

In vitro differentiation of tooth buds from embryos and adult lizards (*L. gravenhorsti*): An ultrastructural comparison

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It is well established that the capacity for teeth to differentiate *in vitro* depends upon: (a) the age of the embryonic rudiments at the time of excision and (b) the number of cells within each tissue type which are capable of differentiating into organ culture. This paper studies ultrastructural aspects of tooth buds grown *in vitro* from lizard embryos and compares these characteristics with those observed in dental germs grown *in situ* in older lizard embryos. Moreover, we report the self-differentiation *in vitro* dental tissues from adult lizard and compare this phenomenon with the main features of a morphogenetic field. Our results suggest that approximately in the first third of gestation in *L. gravenhorsti* the dental buds has already acquired the capacity for self-differentiation *in vitro*. The ultrastructural observations show that there are no significant differences between odontoblasts and ameloblasts *in situ* and *in vitro*. The tooth from *adult lizards*, isolated by combined mic