



**Supplementary Figure 7. Representative 3D renderings of E18.5 control (*Shroom3*<sup>+/+</sup>) and *Shroom3* KO (*Shroom3*<sup>em1(IMPC)Bay/em1(IMPC)Bay</sup>) embryos.** The *Shroom3* KO embryo without the midfacial cleft is shown. Length measurements show the marked midface (frontal view) and mandibular (lateral view) hypoplasia in the homozygote. The mouth of all homozygotes is open with a protruding tongue apparent (white arrow). The mandible also shows subtle anterior narrowing. The pinnae are reduced in size and posteriorly rotated even in the absence of facial asymmetry in this particular embryo.