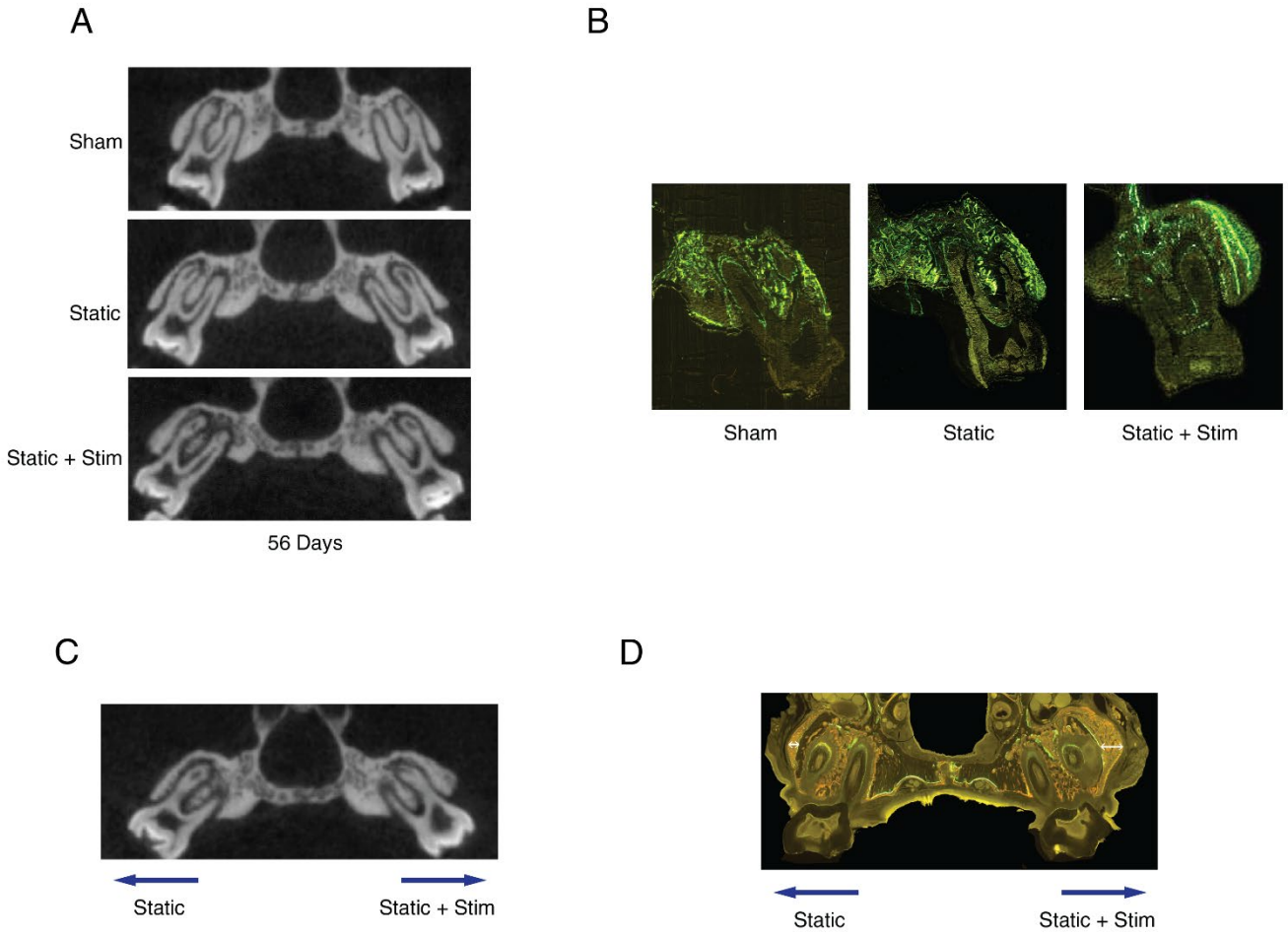

Figure 8: Cortical bone formation was dependent on osteoclast activation in the periosteum. Osteoclasts activity was increased by bilateral application of periosteal stimulation in the area of the second molars and the effect on bone formation was compared by microCT images of coronal sections of maxilla in the area of second molars at day 56. Sections of Sham, Static and Static + Stim are shown 56 days after stimulation (A). Fluorescent microscopy images of coronal section of maxilla of Sham, Static, or Static + Stim at the area of second molars at day 56 are shown (B). Bone labeling was performed by Calcein green on day 0, 28 and 54. Micro CT images of mid-coronal section of maxilla at the area of second molars in animals that received static force in the maxilla and stimulation only in one side show asymmetrical bone formation (C). Fluorescent microscopy images of mid-coronal section of maxilla of animals that received static and unilateral periosteal stimulation in the area of second molars at day 56 (D). Bone labeling was performed by Calcein on days 0 (Green), and Xylenol Orange at day 26 and 54 (Orange). White arrows mark the change in the width of the cortical bone over the second molar area.