

F817

Interaction of *Polycomb* gene mutants shows variable transformations.

Eunah Lee*, Kyoung-Ro Lee and Sang-Hak Jeon
Department of Biology, Kon-Kuk University

pho is one of the *Polycomb* group genes that repress the homeotic genes in the outside domain. The mutations of *Polycomb* group of genes commonly exert very similar homeotic transformation as shown in the gain of function mutants of the homeotic genes. Of known eleven *Polycomb* group genes, we made double mutant of *pho* and *Scm*, and investigated the homeotic transformation in several structures including legs, tergites, and claws. The sexcombs, which are only found in the first legs of the wild type fly, were found in all three legs with the almost same number. The prothoracic specific transverse rows were present in the second and third legs. The third and fourth tergites were apparently transformed to the fifth or sixth tergite, and the sixth transformed to seventh or eighth tergite. These synergistic interaction suggests that they may form a complex to function in maintaining the expression pattern of the homeotic genes.

F818

Characterization of Apoptosis Induced by Transforming Growth Factor- β 1(TGF- β 1) in Human Gastric Cancer Cells

Ju-Eun Lee^{*1}, Ju-Youn Choi¹, Yun-Sil Lee², Yoon-Koo Kang³,
Byung-Re Min¹, Young Do Yoo³

Department of Biology, Sangmyung University¹; Laboratory of Experimental Pathology² and Laboratory of Experimental Therapeutics³, Korea Cancer Center Hospital

TGF- β 1 is a cytokine which inhibits proliferation of various human cells. TGF- β 1 induces apoptotic cell death in various cultured cells. It has been shown that TGF- β 1 treatment reduced the level of cyclin-cdk4 complexes, leading to the release of p27^{kip1} which acts as an effector of TGF- β 1-mediated cell cycle arrest, consequently blocking phosphorylation of Rb by G1 cyclin-cdk complexes in mink epithelial cells. In this study, we showed that TGF- β 1 inhibited proliferation of gastric cancer cells and induced apoptosis. The fragmented DNAs were observed on agarose gel electrophoresis after TGF- β 1 treatment for 2 days. Study of the mechanisms for apoptotic pathway initiated by TGF- β 1 in gastric carcinoma cells is on the progress.