

## AAO Foundation Award Final Report

Principal Investigator	Sunil Kapila
Co-Investigator	Ruth Globus
Secondary Investigators	
Award Type	Biomedical Research Award
Project Title	Mechanisms of Translation of Mechanical Loading into Bone Degradative Gene Expression
Project Year	1998
Institution	University of California at San Francisco
Summary/Abstract	<p>The purpose of this study was to determine the effects of mechanical stimulation on modulation of matrix metalloproteinases (MMPs) in osteoblasts. We found that cyclic mechanical strain induces specific MMPs including 92 kDa gelatinase and collagenase-1 in MC3T3-E1 osteoblastic cells, and suggest that mechanical stimulation of bone may regulate bone turnover by inducing specific MMPs.</p>