

<p>主講人</p>	<p>鄭如茜</p>	
<p>講題 (Topic)</p>	<p>Dual effects of let-7b on the inhibition of HCV infection</p>	
<p>演講摘要 (Abstract)</p>	<p>Host factors play important roles in many steps of viral infection and offer an alternative strategy for the development of anti-HCV agents. Apart from host proteins, microRNAs are thought to epigenetic regulate viral pathogenesis including hepatitis C virus (HCV). HCV is a major cause of chronic hepatitis, fibrosis and cirrhosis leading to hepatocellular carcinoma. Our study demonstrated that the microRNA let-7b is induced during HCV infection and is a negative regulator of HCV infection. Bioinformatic analysis and mutagenesis analysis indicated that let-7b targets on HCV genome sequence. In addition, microarray analysis and bioinformatics analysis imply that host genes that are regulated by let-7b are also involve in the regulation of HCV infection. Among these genes, a negative regulator of JAK/STAT signaling in interferon (IFN) response, was identified as a let-7b-target gene which increased the promoter activity of IFN-stimulated response element (ISRE) and the expression level of myxovirus resistance protein (MX1). Together, microRNA let-7b can be induced by HCV infection and targets viral genome to reduce viral replication and regulates host genes with subsequently activating JAK/STAT signaling. Regulation of let-7b expression is thereby crucial in the intervention of HCV infection.</p>	
<p>主講人 簡介 (Biography)</p>	<p>Professor, Department of Medical Laboratory Science and Biotechnology, College of Medicine</p> <p>Representative Publications:</p> <p>Interaction between hepatic membrane type 1 matrix metalloproteinase and acireductone dioxygenase 1 regulates hepatitis C virus infection. Chang ML, Huang YH, Cheng JC*, Yeh CT*. J Viral Hepat. 2016;23(4):256-66.</p> <p>Hepatitis C virus replication is modulated by the interaction of nonstructural protein NS5B and fatty acid synthase. Huang JT, Tseng CP, Liao MH, Lu SC, Yeh WZ, Sakamoto N, Chen CM, Cheng JC* J Virol. 2013; 87(9):4994-5004</p> <p>Let-7b is a novel regulator of hepatitis C virus replication. Cheng JC*, Yeh YJ, Tseng CP, Hsu SD, Chang YL, Sakamoto N, Huang HD. Cell Mol Life Sci. 2012; 69(15):2621-33.</p> <p>Anti-hepatitis C virus dinorditerpenes from the roots of Flueggea virosa. Chao CH, Cheng JC, Shen DY, Wu TS. J Nat Prod. 2014;77(1):22-8.</p> <p>Rapid detection and identification of clinically important bacteria by high- resolution melting analysis after broad-range ribosomal RNA real-time PCR. Cheng JC, Huang CL, Lin CC, Chen CC, Chang YC, Chang SS, Tseng CP. 2006. Clin. Chem. 52(11) : 1997-2004.</p>	

