AAO Foundation Award Final Report

Principal Investigator	Dr. Kang Ting
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Award Type	Biomedical Research
Project Title	The Differential Molecular Mechanisms of Normal and Premature Cranial Suture Closure
Project Year	1996
Institution	University of California at Los Angeles
Summary/Abstract	We proposed to establish a rat model and a human model (unilateral coronal synostosis) for normal and premature suture closure respectively. These two models were used to investigate the molecular regulatory mechanisms controlling premature suture closure in unilateral coronal craniosynostosis in humans and at the same time to investigate the normal suture closure mechanisms in rats. . Since the posterior-frontal cranial suture fuses within 20 days when 10 days postnatal, a normal, accelerated, and active normal suture closure can be sequential observed. Day 8, 14, 18, 26 PF sutures were harvested for before fusing, early fusing, mid-fusing and fused stages respectively, while other patent suture sites served as controls. The isolated differentially expressed gene fragments were be extracted and analyzed.