

AAO Foundation Award Final Report

Principal Investigator	Dr. Kang Ting
Co-Investigator	
Secondary Investigators	
Award Type	Teaching Enhancement Award/Loan Program (TELP)
Project Title	Characterization of NEL-2 Molecule in Craniofacial Development and Craniofacial Anomalies
Project Year	1998
Institution	University of California at Los Angeles
Summary/Abstract	<p>Since we were the first laboratory isolated <i>hnel-2</i> and established association with CS, we investigated the functional roles of the <i>nel-2</i> molecule in craniofacial development and craniofacial anomalies. Our hypothesis was that <i>nel-2</i> molecule encouraged craniofacial intramembranous bone formation (neural crest origin). The dysregulation of <i>nel-2</i> expression could cause abnormal craniofacial formation. As the first step, we determined the level of <i>nel-2</i> expression expression during cell proliferation, differentiation , and mineralization in rat calvarial osteoblast primary cell cultures and MC3T3 E-1 osteoblast cell line culture. After the association was established, we overexpressed <i>nel-2</i> in the MC3T3 E-1 and primary cell cultures and observed phenotypic changes.</p>