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RNAi in adult mice

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Small interfering RNAs (siRNAs) have shown great potential as gene silencing reagents in a wide range of experimental systems. In the July 4 *Nature*, Anton McCaffrey and colleagues at the Stanford University School of Medicine report the use of siRNAs to inhibit transgene expression in adult mice and to target hepatitis C virus sequences *in vivo* (*Nature* 2002, **418**:38-39). They used a modified hydrodynamic transfection method to deliver naked siRNAs to the liver of adult mice. They then monitored expression of a firefly luciferase reporter transgene using whole-body imaging techniques. McCaffrey *et al.* report specific siRNA-mediated inhibition (around 80%) of luciferase expression. They also found that small-hairpin RNAs, transcribed *in vivo* from DNA templates, could induce gene silencing in mice. When siRNA was directed against the NS5B (non-structural protein 5B, viral polymerase-encoding region) it was also effective, suggesting that RNAi-based strategies may be used therapeutically to target human pathogens.

References

1. Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells.
2. *Nature*, [<http://www.nature.com>]
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