

Principal Researcher	Hirohide Yoshikawa			Number of Researchers	1	
Research Institution · Department · Title	Chief, Department of Epigenetic Carcinogenesis The Cancer Institute, Japanese Foundation for Cancer Research			Location of Institution	Toshima-ku, Tokyo	
Title of Project	Analysis of genes silenced by DNA methylation: An exploration in human cancer genome					
Abstract of Research Project	DNA methylation is an important factor in the epigenetic silencing of genes. Significant data has been accumulated for DNA methylation in the development. Recently, DNA methylation was received growing attention also in oncogenesis. Cancer cells proliferate unlimitedly because the phenotype is somatically inherited to the next generation. DNA methylation is thought to be a key factor that mediates this somatic inheritance in adult cancer. I have been analyzing cancer genome using Restriction Landmark Genomic Scanning (RLGS), and reported a new growth suppressor gene, SOCS-1. The purpose of this project is to isolate genes silenced by DNA methylation from the analysis of RLGS, and identify the function of these genes in cancer. This study is expected to elucidate the crucial role of promoter methylation, which renders cancer specific genome information to somatic cells.					
References	<u>Yoshikawa H.</u> , <i>et. al.</i> , SOCS-1, a negative regulator of the JAK/STAT pathway, is silenced by methylation in human hepatocellular carcinoma and shows growth suppression activity. <i>Nature Genet.</i> 28, 29-35, 2001.					
Term of Project	Fiscal years 2002-2006. (5years)					
Budget Allocation (in thousand of yen)	FY2002	FY2003	FY2004	FY2005	FY2006	TOTAL
	27,400	14,600	14,600	14,600	14,600	85,800
Homepage Address	http://www.jfcr.or.jp/tci/tci_ehatsu.html					