Supplemental Figure 1:  

A: The linear map of the construct of the mouse NGF promoter driving expression of the reporter gene EGFP (this construct is designated as NGFpr-EGFP).  The -2100 bp fragment of the mouse NGF promoter, which includes an AP-1 transcriptional factor binding site (black box), was cloned upstream of the EGFP cDNA and the adjacent SV40 early polyadenylation signal sequence (Poly A) (forward arrow: transcription start site; ATG: translation start site).  

B: Examination of sections of the salivary glands from adult NGFpr-EGFP transgenic mice (as determined by PCR genotyping) revealed a robust population of EGFP-positive tubular cells in the submaxillary glands (but not in the adjacent sublingual or parotid glands). 

C, D: Skin taken from the external auditory meatus of adult transgenic mice displayed EGFP-positive cells associated with the roots of each hair follicle (Figure D shows autofluorescence by the hair shafts under the rhodamine filter). Scale bars: 200 µm (B), 500 µm (C, D). This magenta-green supplementary figure corresponds to Figure 1.
Supplemental Figure 2: In the entorhinal cortex from PD10 pups, numerous EGFP-positive neurons, which are also immunopositive for NeuN (B) are present in layer III (arrows, with a sparse scattering of neurons in layers I/II), as seen at low (A), intermediate (B), and high (C) magnifications. As observed elsewhere in the cortices, there appear to be both large- and small-sized EGFP-positive neurons. Scale bars: 500 µm (A), 100 µm (B, D), and 200 µm (C). This magenta-green supplementary figure corresponds to Figure 3.
Supplemental Figure 3: Distribution of EGFP-positive neurons in the hippocampal formation of PD10 transgenic mice pups. Robust populations of EGFP-positive neurons are seen in the CA1-3 regions (A) in the adjacent subiculum (B). The majority of EGFP-positive neurons (C, arrows) display immunostaining for the neuronal marker, NeuN (D) in the hippocampal formation. Scale bars = 200 µm (A) and 100 µm (B-D). This magenta-green supplementary figure corresponds to Figure 5.

176x279mm (300 x 300 DPI)
Supplemental Figure 4: Distribution of EGFP-positive neurons in other neural areas of transgenic mice (horizontal sections in A-C). A: The nucleus basalis (NB) and reticular thalamic nucleus (RT) in the forebrain both show robust populations of EGFP-positive neurons in adult mice. B, C: EGFP-positive neurons in the nucleus basalis, having two or three dendritic processes, are smaller in size than the p75NTR-immunopositive projection neurons (magenta). Scale bars = 200 µm (A), 50 µm (B), and 100 µm (C). This magenta-green supplementary figure corresponds to Figure 6.
Supplemental Figure 5: A: Skin, such as the external auditory meatus used for genotyping (shown here), has an abundance of EGFP-positive cells found in association with individual hair follicle. B: Using confocal microscopy, it was revealed that these EGFP-positive cells are found in the sebaceous glands. C: The footpads show a sparse population of EGFP-positive cells at the base of small gland-like structures (rhodamine filter shows the presence of autofluorescence). Scale bars = 200 µm (A), 8 µm (B), and 100 µm (C). This magenta-green supplementary figure corresponds to Figure 9.
Supplemental Figure 6: Distribution of EGFP-positive cells in the kidneys of post-natal and/or adult transgenic mice. A-D: Both cortical and medullary regions of the adult kidney have robust populations EGFP-positive interstitial cells. In the renal cortex, these cells often appear as columns adjacent to the tubular and vascular structures, whereas in the renal medulla these cells have a scattered organization. Sections of adult kidneys immunostained for GAP-43 (a marker of peripheral axons) reveal no obvious association between EGFP-positive interstitial cells and GAP-43-immunopositive fibers (magenta axons in D). (Sections in B show autofluorescence of the urinary tubules with the rhodamine filter). Scale bars = 200 µm (A, C), and 50 µm (B, D). This magenta-green supplementary figure corresponds to Figure 11.
Supplemental Figure 7: Immunoblotting for proNGF and mature NGF in a variety of tissues isolated from adult transgenic and wild type (C57Bl/6) mice. Membranes were immunoblotted using the MC-51 NGF IgG (A) and MC-51 NGF IgG plus β-actin IgG (B). Purified samples of proNGF were loaded in lane 1, and purified samples of 2.5S NGF were loaded in lanes 13 and 14. Protein samples of tissues from transgenic mice were loaded, as follows: submaxillary gland in lane 2, lung in lane 3, thymus in lane 4, heart in lane 5, liver in lane 6, descending colon in lane 7, kidney in lane 8, lacrimal gland in lane 9, hippocampus in lane 10, and neocortex in lane 11; protein samples of neocortical tissue from wild type mice were loaded in lane 12. Using the MC-51 NGF IgG intensely stained bands at ~13 and ~14 kDa were detected in the submaxillary gland, and weakly to moderately stained bands at ~32 kDa were detected in the thymus, liver, colon, kidney, and lacrimal gland, as well as weakly stained bands at ~32 kDa in the murine brain samples. Digital pseudo-coloring of the same gel (B) reveals positive immunostaining with the NGF IgG (green) and positive immunostaining with the β-actin IgG (magenta). This magenta-green
supplementary figure corresponds to Figure 13.
176x279mm (300 x 300 DPI)
Supplemental Figure 8: Localization of EGFP-positive cells after sciatic nerve injury. A-C: At two days post-injury, EGFP-positive cells are seen in the proximal nerve stumps (low (A) and high (B, C) magnifications). The distal nerve stumps, as well as the uninjured sciatic nerves, do not display EGFP-positive cells (data not shown). D-F: At six days after injury, a small number of EGFP-positive neurons (E, higher magnification of EGFP-positive neurons) are detected in the ipsilateral cervical spinal cord. EGFP is not detected under other filters for fluorescence microscopy (rhodamine filter shown in C and F). Scale bars: 200 µm (A-C), and 100 µm (D, F). This magenta-green supplementary figure corresponds to Figure 14.