Supplementary Figure 3

Next, we compared the OSR strength to a measure of ON-OFF bias. We used a stimulus that consisted of spatially uniform light that turned ON for 1 s and OFF for 1 s. The ON-OFF index was defined as \((N_{\text{ON}} - N_{\text{OFF}}) / (N_{\text{ON}} + N_{\text{OFF}})\), where \(\{N_{\text{ON}}, N_{\text{OFF}}\}\) was the total number of spikes elicited by light (ON, OFF); its value ranged from +1 for a purely ON-type response to -1 for purely OFF-type. We found a correspondence: cells with greater bias towards ON-type tended to have a stronger OSR. The correlation coefficient was \(R^2 = 0.14\) for salamander and \(R^2 = 0.39\) for mouse (dashed lines), indicating that there was considerable heterogeneity in the ganglion cell population.

Supplementary Figure 3. OSR strength versus ON-OFF index. A. Salamander ganglion cells. B. Mouse ganglion cells. Dashed lines are a linear regression.