## **Inventory of Supplemental Information**

This supplemental information contains 3 supplemental figures, 1 QuickTime movie, legends for these figures and movie, detailed information of some of the experimental procedures and supplemental references.

**Figure S1** is related to Figure 1 to show that dendritic protrusion density is larger in all major morphological subtypes of RGCs in immature  $CD3\zeta$ -/- mice.

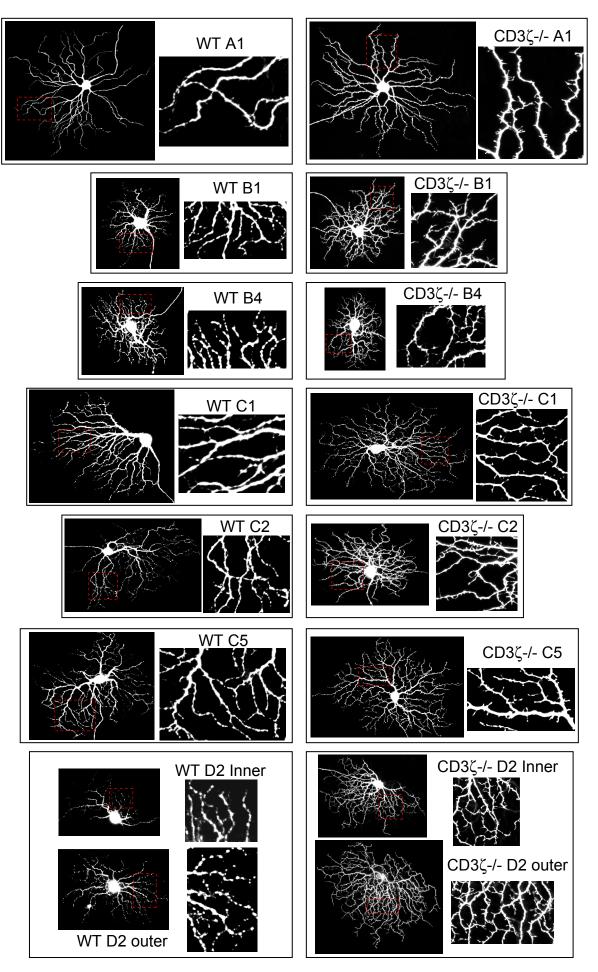
**Movie S1** is related to Figure 3 to demonstrate that dendritic growth and elimination are readily detectable using time-lapse confocal image on YFP-expressing RGCs.

**Figure S2** is related to Figure 4 to demonstrate that the dendritic density of all major morphological subtypes of RGCs in mature CD3 $\zeta$ -/- mice is significantly increased.

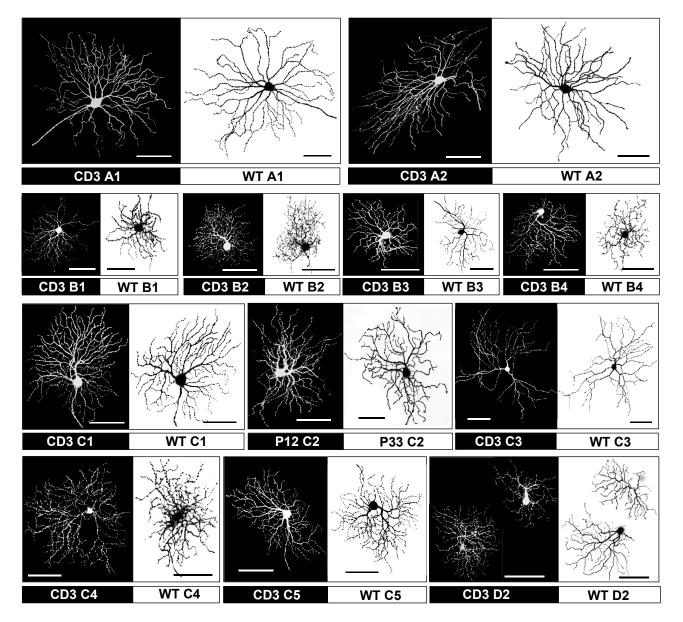
**Figure S3** is related to Figure 7 and shows that CD3 $\zeta$  mutation permanently impaired the RGC axonal projections to the dLGN.

**Supplemental Experimental Procedures** show detailed information of some of the protocols used in this study.

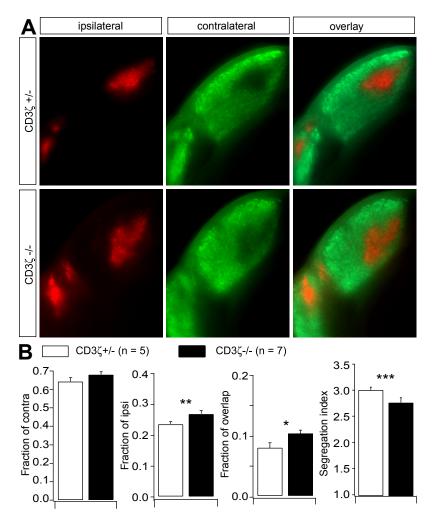
## **Supplemental References.**



Xu et al Sup 1



Xu et al. Sup 3



Xu et al. Sup 4