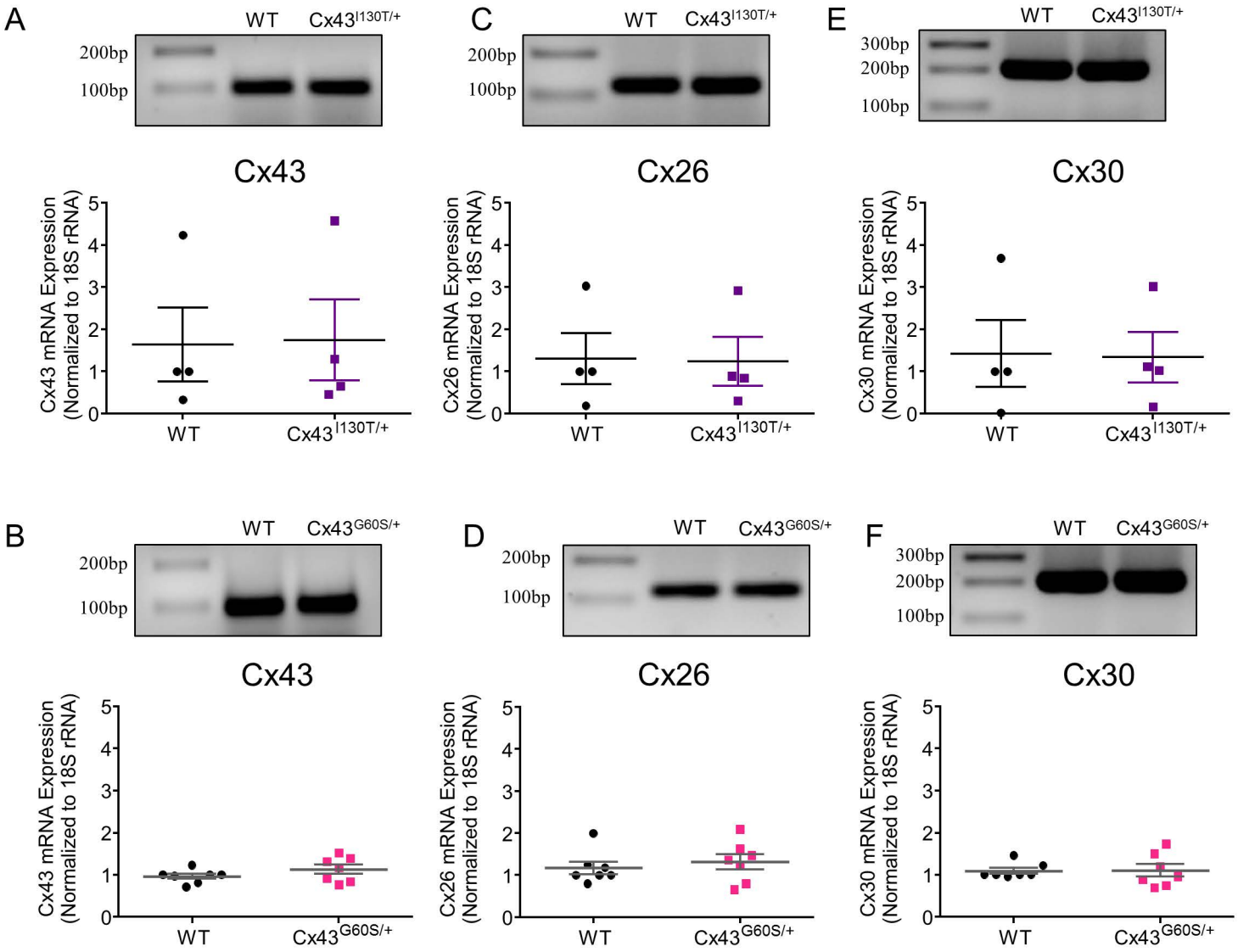
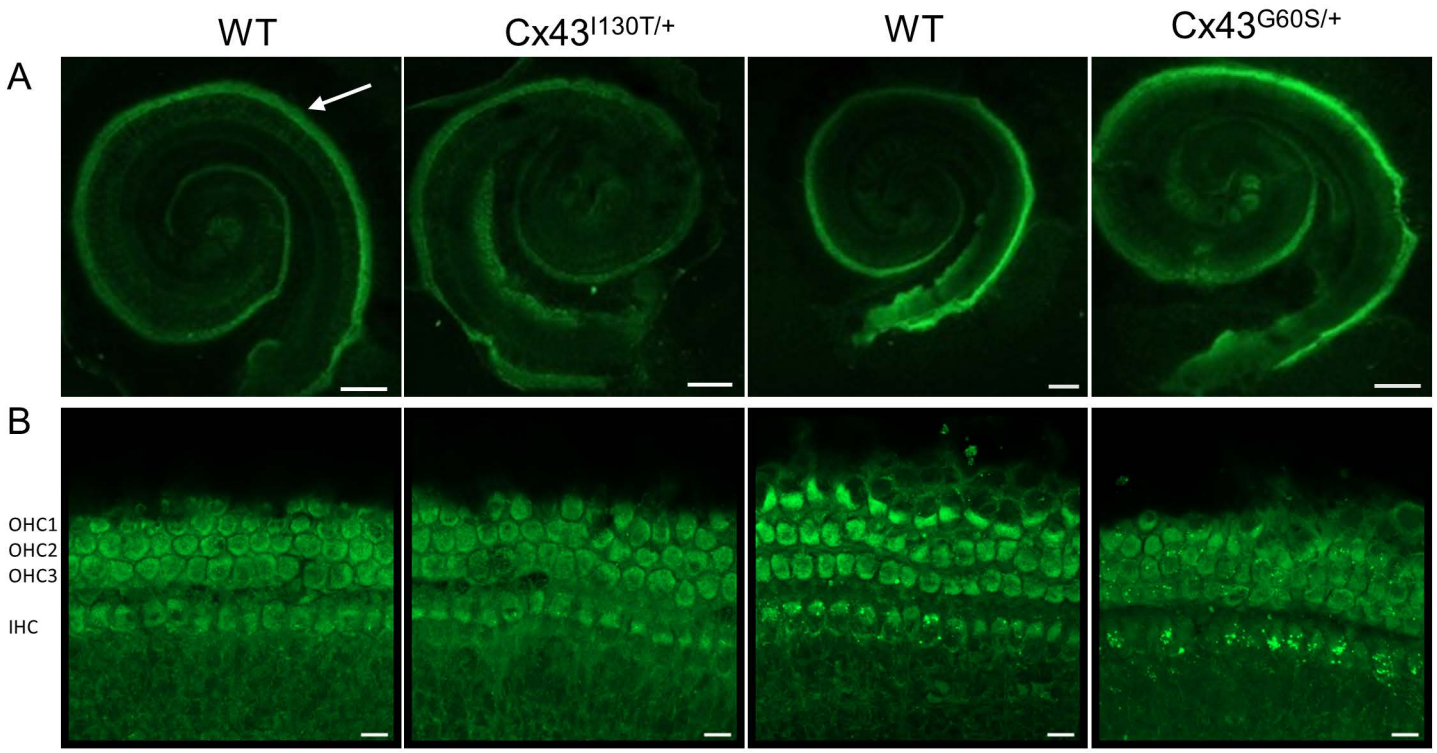


Supplemental Figure 1. Connexin mRNA transcripts are expressed in the cochlea at similar levels in WT and mutant mice

Cx43 is expressed in the cochlea of both Cx43 mutant mice as well as their wildtype (WT) littermate controls (A, B). There was no evidence of compensation by Cx26 or Cx30 mRNA transcripts in Cx43 mutant mice (C-F). Gels presented reflect RT-PCR and graphs represent qPCR where mRNA transcript expression were quantified. 18S rRNA was used as a reference gene. Independent student T-tests were used for each group, N=4, n=12 for $Cx43^{I130T/+}$ and N=7, n=21 for $Cx43^{G60S/+}$ cochleae for each genotype in each qPCR experiment. Points on graph represent mean of triplicates for each biological sample (i.e., mean of 4 and 7 for $Cx43^{I130T/+}$ and $Cx43^{G60S/+}$, respectively. Bars represent ±SEM of biological samples (i.e., 4 and 7).



Supplemental Figure 2. Hair cells in control and mutant mice have functional mechanoelectrical transducer channels

Representative examples of FM1-43 dye uptake into hair cells in $Cx43^{I130T/+}$, $Cx43^{G60S/+}$ mutant mice and their WT littermate controls (A). Arrow indicates location of hair cells, which have taken up fluorescently labelled dye that is shown in green. Higher magnifications of FM1-43 dye-labeled hair cells revealed fluorescent dye within the cytoplasm of the hair cell. (B). Images were acquired using a confocal microscope equipped with a 10X objective lens. Six individual tiled images were seamlessly compiled together into a montage. OHC= outer hair cells, IHC= inner hair cells. Scale bars=200μm in (A) and 20μm in (B).