure 2. Electrophysiology supplement regarding the current – voltage relationship of CRH-1 amacrine cells.

**Figure S4.** SbC RGC and control RGC recordings before and after ablation, related to Figure 4. Show results from individual ablation experiments where SbC RGCs and control RGCs before ablation, after ablation, or after ablation in the presence of strychnine.