PROJECT RESUME

As a child losing a tooth is a cause for celebration with a visit from the tooth fairy. Later in life, tooth

loss becomes a significant issue, with the prospect of implants, bridges, and dentures. This is because as mammals we only have two sets of teeth, our baby (deciduous) teeth, and our permanent teeth. This brings the question of why we have this restriction when elsewhere in the animal kingdom sharks, snakes and crocodiles have a seemingly unlimited supply of replacement teeth. Here we aim to understand the mechanisms that restrict tooth number in mammals by investigating the signals that determine whether a tooth is replaced or not. For this, we will study the molecular signature that leads to formation of a tooth using the mini-pig as a model and taking advantage of a pre-existing RNAseq data set produced by the lab.

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