

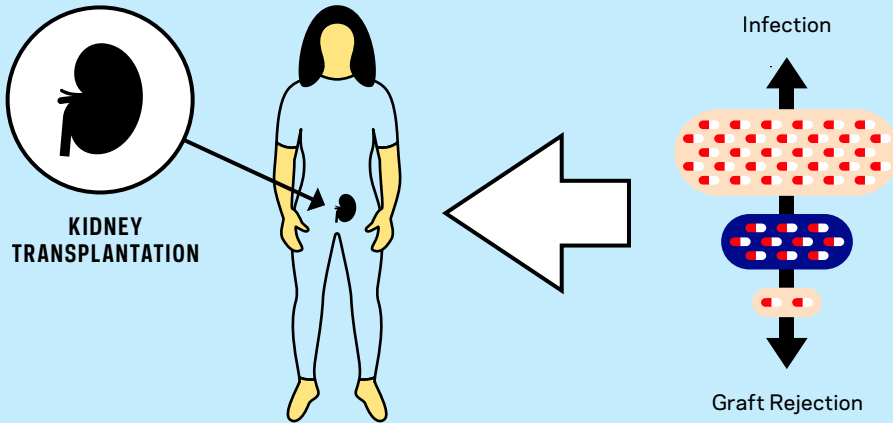


TTV GUIDE

Torque Teno Virus Based Immune Monitoring

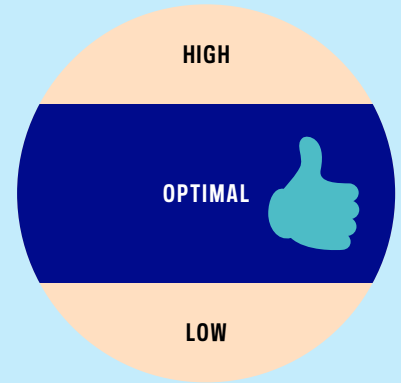
THE CLINICAL PROBLEM

Immunosuppressive drug guidance after kidney transplantation (KTX)



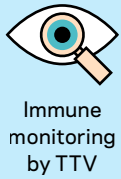
WHAT WE NEED

Comprehensive assessment of the immune function



A NOVEL CONCEPT

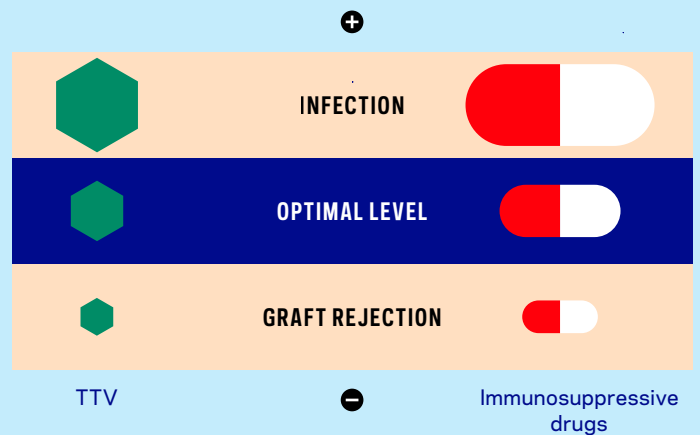
Torque Teno Virus (TTV)



- DETECTABLE IN THE BLOOD OF ALL KIDNEY TRANSPLANT RECIPIENTS
- CAUSES NO DISEASE
- REFLECTS THE IMMUNE FUNCTION OF THE HOST
- TTV LEVEL IN THE BLOOD ASSOCIATES WITH INFECTION AND GRAFT REJECTION

OUR HYPOTHESIS

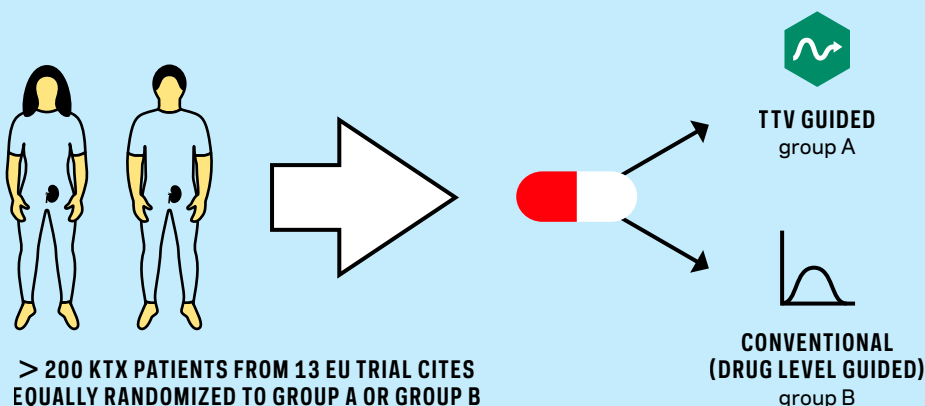
TTV mirrors the immune function



HOW WE TEST IT

Clinical trial: compare dosing of immunosuppressive drugs

► Outcome: reduction in infection / graft rejection



POTENTIAL IMPACT

Yearly reduction in the EU *

- 300 deaths, 600 graft losses, 10.000 infections, 1.200 rejections
- € 50 Mio health care costs

Additional applications

- Liver / heart / lung TX
- Autoimmune disease
- Oncology

* anticipated 20% reduction in infection and graft rejection
References: European Renal Association: Annual Report, The Scientific Registry of Transplant Recipients: Annual Data Report Kidney