PROPOSITIONS

TO THE THESIS

"Novel Anti-viral Strategies for Hepatitis C"

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1. In case of hepatitis C virus, both IMPDH enzyme inhibition and the induction of Interferon-Stimulated Gene (ISG) expression contributed to the anti-viral action of mycophenolic acid (MPA). (This thesis)
2. Both MPA and ribavirin potentiate the transcription activity of the ISRE gene promoter element and this explains the enhanced expression of ISGs when combined with interferon-alpha (IFN-α). (This thesis)
3. For effective RNAi against highly mutational viruses like HCV and HIV, combinatorial strategies are required to target multiple regions within a viral genome in order to prevent resistance. (This thesis)
4. Given the unique and distinct biological role of microRNA (miRNA) in the HCV life-cycle, locked nucleic acid based antiMirs are particularly suited for combinatorial strategies with interferon or direct-acting anti-viral agents. (This thesis)
5. IFN-α treatment neither interferes with lentiviral transduction nor the efficacy of RNAi-induced gene silencing. (This thesis)
6. RNAi transmission can extend the therapeutic reach of RNAi. (This thesis)
7. By optimizing small hairpin RNA expression levels, improved lentiviral RNAi libraries shall be developed with robust gene silencing capability but with minimal off-target effects that are caused due to disturbance of the miRNA biosynthesis pathway. (This thesis)
8. Given the presence of resident mesenchymal stem cells in human adult liver, discovery of their anti-HCV property bears both therapeutic and biological implications. (This thesis)
9. Combination therapy with direct-acting anti-viral agents or IFN-α is likely required for RNAi-based therapy to achieve ultimate success in chronically infected HCV patients. (This thesis)
10. Medicine comprises two parts, one theoretical, and one practical, though both are really speculative science. - Ibn Sina (980-1037)
11. When learning, one shall not get bored; when teaching, one shall not feel tired. – Confucious

    "学而不厌，诲人不倦" - 孔子