

Principal Researcher	Masayuki Miura			Number of Researchers	1	
Research Institution • Department • Title	Professor, Department Genetics, Graduate School of Pharmaceutical Sciences, Tokyo University			Location of Institution	Bunkyo-ku. Tokyo	
Title of Project	Molecular genetic basis of neural selection by cell death during development and pathological conditions.					
Abstract of Research Project	<p>Cell division, induction, differentiation as well as selection by cell death are all important process for organogenesis. In established organs, appropriate cells are selected by the results of cell-to-cell interactions. This selection is considered to be an important basis of establishment of complex neural networks. For neural selections, regulation of cell death in the nervous system is one of the key events. Cell death regulatory mechanisms are varied among the cells of different environments. To understand the mechanisms of selection of neural cells by cell death during development as well as under the pathological conditions, it will be crucial to know the mechanisms in which certain neural cells can be selected in a rather uniform cell population. In this project, we will identify the genetic pathway of neural cell death in Drosophila, then we will apply the knowledge of fly genetic studies to identify the analogous system in mammals. In this unique approach, we believe we can identify the genetic pathway of neural cell selection during mammalian development as well as in neurodegenerative diseases.</p>					
References	<p>1. Kuranaga, E., Kanuka, H., Igaki, T., Sawamoto, K., Ichijo, H., Okano, H., and Miura, M.: Reaper-mediated inhibition of DIAP1-induced Drosophila TRAF1 degradation leads to JNK activation. <i>Nature Cell Biol.</i> 4, 705-710, 2002</p> <p>2. Igaki, T., Kanda, H., Yamamoto-Goto, Y., Kanuka, H., Kuranaga, E., Aigaki, T., and Miura, M.: Eiger, a TNF superfamily ligand that triggers the Drosophila JNK pathway. <i>EMBO J.</i> 21, 3009-3018, 2002</p>					
Term of Project	Fiscal years 2003-2006 . (4years)					
Budget Allocation (in thousand of yen)	FY2003	FY2004	FY2005	FY2006	FY2007	TOTAL
	26,500	27,900	18,600	18,600		91,600
Homepage Address	None					