

References:

1) Inhibition of hepatitis B virus in mice by RNA interference. AP McCaffrey *et al.*, **Nature Biotechnology 21: 639-644 (2003)**

2) Small interfering RNA inhibits hepatitis B virus replication in mice. H. Giladi *et al.* **Molecular Therapy 8: 769-776 (2003)**

For background info on RNAi

Killing the messenger: short RNAs that silence gene expression. D.M. Dykxhoorn, C.D. Novina and P.A. Sharp. **Nature Reviews Molecular Cell Biology 4: 457-467 (2003)**

These three articles are all available in electronic form **if you log on through the E-journals page of the U of G library website from a U of G computer.** You may not be able to get access if you have a dial-up connection at home.

- 1) Write summary explaining in your own words what RNA interference is and what it can be used for.
5 marks
- 2) Briefly explain the different mode of introduction of interfering RNA in references 1 and 2.
5 marks
- 3) Interest in RNAi is focussed on the potential for actual therapy in humans. To what extent do these two papers demonstrate the this potential (5 marks), and to what extent do they fall short of the goal of actual therapeutic use (5 marks)?

Each 5 mark unit should be about 1-1½ page single spaced or 2-3 pages double spaced.