

PK assay Cross validation process

Daniel Splinter

EBF Conference 2023

November 2023



# Cross validation process

## WHEN

1 Laboratory  
2 different validated Assays

2 Laboratories  
1 or 2 different validated Assays

## HOW

### Samples

QC set (L,M,H)

≥ 30 clinical samples

- Closed trial
- Samples should represent the expected range

### Analytical plan

QC's: - 3 inter and intra precision runs  
Clin Samples: 1 analysis / sample

### Analytical report



- Inter/intra precision
- sample results
- % difference
- Correlation graph



- Inter/intra precision
- sample results

# Cross validation process

1 Laboratory  
2 different validated Assays

## Analytical report



- Inter/intra precision
- sample results
- % difference
- Correlation plot

## Biostats report



- Bland Altman
- Deming Regression

2 Laboratories  
1 or 2 different validated Assays



- Inter/intra precision
- sample results



- % Difference
- Bland Altman
- Deming Regression

# Cross validation process – Internal stakeholder interaction

## Samples

QC set (L,M,H)

≥ 30 clinical samples

**Biostatistics:** sample size evaluation

## Biostats report



**Biostatistics:** Supportive statistical analysis



### Clinical Pharmacology

- Evaluate the impact on PK/PD model
- Describe impact in the 2.7.2 module:  
“Summary of Clinical Pharmacology Studies”

# Acknowledgement



- Bioanalytical team
- Biostats team
- Clinical Pharmacology