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## DNA vaccination against autoimmune disease

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Experimental autoimmune encephalomyelitis (EAE) is a T-cell-mediated autoimmune disease of the central nervous system that has been studied as a model for the human disease multiple sclerosis. In the September issue of the [Journal of Clinical Investigation](#) Wildbaum *et al.* (*J. Clin. Invest.* 2000, **106**:671-679) show that injections of naked DNA plasmids, encoding for the Fas ligand (FasL, CD95L) protein, can effectively vaccinate rats against inducible EAE disease. The [FasL protein](#) is found on the surface of T-lymphocytes and is critical for regulating the immune response. Wildbaum *et al.* show that DNA-vaccinated rats produce FasL-specific autoantibodies, which can confer protection to recipient animals if injected at the onset of EAE disease but have a detrimental effect if administered at later stages. Furthermore, these autoantibodies could downregulate TNF $\alpha$  transcription in macrophages. This study offers insights into the use of DNA plasmid therapy for autoimmune diseases.

## References

1. Journal of Clinical Investigation, [<http://www.jci.org>]
2. The Fas death factor.