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The aptness of aptamers

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Aptamers are nucleic acid ligands selected to interact with specific proteins with high affinity. In the September 5 *Nature*, Rusconi *et al.* describe the elegant design of a drug-antidote pair to control blood clotting using aptamer technology (*Nature* 2002, **419**:90-94). They screened a nucleic-acid combinatorial library for aptamers specific for coagulation factor FIXa. They selected a high-affinity aptamer and demonstrated that it could inhibit FIXa activity and acted as an anti-coagulant. Rusconi *et al.* also created antidote oligonucleotides that blocked binding of the aptamer. The drug and antidote could effectively control clotting times in the plasma of patients with heparin-induced thrombocytopenia. This strategy presents a promising approach for the development of safe aptamer-antidote pairs as therapeutics.

References

1. Aptamers as potential nucleic acid pharmaceuticals.
2. *Nature*, [<http://www.nature.com>]