Principal Investigator Peter T. Gakunga, BDS, MS, PhD **Co-Investigator** Secondary Investigators Award Type Orthodontic Faculty Development Fellowship Robert M. Ricketts Sunflower Orthodontics Fellowship Award **Project Title** Molecular Basis for the Growth of the Cranial Base Synchondroses **Project Year** 2005 University of Texas Health Science Center at San Antonio Dental Institution School Summary/Abstract Teaching Graduate: I was course director for the Craniofacial Growth and Development Section of the Biomedical Core Course. This involved refocusing the course to reflect clinically relevant translational research. This was received well by both the graduate students and the administration. Undergraduate: I participated in teaching the Sophomore Growth and Development Lecture Course as well as the Junior Orthodontic Case Analysis Seminar Series. I developed a web based adjunct to the Orthodontic Case Analysis Seminar and this will be put through a pilot and evaluation process in the fall of this year. Research I have continued to run studies to characterize the hypothesis that chondrocyte-extracellular matrix signaling through CD44-hyaluronan interaction is crucial for cranial base chondrocyte differentiation and growth. One manuscript has been submitted to the Journal of Dental Research and two other manuscripts are in preparation.

AAO Foundation Award Final Report

One resident that I supervised presented her research at the AADR meeting in Orlando, Florida as well as at the AAO meeting in Las Vegas this year. I will use the data collected thus far in the preparation and submission
of an NIH R03 grant application this year.
Service I serve on the University-wide International Affairs Committee; the Dental School's Clinical Quality Assurance Committee; and the department of Orthodontics Residency Selection Committee.