Inosine 5'-Monophosphate Dehydrogenase Activity for the Longitudinal Monitoring of Mycophenolic Acid Treatment in Kidney Allograft Recipients

- Comparison of Monitoring Principles -

**Pharmacokinetic Monitoring**
- Principle: measurement of MPA - AUC (mycophenolic acid concentration over time)
- Interpretation: short-term MPA exposure
- Disadvantage: several blood samples over up to 12 hours necessary

**Pharmacodynamic Monitoring**
- Principle: measurement of IMPDH activity in lysates of mononuclear cells
- Interpretation: short-term MPA action / IMPDH inhibition
- Disadvantage: technically challenging / low reproducibility

**Erythrocyte IMPDH**
- What did we do? measurement of IMPDH activity in lysates of washed blood cells
- What did we find? a promising biomarker for medium-term MPA exposure + action
- What was the problem? 8 weeks of treatment necessary until IMPDH activity reaches a stable level

Glander et al. *Transplantation*, April 2021
@TransplantUml