



Samenvatting proefschrift Qiuwei Pan

'Novel Anti-viral Strategies for Hepatitis C'

Promotiedatum: 22 februari 2012 Erasmus Universiteit Rotterdam

Promotors:

Prof. Dr. H.L.A. Janssen Prof. Dr. H.W. Tilanus

Copromotor:

Dr. L.J.W. van der Laan

Hepatitis C virus (HCV) infection affects approximately 170 million people, 3% of the world population. Chronic hepatitis C is a slowly progressive disease causing no or few symptoms in the initial phase, but 10 to 20% of the patients develop liver cirrhosis over a period of 10 to 30 years. Patients with liver cirrhosis, have an annual risk of 1 to 5% to develop liver cancer, particular hepatocellular carcinoma (HCC). Unfortunately, there is still no effective vaccine or antibodies available for the prevention of infection.

The clinical application of interferon-alpha has led to the landmark for the treatment of chronic HCV, but only part of the patients can response to the treatment. Liver transplantation is the only option for end-stage liver diseases caused by HCV infection. However, the more aggravated course of HCV infection after transplantation and relative resistance to interferon therapy have been attributed to several host and viral factors, in particular specific immunosuppressive medication.

The general aims of this thesis are: (I) to investigate the effects and mechanisms of different immunosuppressants on HCV infection and antiviral interferon response, (2) to develop RNA interference-based novel antiviral approaches and (3) to explore the anti-HCV potential of mesenchymal stem cells. ◀