



KKGT

Introduction of a new external quality assessment for the analysis of thiopurine drugs

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Thiopurine drugs

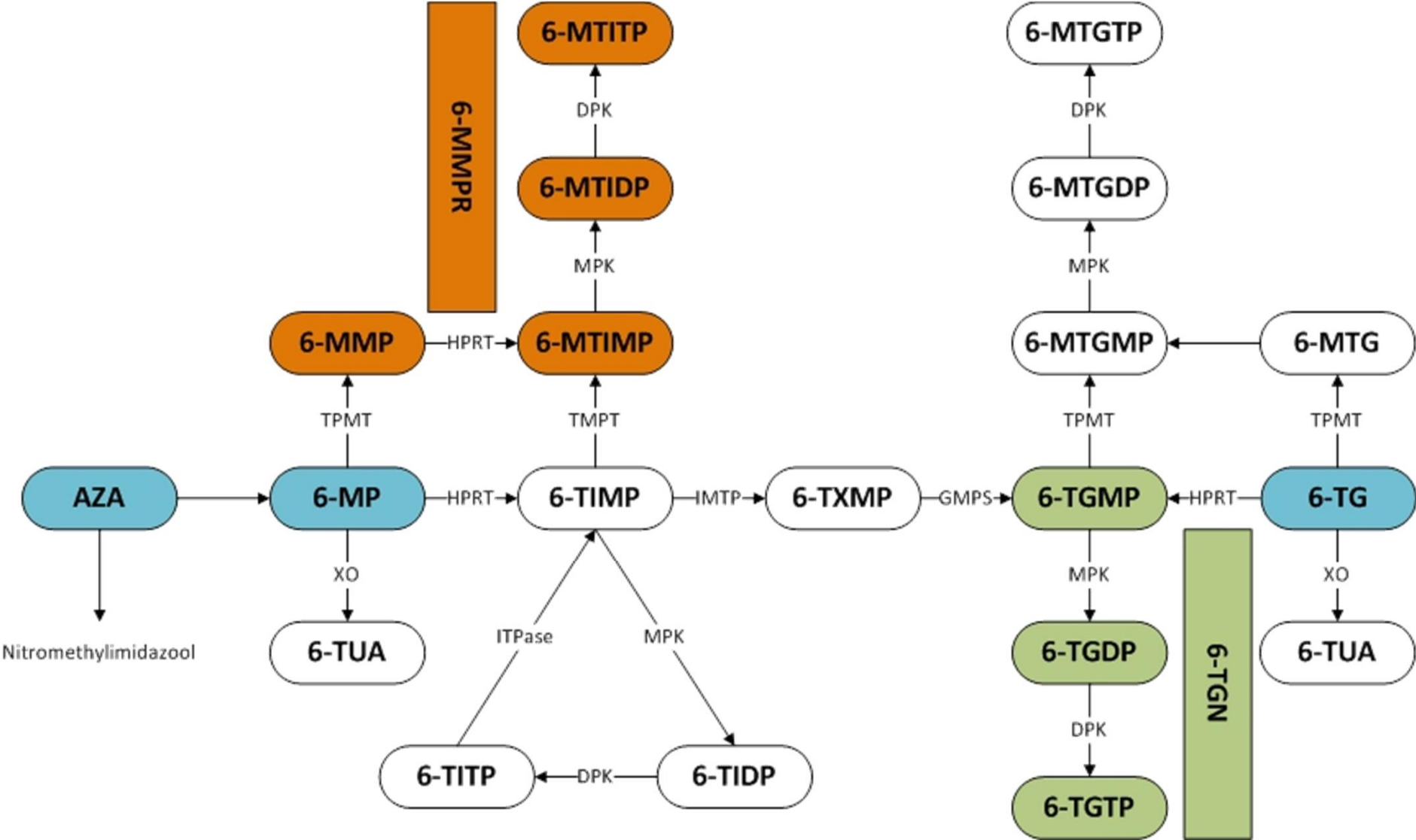
- Azathioprine (AZA)
- Mercaptopurine (6-MP)
- Thioguanine (6-TG)

- Immunosuppressant drugs
 - Inflammatory bowel disease
 - Rheumatoid arthritis

- Therapeutic drug monitoring
 - Inter- and intraindividual kinetic differences
 - Metabolites



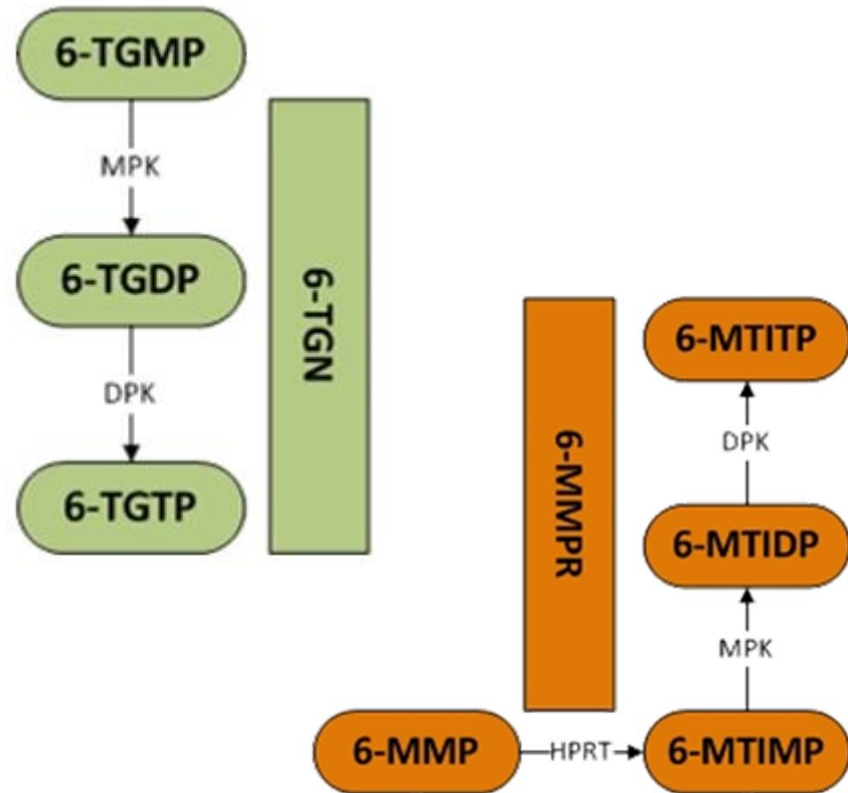
Metabolism



Analysis of thiopurine drugs

- Lithium-heparin blood
- Pre-treatment and RBC count
- Deproteinisation
- Hydrolysis

- Chromatographic separation
6-TGN and 6-MMPR
Results are expressed as pmol/ 8×10^8 RBC



New EQAS

- Inability to produce a good sample
- Laboratory couples
- Selection patient samples
 - Pre treatment
 - RBC count
 - Analysis
- Distribution
 - Analysis
- Submission results



Results

- 8 Dutch participants
- Results expressed as the percentage of the result of the first laboratory found by the second laboratory

- Acceptable results (80-120%)

6-TGN

Round 1: 4 / 21

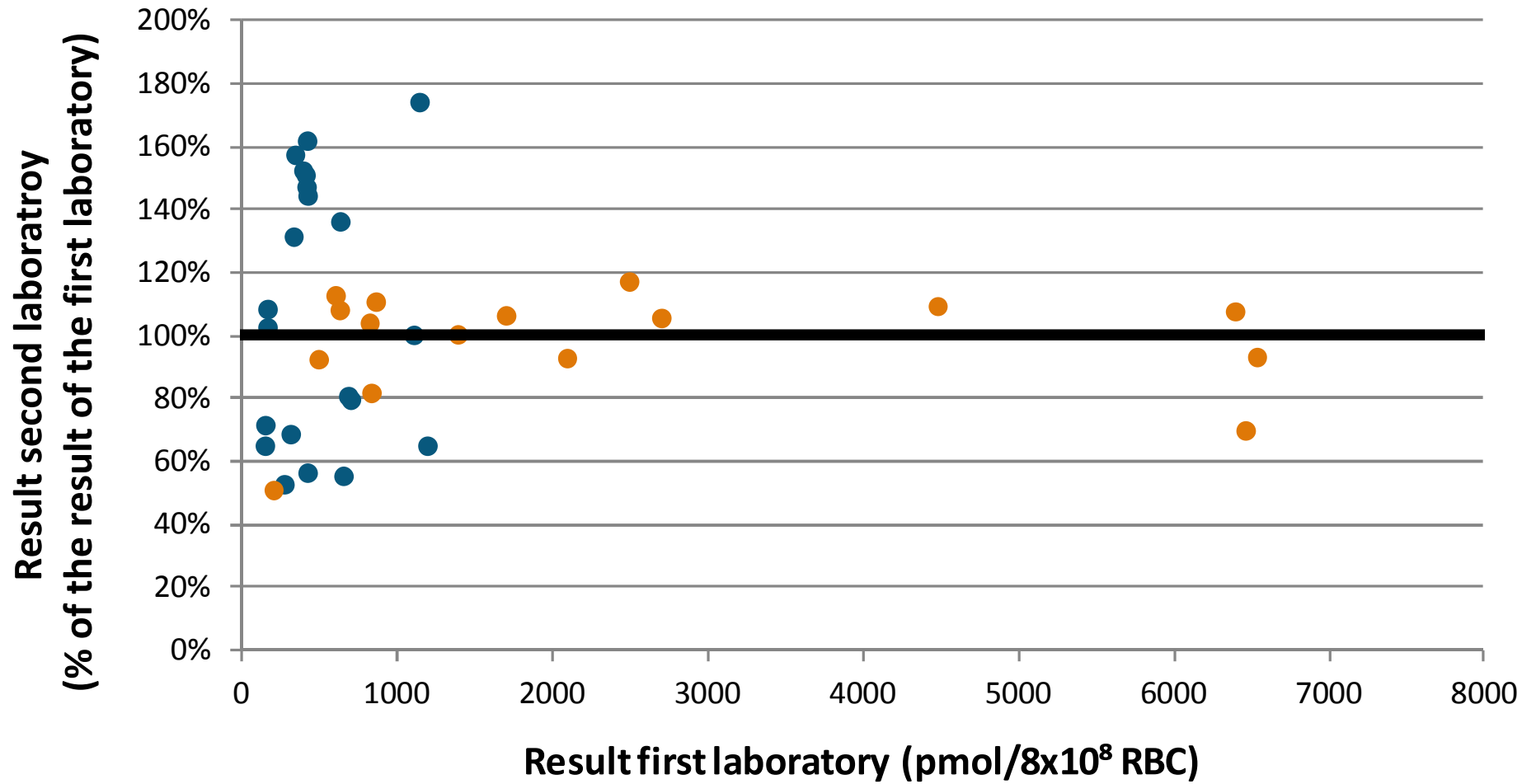
Round 2: 6 / 24

6-MMPR

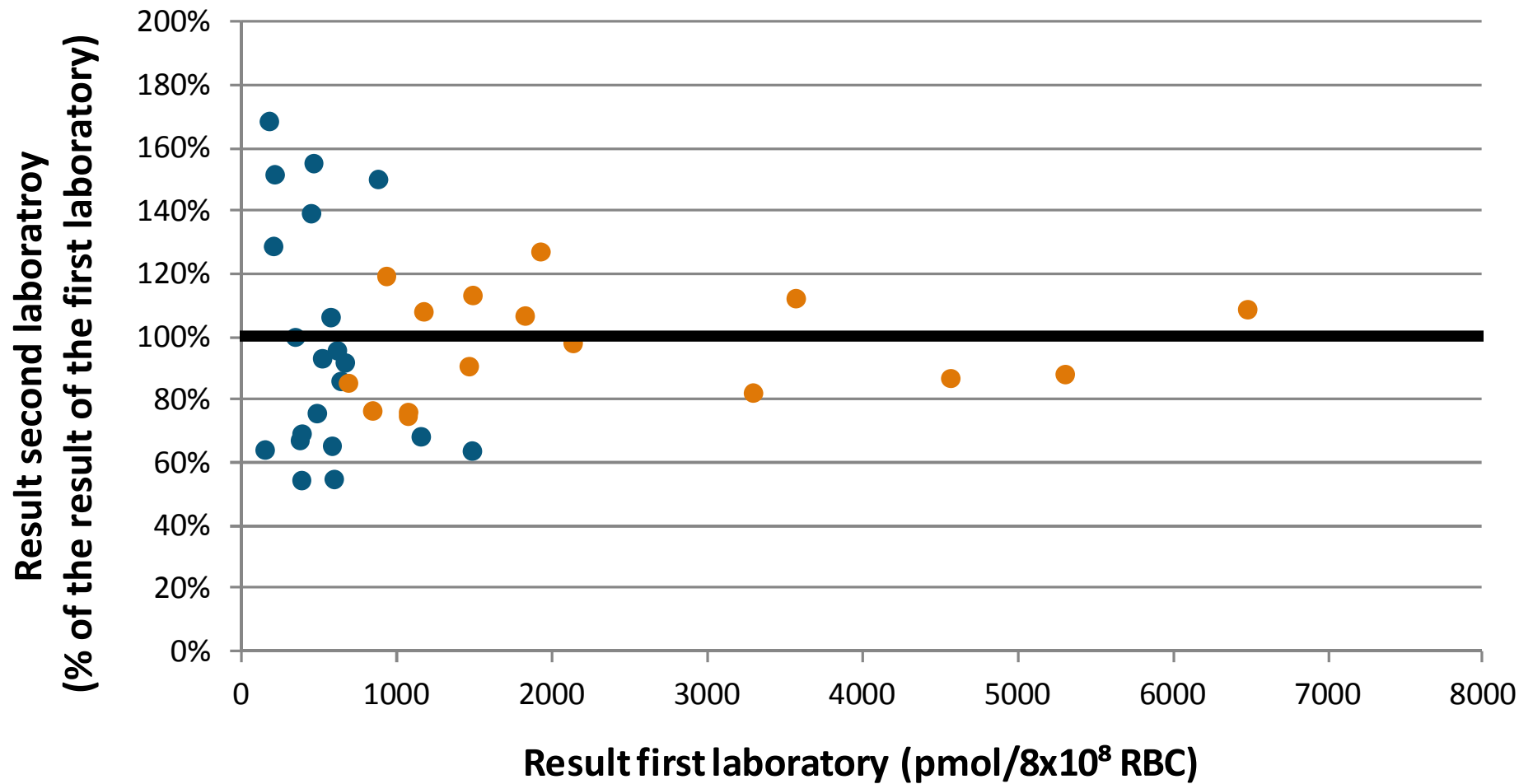
Round 1: 15 / 17

Round 2: 16 / 20

Results 6-TGN 6-MMPR round 1



Results 6-TGN 6-MMPR round 2



Future perspective

- Patient donation
- Differences in analysis
 - Preparation of standard solutions
 - Degree of hydrolysis
- $\tilde{\omega}$.
- More research