

Principal Researcher	Norio Hayashi			Number of Reserchers	4	
Research Institution • Department • Title	Professor, Graduate School of Medicine, Osaka University			Location of Institution	Suita, Osaka	
Title of Project	Dendritic cell-based immunotherapy against chronic hepatitis C					
Abstract of Research Project	<p>Various immune responses to hepatitis C virus (HCV) are perturbed in patients with chronic hepatitis C, which is involved, at least in part, in the establishment and/or the persistence of chronicity in HCV infection as well as resistance to IFN therapy. We previously reported that the function of dendritic cells is substantially altered in patients with chronic HCV infection. Dendritic cell is a most potent antigen presenting cells that can activate naïve T cells. In addition, researchers are much interested in an immunomodulatory role of dendritic cells; they can activate various innate immune cells, such as NK cells and NKT cells, and regulate magnitude and polarity of subsequent adaptive immune responses. In this research project, we will clarify the mechanism of impaired dendritic cell function in HCV infection as well as analyze the impact of this alteration. Furthermore, we plan to develop a novel therapeutic strategy for the elimination of HCV by modulating dendritic cell function.</p>					
References	<p>Jinushi M, Takehara T, Kanto T, Tatsumi T, Groh V, Spies T, Miyagi T, Suzuki T, Sasaki Y, Hayashi N. Critical role of MHC class I-related chain A and B expression on interferon -stimulated dendritic cells in NK cell activation: Impairment in chronic hepatitis C virus infection. <i>J Immunol</i> 170:1249-1256, 2003.</p> <p>Kanto T, Hayashi N, Takehara T, Tatsumi T, Kuzushita N, Ito A, Sasaki Y, Kasahara A, Hori M. Impaired allostimulatory capacity of peripheral blood dendritic cells recovered from hepatitis C virus-infected individuals. <i>J Immunol</i> 162:5584-5591, 1999.</p>					
Term of Project	Fiscal years 2003-2007 . (5years)					
Budget Allocation (in thousand of yen)	FY2003	FY2004	FY2005	FY2006	FY2007	TOTAL
	22,800	18,900	18,000	13,500	13,500	86,700
Homepage Address	http://www.med.osaka-u.ac.jp/pub/moltx/index.html					