

## AAO Foundation Award Final Report

|   |   |
|---|---|
| Principal Investigator  | Jay D. Decker, D.D.S., M.S.D.   |
| Co-Investigator   | NA  |
| Secondary Investigators   | NA  |
| Award Type  | Biomedical Research   |
| Project Title   | Does Dental alveolar bone adhere to Wolff's Law?  |
| Project Year  | 2001  |
| Institution   | University of Washington.   |
| Summary/Abstract<br>(250 word maximum)  | <p>Subsequent to mesial proximal movement of rat maxillary molars histological sections were analyzed for evidence of changes in the alveolar bone trabecular pattern on the mesial and distal aspects of the molar roots. Evidence to support the hypothesis was not found in perusal of multiple sections from multiple specimens.</p> <p>My colleague at the University of Washington, Dr. Sue Herring participated in the examination of these sections and agreed that no evidence of adherence to Wolff's Law was evident. If this hypothesis were to be pursued, different analytic methods must be used and perhaps a different animal model.</p> |
| Were the original, specific aims of the proposal realized?  | No. See answers to the next questions.  |
| Were the results published? If not, are there plans to publish? If not, why not?                              | <p>Question #1 A. No; Question #2 A. No. Question #3 A. No.</p> <p>In retrospect, the research hypothesis that mesial proximal movement of rat molars within the alveolar process might demonstrate adherence to Wolff's Law did not prove to be so. The negative result is not very interesting! What's more, The rat model may have been a poor choice but alternatives for another animal model would have been much more expensive. CBCT scans followed by FEA analysis on human subjects would be ideal.</p>   |
| Have the results of this proposal been presented? If so, when and where? If not, are there plans to do so? If | <p>Discussions and findings were summarized and sent to the AAOF as mandated. No presentations were made at any scientific session of the AAO or the American Association of Anatomists.</p> <p>There are no plans for any presentation of these results as explained briefly in the above answers.</p>   |

|               |  |
|---------------|--|
| not, why not? |  |
|---------------|--|