Letter to the Editor, “Wnt Signaling and Its Contribution to Craniofacial Tissue Homeostasis”

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In the article titled “Wnt Signaling and Its Contribution to Craniofacial Tissue Homeostasis” (Yin et al. 2015), the authors provide an excellent review highlighting the importance of Wnt signaling in craniofacial tissue homeostasis. Their findings outlined in this review concur with previous studies supporting the tissue-specific roles of Wnt/ β -catenin signaling in the development of oral tissues (Järvinen et al. 2006; Liu et al. 2007; Liu et al. 2008; Wang et al. 2009). However, we did note a discrepancy with regard to their comments on cells expressing osteocalcin. The authors state that unlike osteoblasts, cementoblasts do not express osteocalcin and Wnt signaling produced by alveolar bone osteoblasts is required for cementoblast function. They present in situ hybridization results showing lack of osteocalcin expression at the cementum interface (Fig. 2P) and disrupted cementum in *Ocn*^{Cre/+}; *Wls*^{fl/fl} mice (Fig. 2Q). In contrast to these findings, there are numerous studies demonstrating that cementoblasts express osteocalcin (gene and protein) both in vitro and in vivo (Takano-Yamamoto et al. 1994; D’Errico et al. 1997; Kagayama et al. 1997; D’Errico et al. 2000; Sasano et al. 2001; Thomson et al. 2003). Osteocalcin—a major noncollagenous protein found in most mineralized tissues, including cementum—is considered to play a regulatory role in mineralization of cementum, and stating that it is not expressed by cementoblasts is misleading and may compromise future research directions in this field.

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