

Fig. S1. Boxplots of the evaluated bodyweight, blood pH and lactate levels. (A) Comparison of the pH levels for the CLP, Sham and Control groups. (B) Visualization of the lactate levels in the CLP animals and the Controls. (C) Equal inclusion bodyweight of the included 42 animals. (D) Loss of bodyweight in the CLP animals, a stable body weight in the Sham mice and a gain of bodyweight in the Controls. (E) Body temperature for the three study groups at the time point of inclusion. (F) Body temperature of the animals at the time point of sacrifice. A drop in body temperature can be noted in the CLP group; stable situation can be noted in the two control groups.

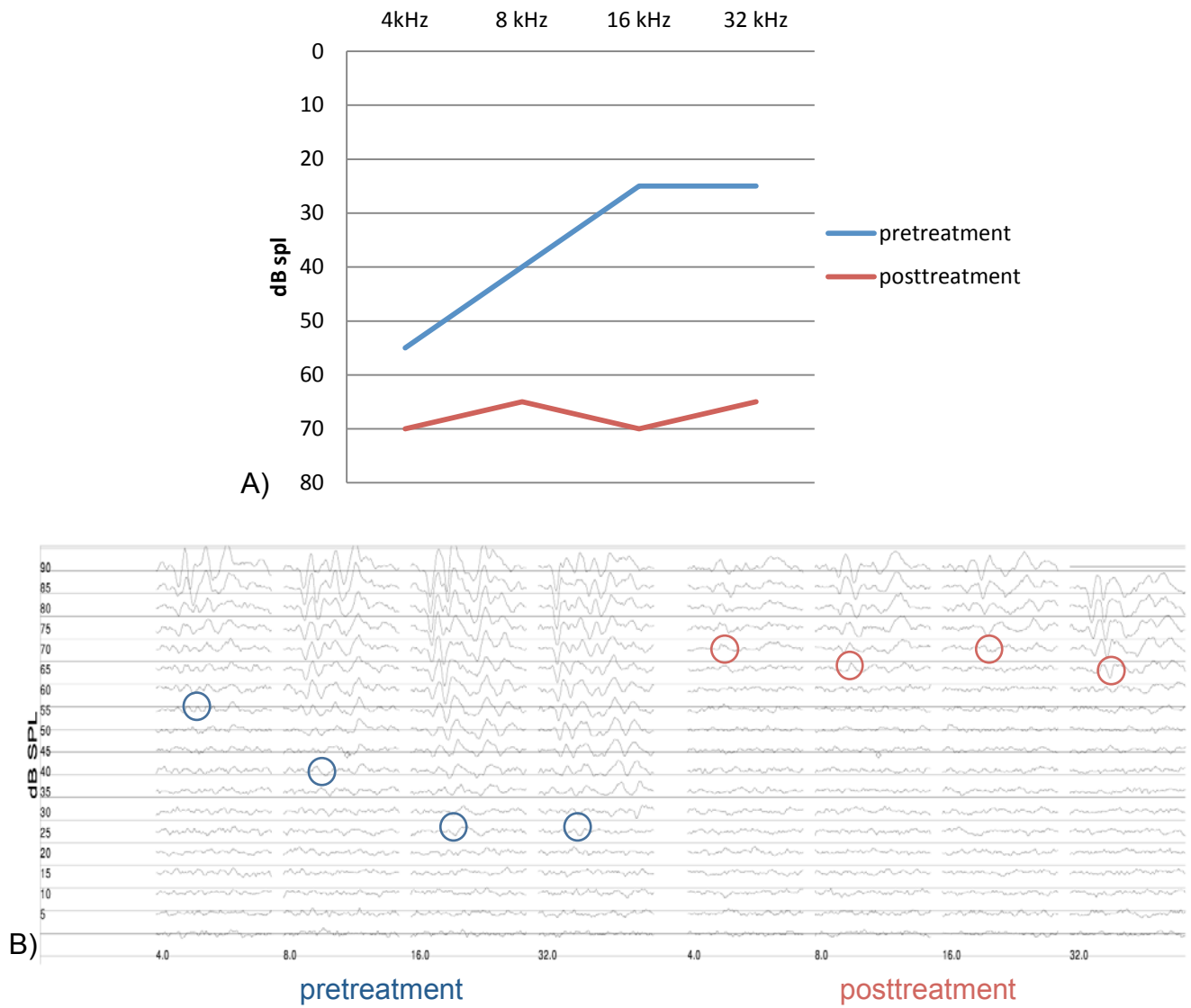


Fig. S2. Auditory evoked brainstem responses in a CLP sepsis mouse. (A) The blue line shows the hearing threshold of the pretreatment measurement. The red line shows the hearing threshold of the post-treatment measurement. (B) Auditory evoked brainstem responses of the pretreatment and the post-treatment measurement. The circles indicate the last clear potential.

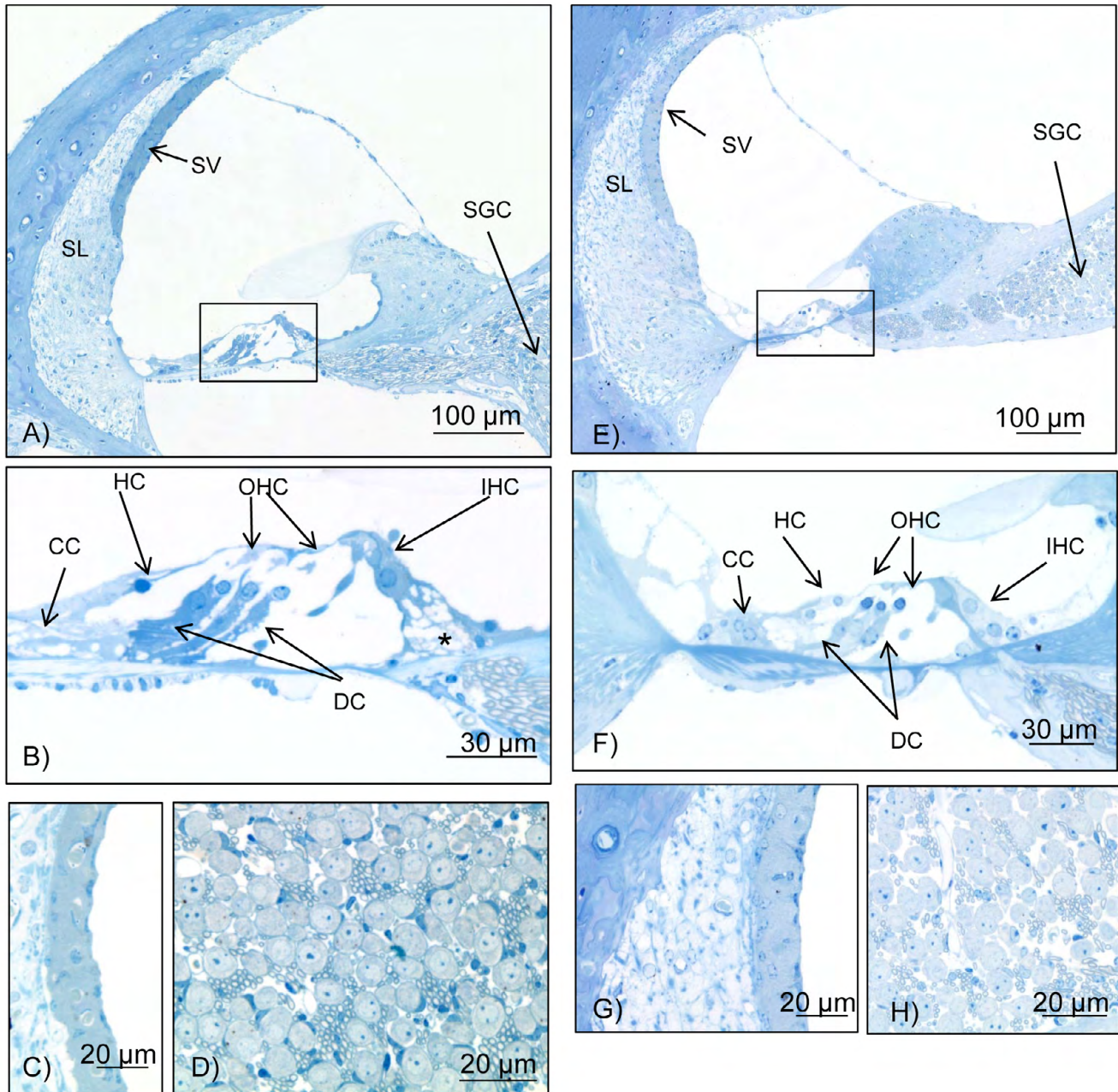


Fig. S3. Light microscopic findings of a temporal bone. (A-D) Results of a CLP mouse with hearing loss. (E-H) Results of a sham animal without hearing loss. (A) overview of the cochlea duct in the middle turn. The box marks the organ of Corti. (B) Organ of Corti. The inner hair cells (IHC) show a regular configuration and a vacuolization (asterisk) at the basal pole. The outer hair cells (OHC) show a regular configuration. The Deiters' cells (DC), Hensen's cells (HC) and the Claudius' cells (CC) show a peculiar intensive staining of the cytoplasm, a bumpy configuration of the cell and a chromatin condensation with reduction of the nuclear volume. (C) The stria vascularis does not show any pathologic alterations. (D) The spiral ganglion cells do not show any pathologic alterations. (E) Overview of the cochlea duct of a sham animal in the middle turn. The box marks the organ of Corti. (F) Organ of Corti. The inner hair cells (IHC) show a regular configuration and no vacuolization at the basal pole. The outer hair cells (OHC) show a regular configuration. The Deiters' cells (DC), Hensen's cells (HC) and the Claudius' cells (CC) show euchromatin containing nuclei and a light blue cytoplasm. (G) The stria vascularis does not show any pathologic alterations. (H) The spiral ganglion cells do not show any pathologic alterations. SV, stria vascularis; SL, spiral ligament; SGC, spiral ganglion cells.