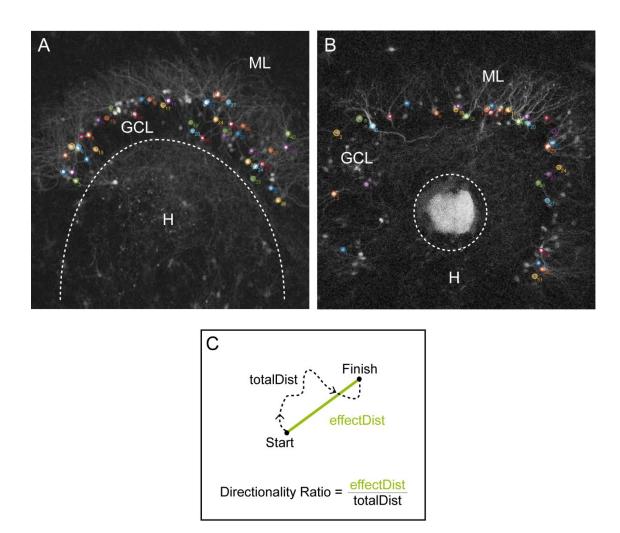


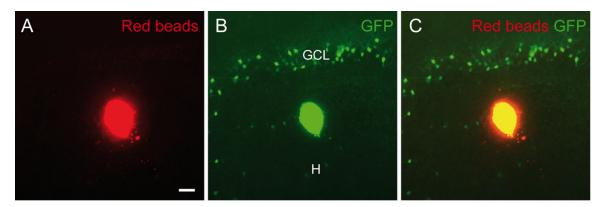
Supplementary Material

Supplementary Figures



Supplementary Figure 1. Automatic evaluation of the migration behavior of individual GCs analyzed with a custom Matlab® script.

Cell bodies of the eGFP-positive GCs are automatically detected, and neurons are numbered (circles in different colors). The hilar-GCL (**A**) or microspheres (**B**) border (white dotted line, respectively) is marked by hand using an input tool implemented in the script. (**C**) Definition of the total distance (totalDist), the effective distance (effectDist) and the directionality ratio (modified from Gorelik and Gautreau, 2014). GCL, granule cell layer; H, hilus; ML, molecular layer.



Supplementary Figure 2. Red fluorescence beads are visible in the red and green channels. Photomicrograph of the red fluorescent beads placed into the hilus (A). Thy1-eGFP-labeled GCs and the fluorescent beads are in green (B). Note the colocalization in yellow (C), showing that the microspheres can be visualized in both channels. GCL, granule cell layer; H, hilus. Scale bar: $50 \mu m$.