Precision therapy for neurological autoimmune diseases

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SUMMARY
Autoimmune encephalopathies are caused by autoantibodies generated by pathogenic B cells. Current treatment options with immunosuppressive therapy result in severe side effects. Niels von Wardenburg and his team aim to develop a precise therapy that effectively depletes the pathogenic B cells leaving the protective B cells unaffected. The overall goal is to develop a genetically engineered T cell therapy to selectively eliminate autoantibodies causing autoimmune diseases.

PROJECT GOALS
- Preclinical development of engineered T cell therapy
- Validation of engineered T cells in vitro and in vivo

LONG-TERM GOALS
- Found a start-up for development of genetically modified T cell products
- Conduct phase I/II clinical trials.