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In the July issue of Nature Medicine Carl Novina and colleagues at the Massachusetts Institute of Technology describe the use of short interfering RNA (siRNA) strategies to prevent infection by the AIDS-causing virus, HIV-1 (*Nature Medicine*, online 3 June 2002, DOI:10.1038/nm725). Novina *et al.* designed siRNA against the human CD4 gene, encoding a major HIV surface receptor. Cell transfections of CD4-siRNA reduced CD4 expression by about 75%, and blocked HIV-1 viral infection. Novina *et al.* also developed siRNA directed against the viral *gag* gene to block expression of the p24 antigen, a major structural protein of the virus. The p24-siRNA effectively silenced viral expression and inhibited viral infections. Novina *et al.*demonstrated in tissue culture models (HeLa cells or human T-cell lines) that siRNA can regulate viral entry and syncytium formation, alter free viral titers and affect HIV infections. This proof-of-principle study hints at the therapeutic potential of siRNA technology.

References

1. *Nature Medicine*, [http://medicine.nature.com]

2. Massachusetts Institute of Technology , [http://www.mit.edu]

3. RNA interference - 2001.

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