

Correlations between blind duplicates (phase 1, 2 and 3)

Outliers 4 × IQR from median removed

Nightingale Health Plc.

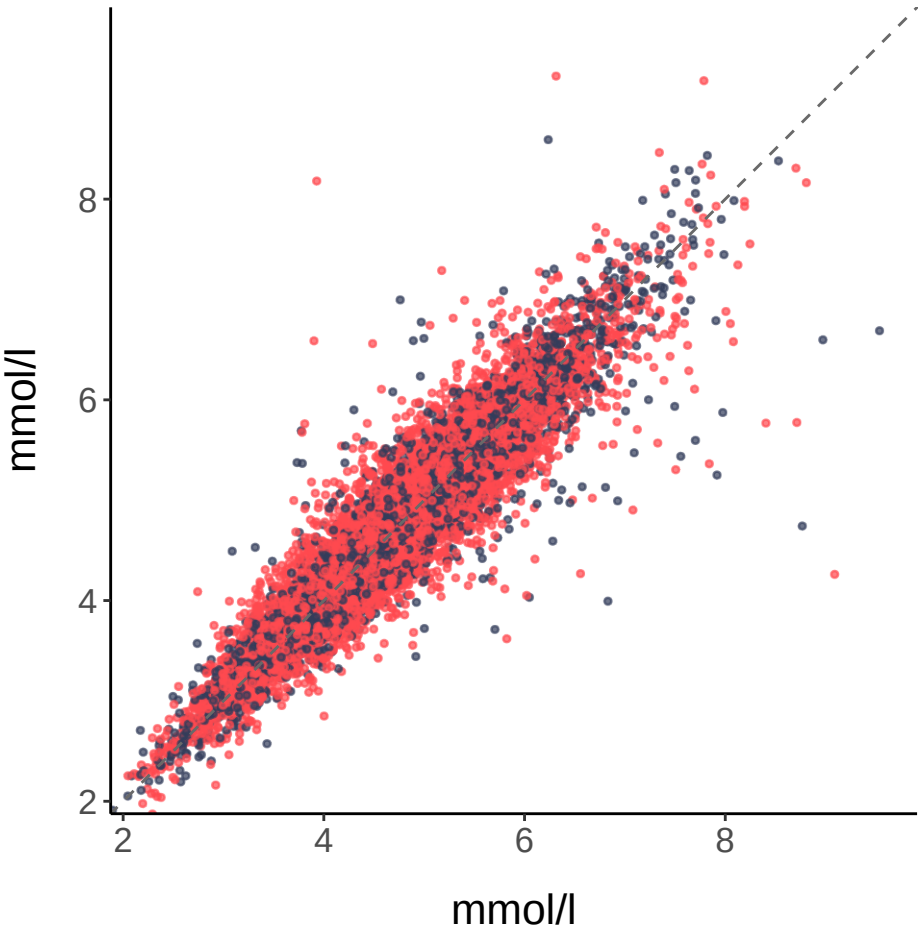
Cholesterol

Total_C

CV: 3.59%, R²: 0.87

Different spectrometers

● FALSE ● TRUE

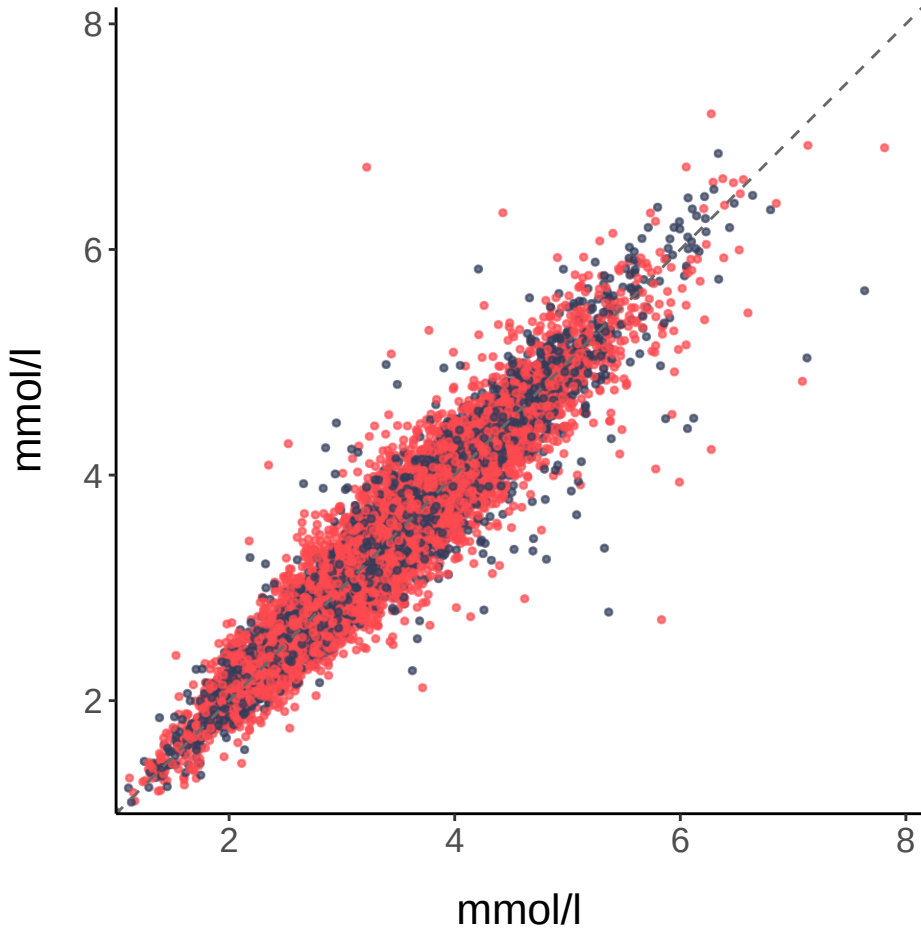


non_HDL_C

CV: 3.95%, R²: 0.91

Different spectrometers

● FALSE ● TRUE

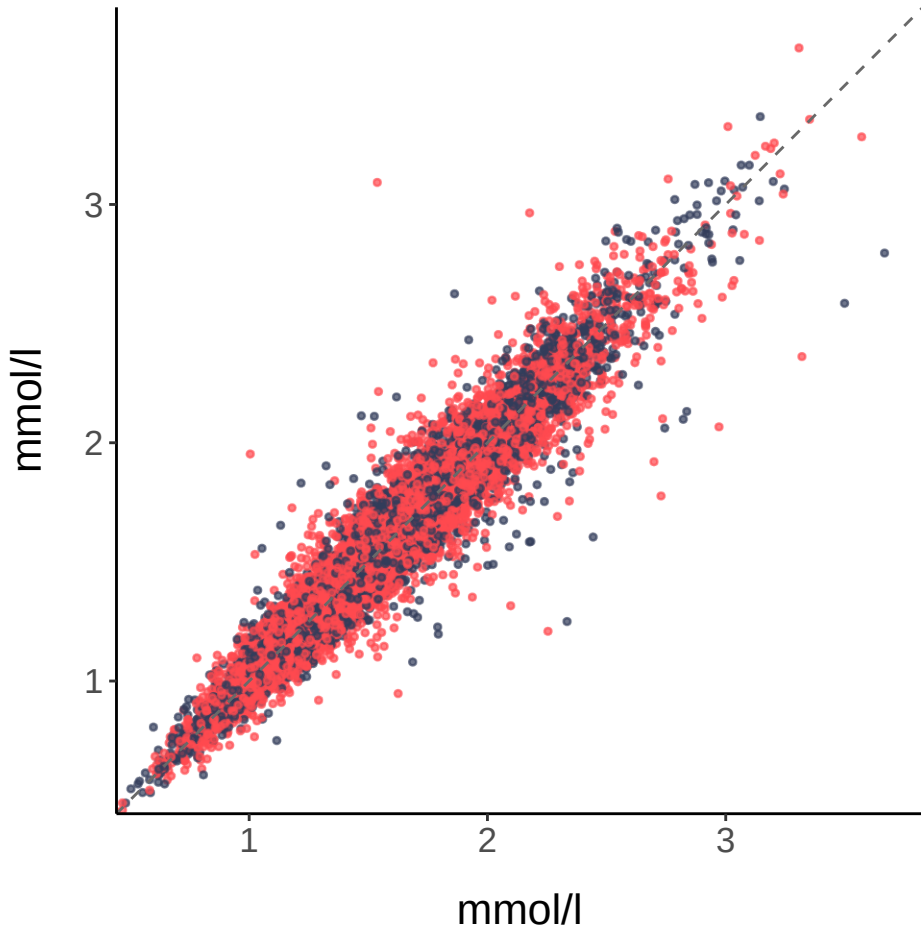


Remnant_C

CV: 3.71%, R²: 0.93

Different spectrometers

● FALSE ● TRUE

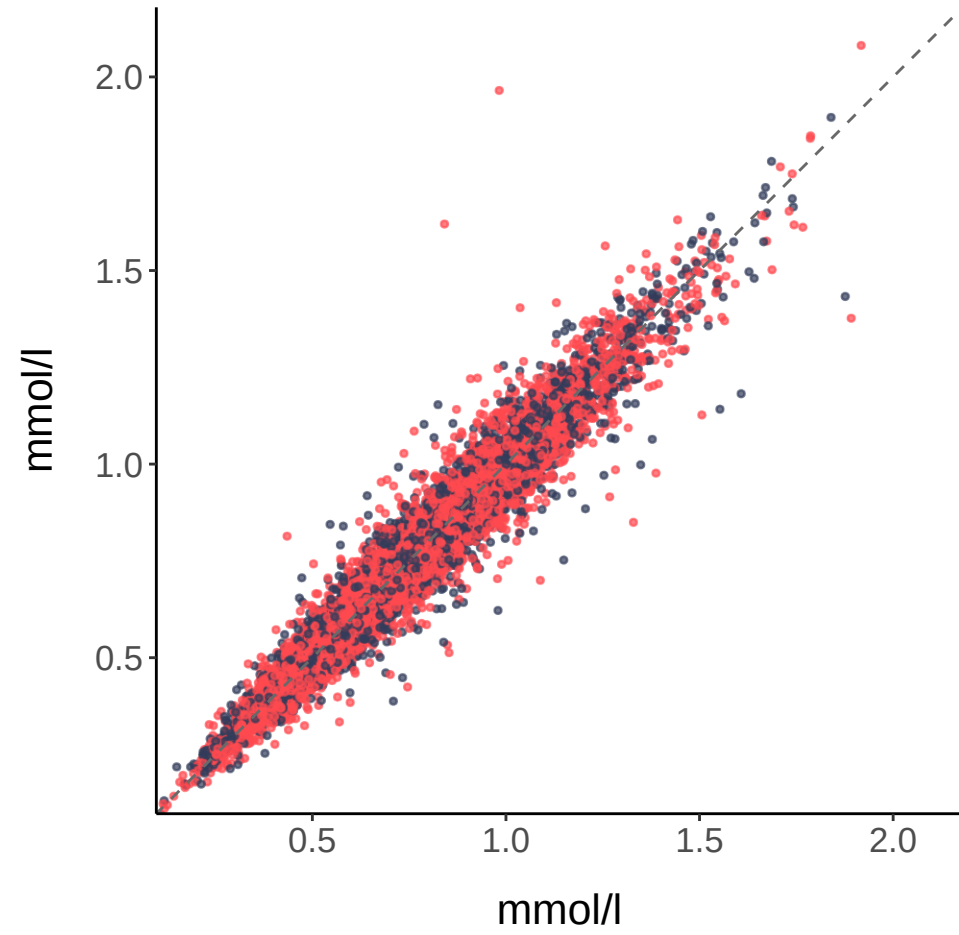


VLDL_C

CV: 4.16%, R²: 0.95

Different spectrometers

● FALSE ● TRUE

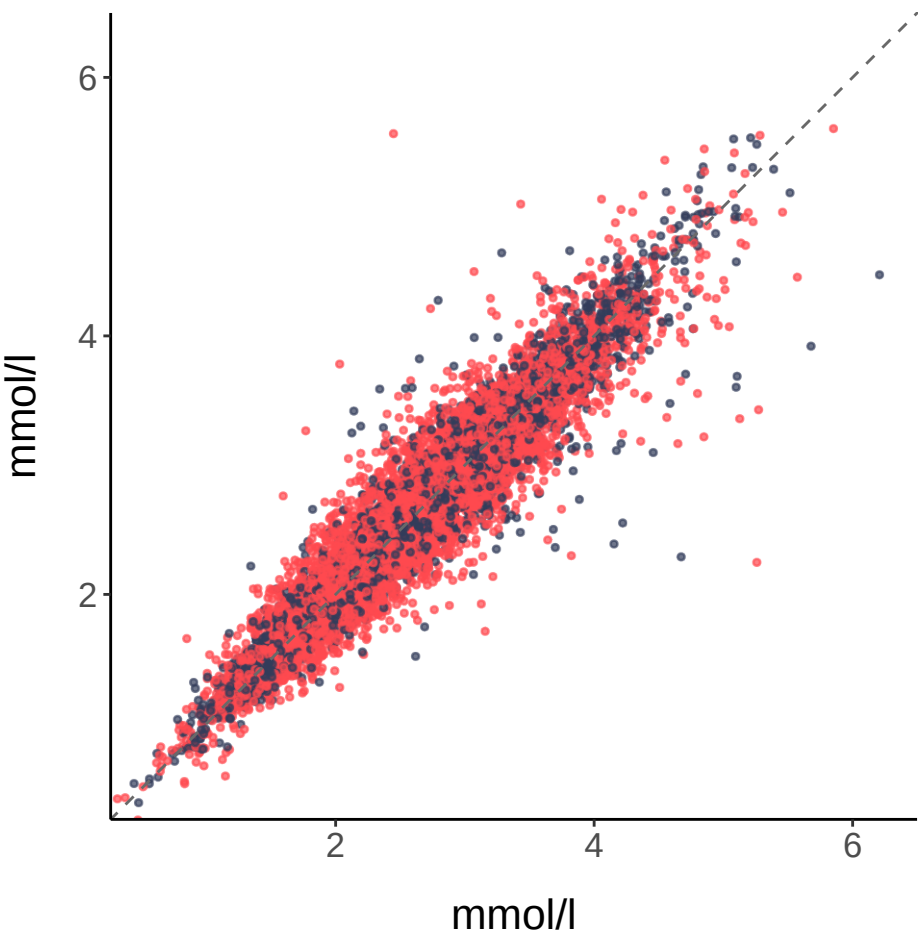


Clinical_LDL_C

CV: 4.79%, R²: 0.89

Different spectrometers

● FALSE ● TRUE

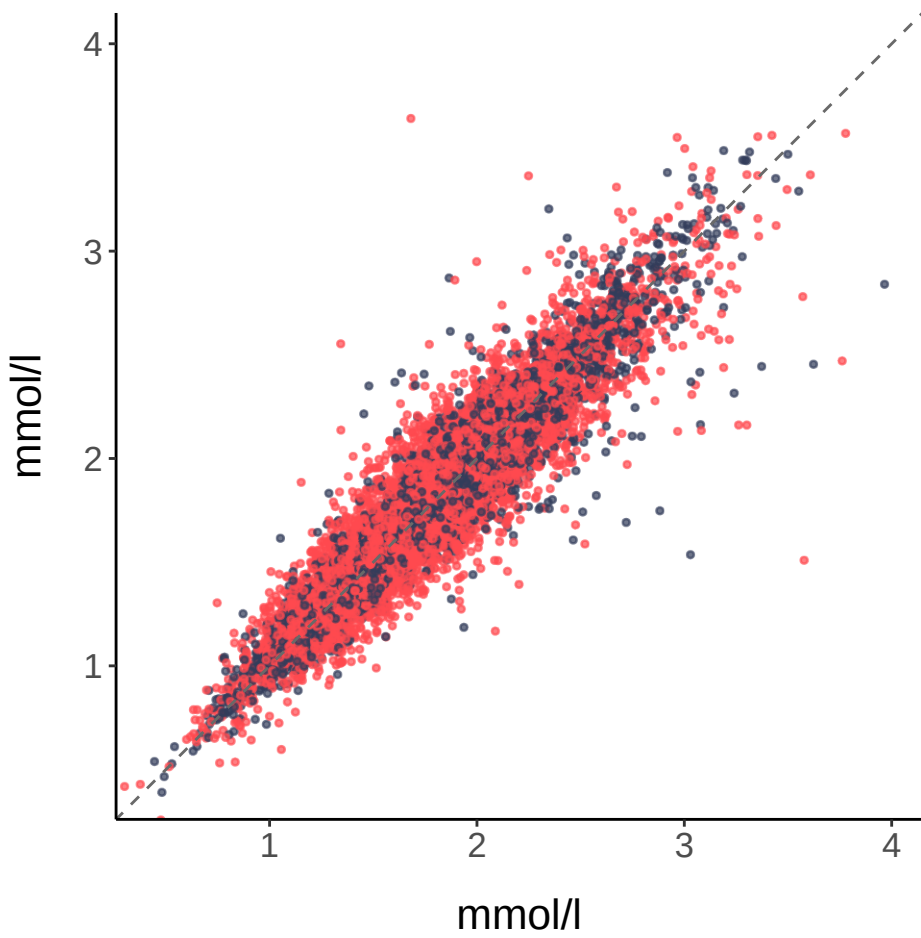


LDL_C

CV: 4.65%, R²: 0.87

Different spectrometers

● FALSE ● TRUE

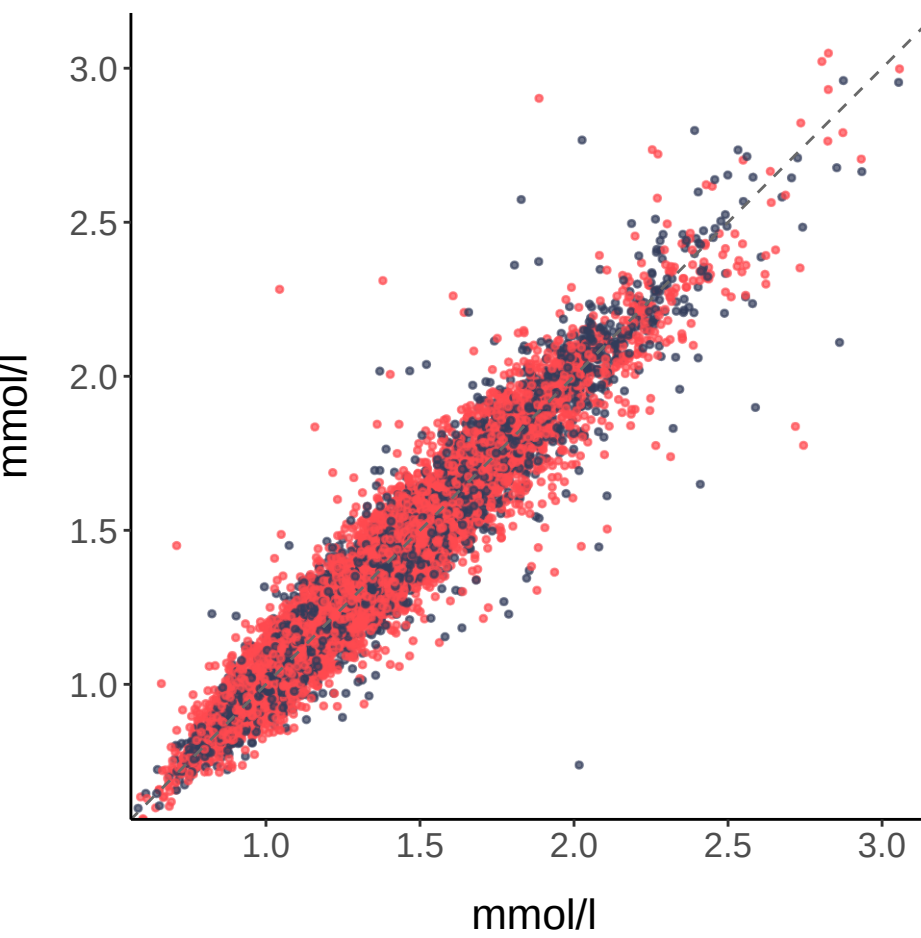


HDL_C

CV: 3.35%, R²: 0.93

Different spectrometers

● FALSE ● TRUE



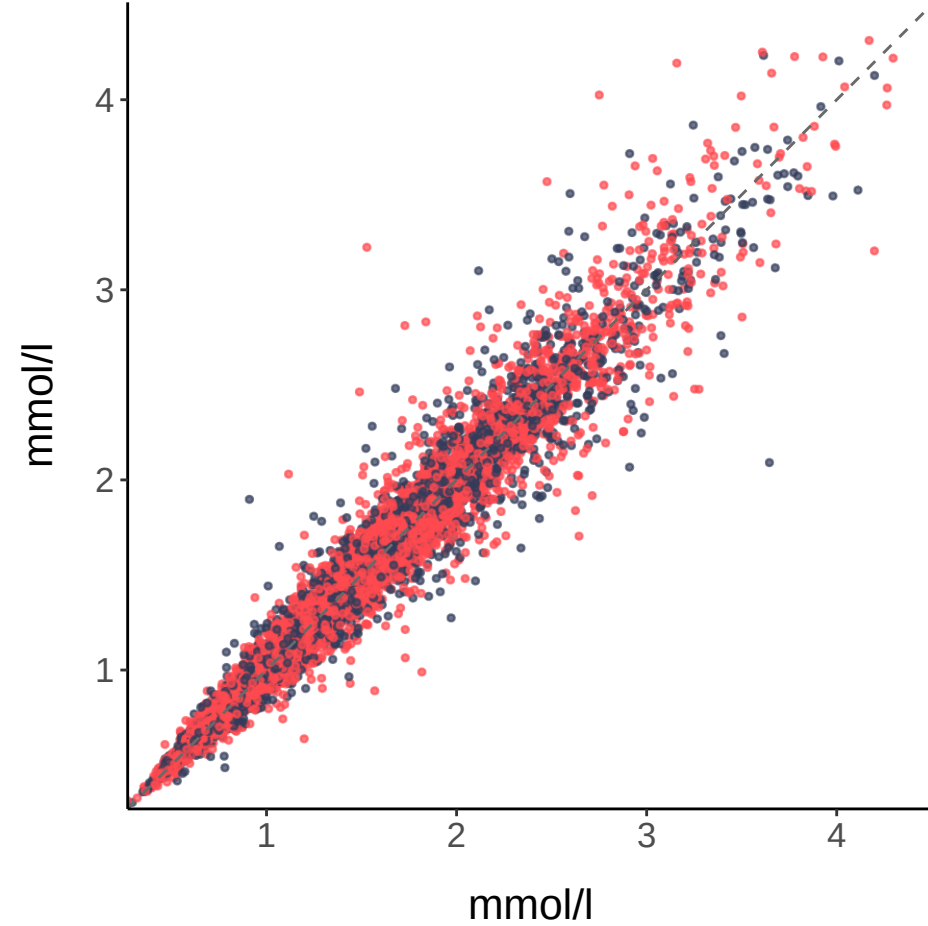
Triglycerides

Total_TG

CV: 3.6%, R^2 : 0.96

Different spectrometers

● FALSE ● TRUE

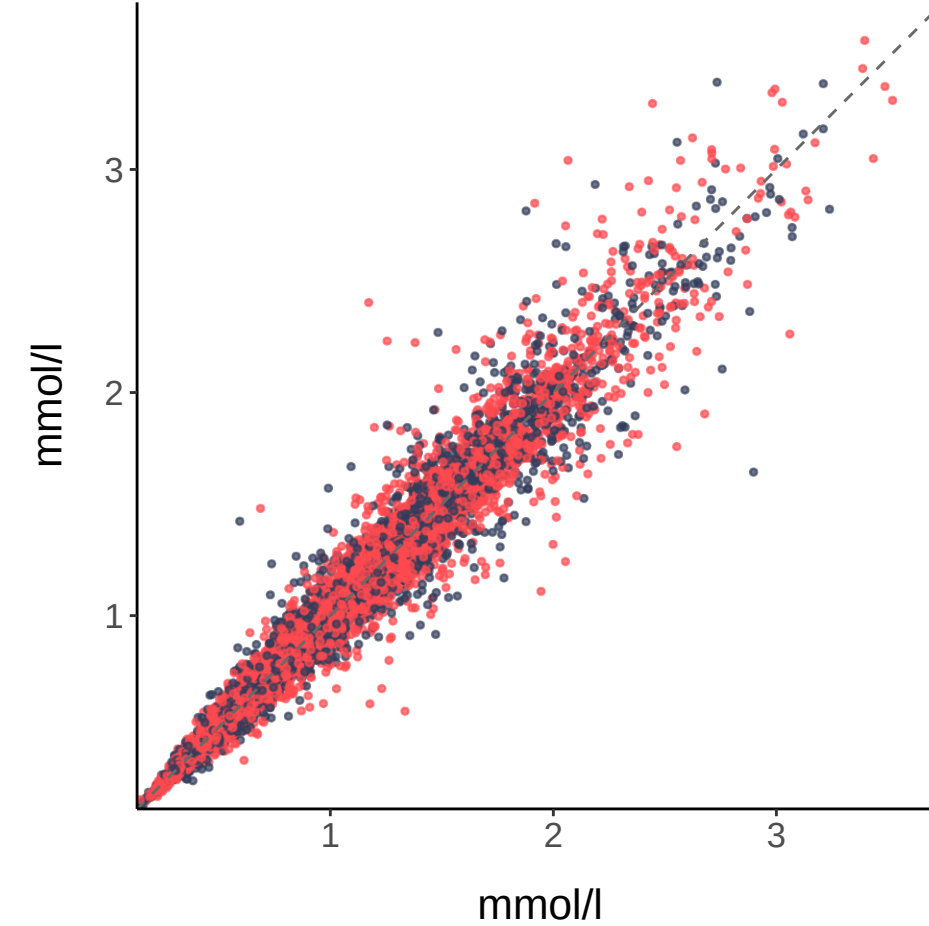


VLDL_TG

CV: 4.06%, R^2 : 0.96

Different spectrometers

● FALSE ● TRUE

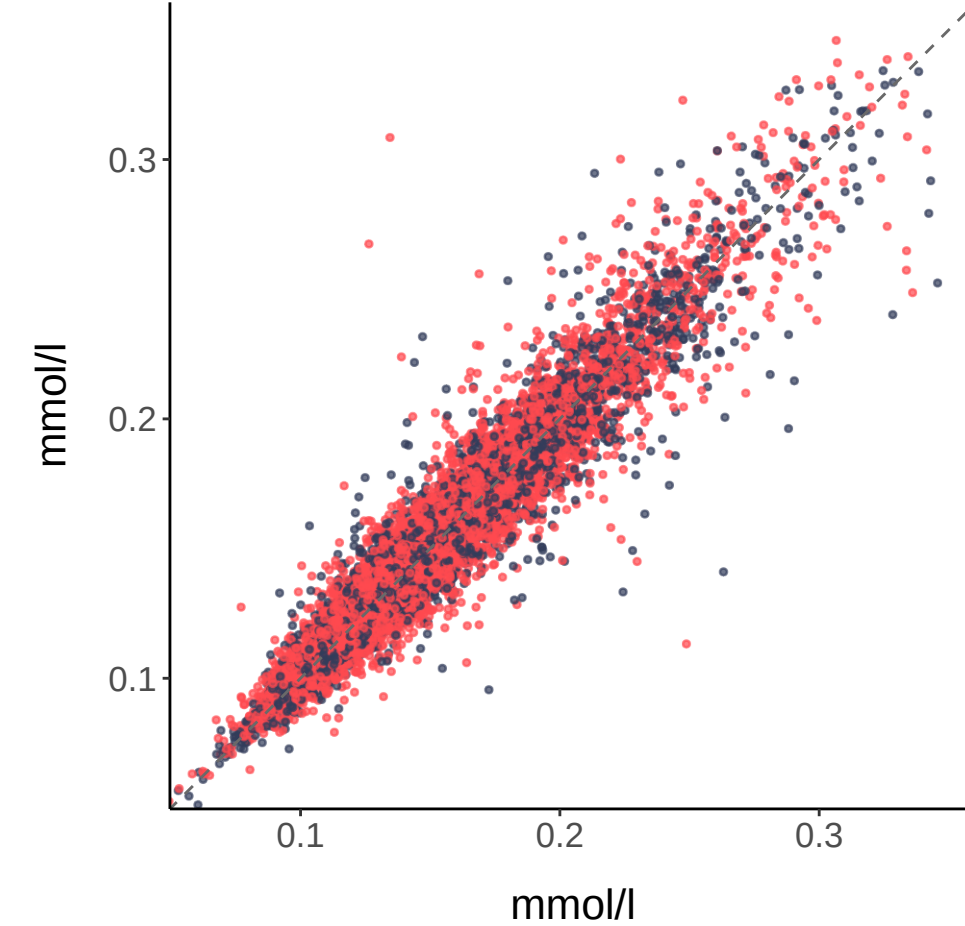


LDL_TG

CV: 3.78%, R^2 : 0.92

Different spectrometers

● FALSE ● TRUE

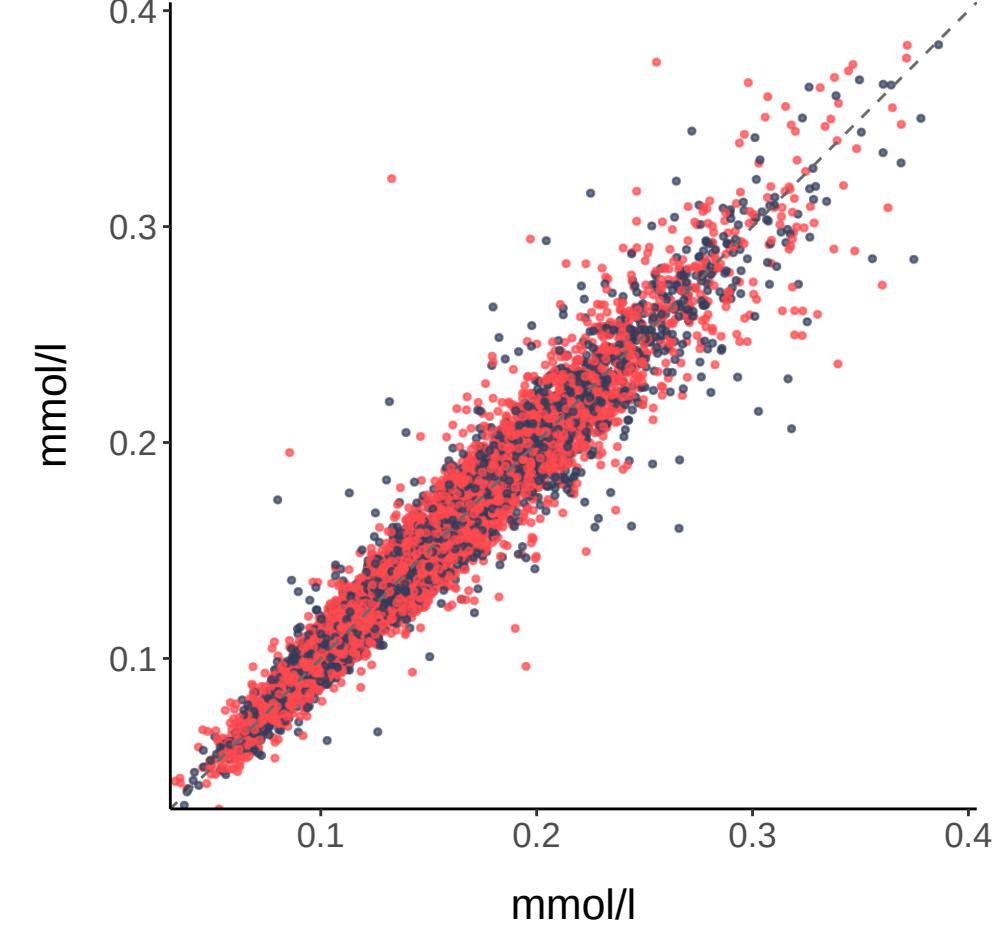


HDL_TG

CV: 3.78%, R^2 : 0.94

Different spectrometers

● FALSE ● TRUE



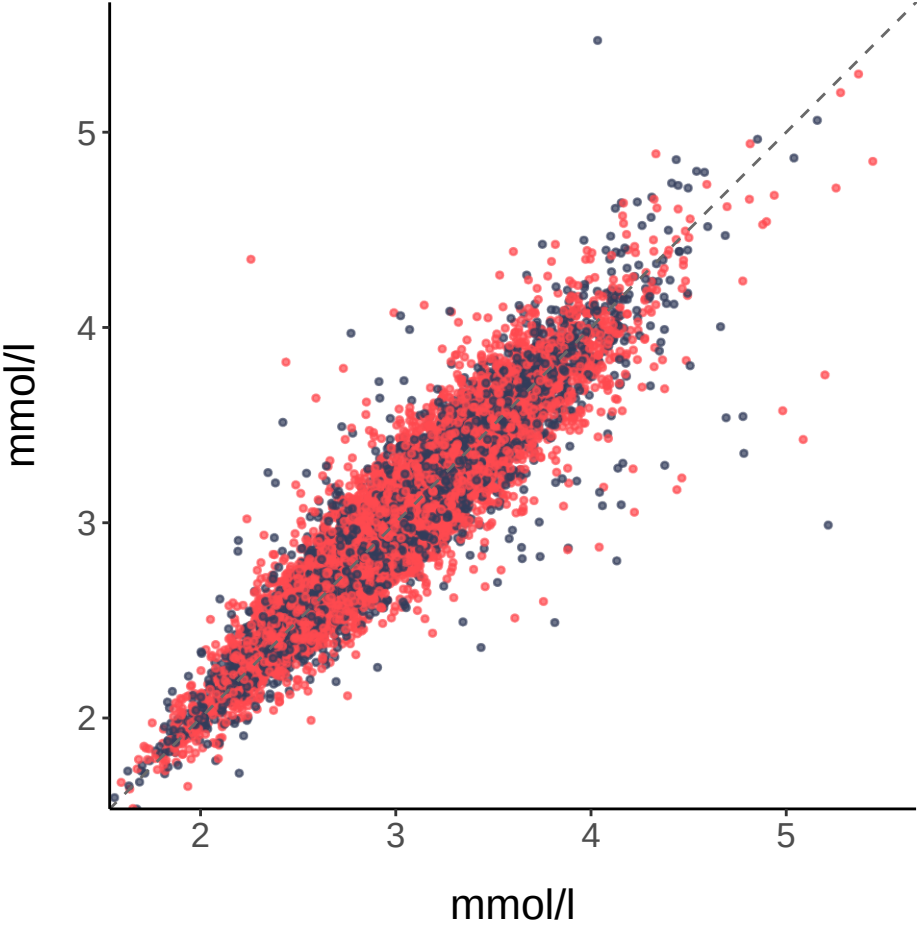
Phospholipids

Total_PL

CV: 2.91%, R^2 : 0.87

Different spectrometers

● FALSE ● TRUE

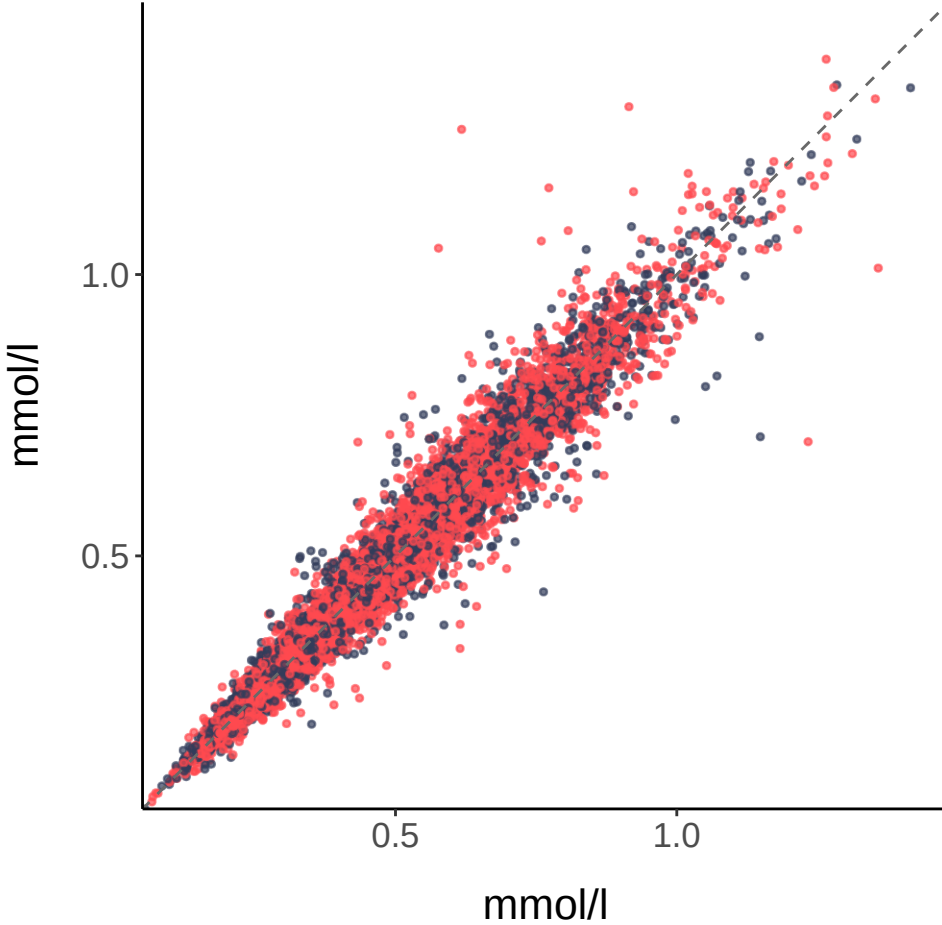


VLDL_PL

CV: 4.02%, R^2 : 0.95

Different spectrometers

● FALSE ● TRUE

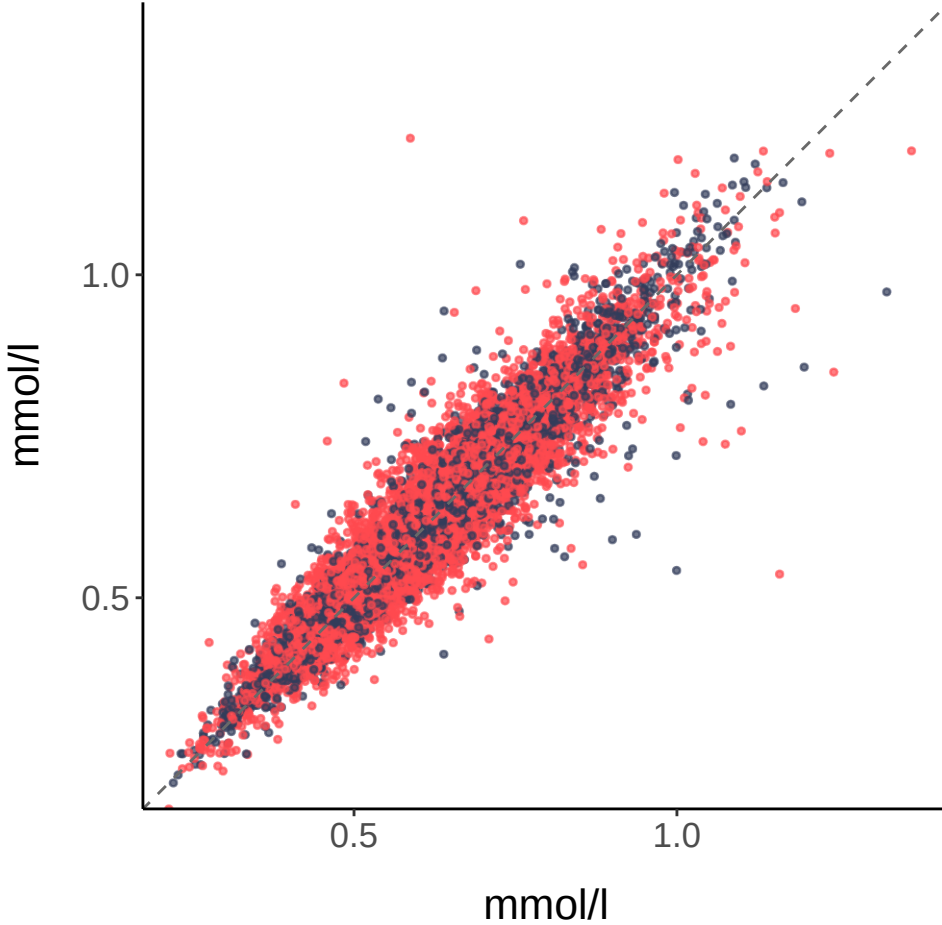


LDL_PL

CV: 3.97%, R^2 : 0.89

Different spectrometers

● FALSE ● TRUE

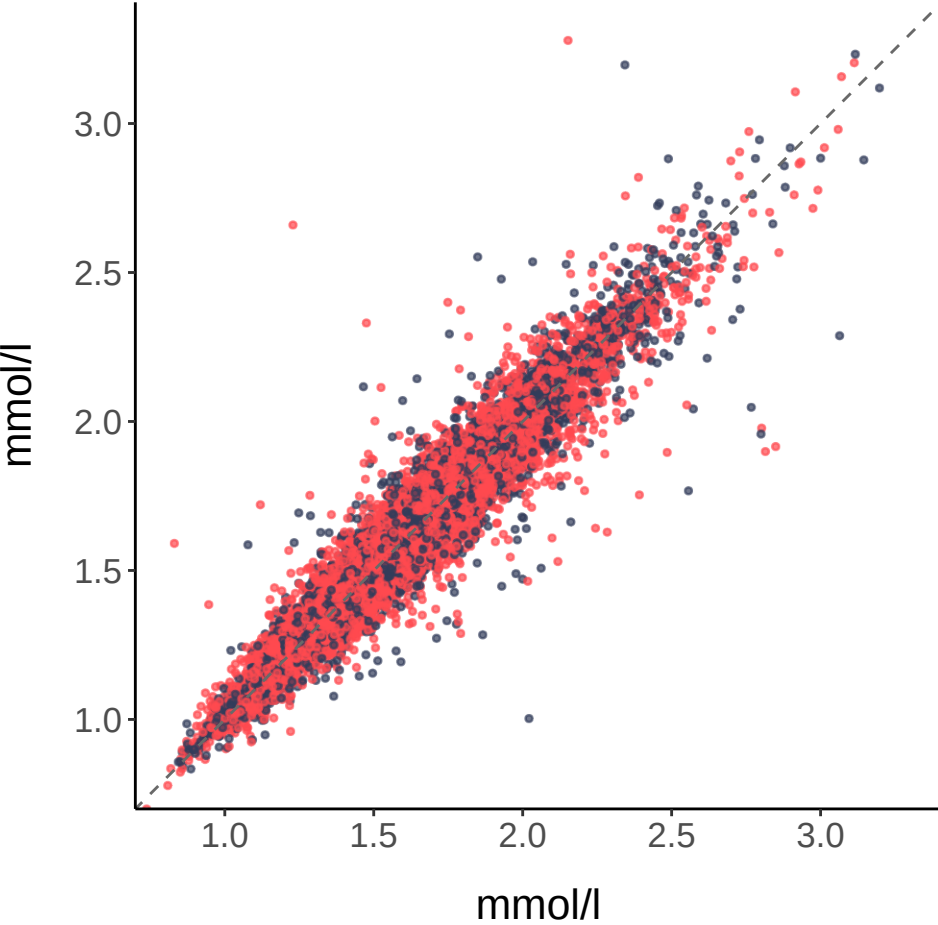


HDL_PL

CV: 2.86%, R^2 : 0.92

Different spectrometers

● FALSE ● TRUE



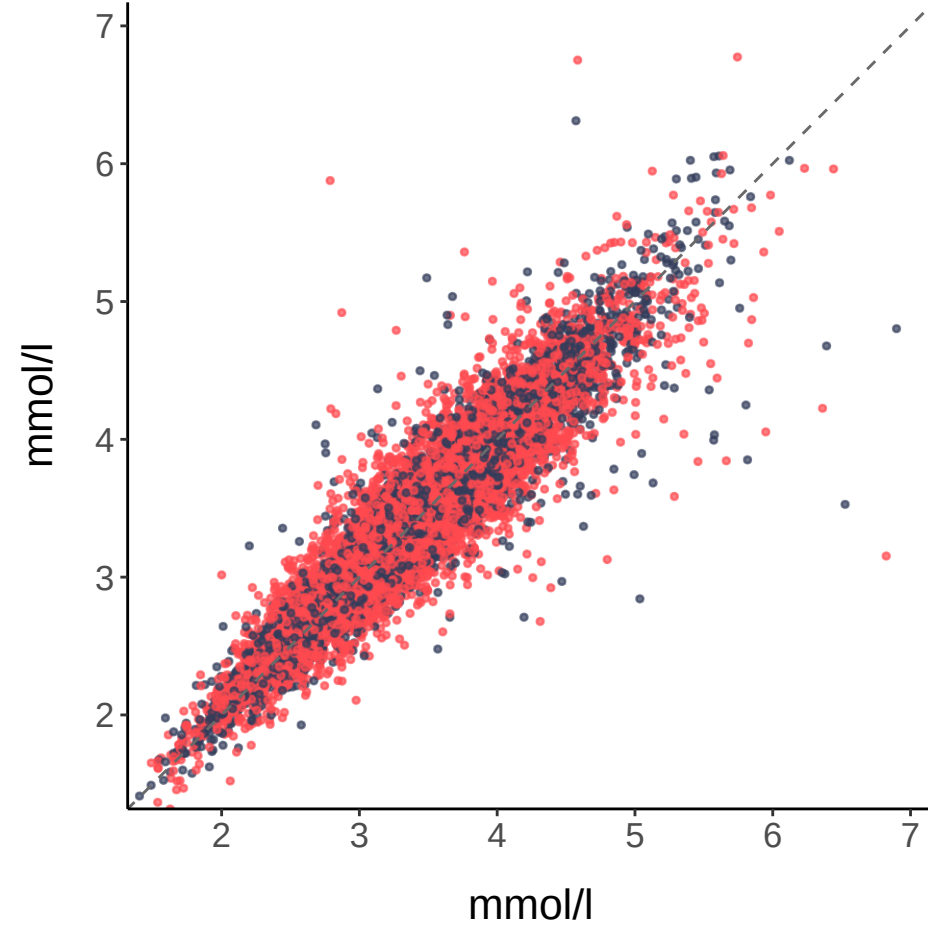
Cholesteryl esters

Total_CE

CV: 3.68%, R^2 : 0.86

Different spectrometers

● FALSE ● TRUE

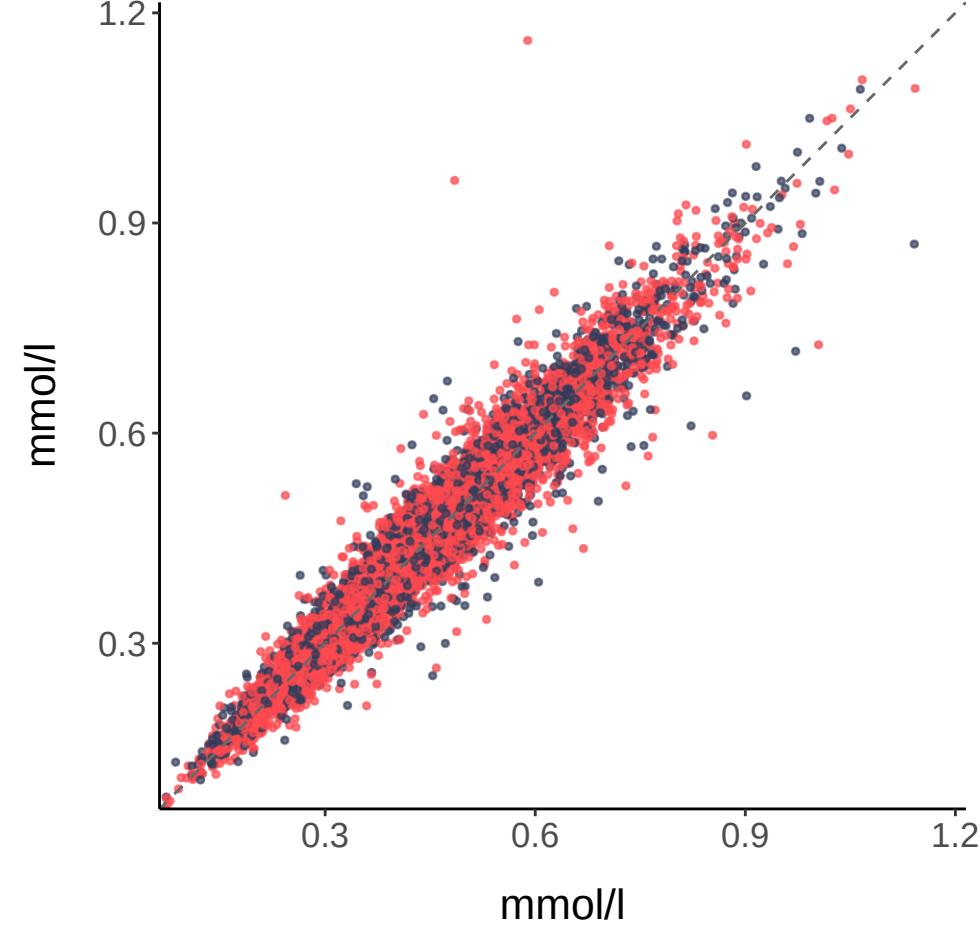


VLDL_CE

CV: 4.08%, R^2 : 0.94

Different spectrometers

● FALSE ● TRUE

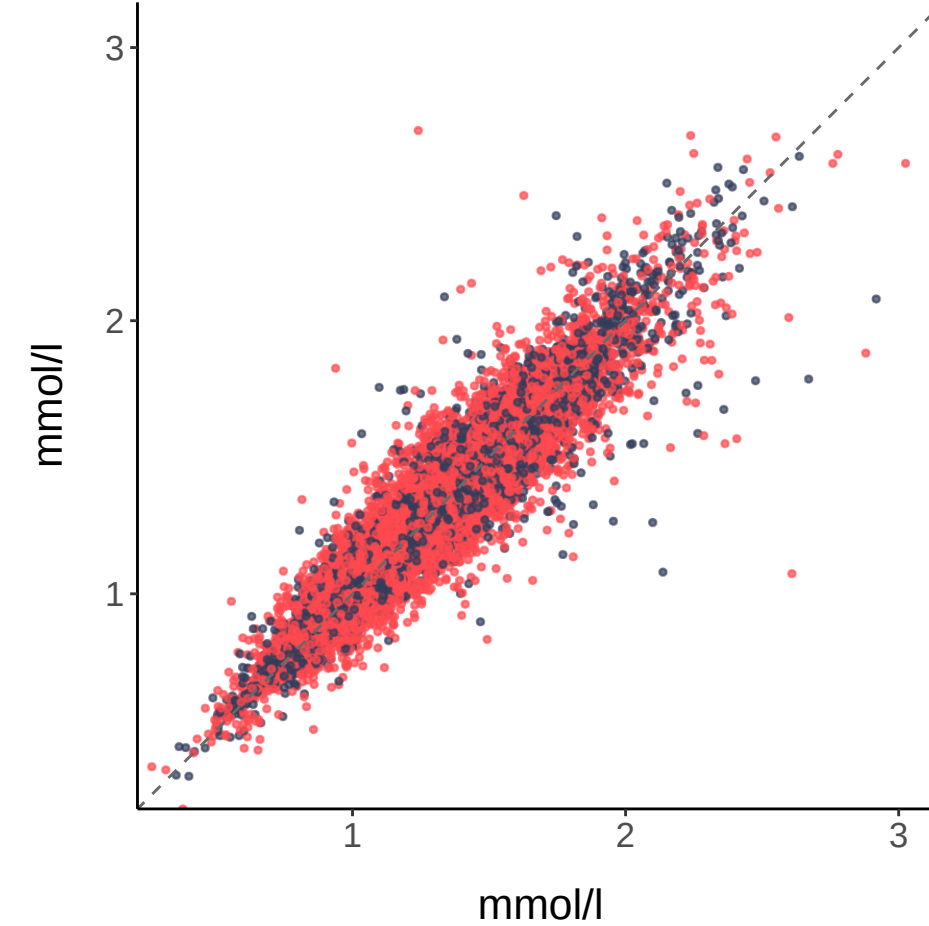


LDL_CE

CV: 4.72%, R^2 : 0.87

Different spectrometers

● FALSE ● TRUE

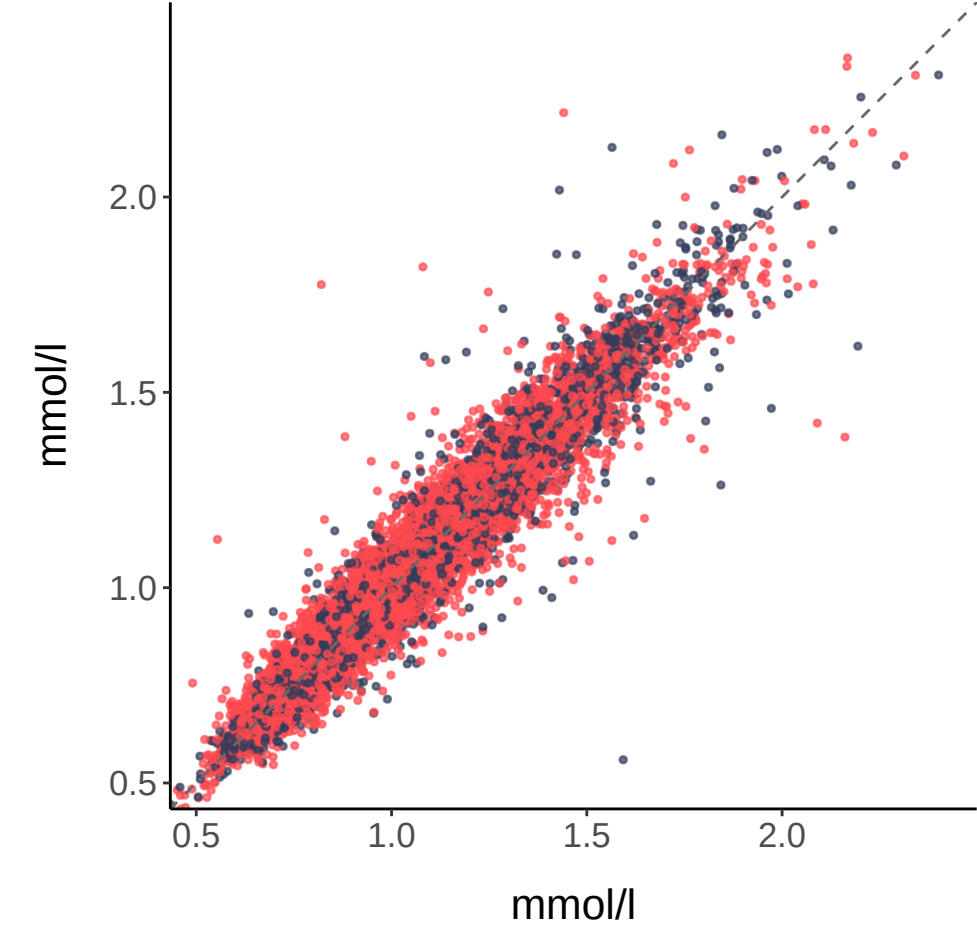


HDL_CE

CV: 3.43%, R^2 : 0.92

Different spectrometers

● FALSE ● TRUE



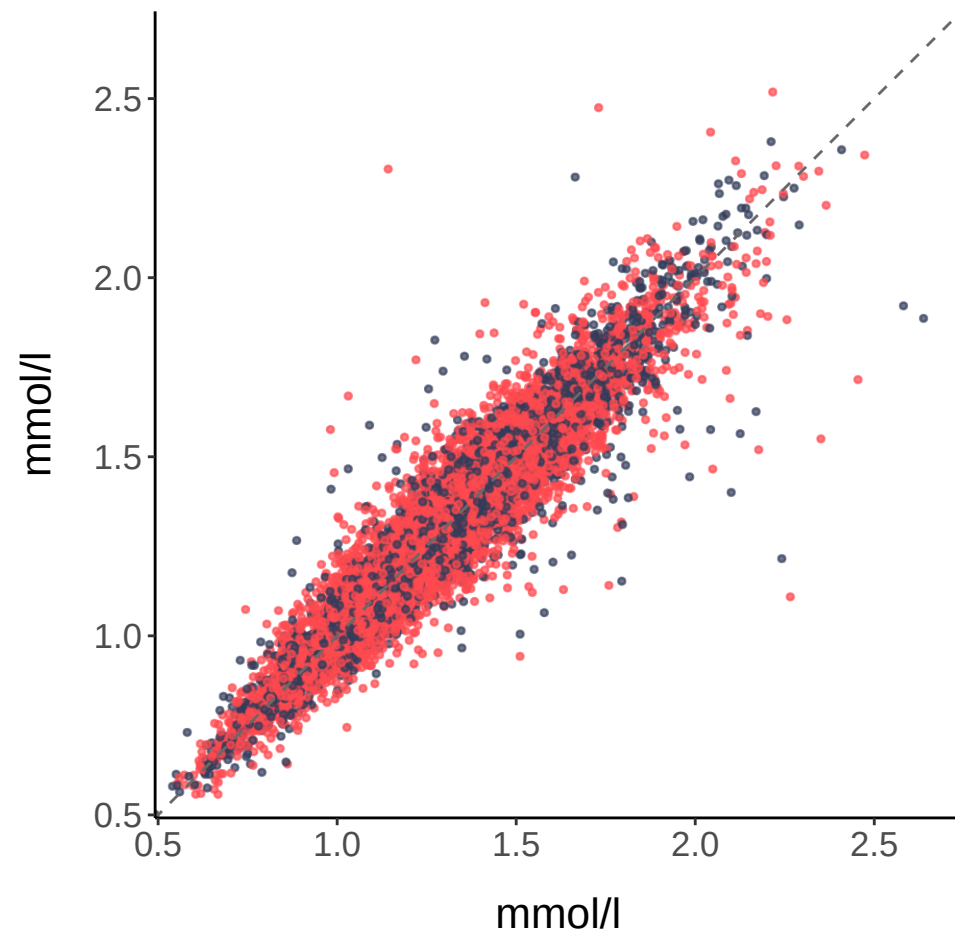
Free cholesterol

Total_FC

CV: 3.43%, R^2 : 0.89

Different spectrometers

● FALSE ● TRUE

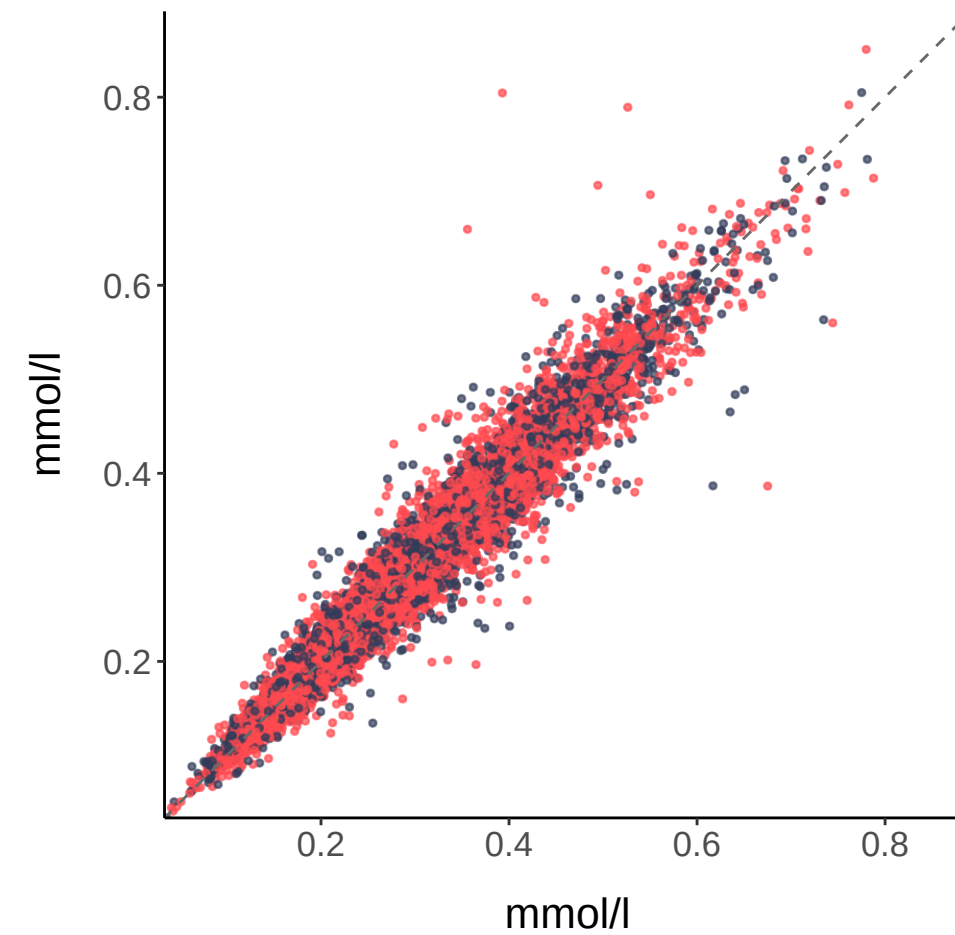


VLDL_FC

CV: 4.34%, R^2 : 0.95

Different spectrometers

● FALSE ● TRUE

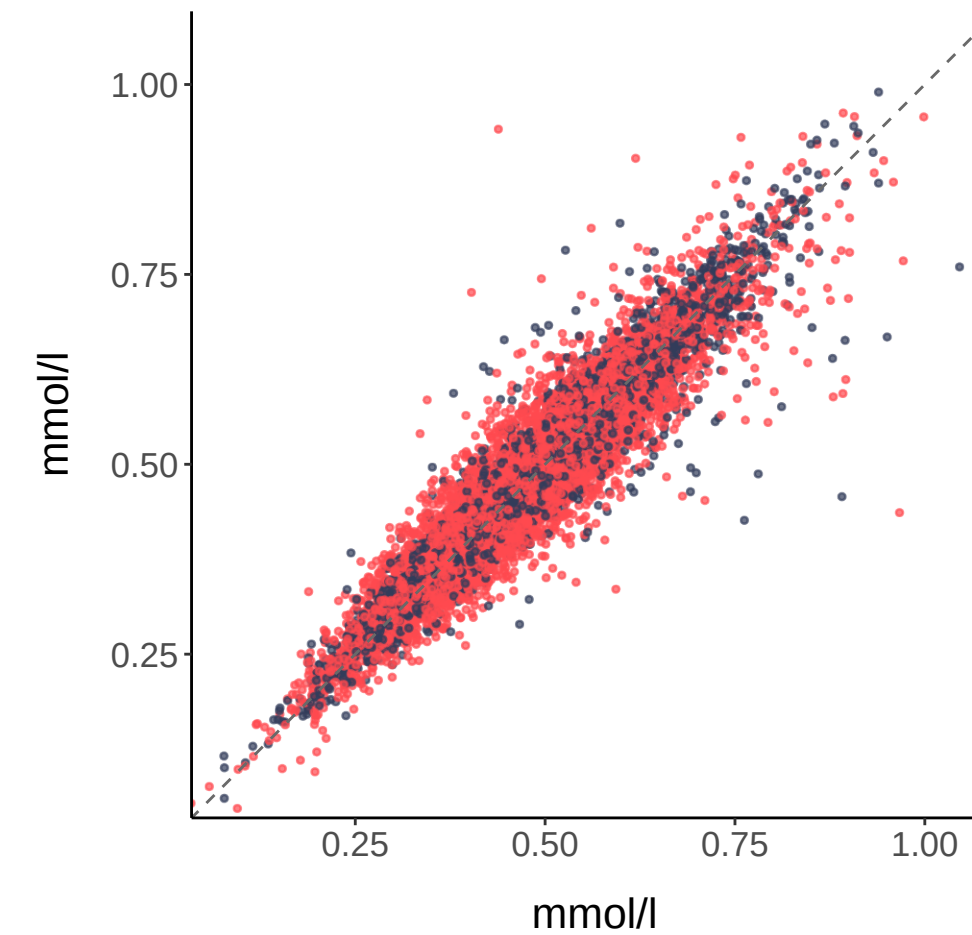


LDL_FC

CV: 4.57%, R^2 : 0.88

Different spectrometers

● FALSE ● TRUE

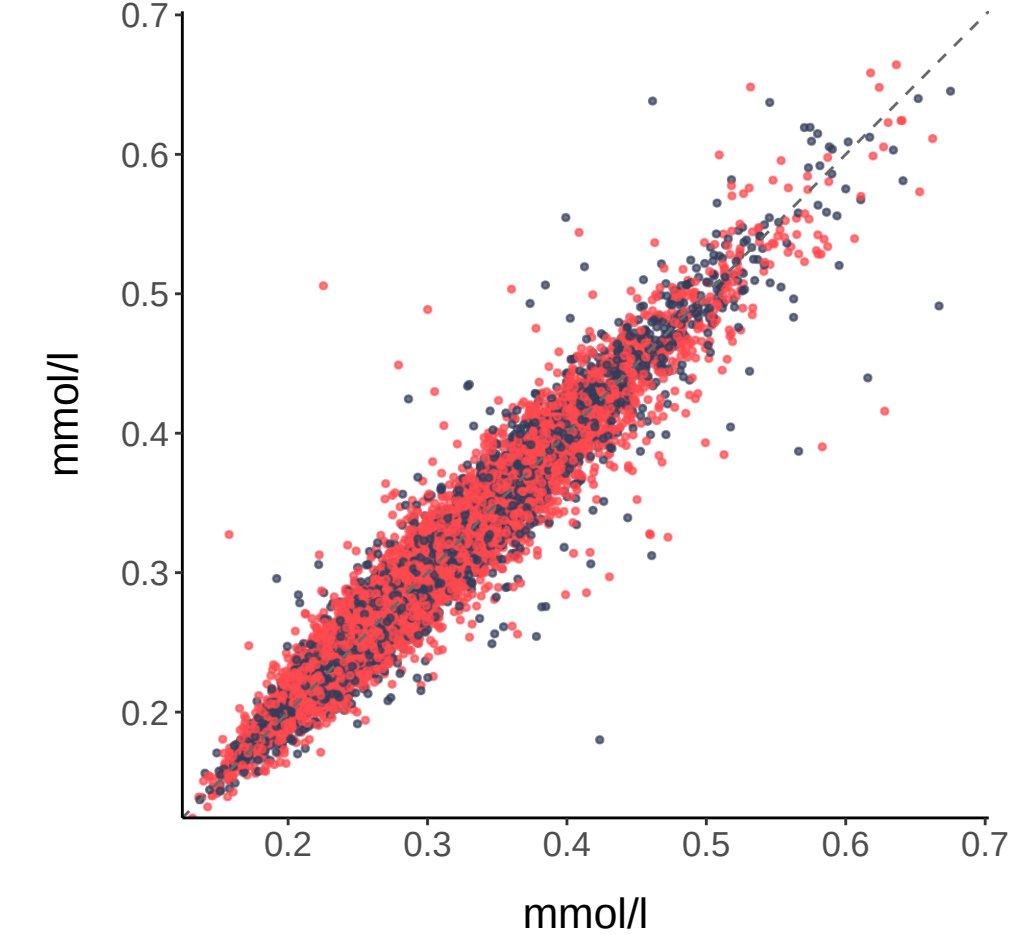


HDL_FC

CV: 3.18%, R^2 : 0.93

Different spectrometers

● FALSE ● TRUE



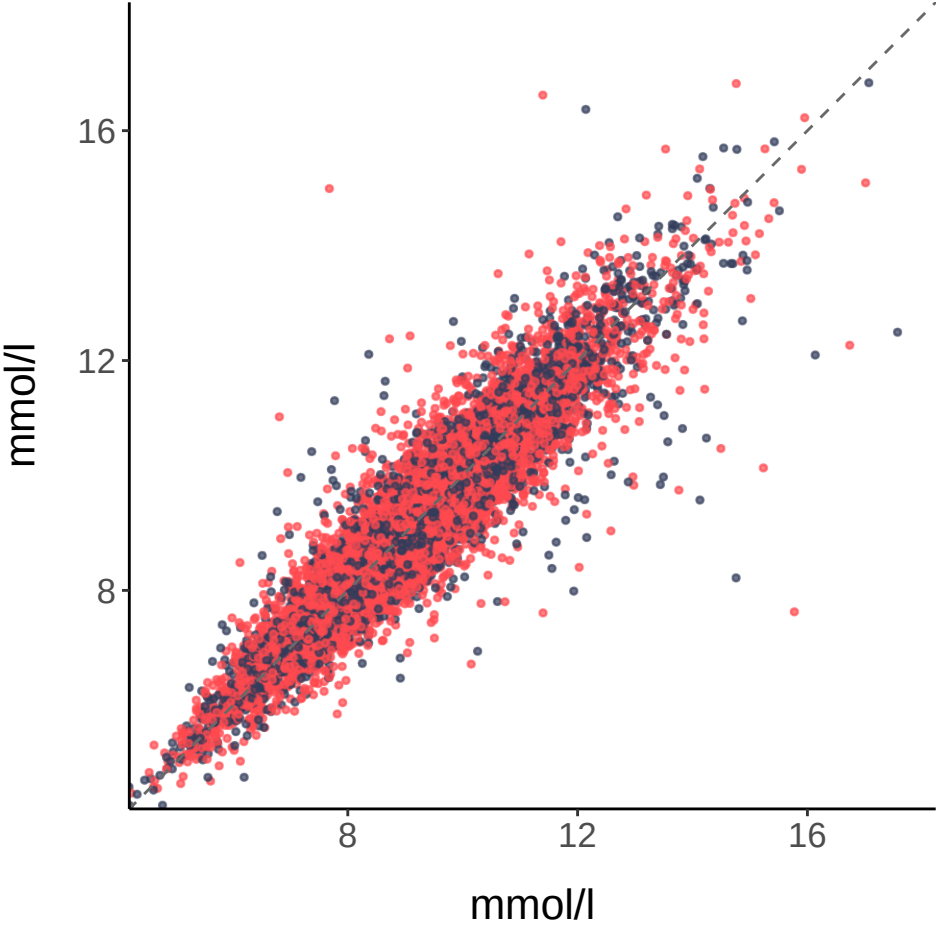
Total lipids

Total_L

CV: 3.26%, R^2 : 0.87

Different spectrometers

● FALSE ● TRUE

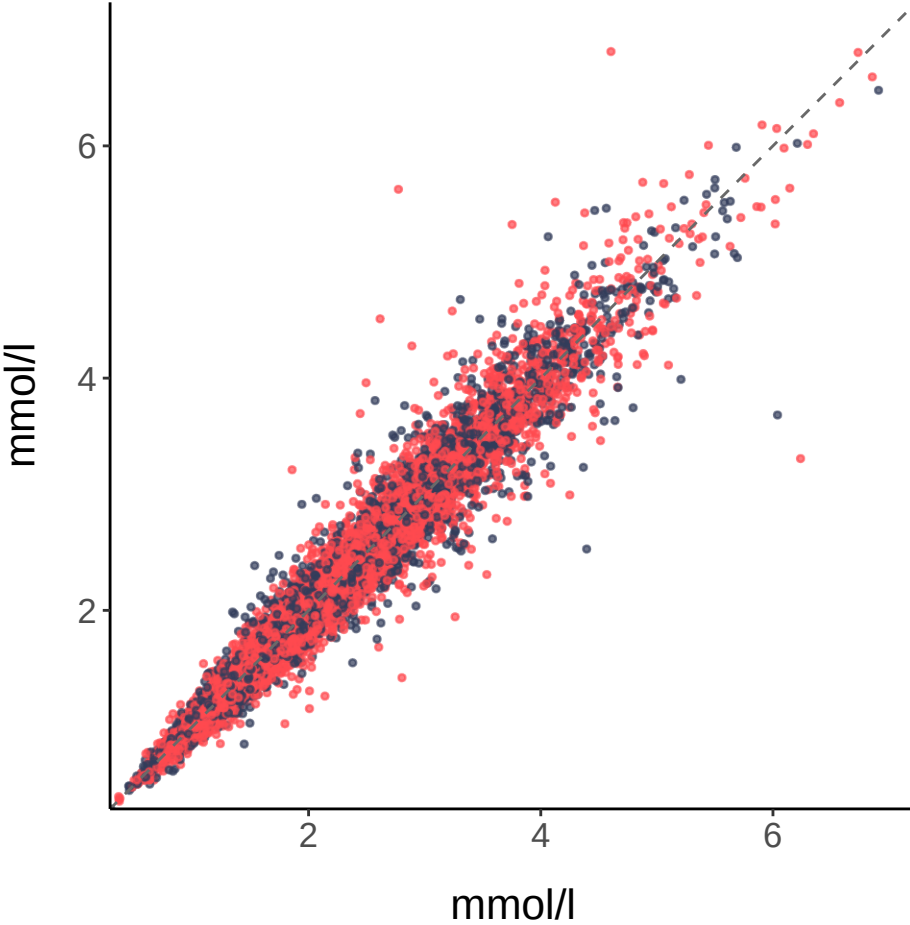


VLDL_L

CV: 3.98%, R^2 : 0.96

Different spectrometers

● FALSE ● TRUE

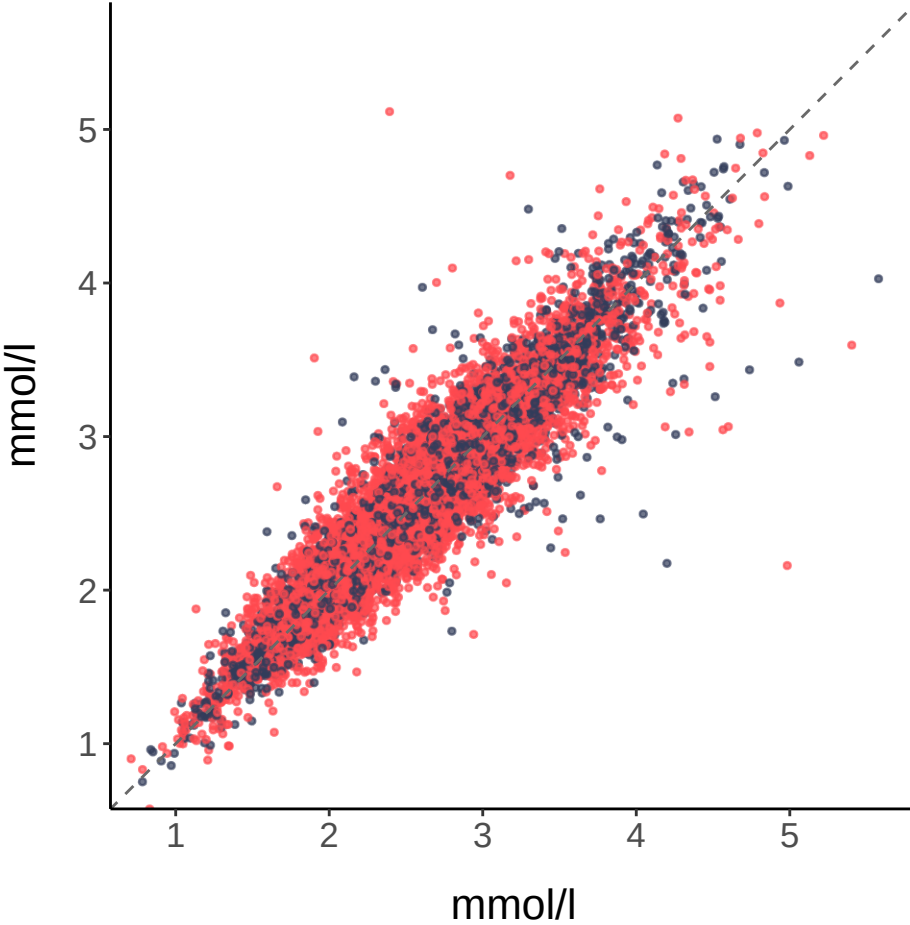


LDL_L

CV: 4.38%, R^2 : 0.87

Different spectrometers

● FALSE ● TRUE

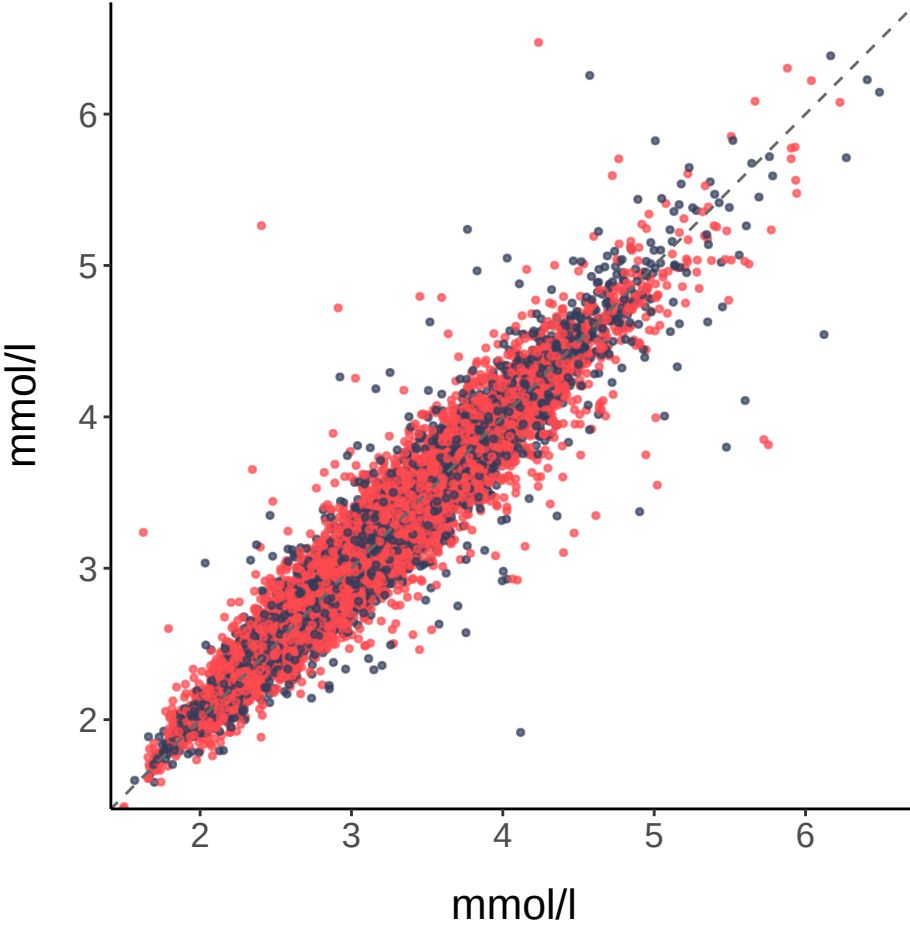


HDL_L

CV: 3.02%, R^2 : 0.92

Different spectrometers

● FALSE ● TRUE



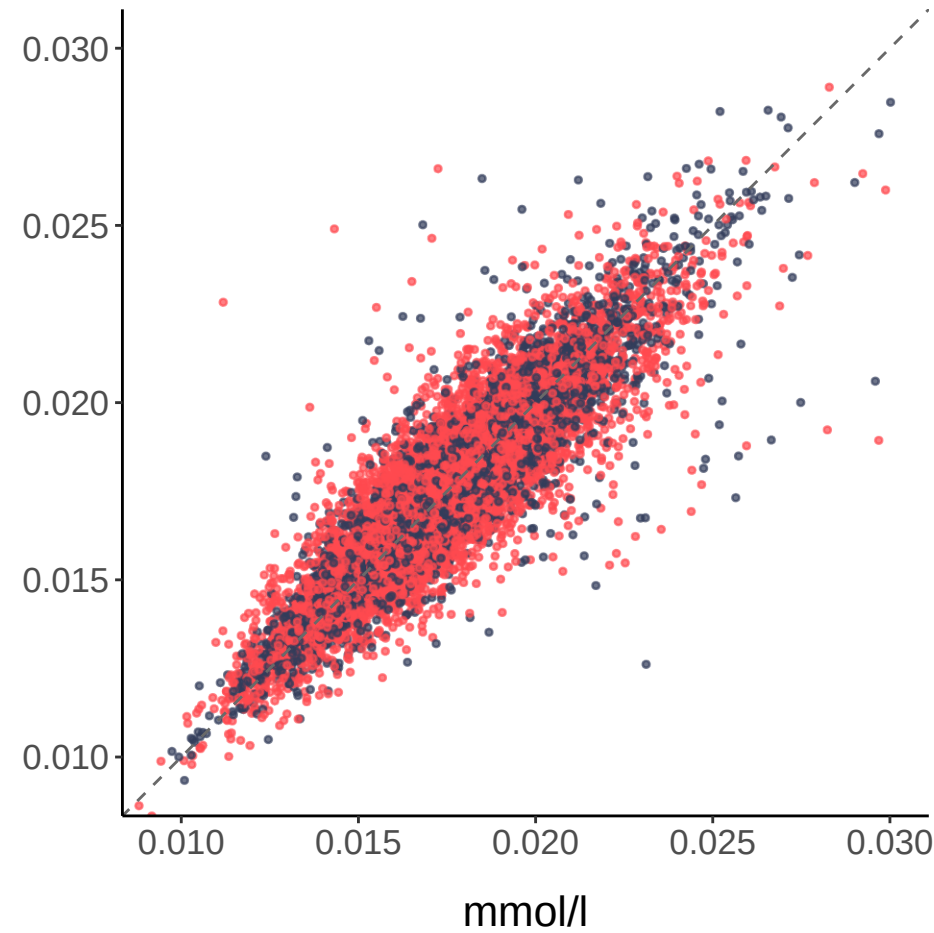
Lipoprotein particle concentrations

Total_P

CV: 3.45%, R^2 : 0.8

Different spectrometers

● FALSE ● TRUE

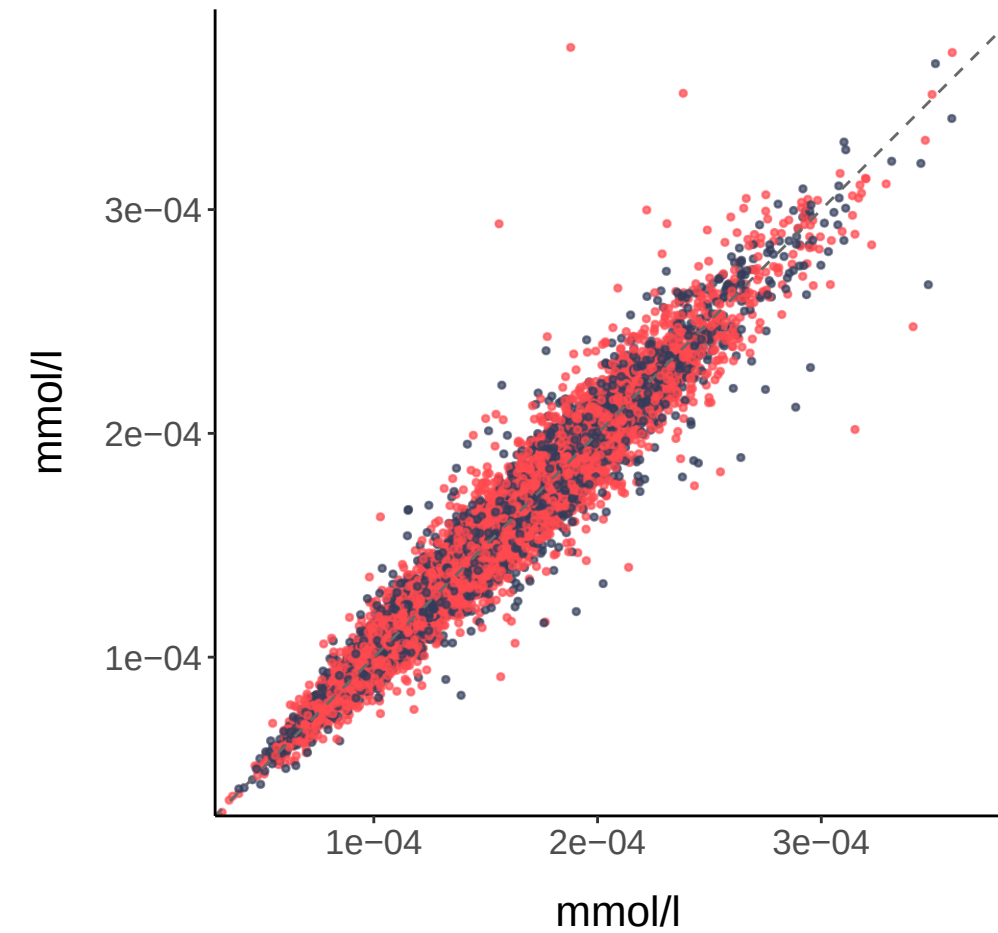


VLDL_P

CV: 3.52%, R^2 : 0.95

Different spectrometers

● FALSE ● TRUE

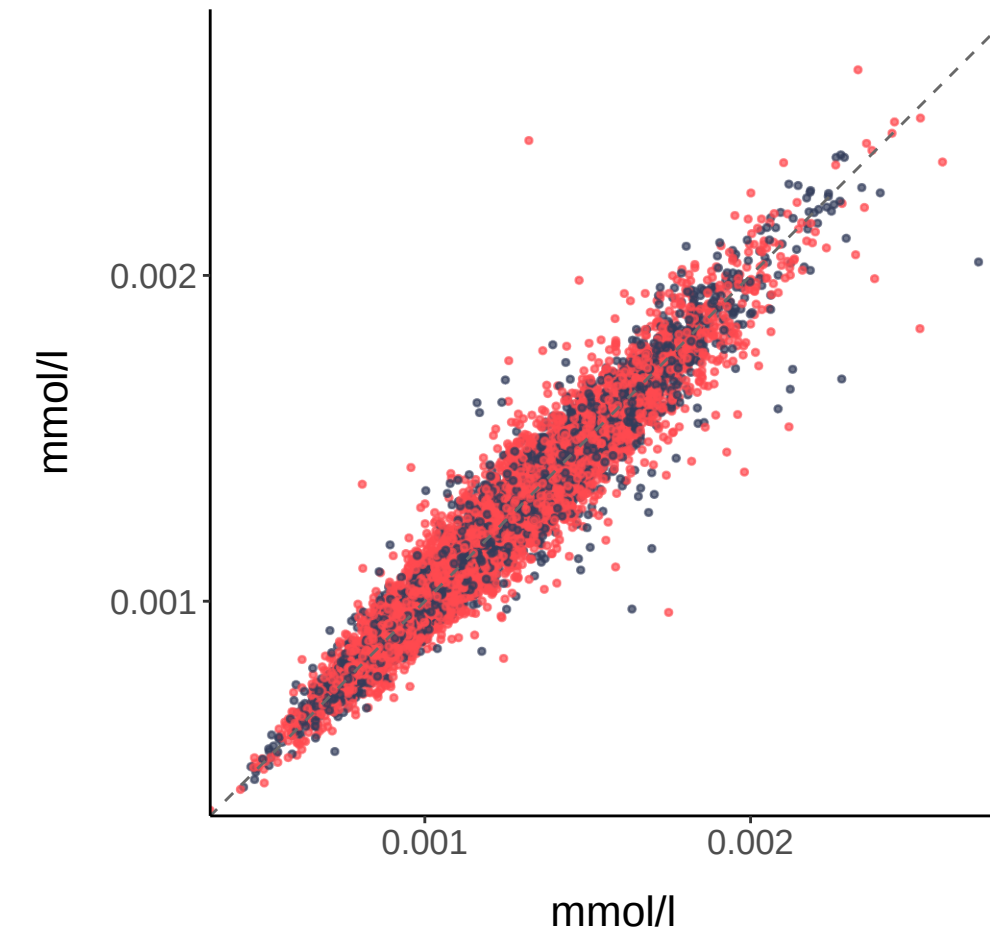


LDL_P

CV: 3.13%, R^2 : 0.93

Different spectrometers

● FALSE ● TRUE

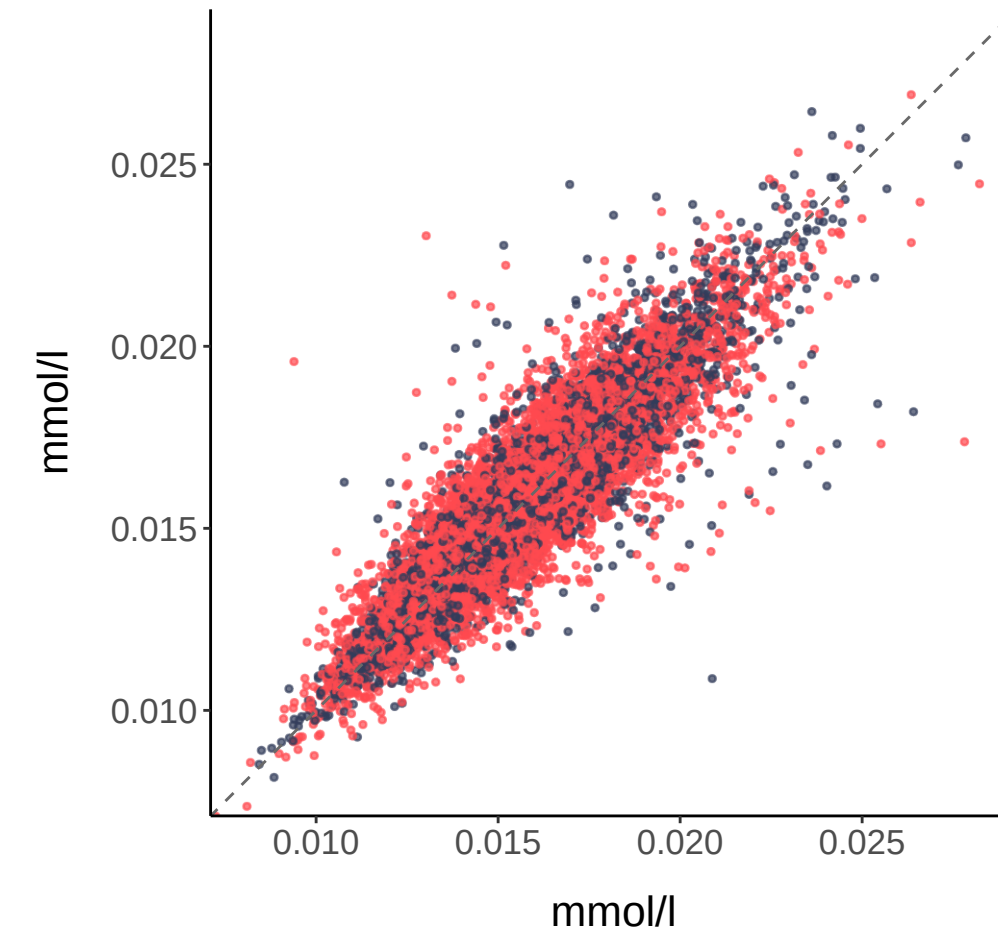


HDL_P

CV: 3.57%, R^2 : 0.81

Different spectrometers

● FALSE ● TRUE



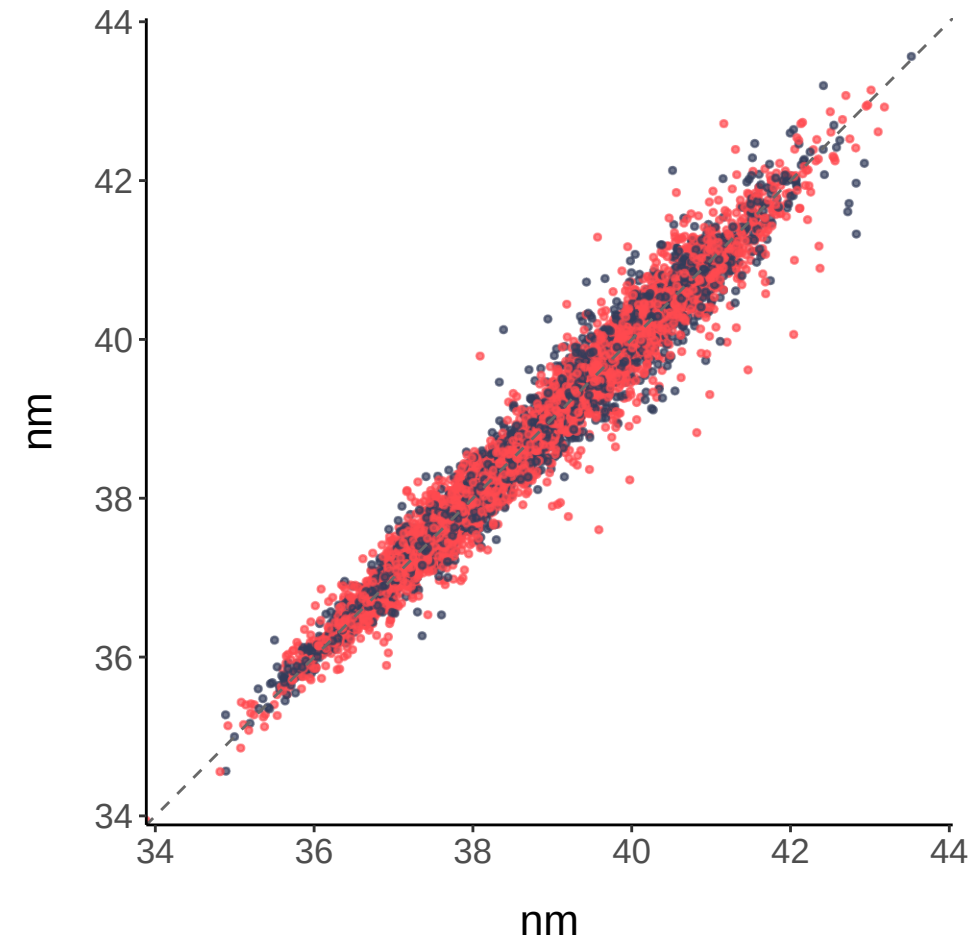
Lipoprotein particle sizes

VLDL_size

CV: 0.26%, R^2 : 0.97

Different spectrometers

● FALSE ● TRUE

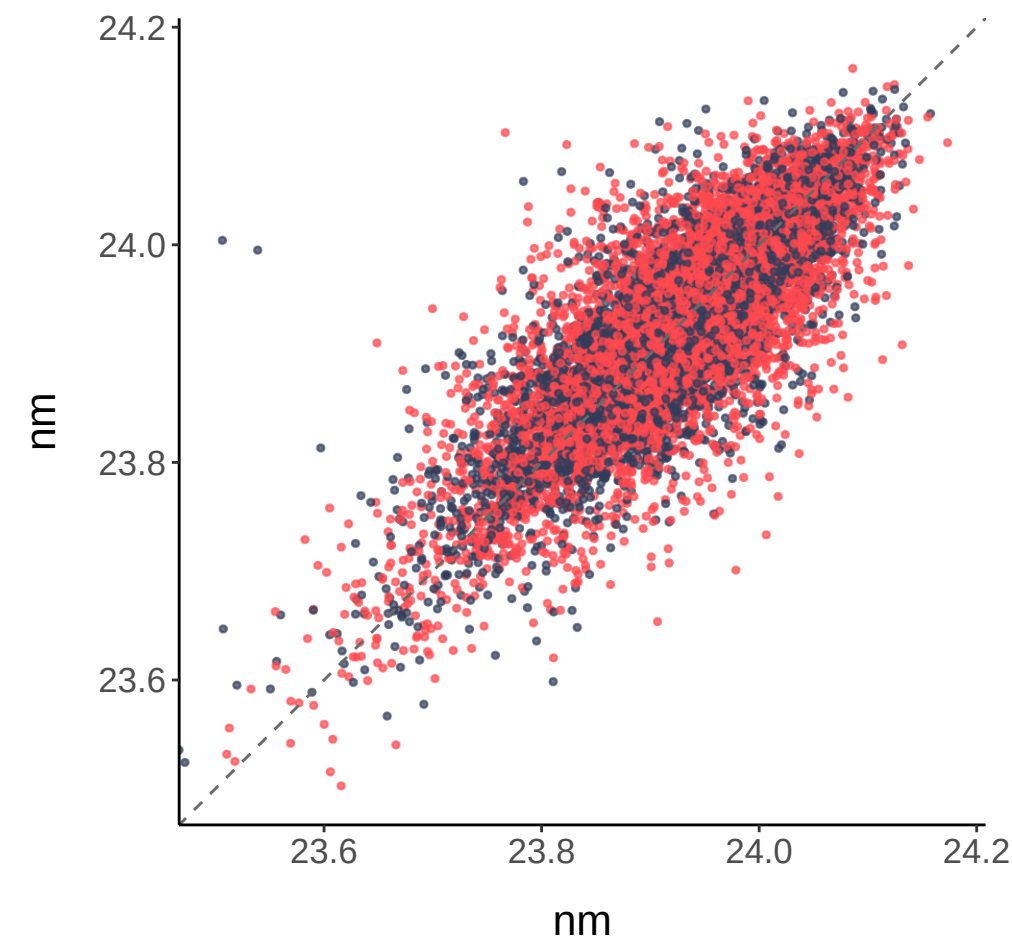


LDL_size

CV: 0.12%, R^2 : 0.67

Different spectrometers

● FALSE ● TRUE

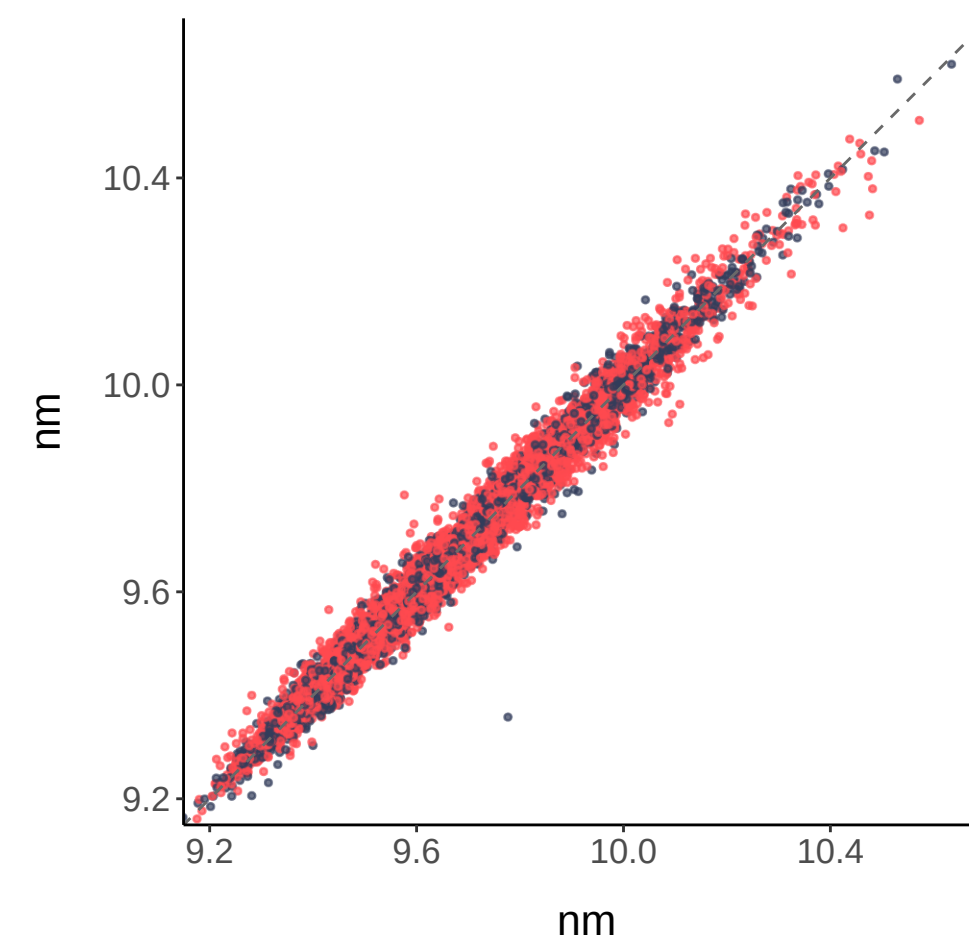


HDL_size

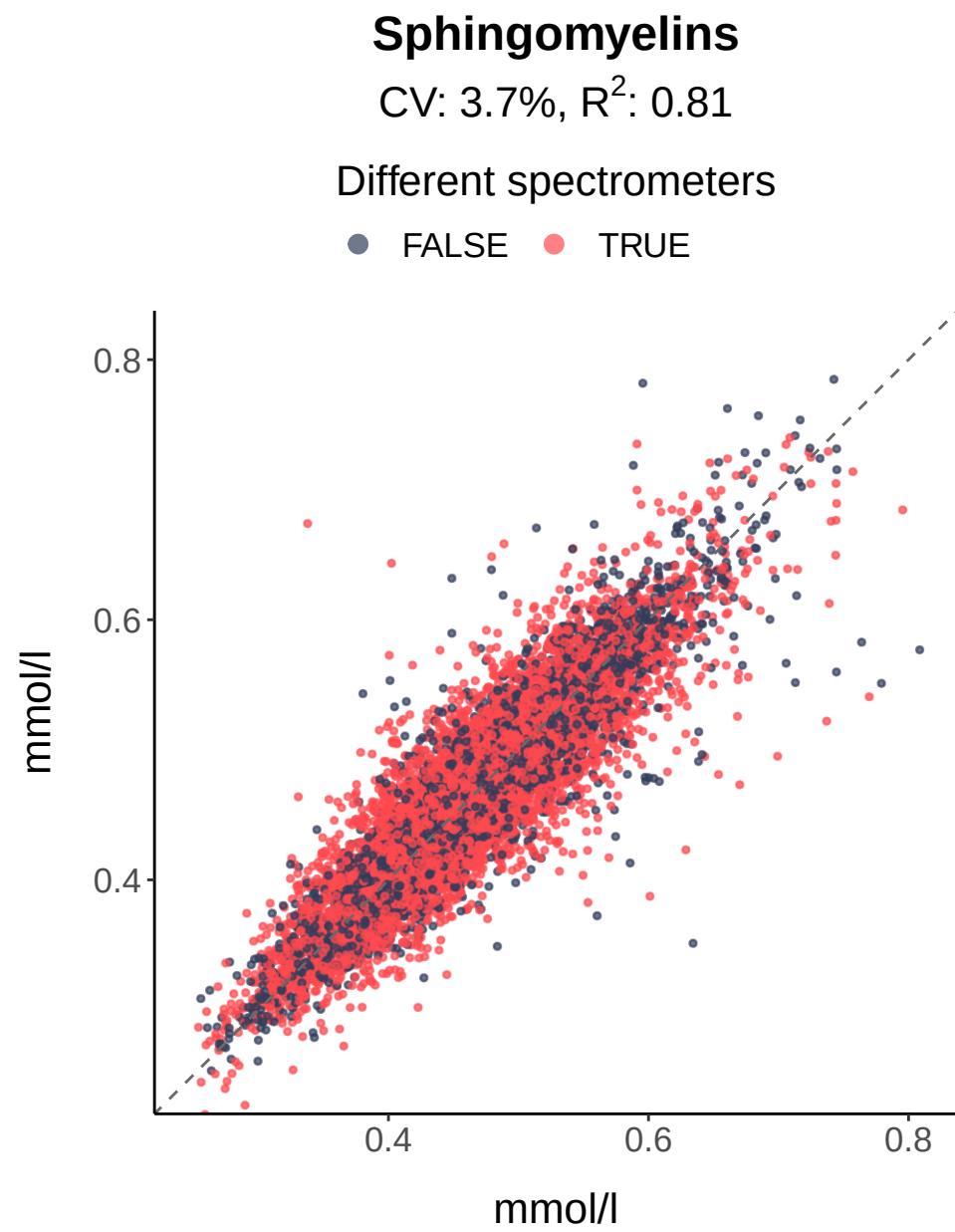
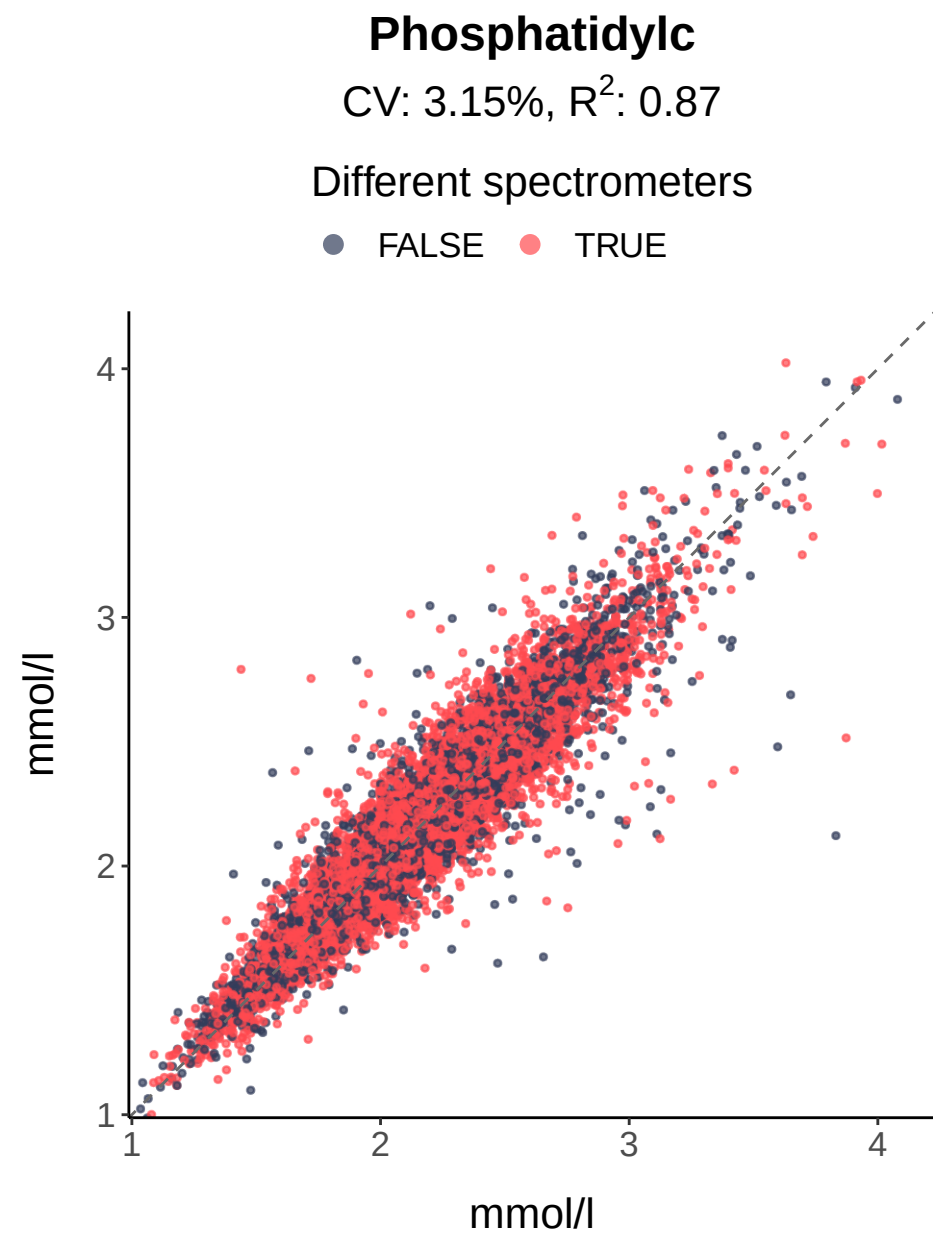
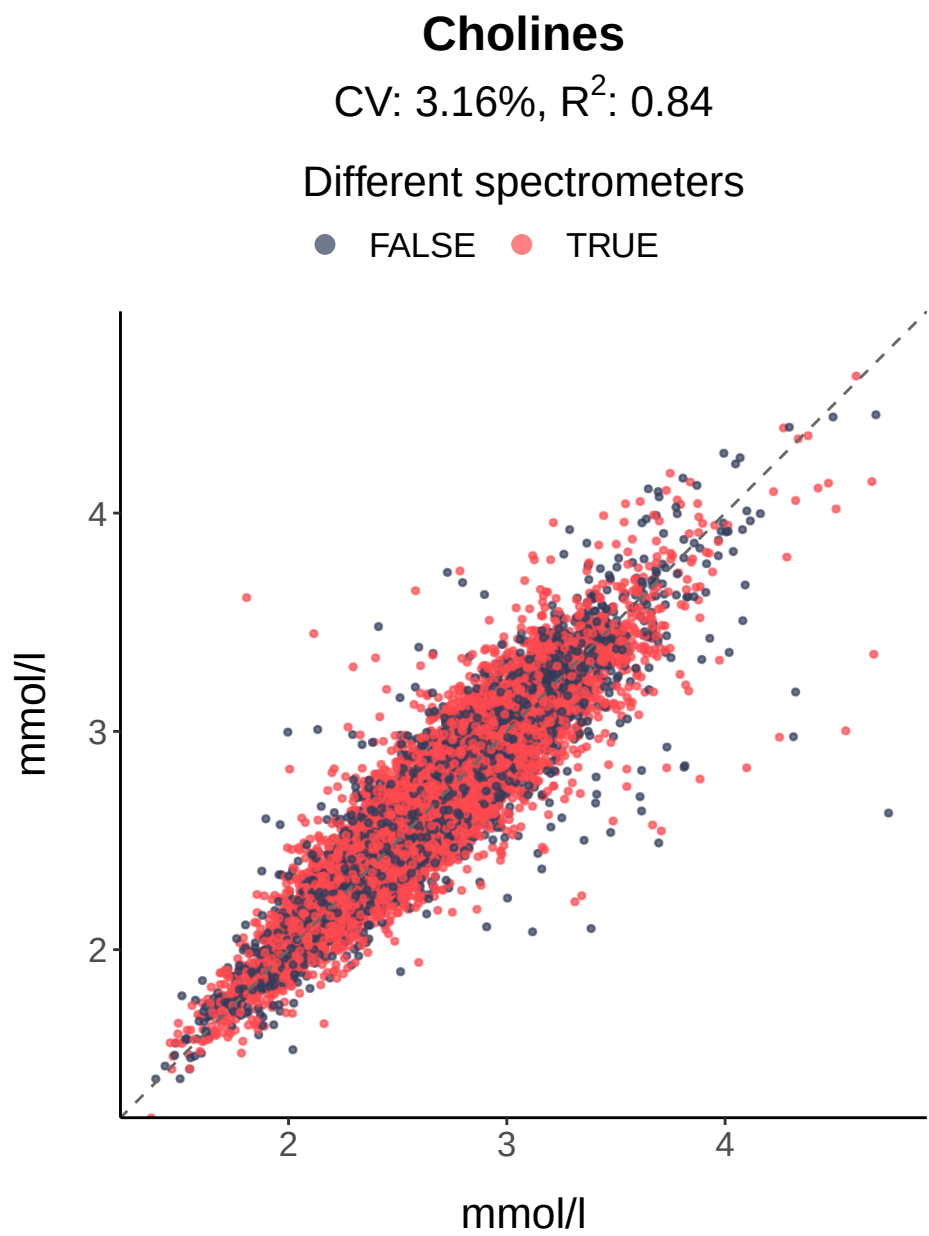
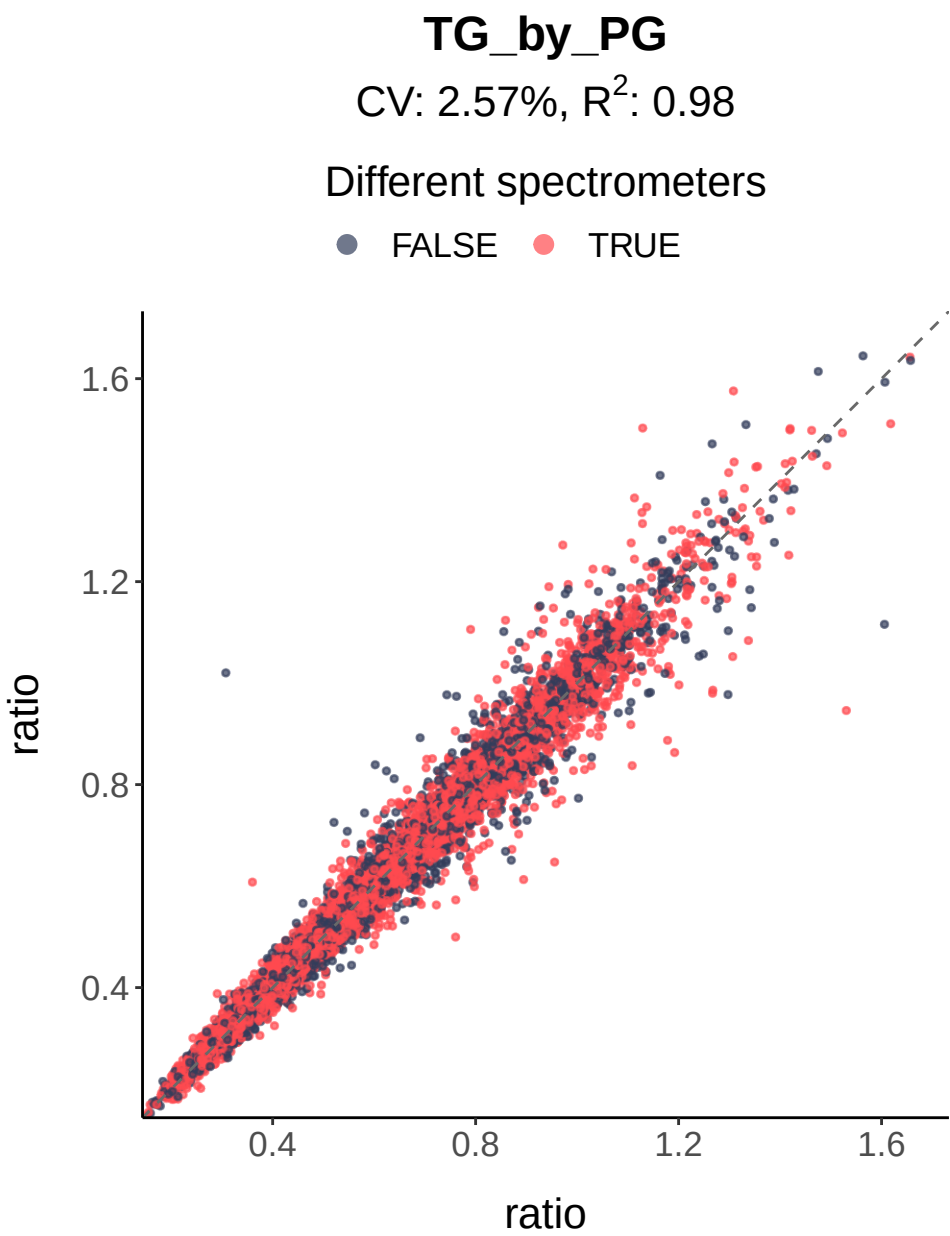
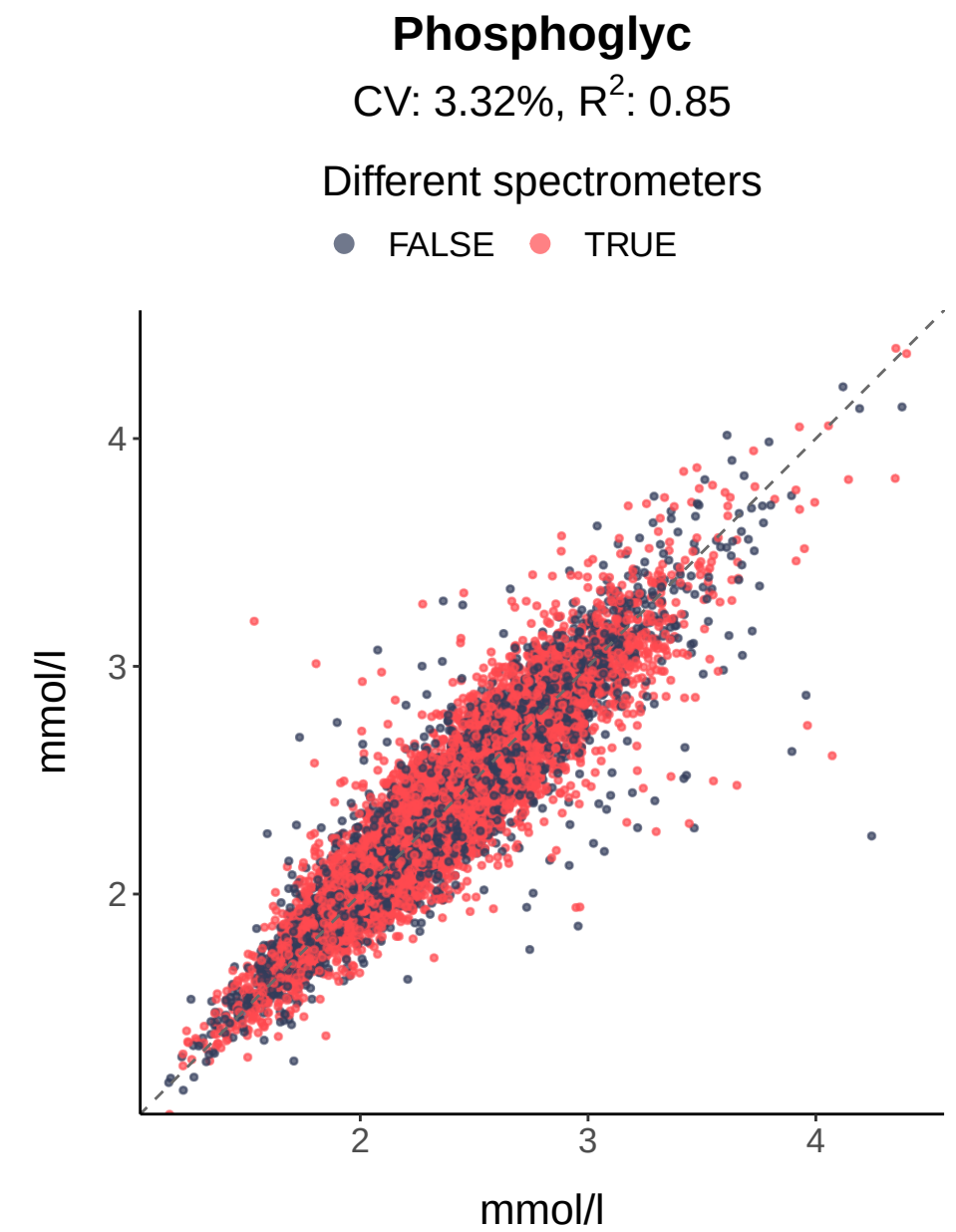
CV: 0.15%, R^2 : 0.98

Different spectrometers

● FALSE ● TRUE



Other lipids



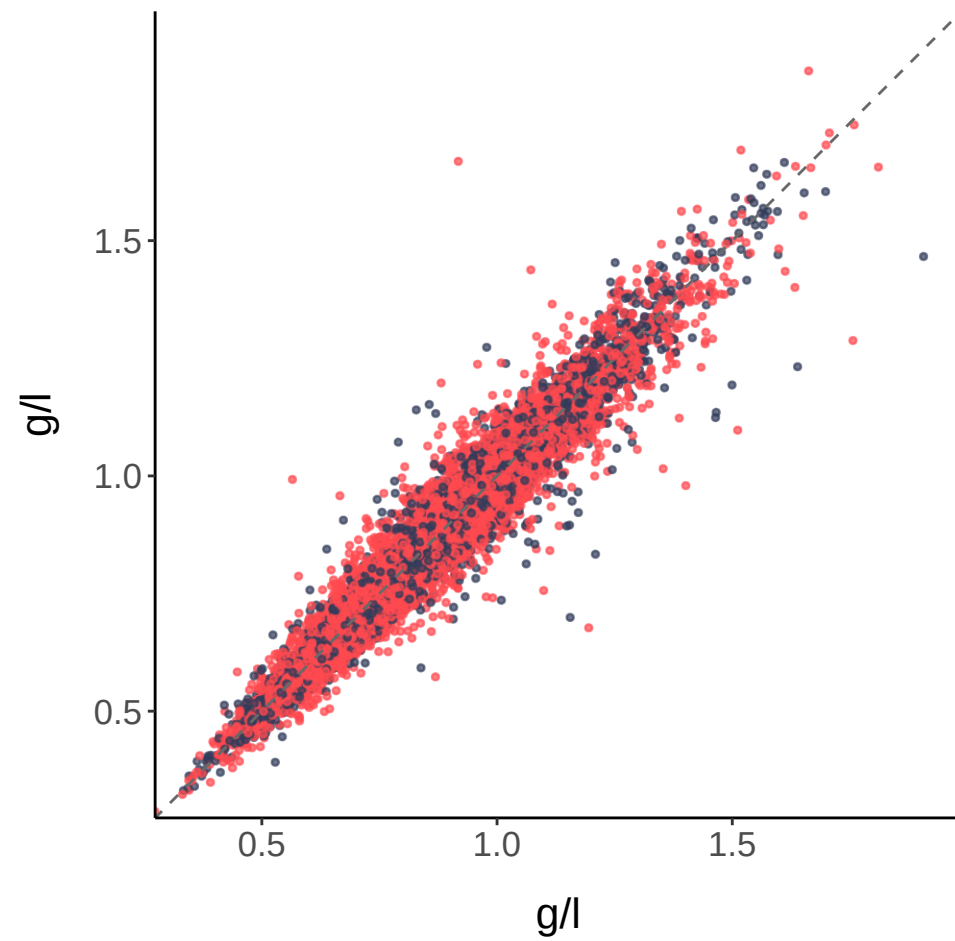
Apolipoproteins

ApoB

CV: 2.99%, R^2 : 0.94

Different spectrometers

● FALSE ● TRUE

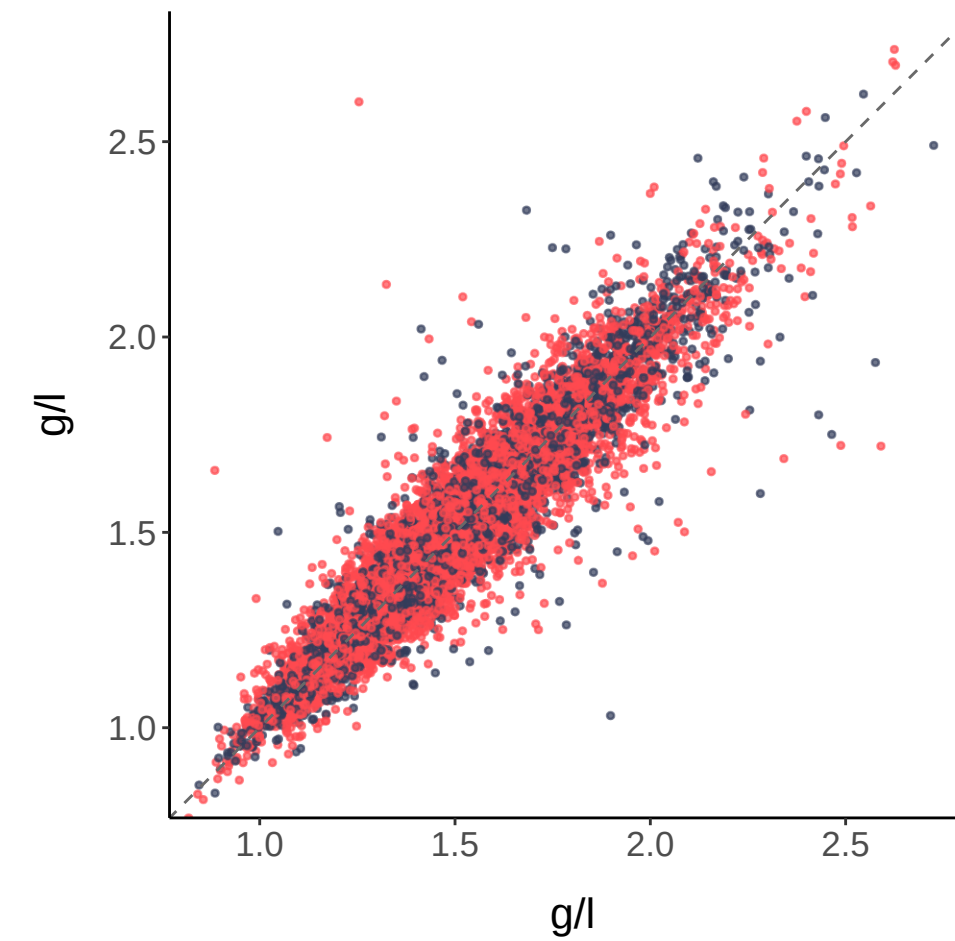


ApoA1

CV: 2.91%, R^2 : 0.88

Different spectrometers

● FALSE ● TRUE

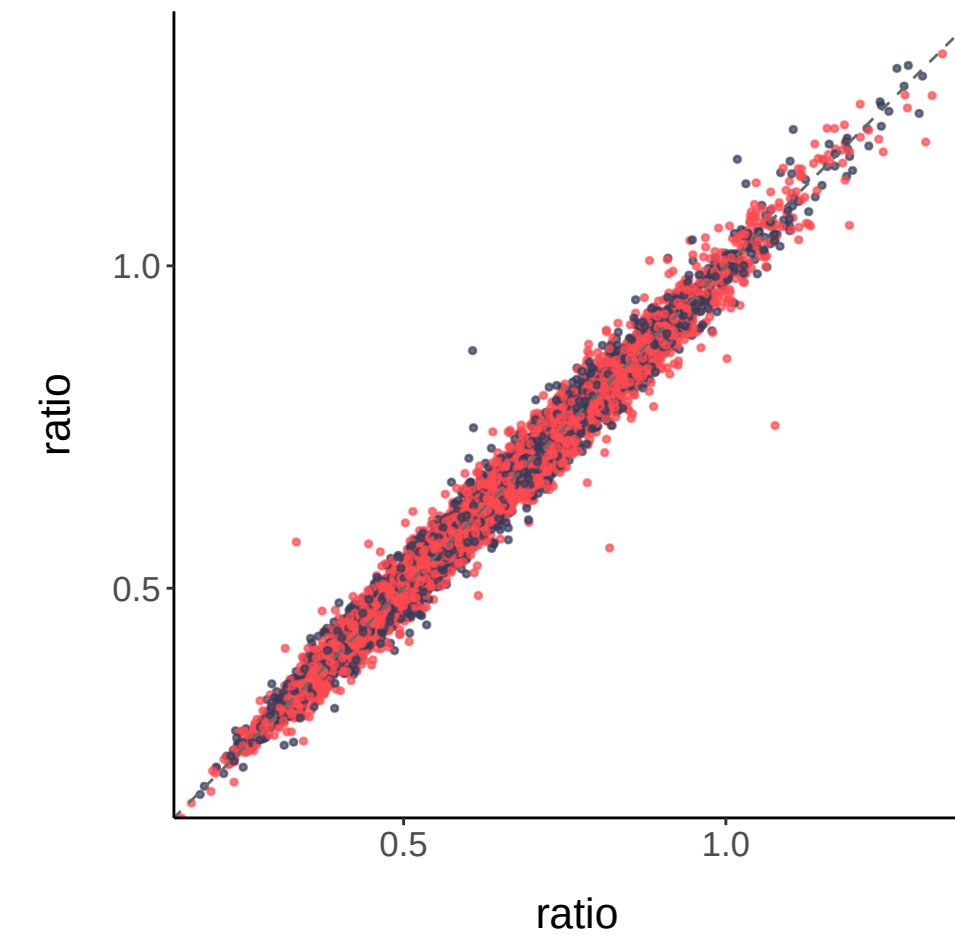


ApoB_by_ApoA1

CV: 1.9%, R^2 : 0.98

Different spectrometers

● FALSE ● TRUE



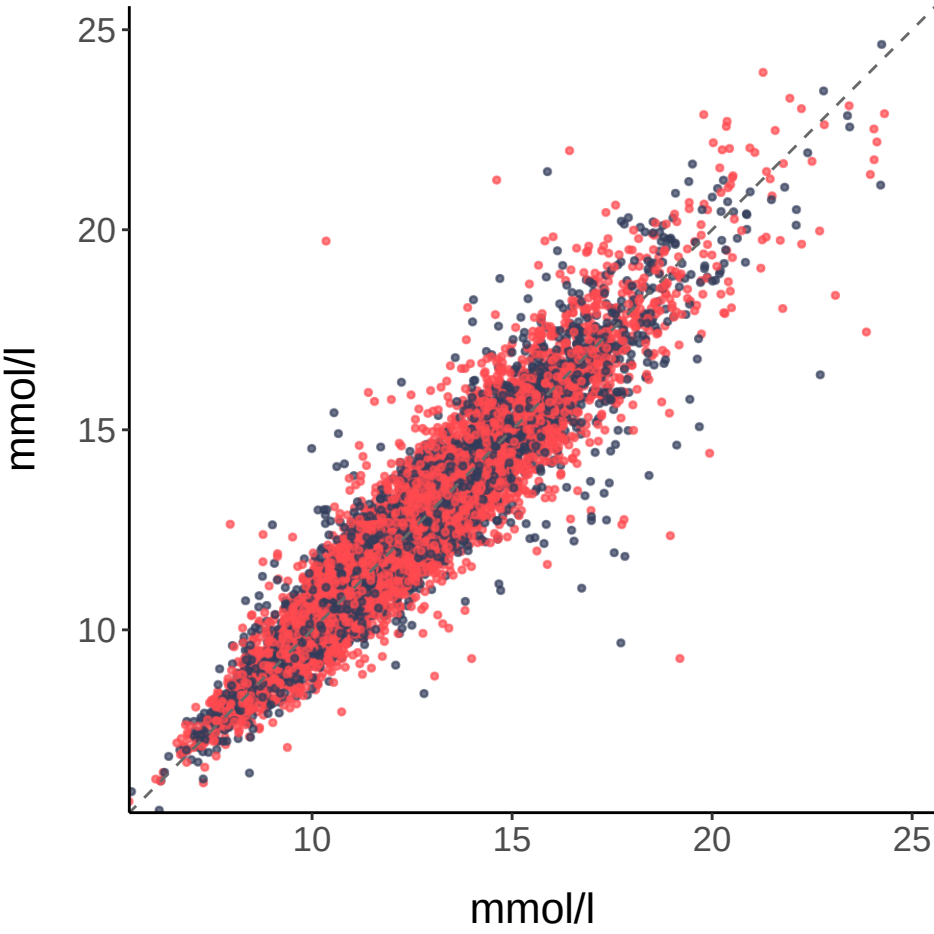
Fatty acids

Total_FA

CV: 3.25%, R²: 0.89

Different spectrometers

● FALSE ● TRUE

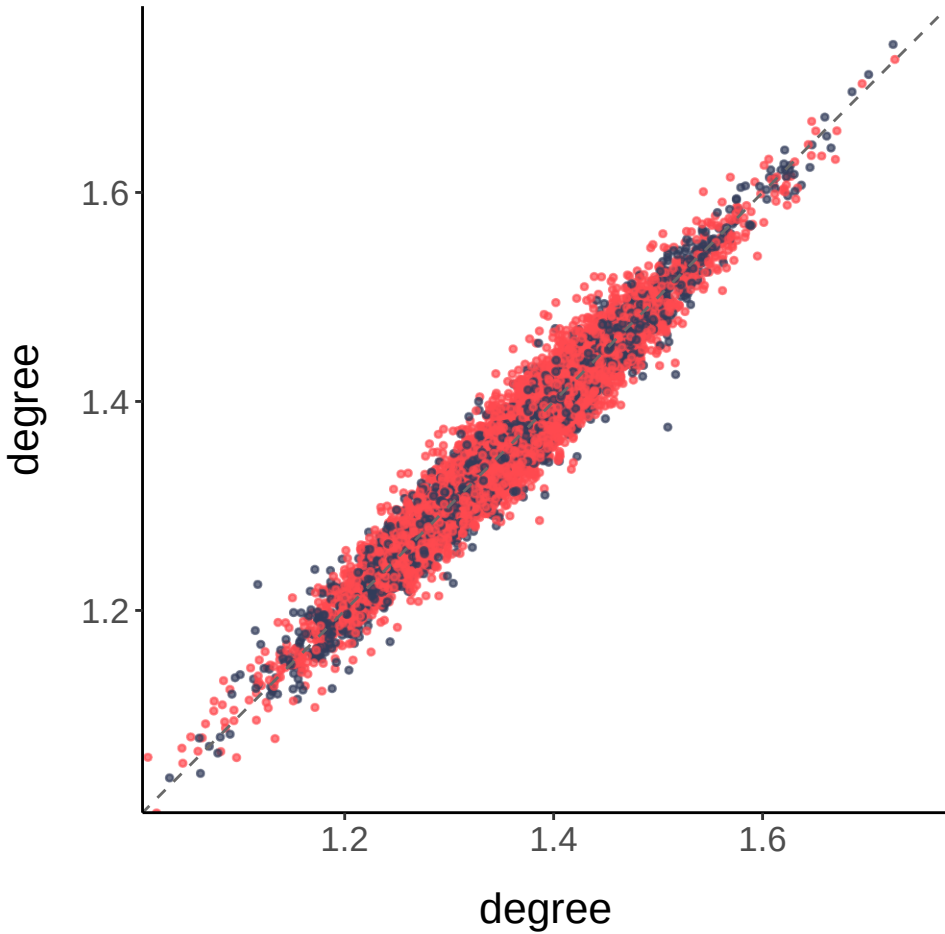


Unsaturation

CV: 0.77%, R²: 0.94

Different spectrometers

● FALSE ● TRUE

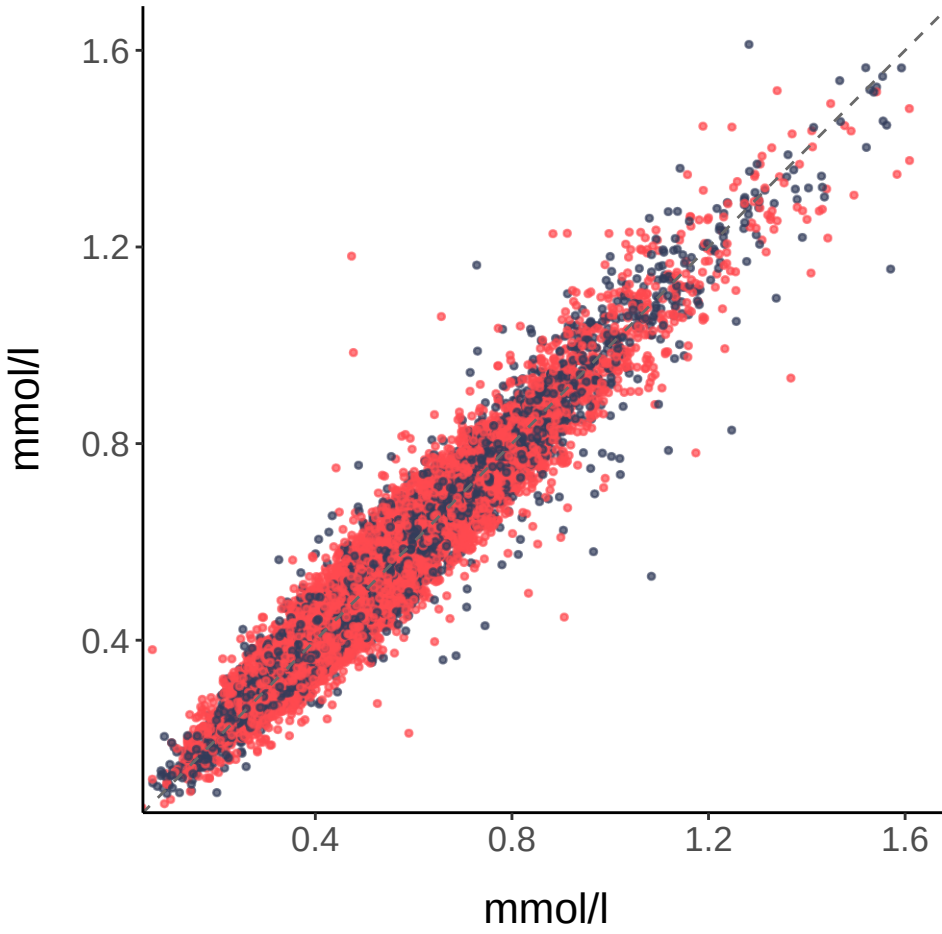


Omega_3

CV: 5.92%, R²: 0.93

Different spectrometers

● FALSE ● TRUE

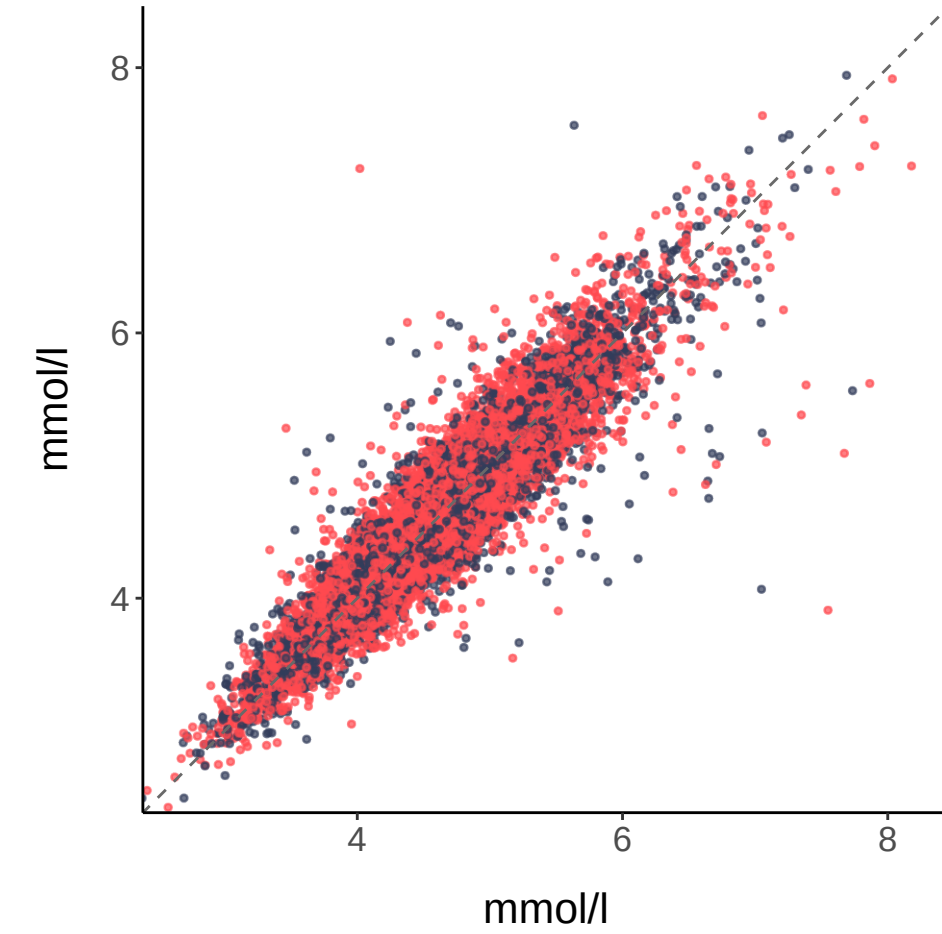


Omega_6

CV: 2.84%, R²: 0.86

Different spectrometers

● FALSE ● TRUE

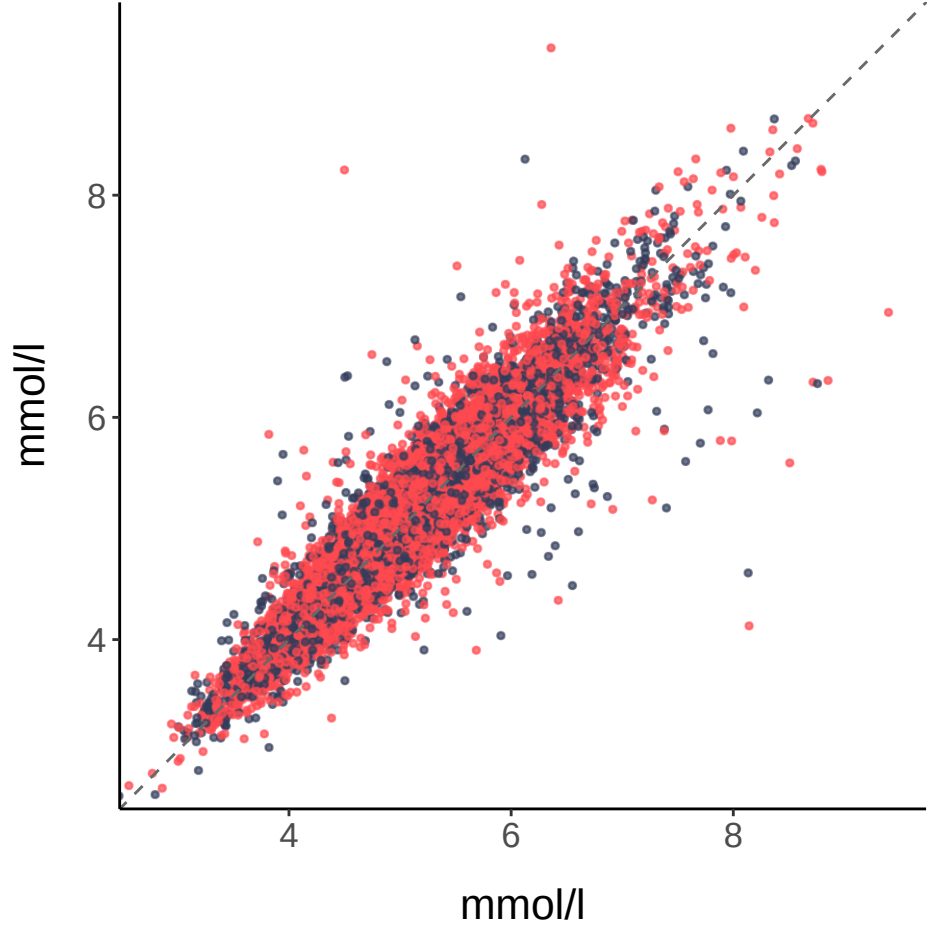


PUFA

CV: 2.94%, R²: 0.86

Different spectrometers

● FALSE ● TRUE

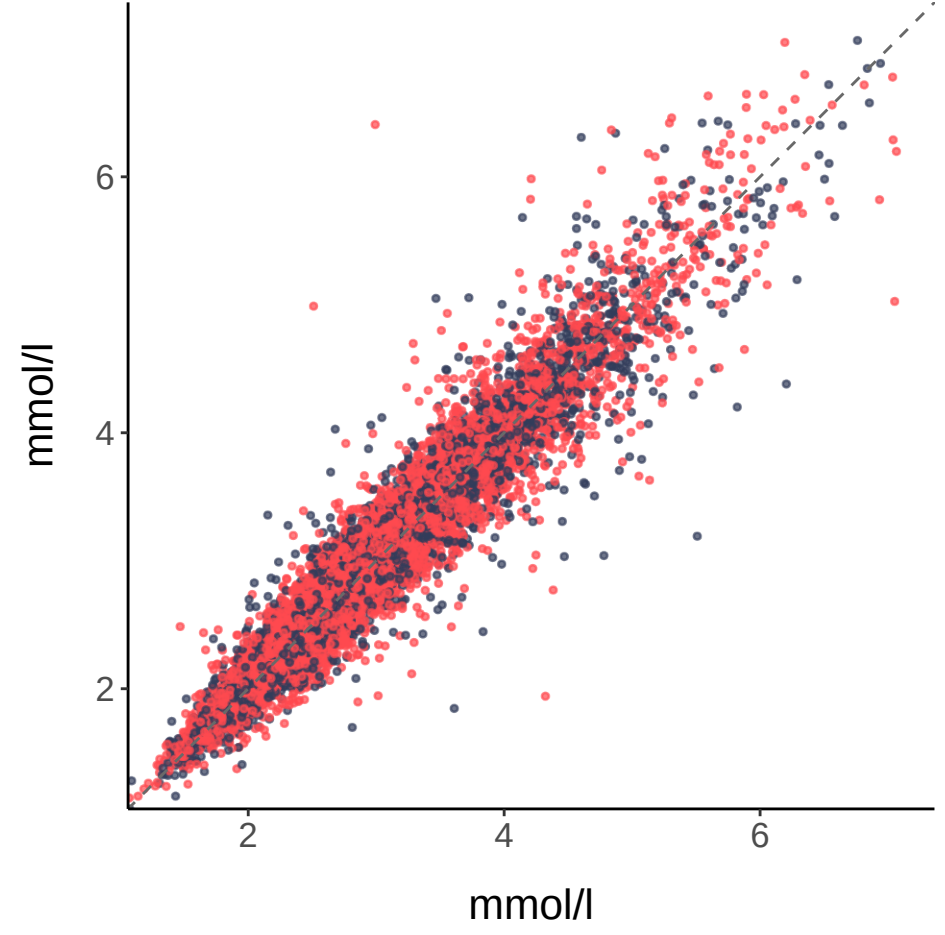


MUFA

CV: 3.98%, R²: 0.92

Different spectrometers

● FALSE ● TRUE

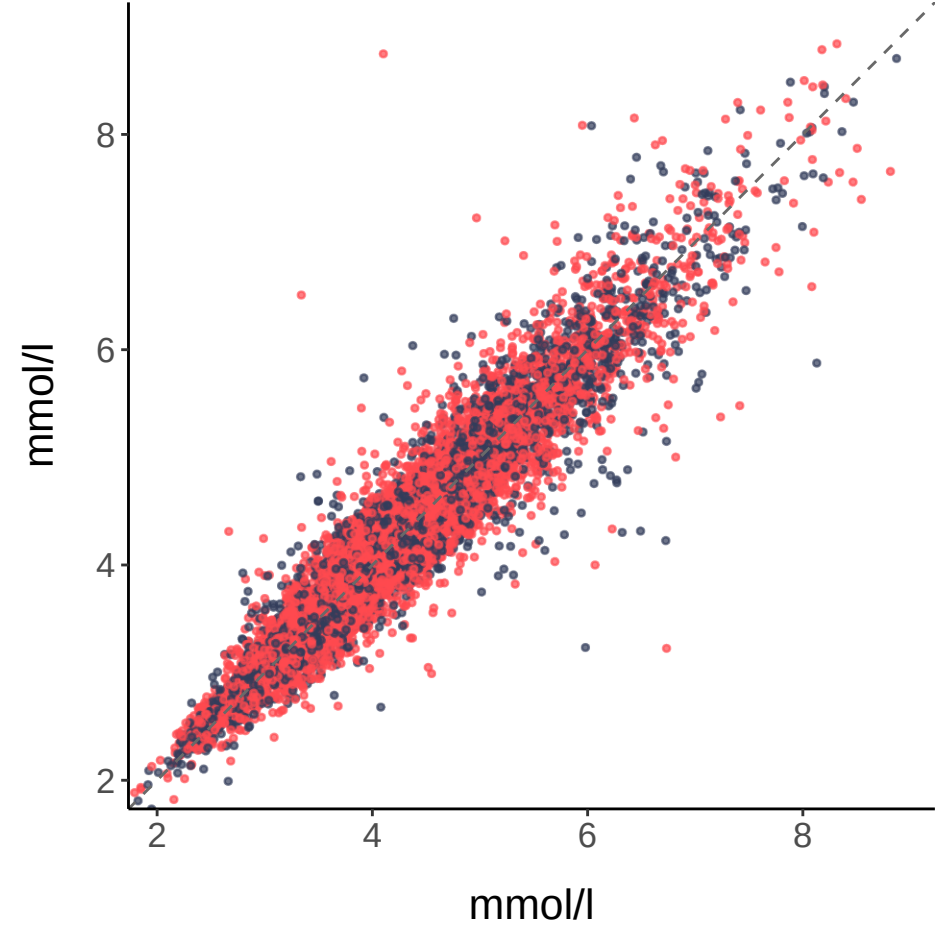


SFA

CV: 3.43%, R²: 0.91

Different spectrometers

● FALSE ● TRUE

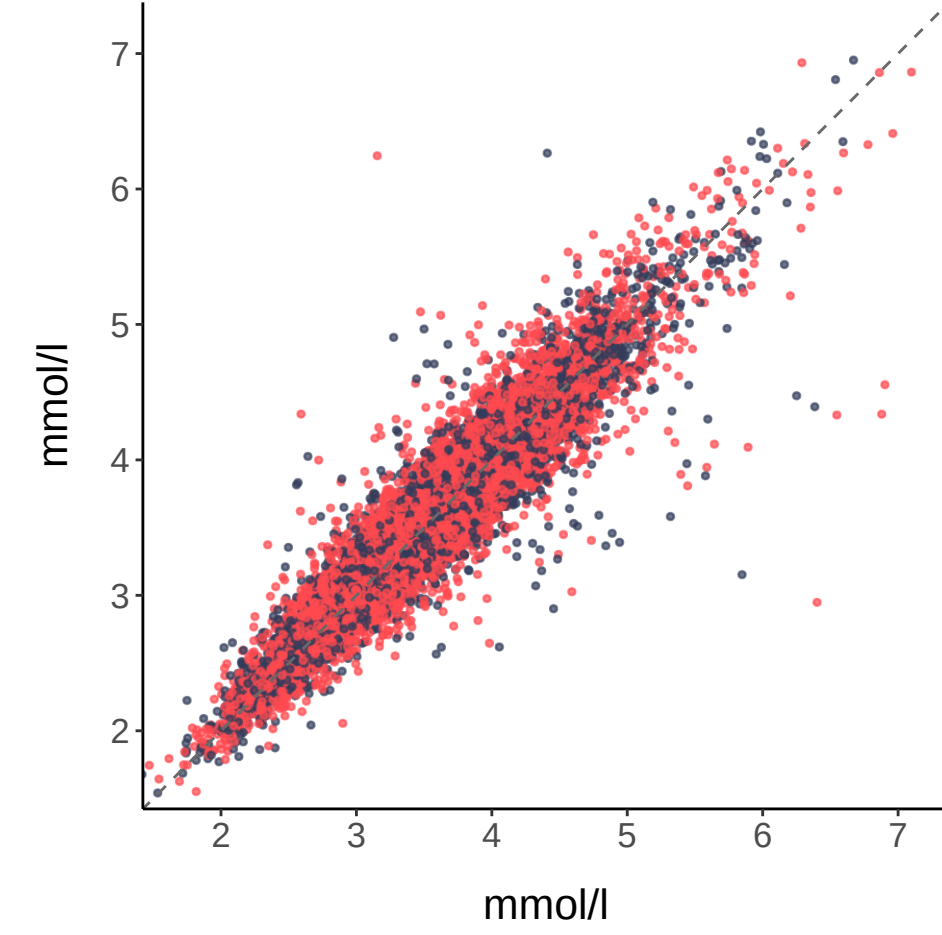


LA

CV: 3.58%, R²: 0.87

Different spectrometers

● FALSE ● TRUE

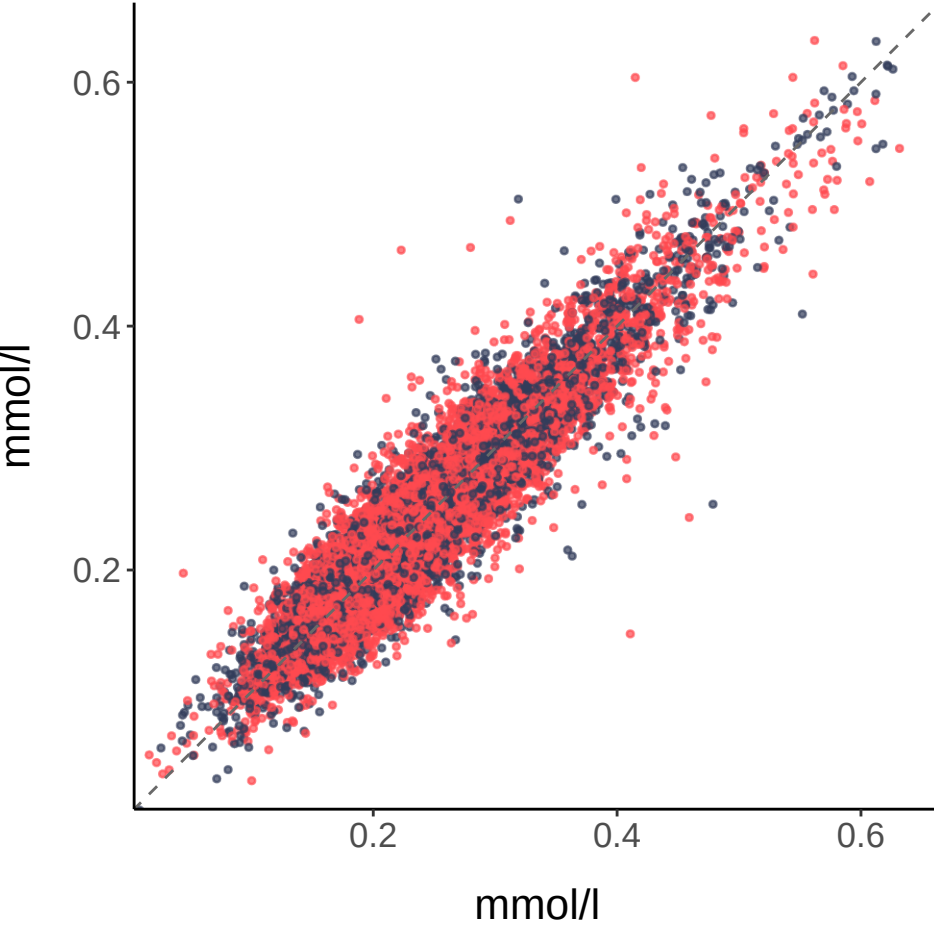


DHA

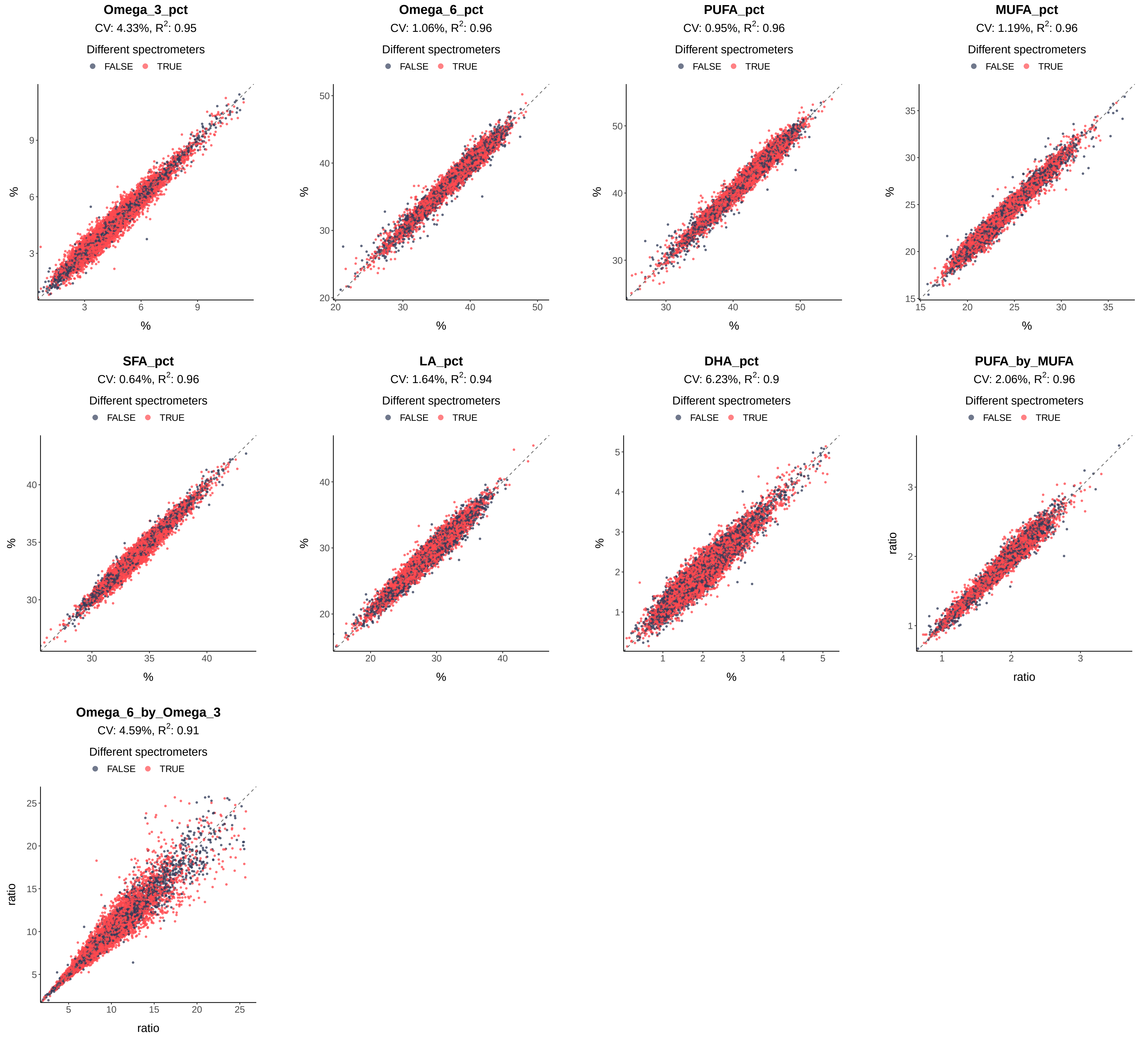
CV: 7.24%, R²: 0.87

Different spectrometers

● FALSE ● TRUE



Fatty acid ratios



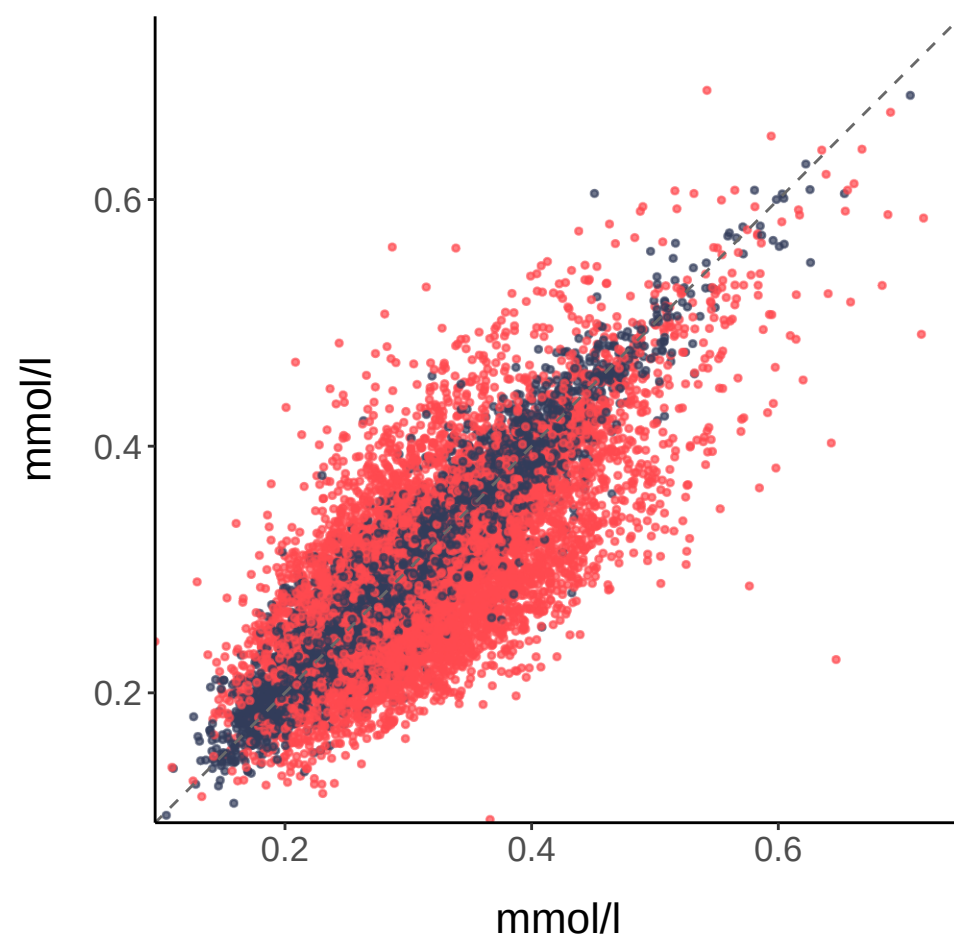
Amino acids

Ala

CV: 8.95%, R^2 : 0.62

Different spectrometers

● FALSE ● TRUE

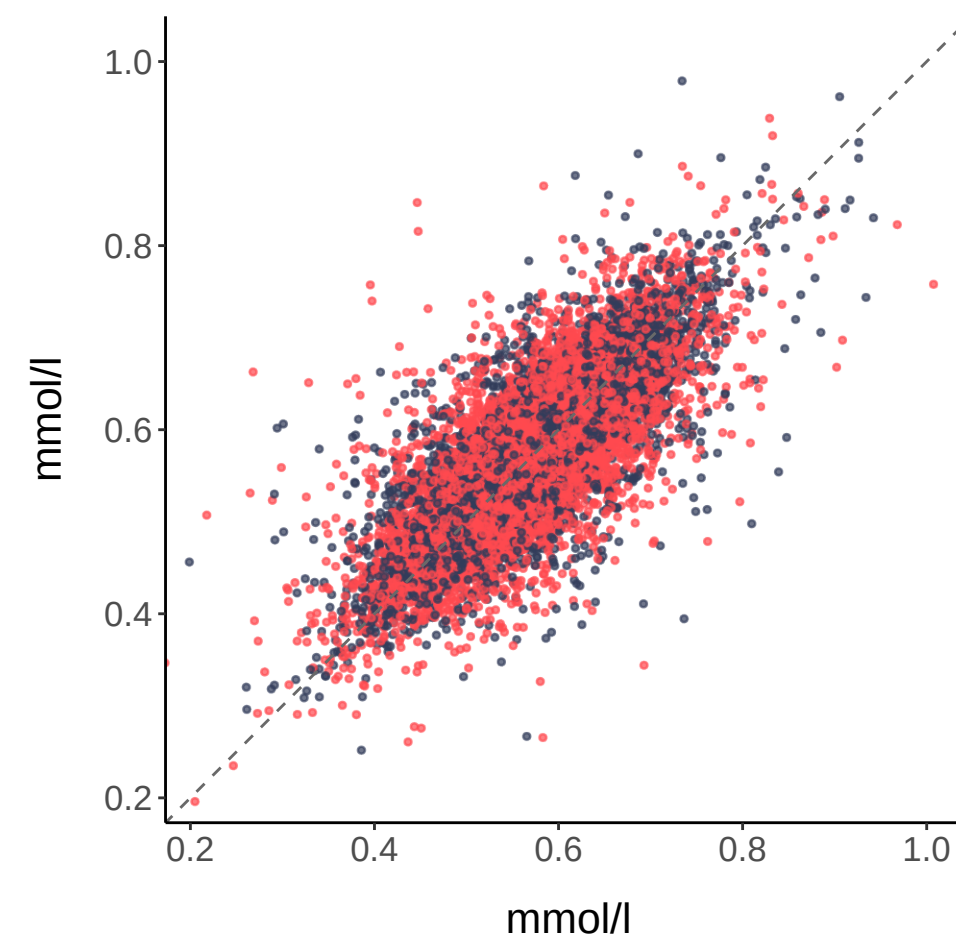


Gln

CV: 5.45%, R^2 : 0.58

Different spectrometers

● FALSE ● TRUE

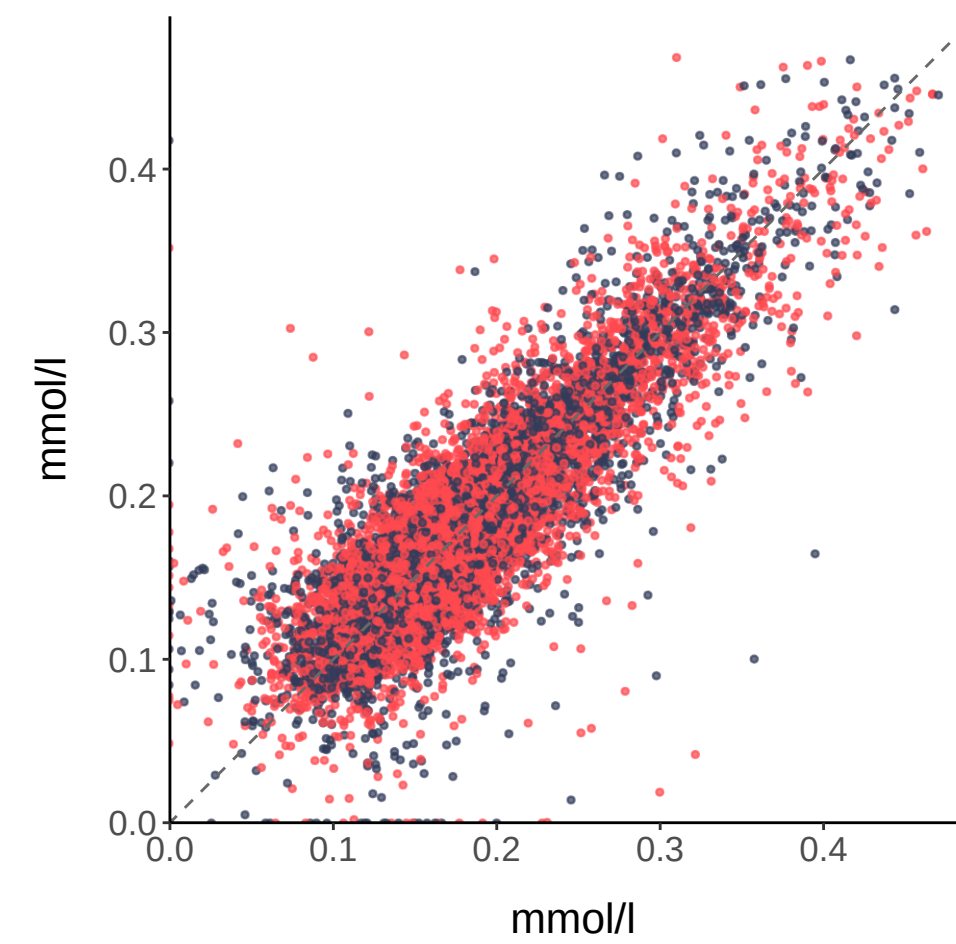


Gly

CV: 10.6%, R^2 : 0.76

Different spectrometers

● FALSE ● TRUE

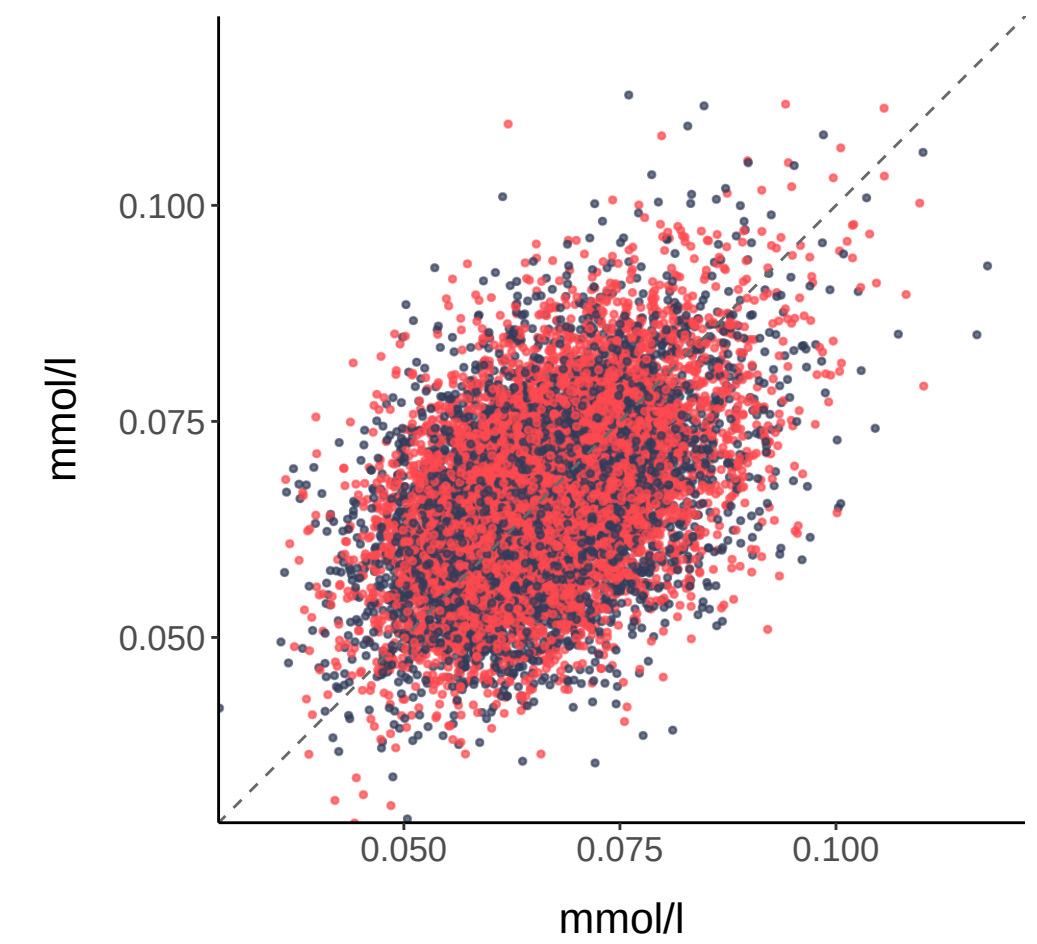


His

CV: 8.94%, R^2 : 0.21

Different spectrometers

● FALSE ● TRUE

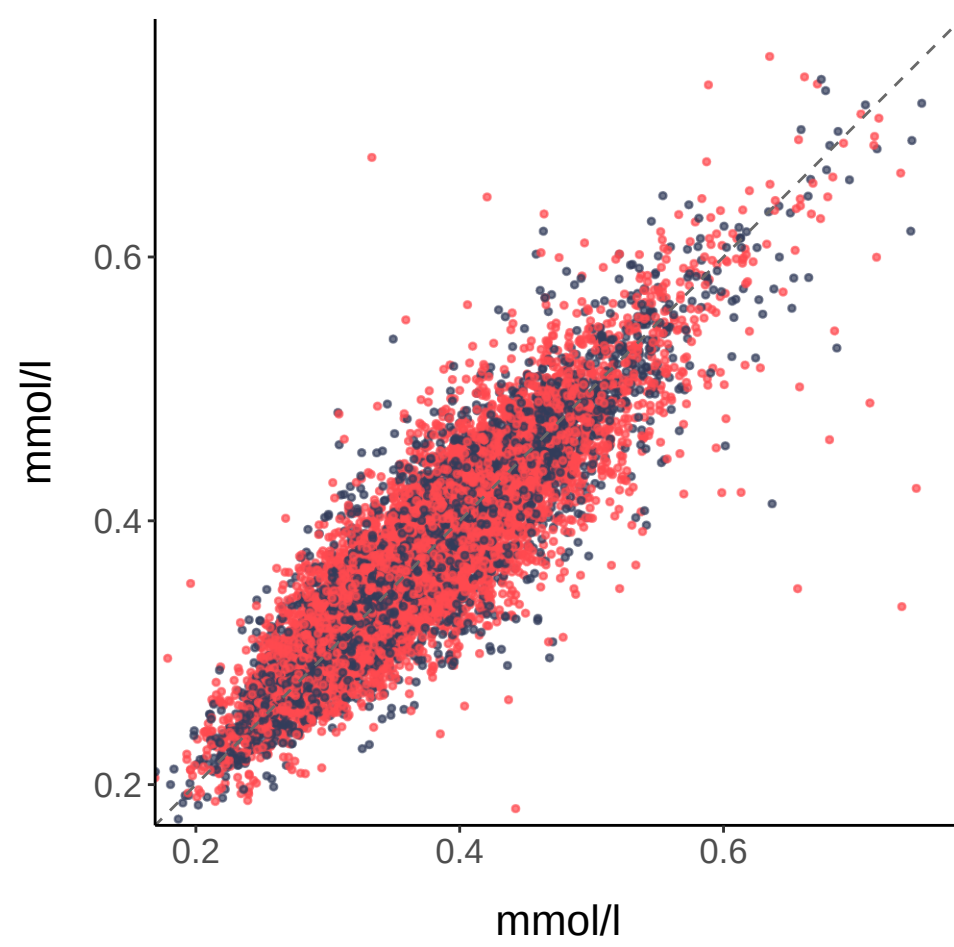


Ala_corrected

CV: 5%, R^2 : 0.79

Different spectrometers

● FALSE ● TRUE



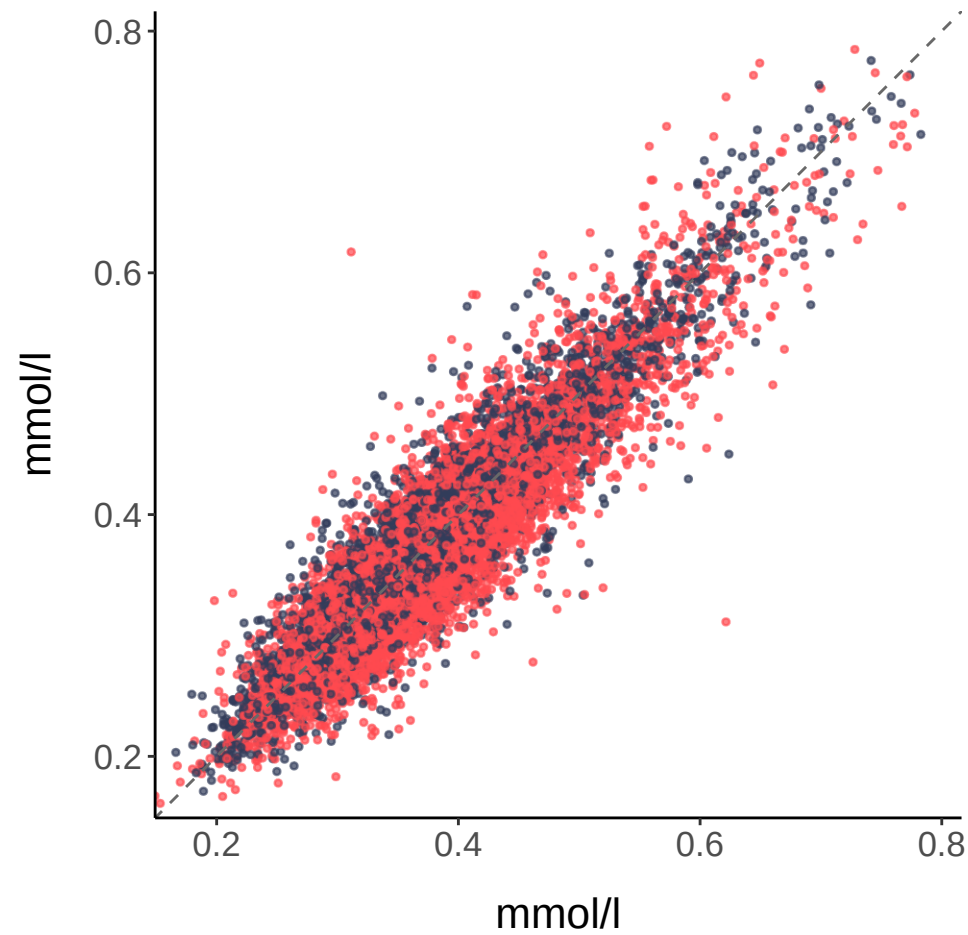
Branched-chain amino acids

Total_BCAA

CV: 4.91%, R^2 : 0.85

Different spectrometers

● FALSE ● TRUE

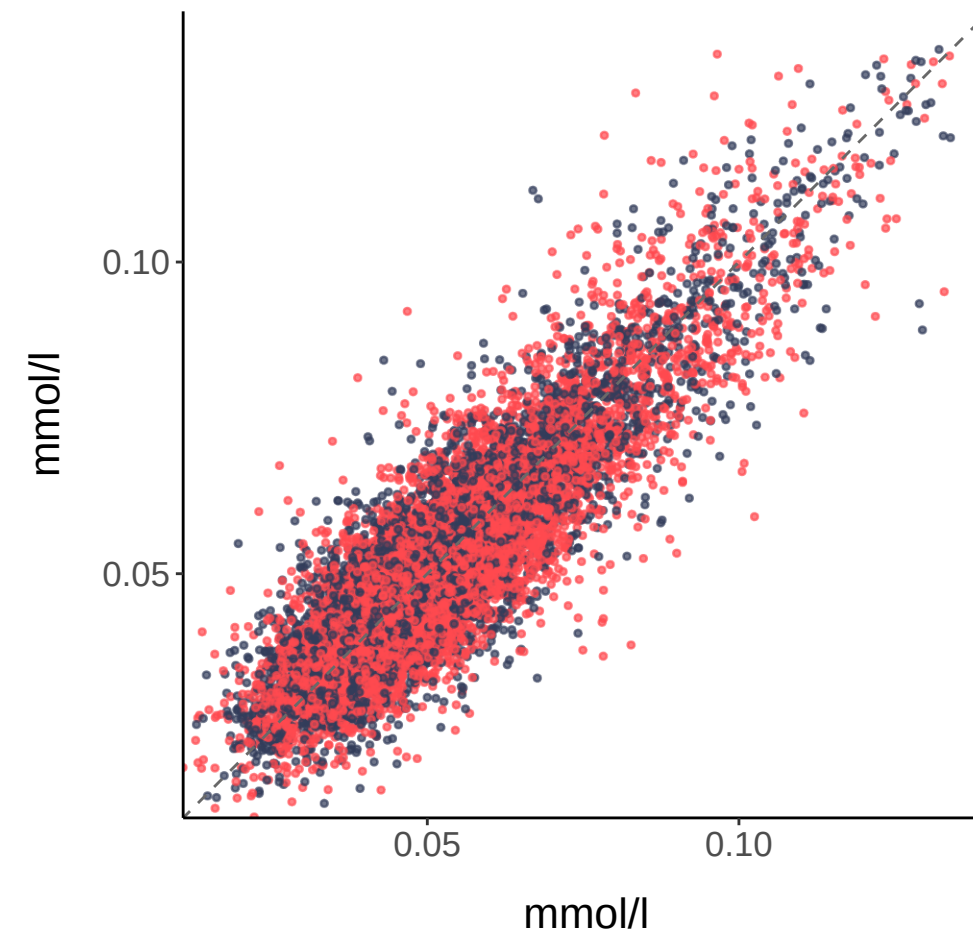


Ile

CV: 9.36%, R^2 : 0.78

Different spectrometers

● FALSE ● TRUE

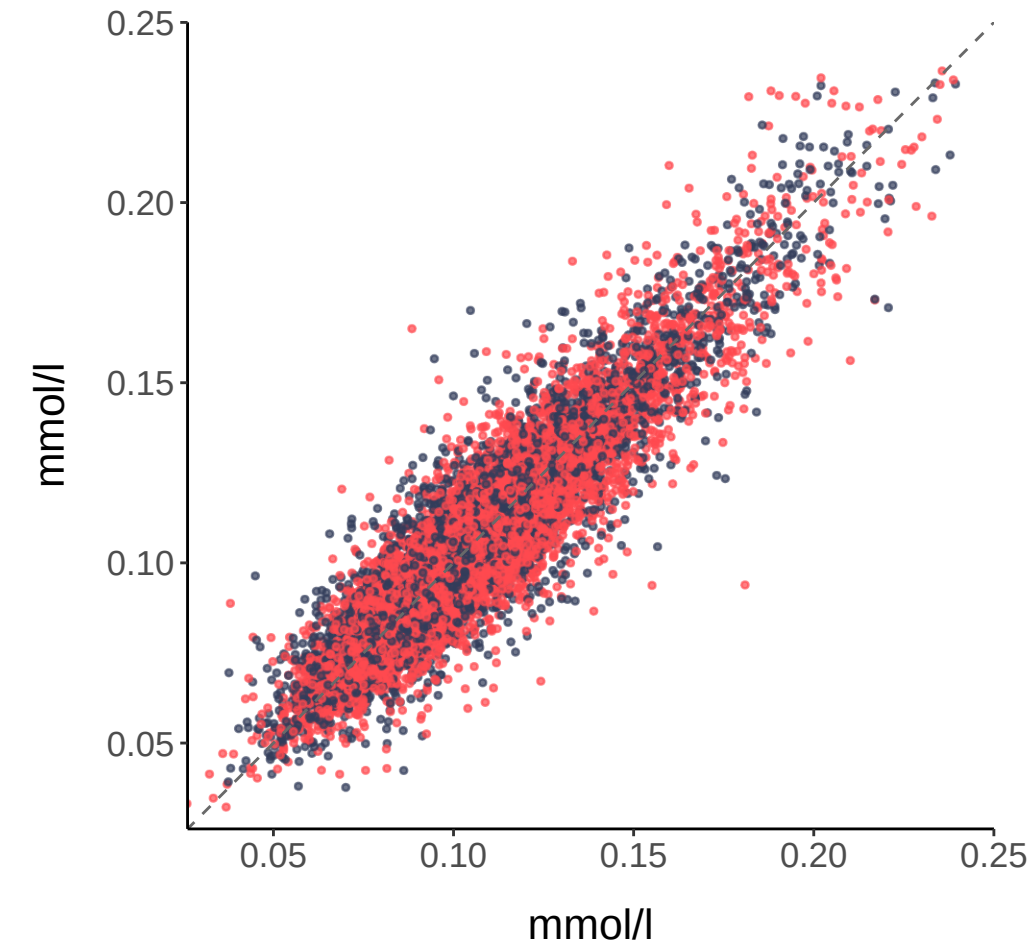


Leu

CV: 5.9%, R^2 : 0.85

Different spectrometers

● FALSE ● TRUE

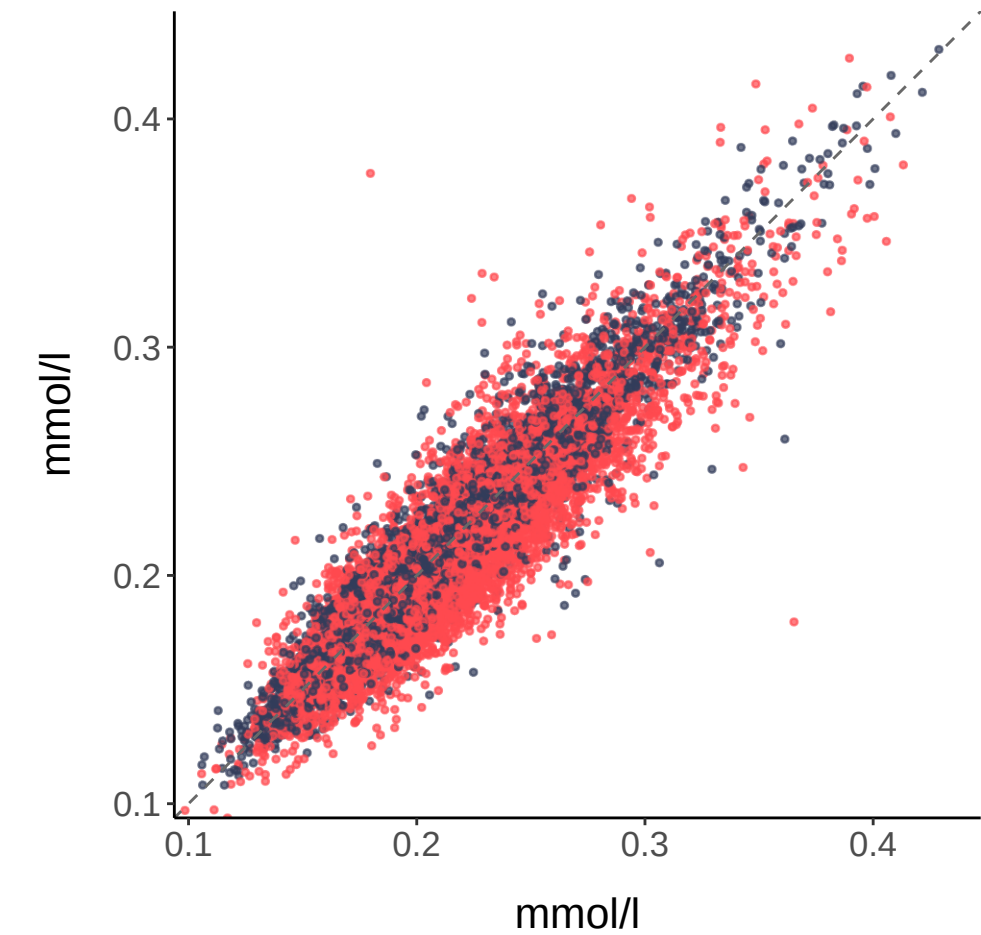


Val

CV: 4.46%, R^2 : 0.84

Different spectrometers

● FALSE ● TRUE



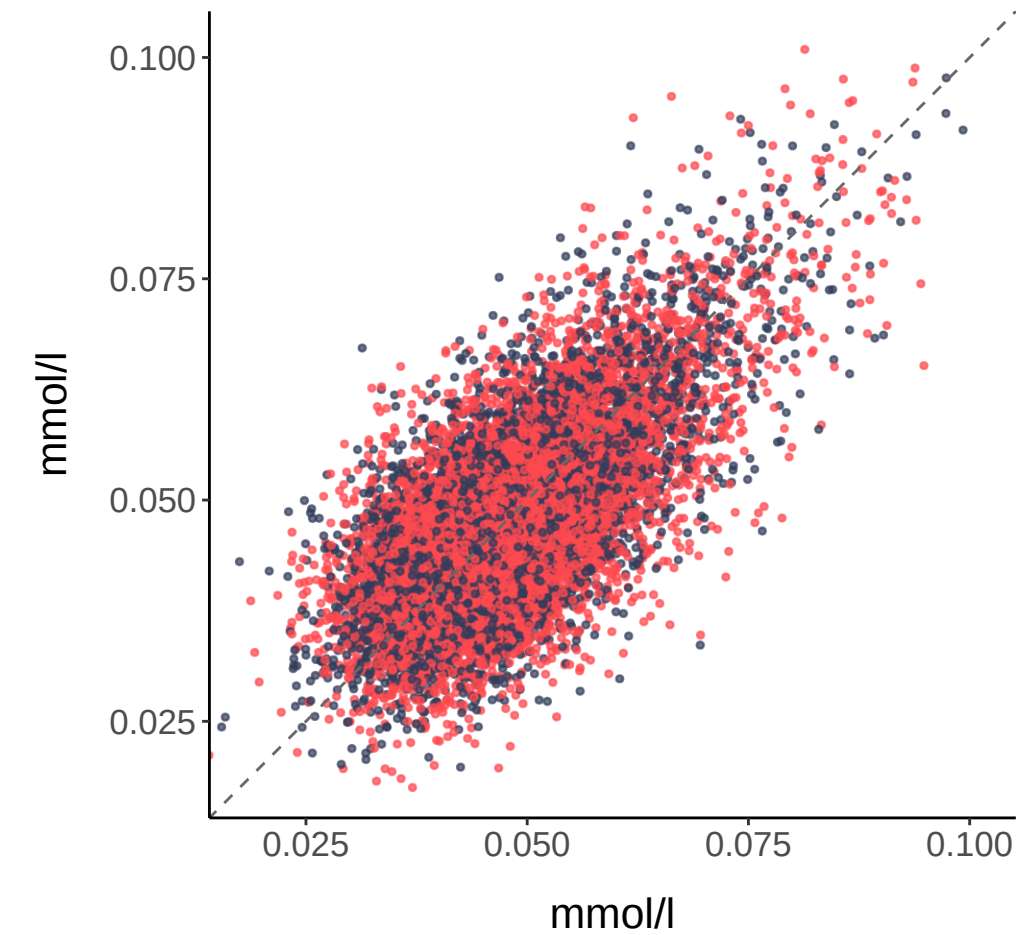
Aromatic amino acids

Phe

CV: 10.09%, R^2 : 0.47

Different spectrometers

● FALSE ● TRUE

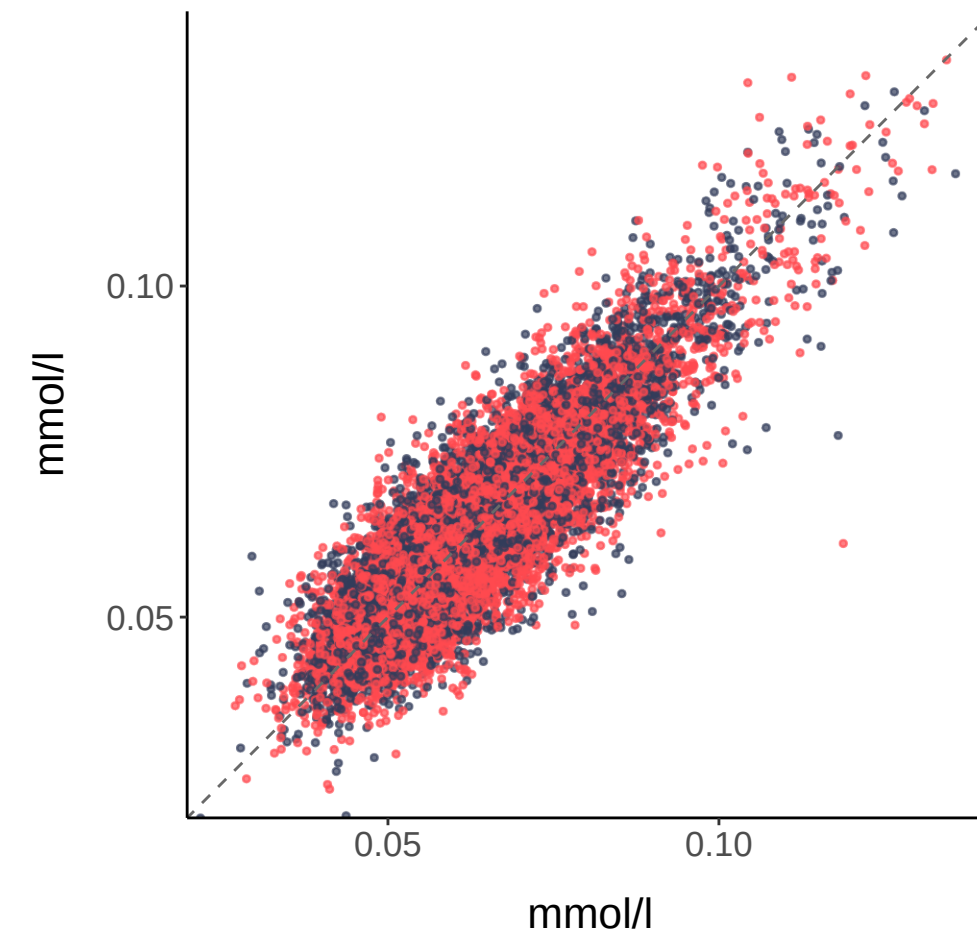


Tyr

CV: 6.59%, R^2 : 0.76

Different spectrometers

● FALSE ● TRUE



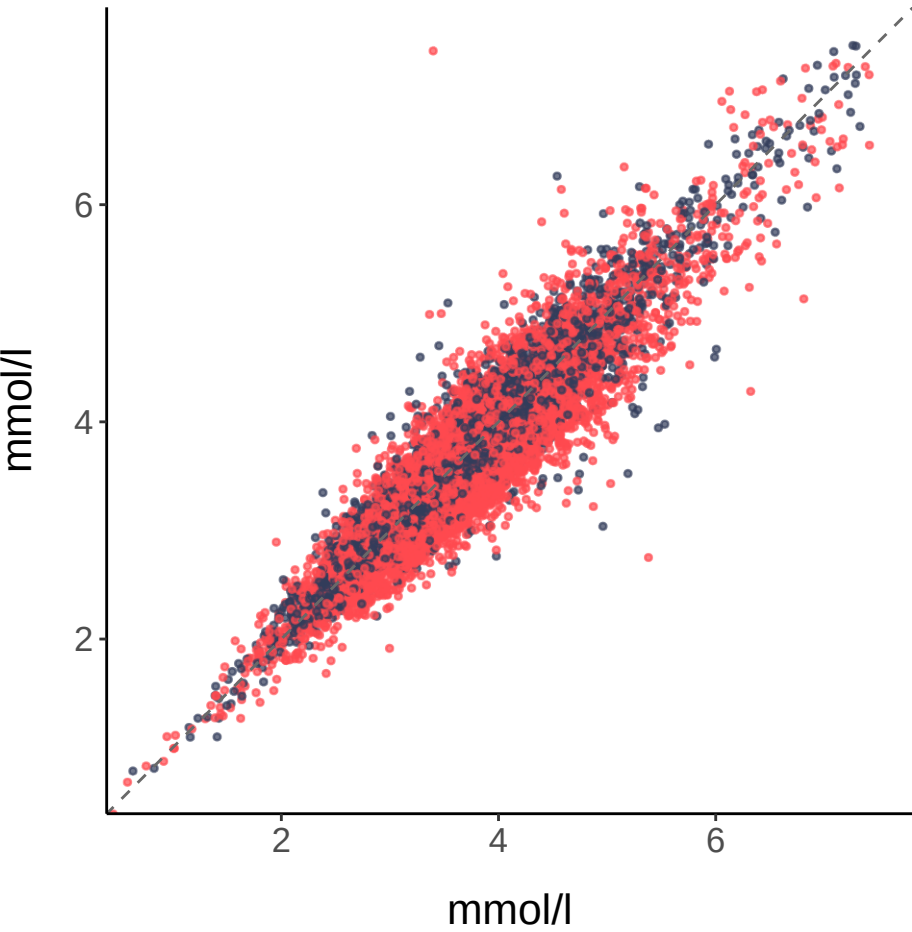
Glycolysis related metabolites

Glucose

CV: 4.38%, R²: 0.86

Different spectrometers

● FALSE ● TRUE

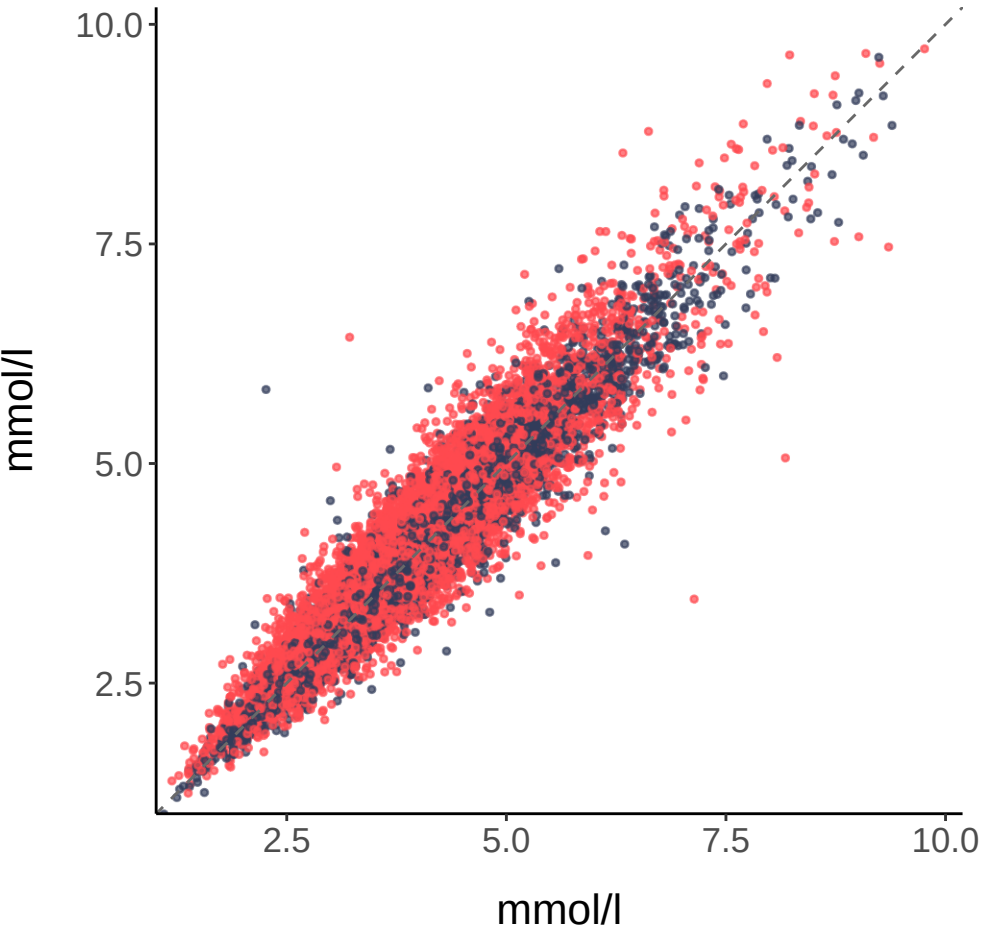


Lactate

CV: 5.2%, R²: 0.9

Different spectrometers

● FALSE ● TRUE

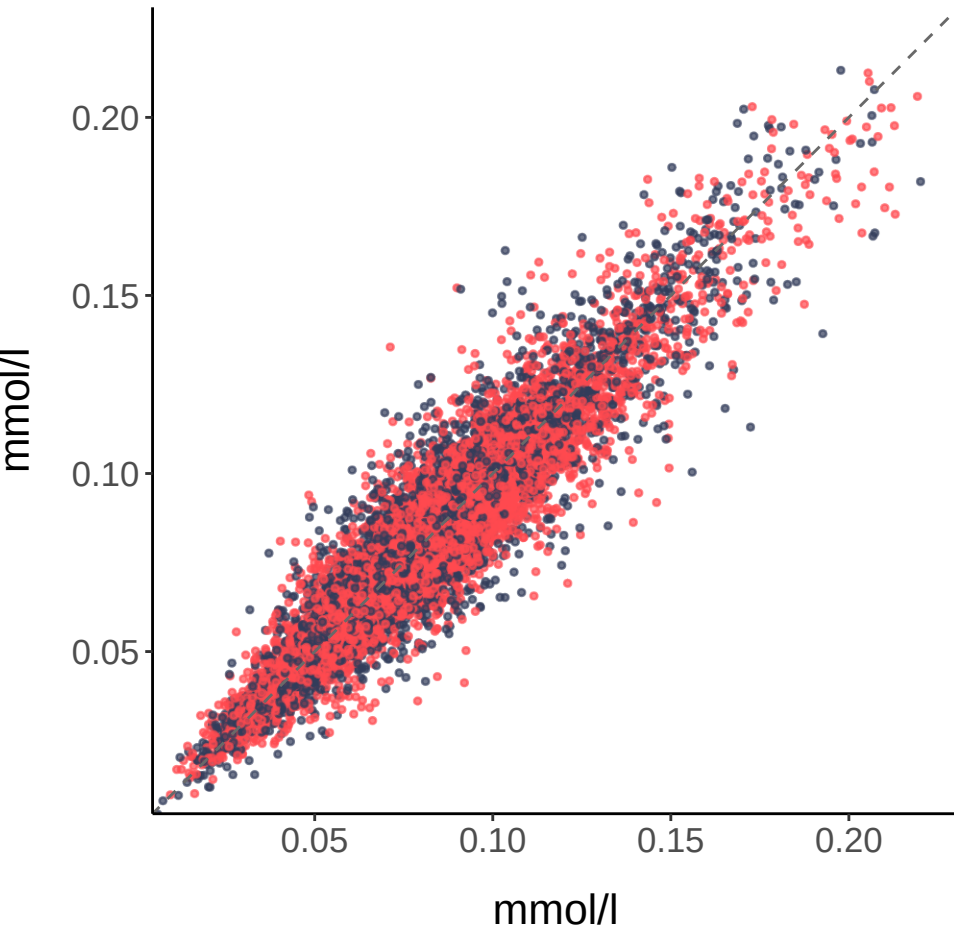


Pyruvate

CV: 6.92%, R²: 0.88

Different spectrometers

● FALSE ● TRUE

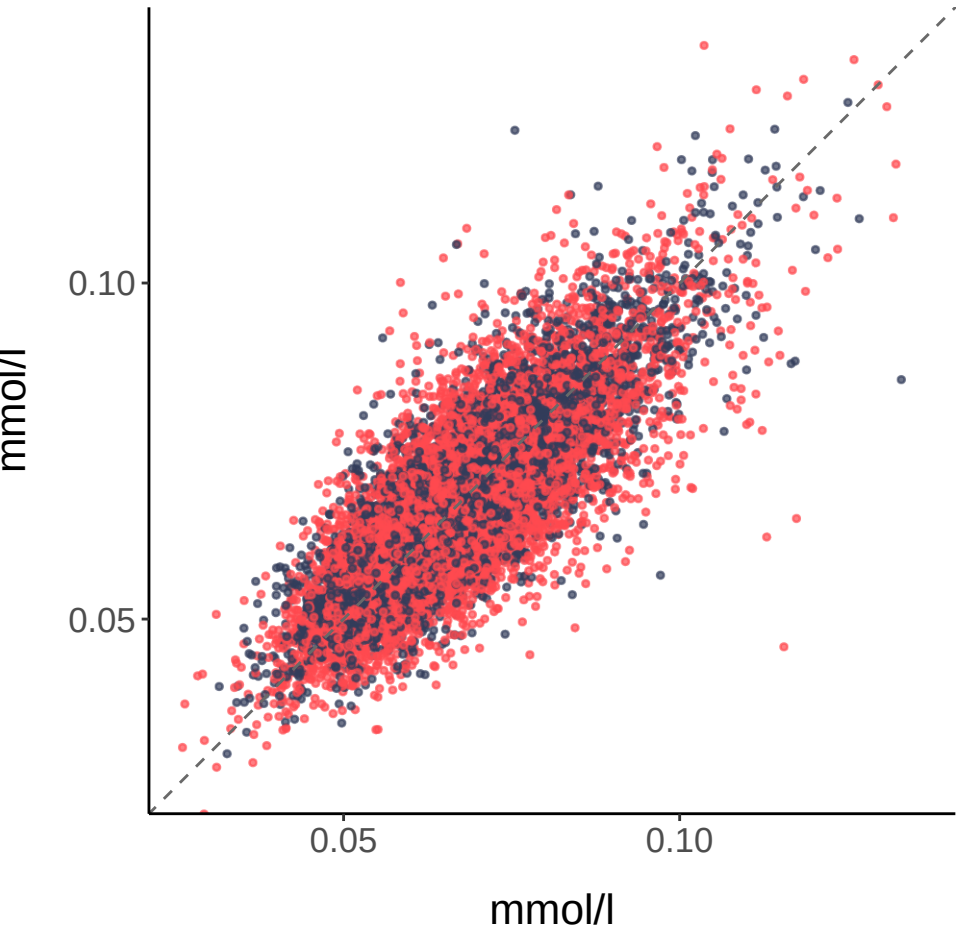


Citrate

CV: 6.75%, R²: 0.64

Different spectrometers

● FALSE ● TRUE

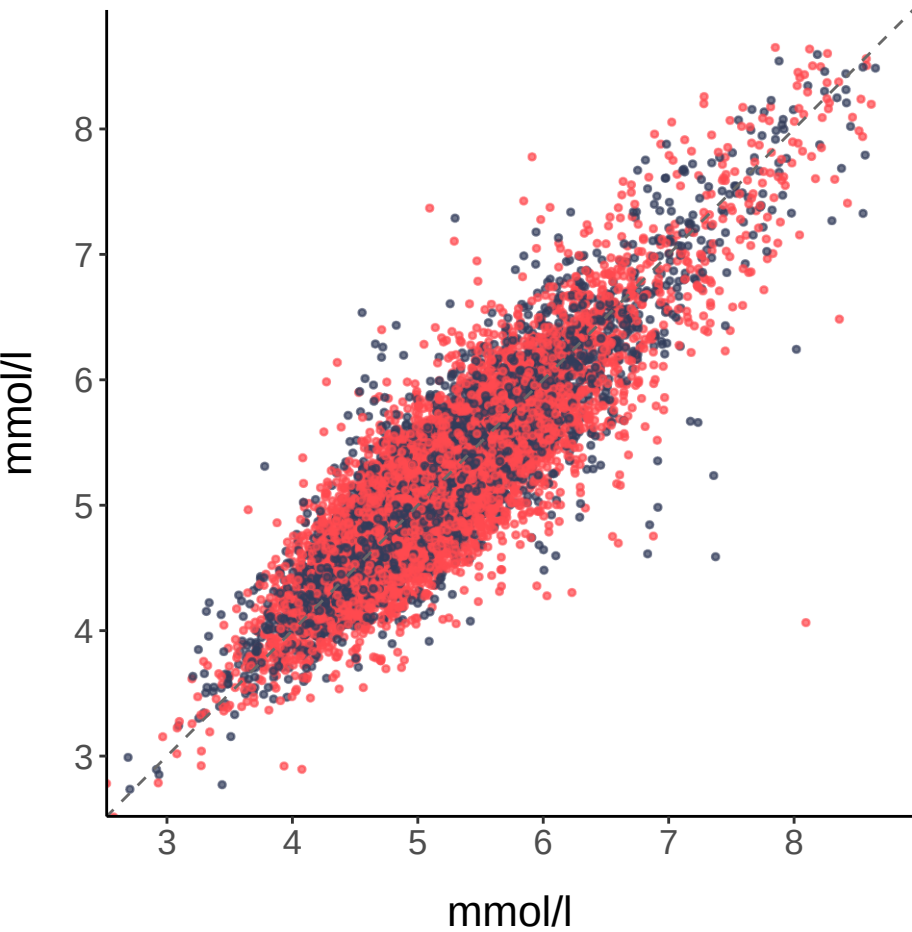


Glucose_Lactate

CV: 3.74%, R²: 0.77

Different spectrometers

● FALSE ● TRUE



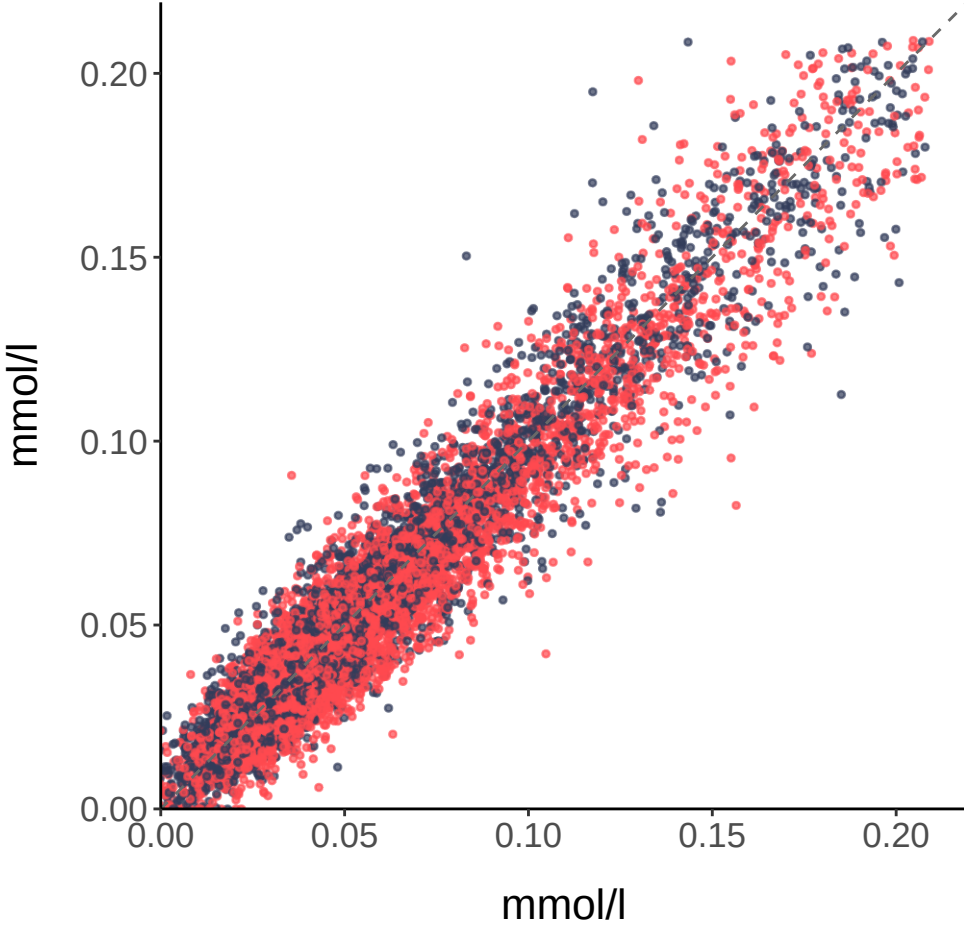
Ketone bodies

bOHbutyrate

CV: 12.77%, R^2 : 0.92

Different spectrometers

● FALSE ● TRUE

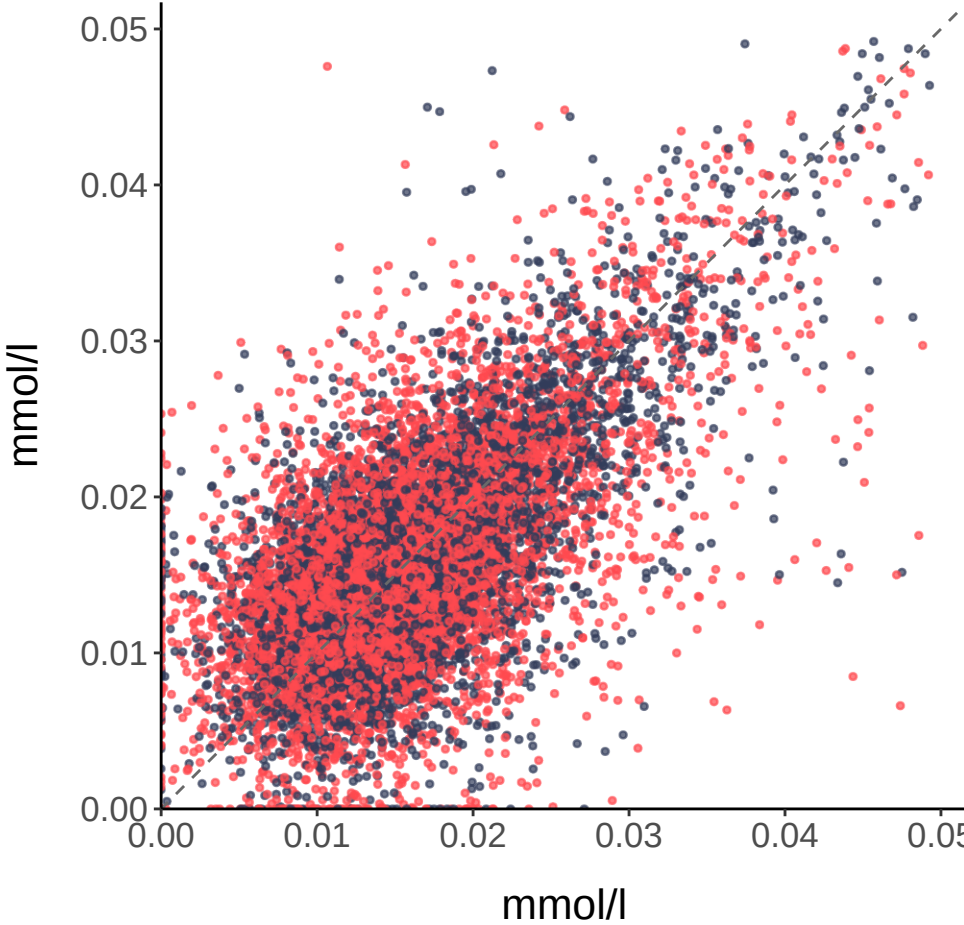


Acetate

CV: 24.06%, R^2 : 0.41

Different spectrometers

● FALSE ● TRUE

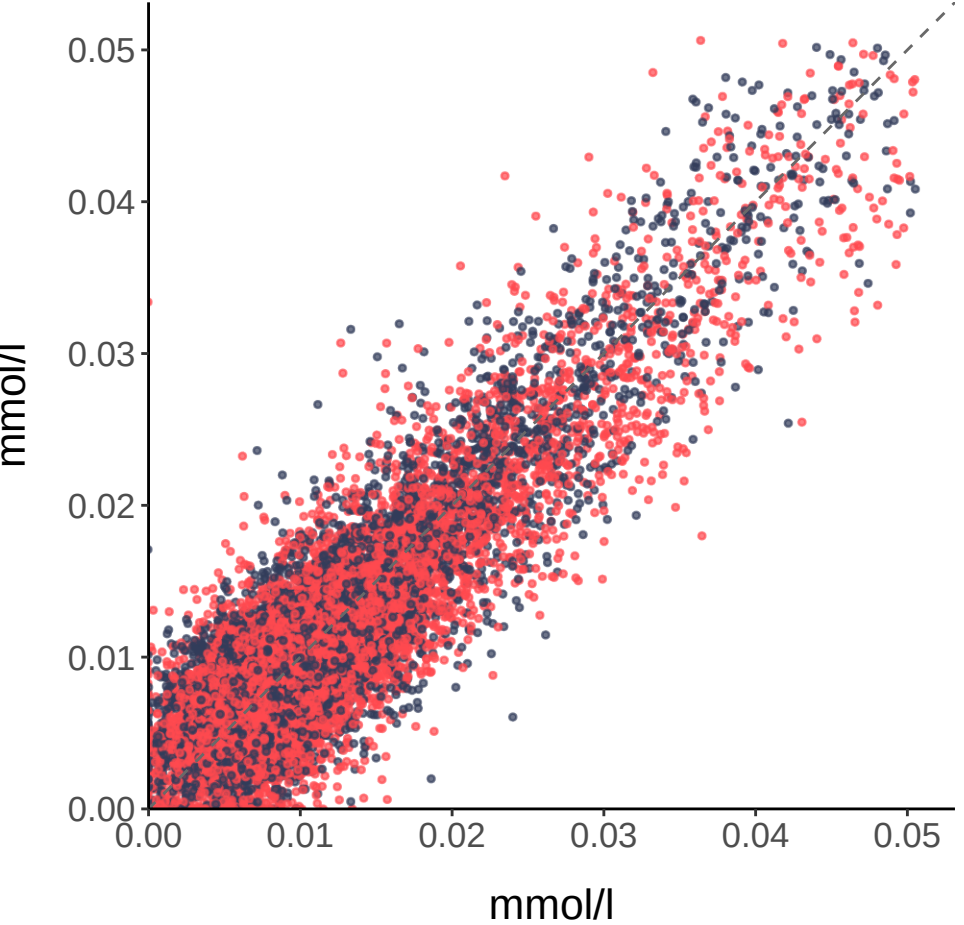


Acetoacetate

CV: 25.71%, R^2 : 0.81

Different spectrometers

● FALSE ● TRUE

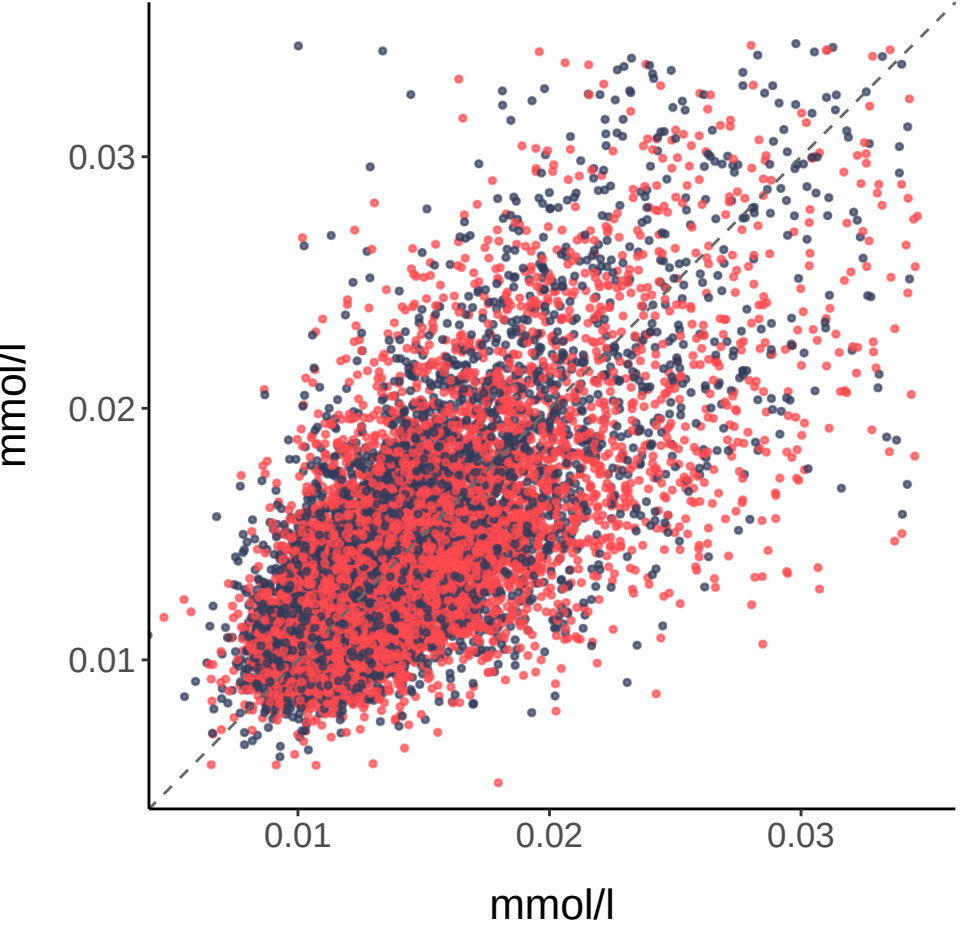


Acetone

CV: 12.34%, R^2 : 0.47

Different spectrometers

● FALSE ● TRUE



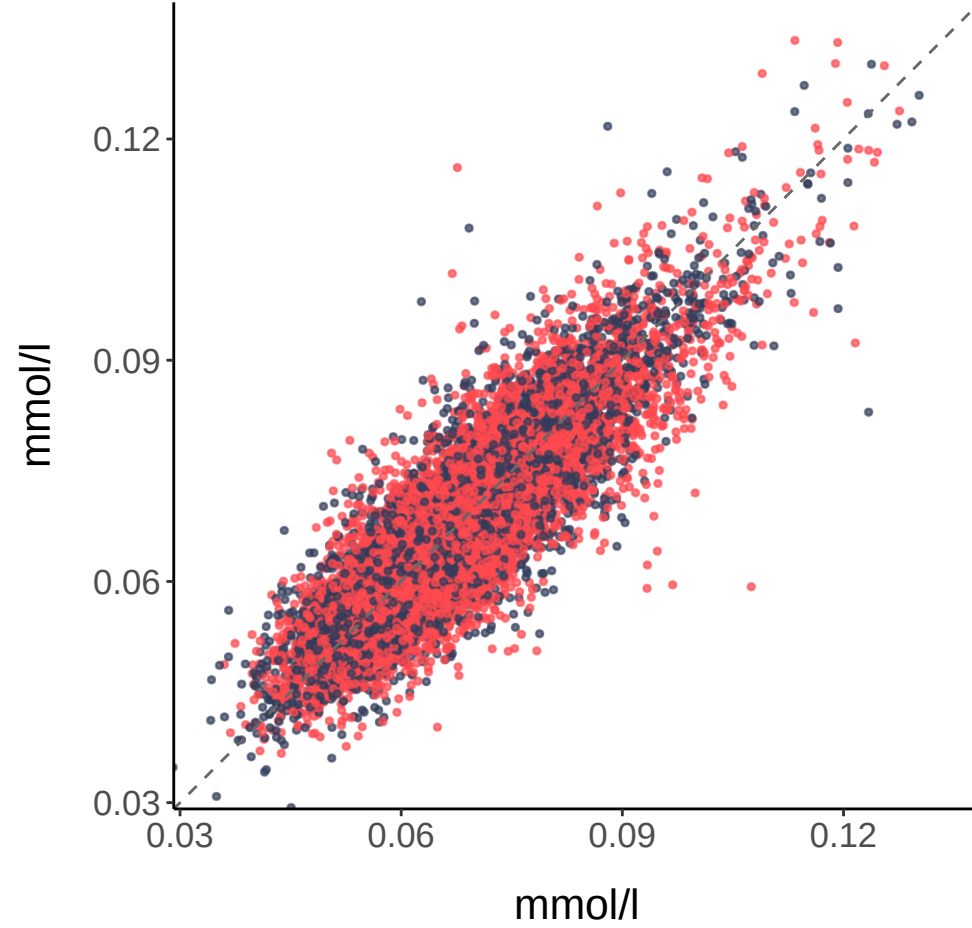
Fluid balance

Creatinine

CV: 5.37%, R^2 : 0.76

Different spectrometers

● FALSE ● TRUE

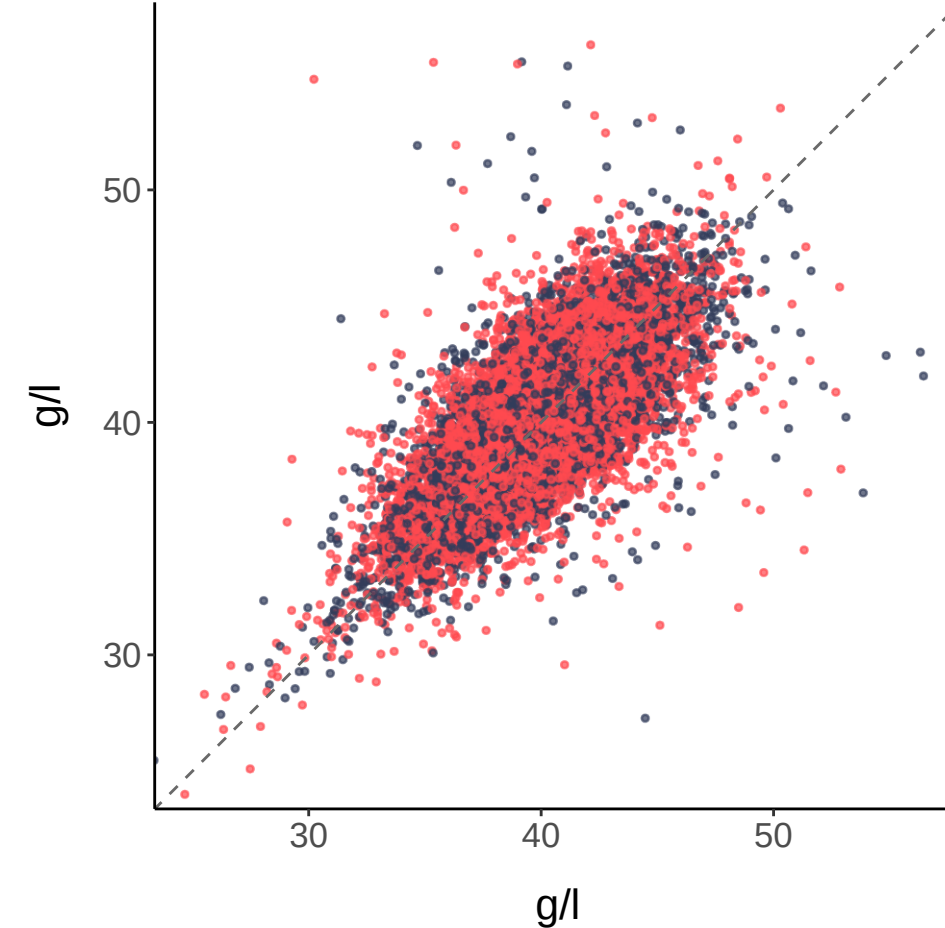


Albumin

CV: 3.22%, R^2 : 0.51

Different spectrometers

● FALSE ● TRUE



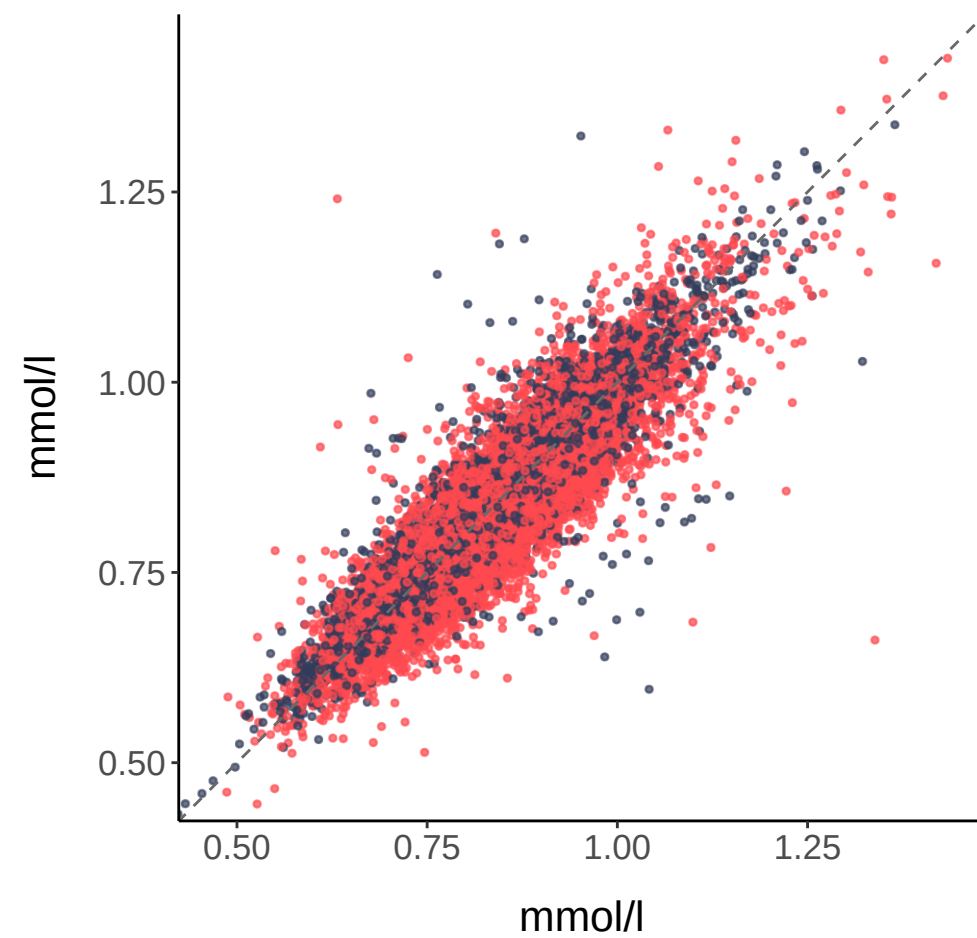
Inflammation

GlycA

CV: 3.37%, R^2 : 0.81

Different spectrometers

● FALSE ● TRUE



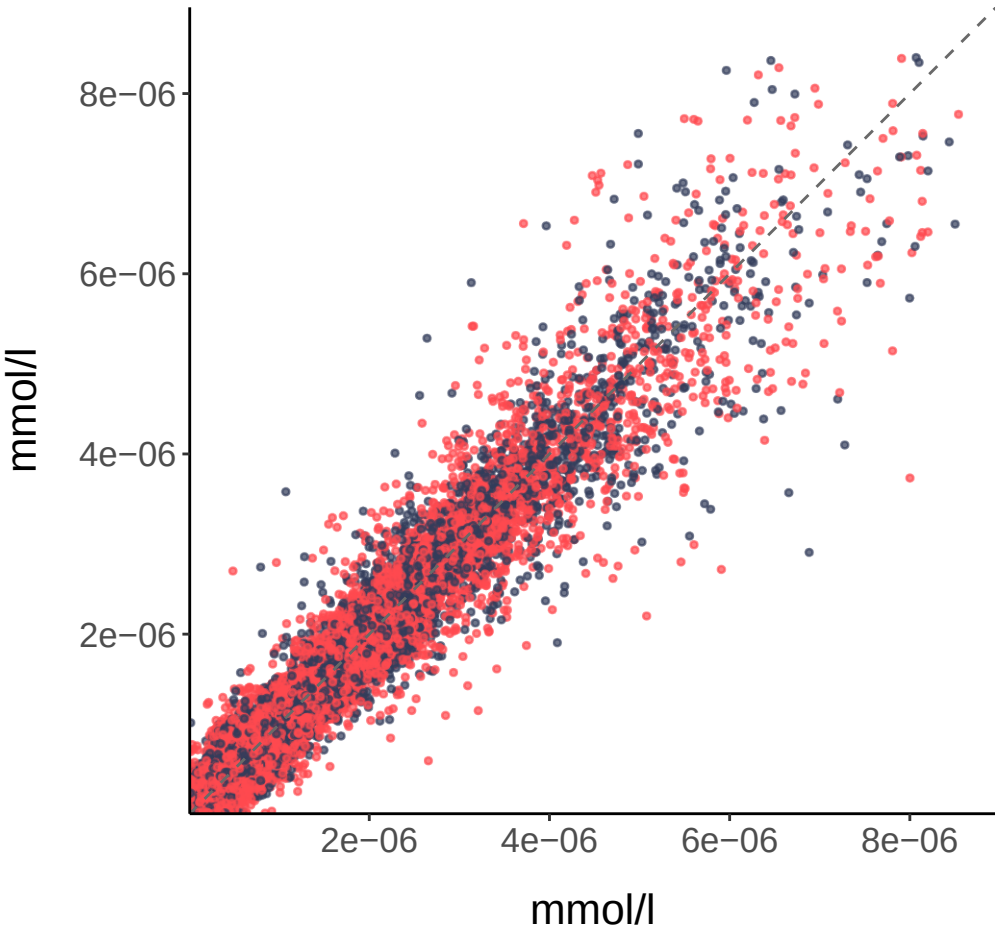
Chylomicrons and extremely large VLDL (particle diameters from 75 nm upwards)

XXL_VLDL_P

CV: 16.15%, R²: 0.93

Different spectrometers

● FALSE ● TRUE

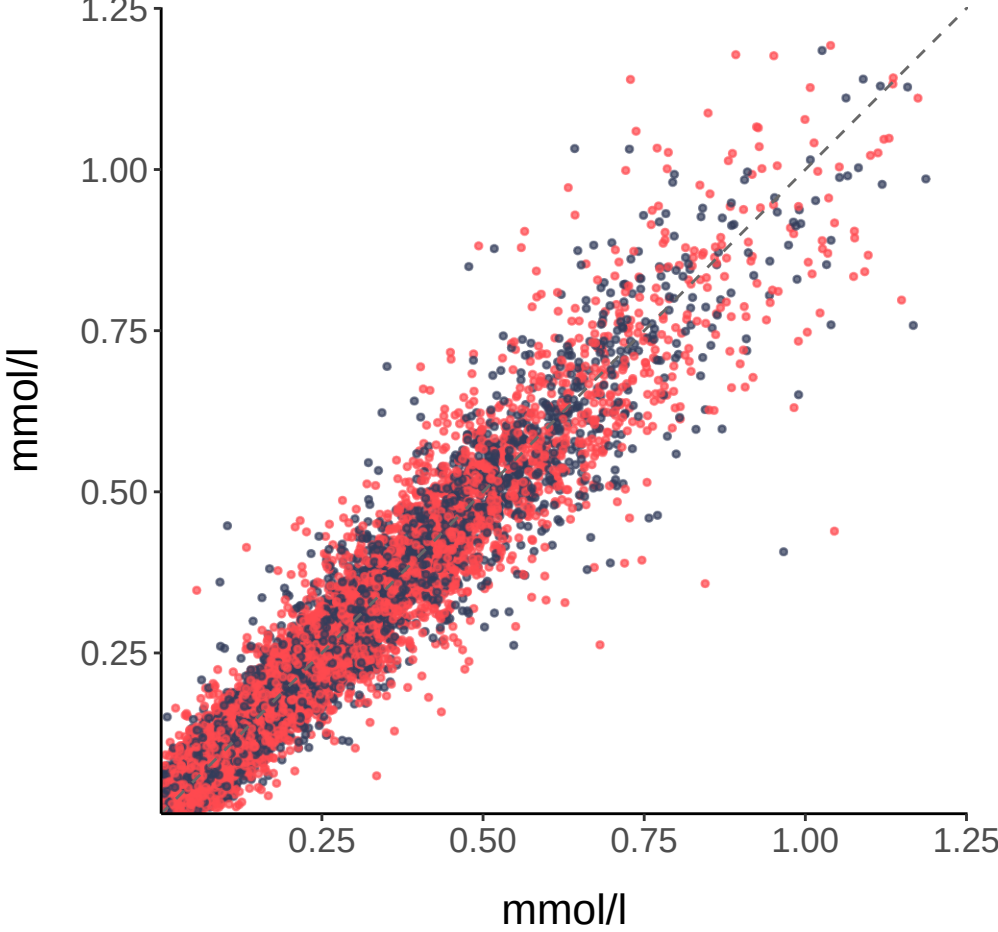


XXL_VLDL_L

CV: 16.82%, R²: 0.93

Different spectrometers

● FALSE ● TRUE

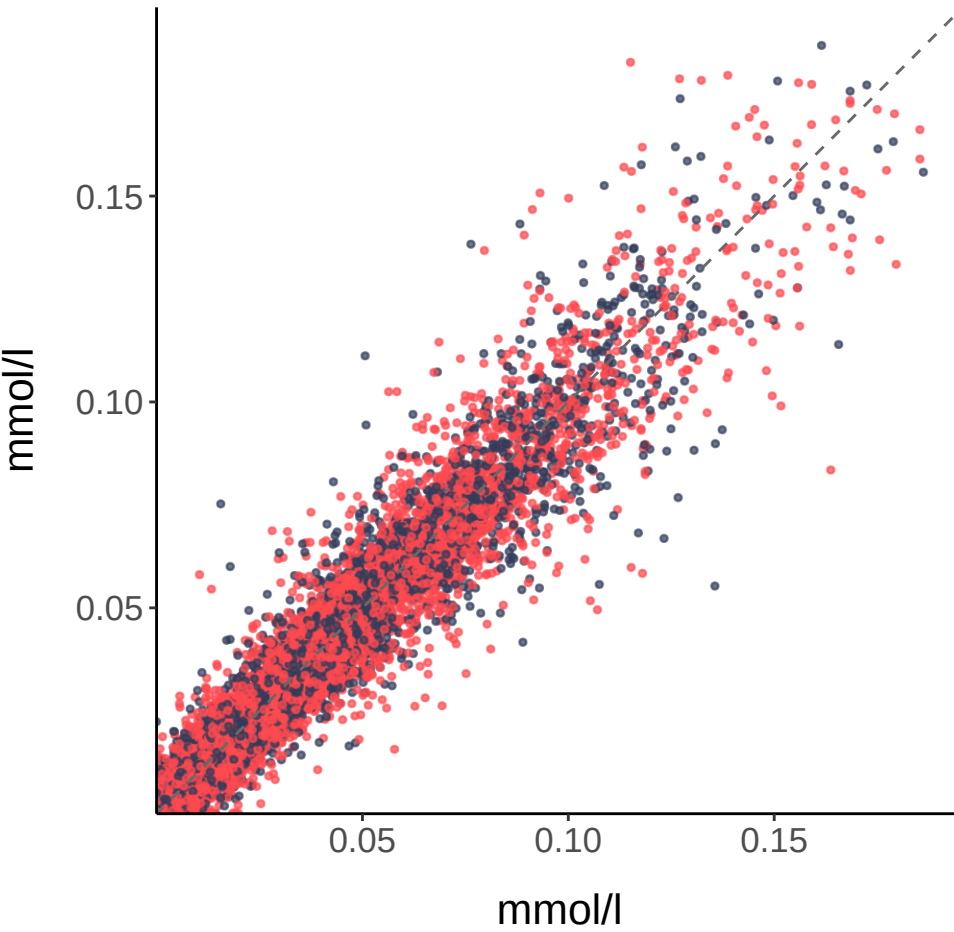


XXL_VLDL_PL

CV: 21.73%, R²: 0.93

Different spectrometers

● FALSE ● TRUE

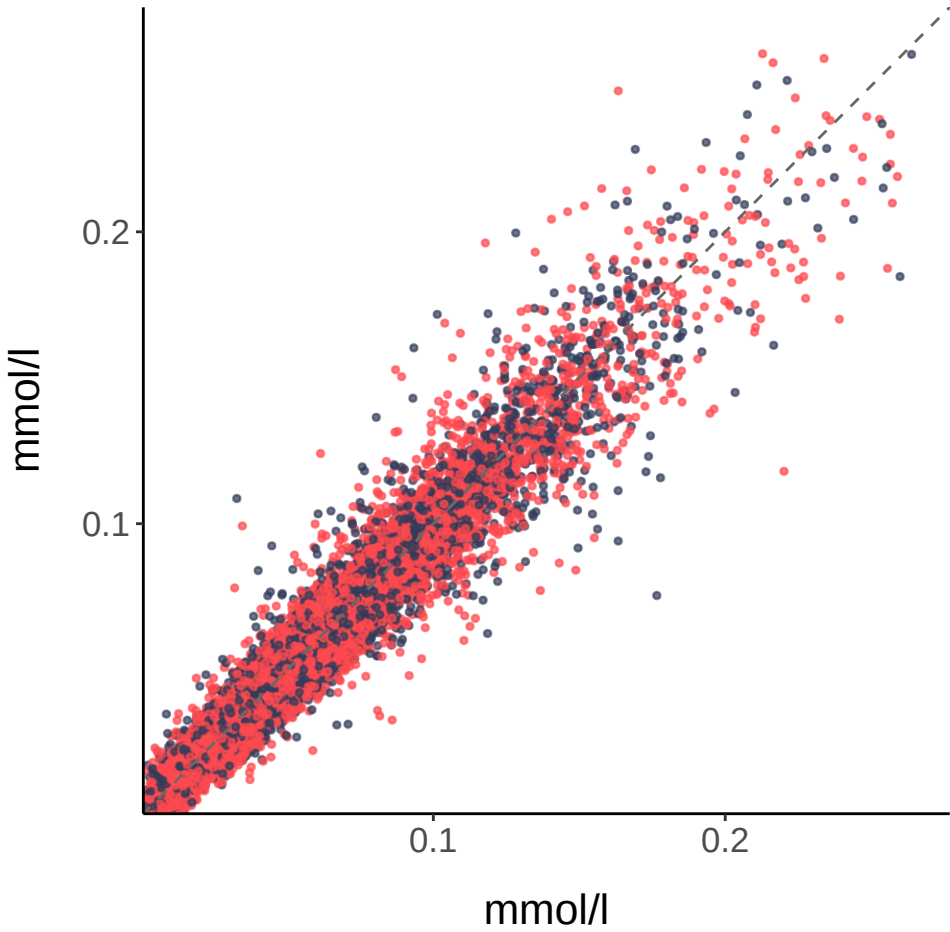


XXL_VLDL_C

CV: 11.9%, R²: 0.94

Different spectrometers

● FALSE ● TRUE

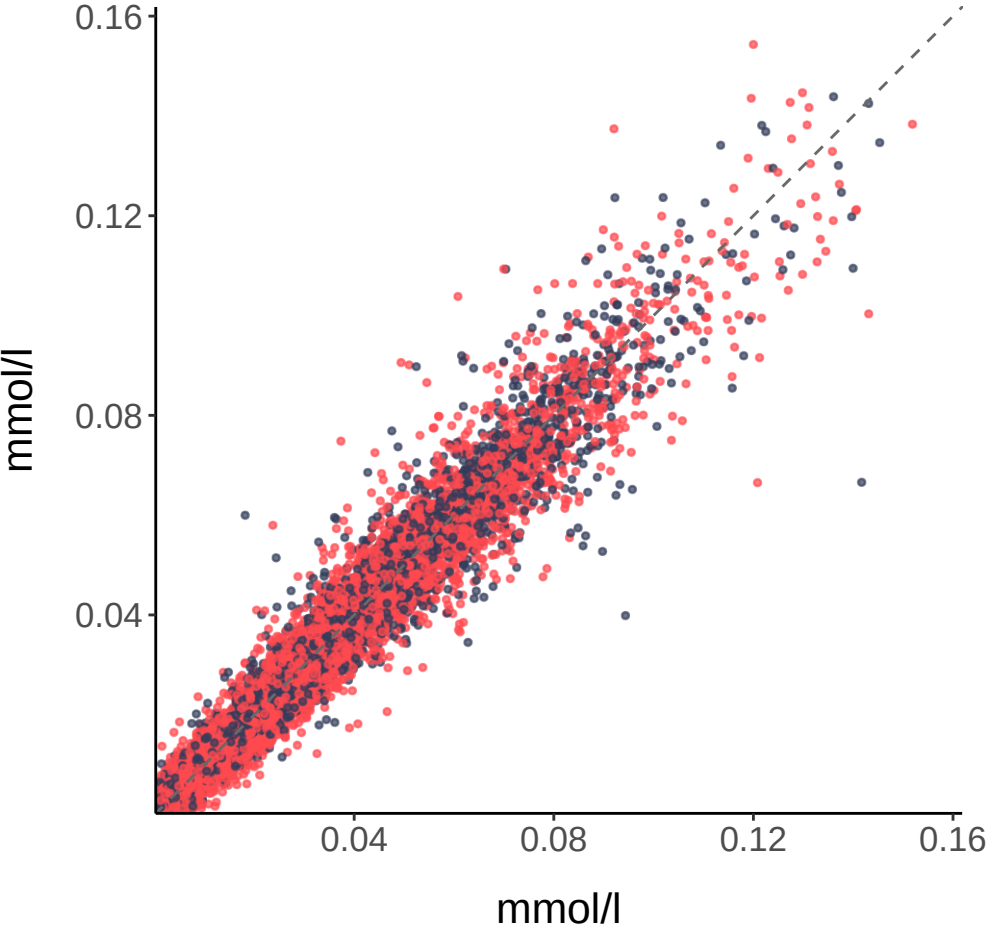


XXL_VLDL_CE

CV: 12.11%, R²: 0.95

Different spectrometers

● FALSE ● TRUE

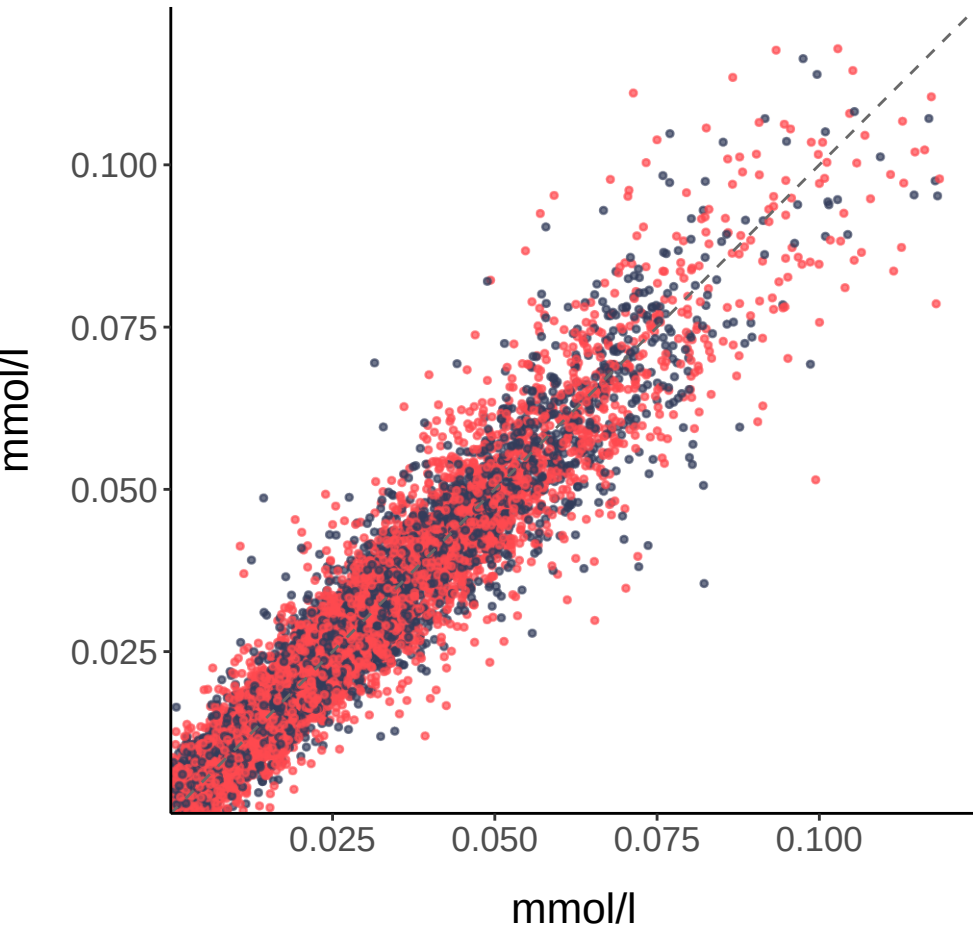


XXL_VLDL_FC

CV: 14.88%, R²: 0.92

Different spectrometers

● FALSE ● TRUE

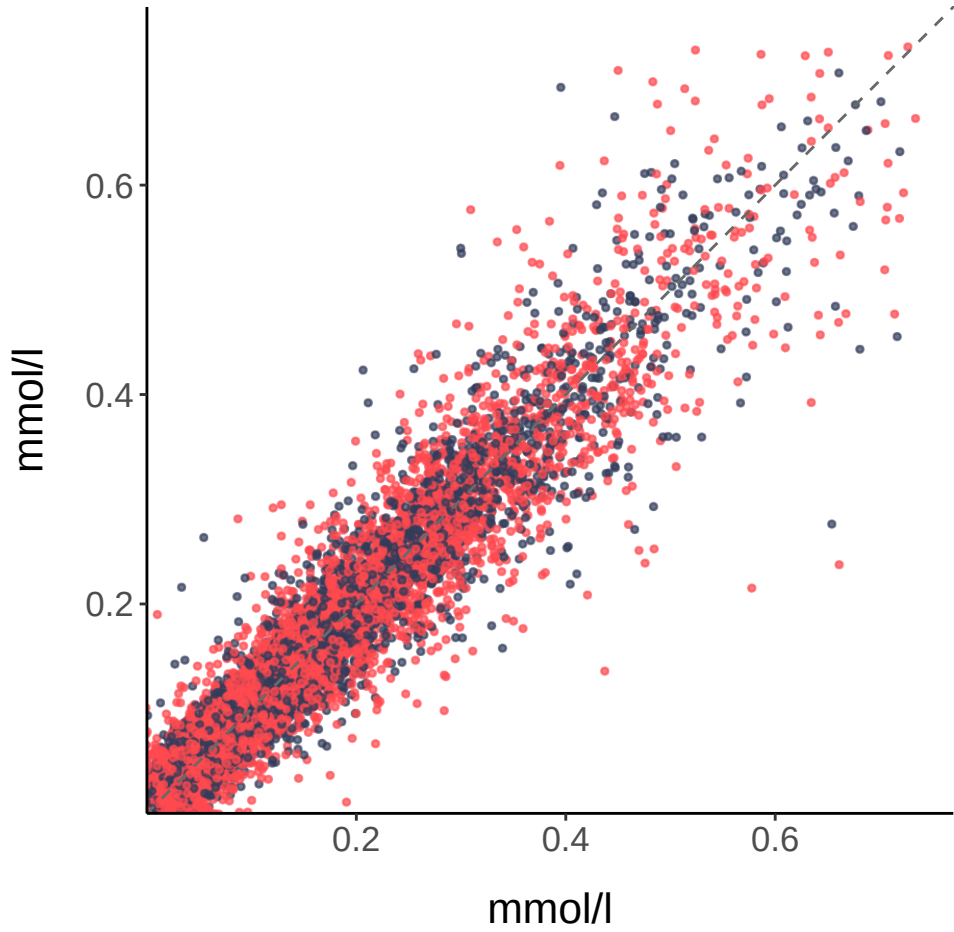


XXL_VLDL_TG

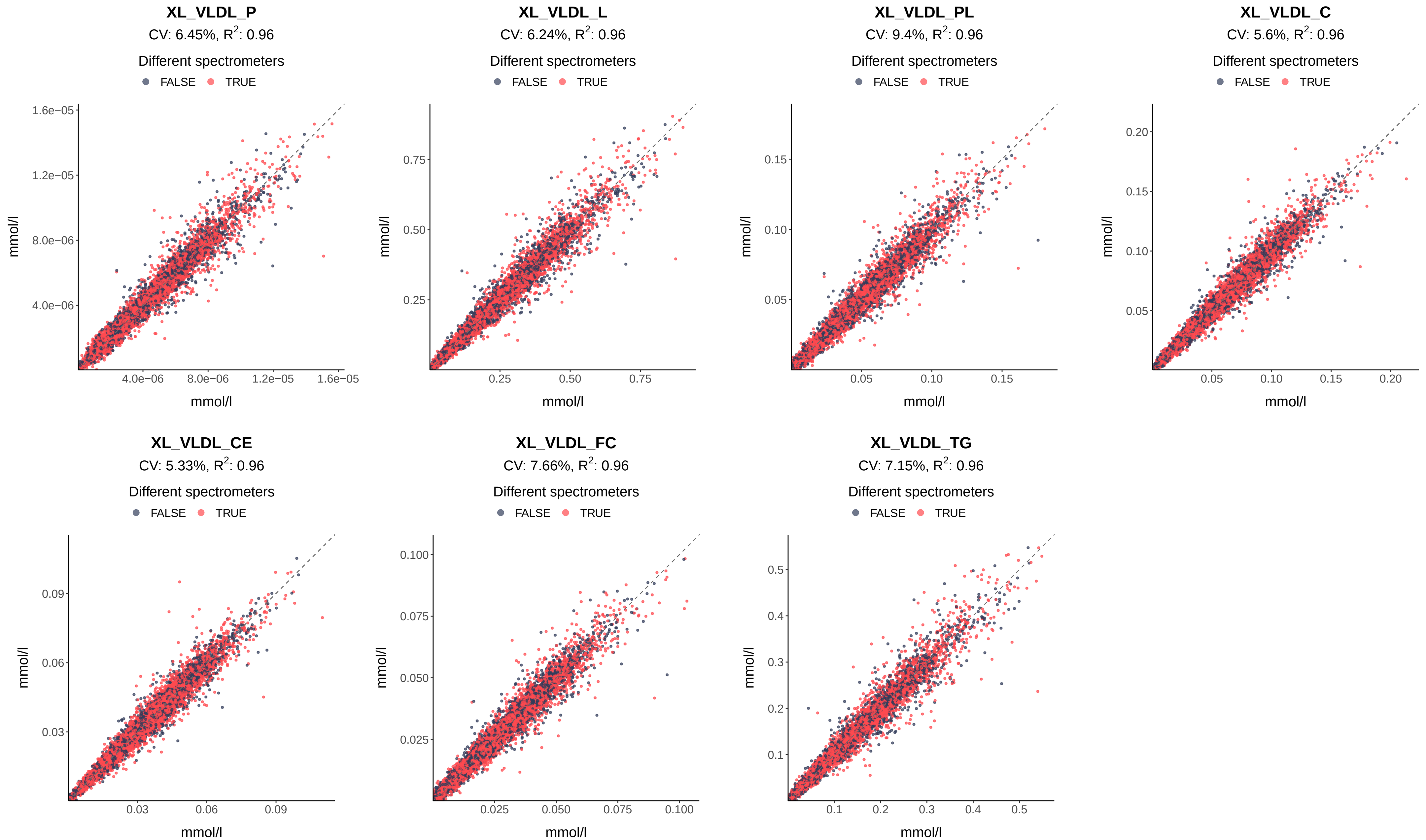
CV: 25.44%, R²: 0.92

Different spectrometers

● FALSE ● TRUE



Very large VLDL (average diameter 64 nm)



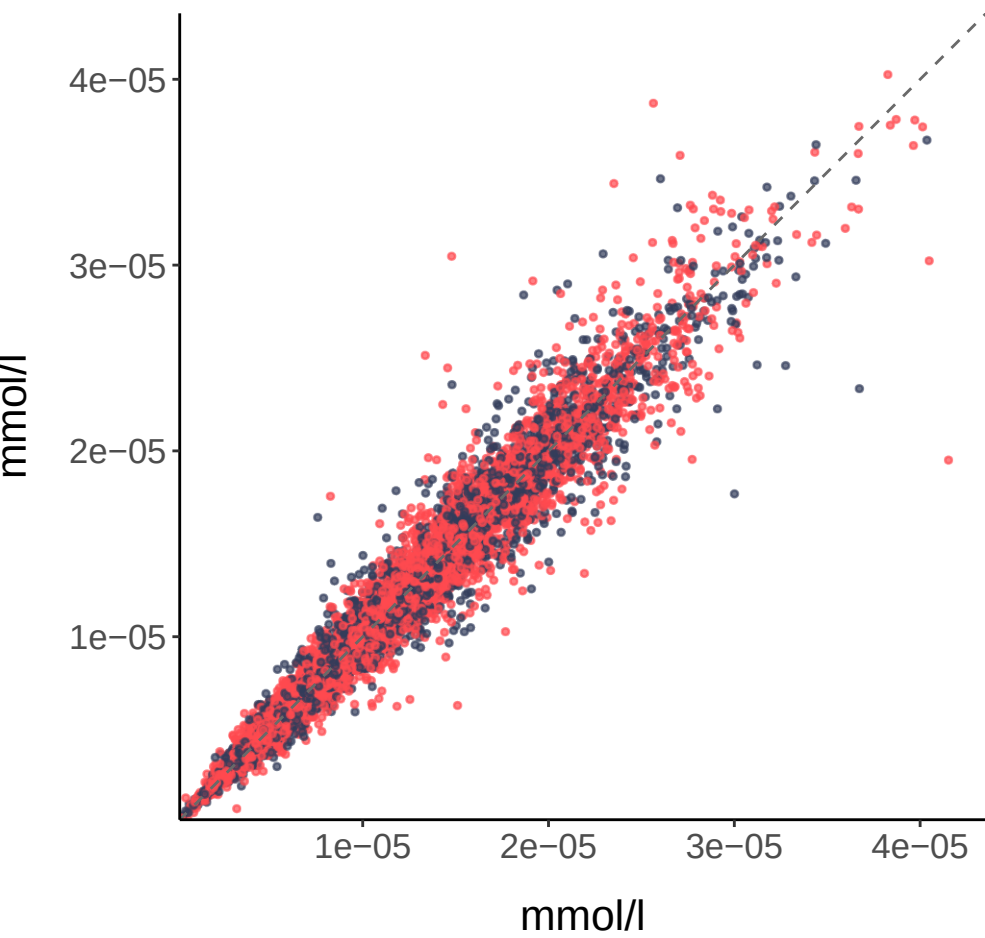
Large VLDL (average diameter 53.6 nm)

L_VLDL_P

CV: 4.96%, R²: 0.96

Different spectrometers

● FALSE ● TRUE

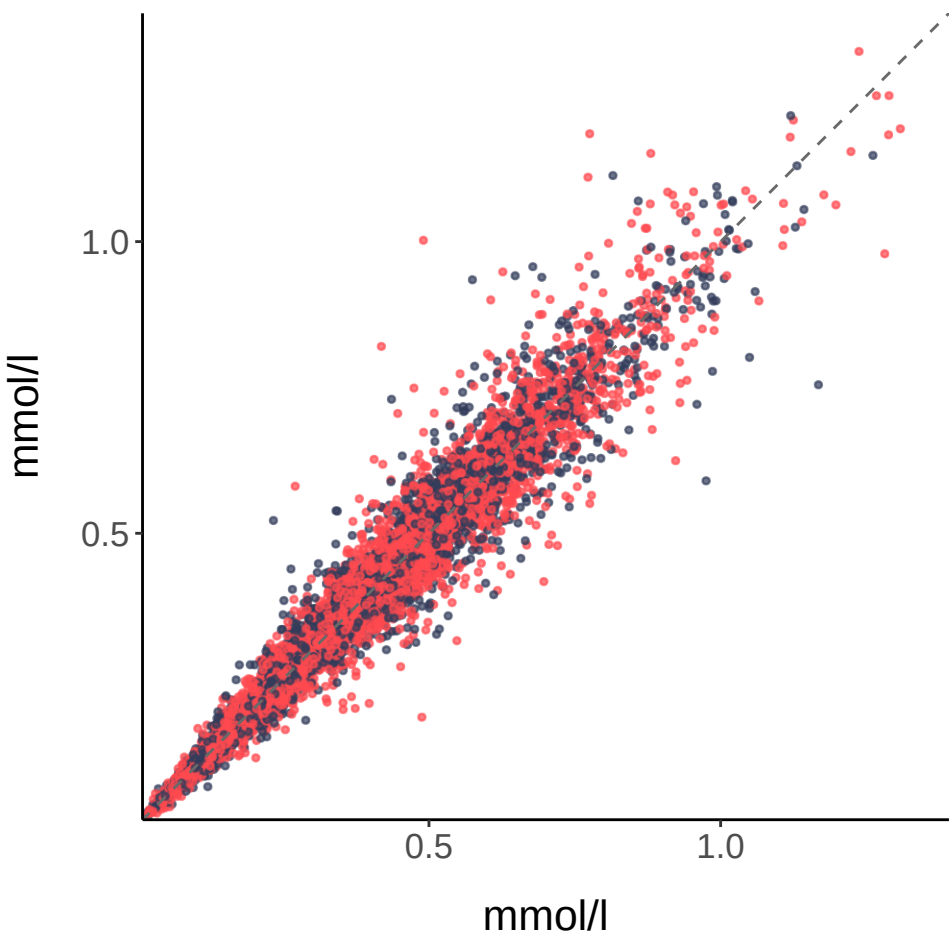


L_VLDL_L

CV: 4.95%, R²: 0.96

Different spectrometers

● FALSE ● TRUE

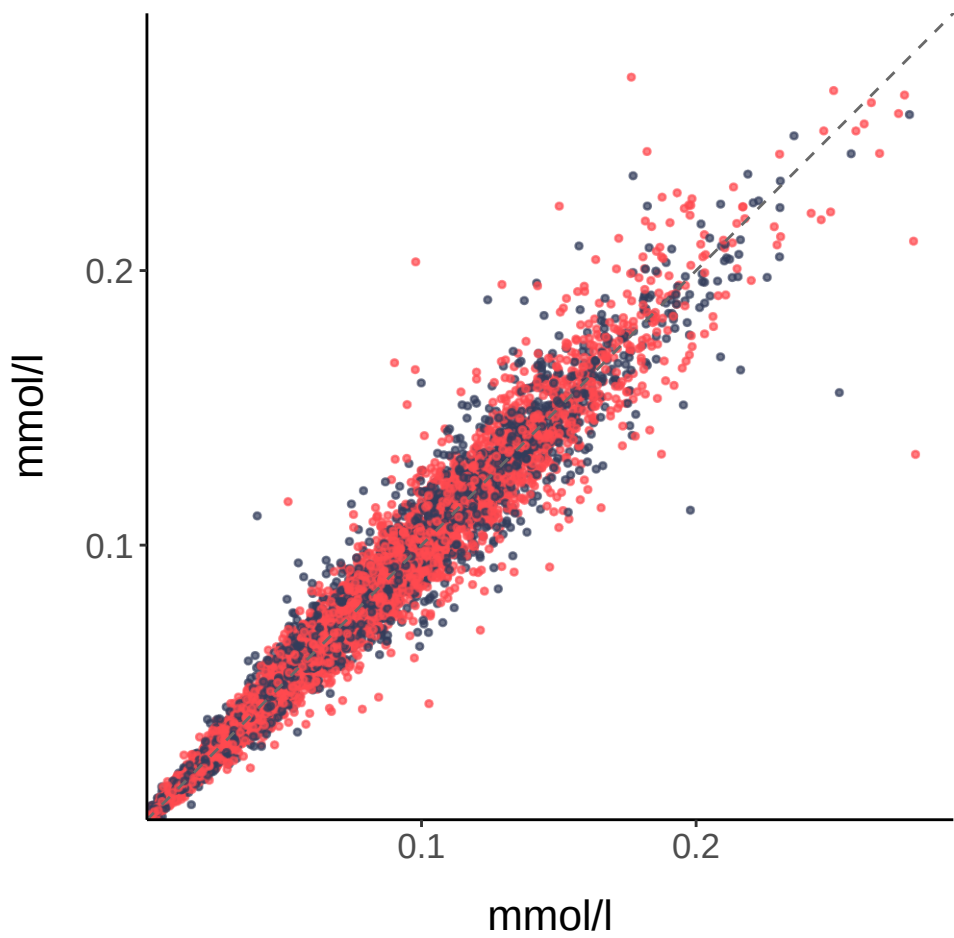


L_VLDL_PL

CV: 5.86%, R²: 0.96

Different spectrometers

● FALSE ● TRUE

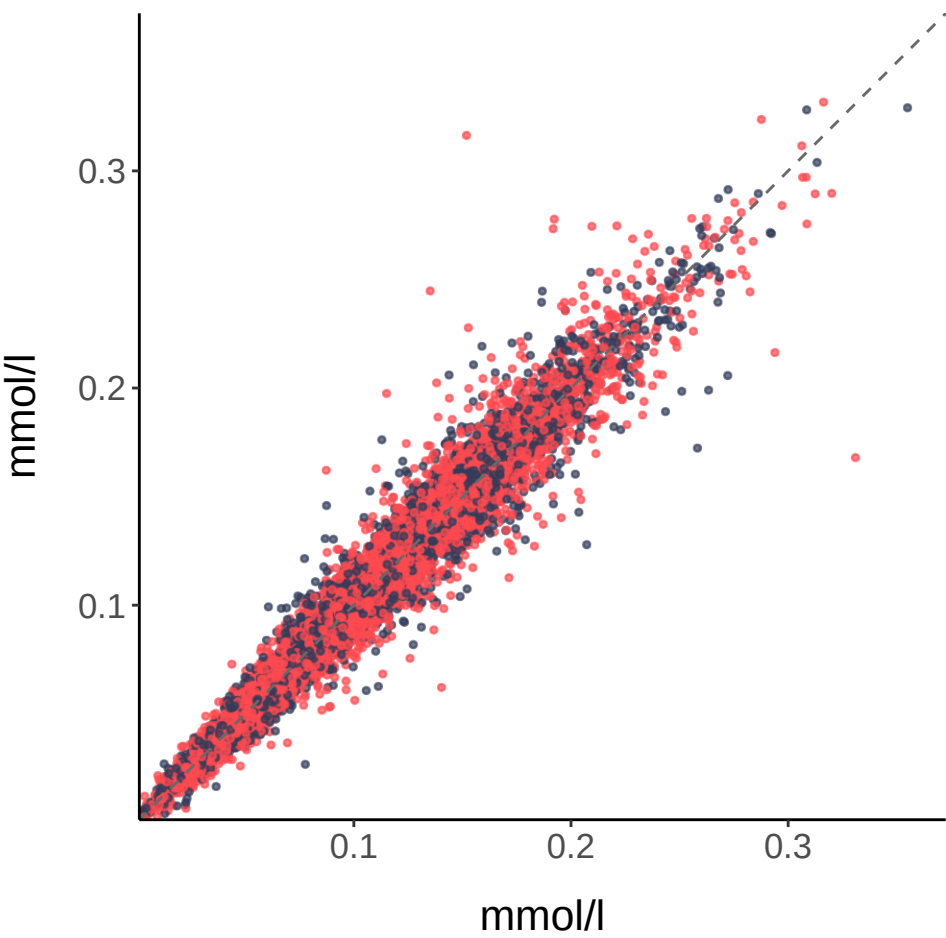


L_VLDL_C

CV: 5.3%, R²: 0.96

Different spectrometers

● FALSE ● TRUE

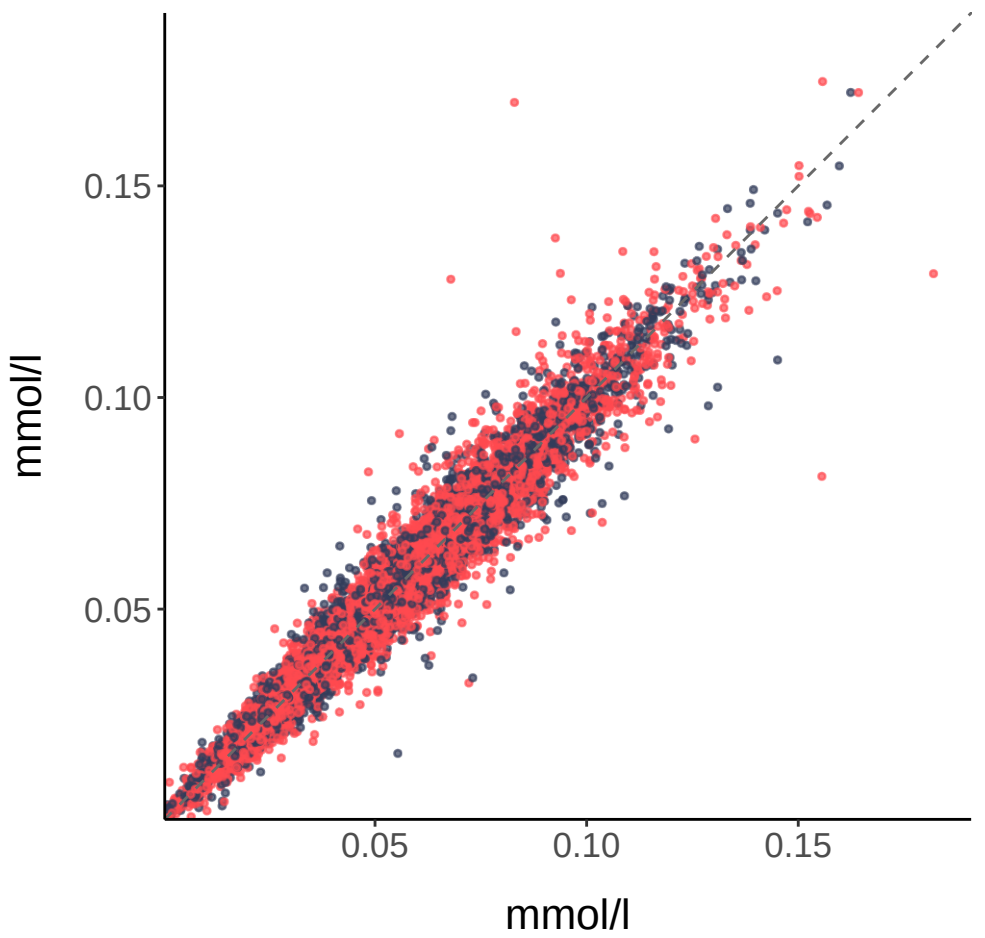


L_VLDL_CE

CV: 5.39%, R²: 0.95

Different spectrometers

● FALSE ● TRUE

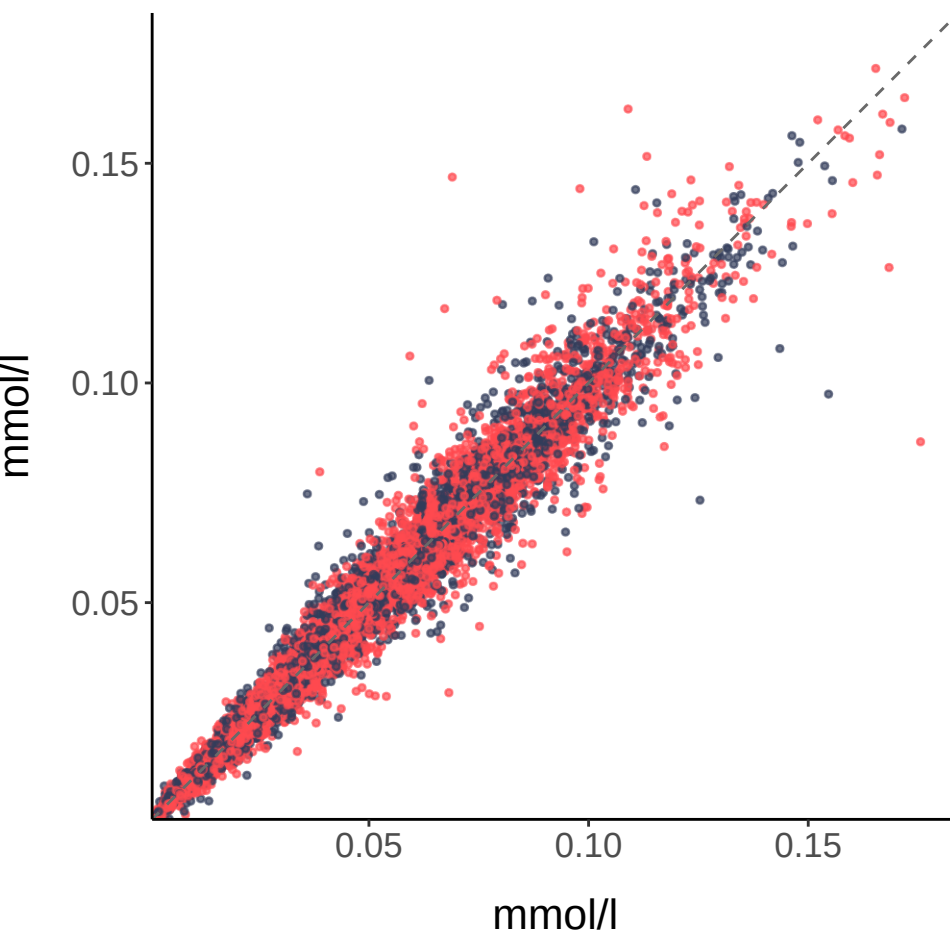


L_VLDL_FC

CV: 5.3%, R²: 0.96

Different spectrometers

● FALSE ● TRUE

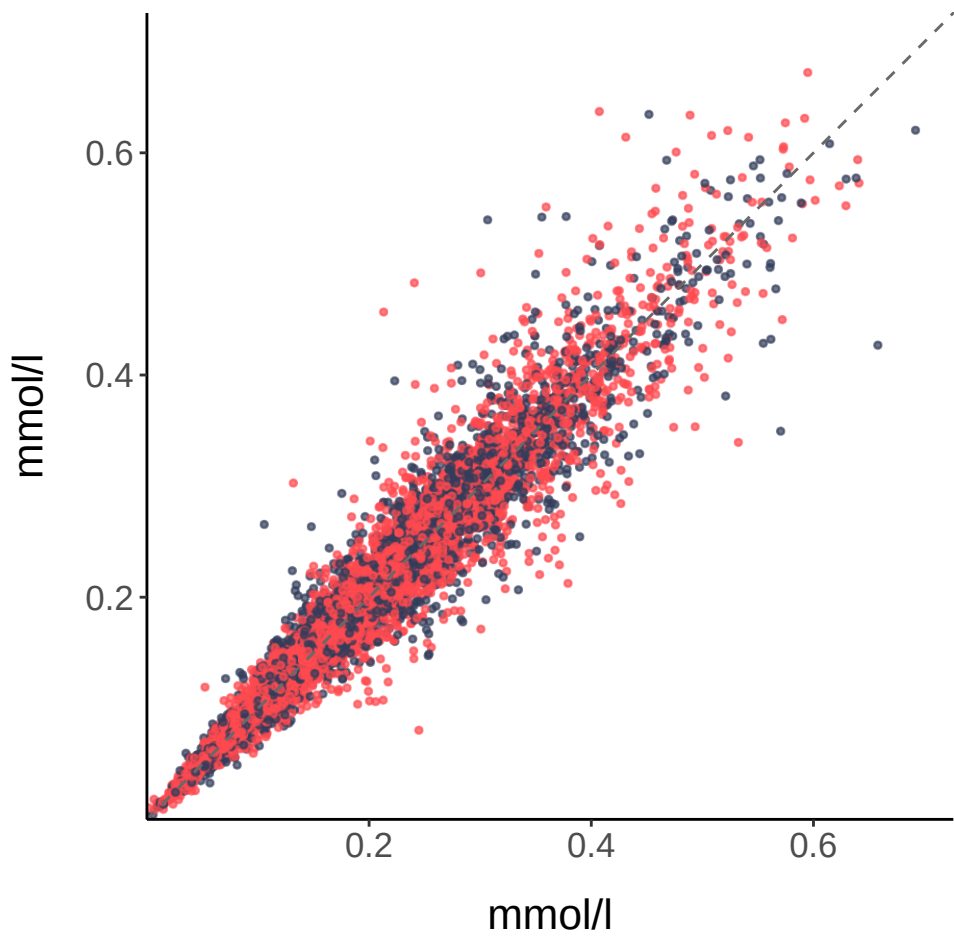


L_VLDL_TG

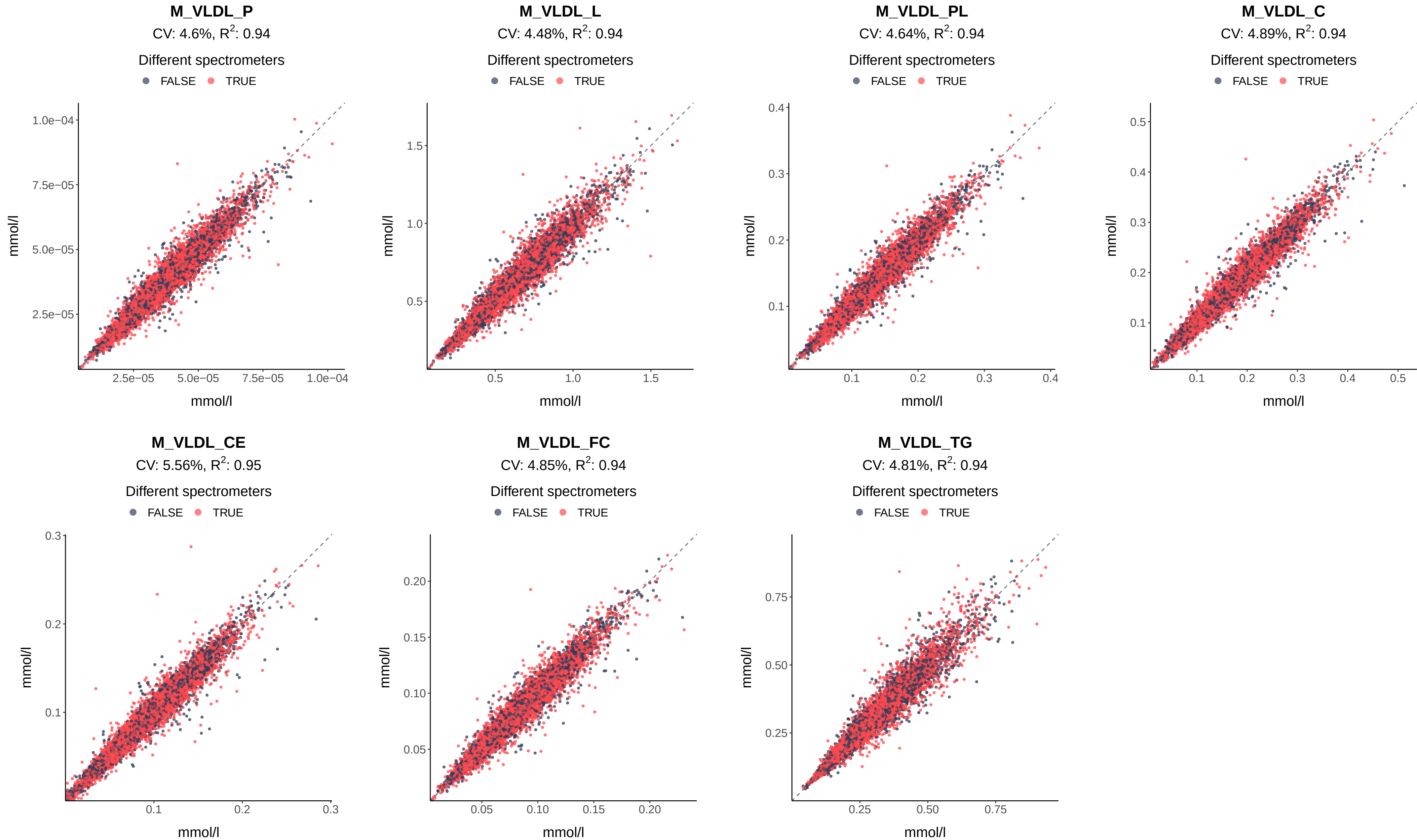
CV: 5.29%, R²: 0.95

Different spectrometers

● FALSE ● TRUE



Medium VLDL (average diameter 44.5 nm)



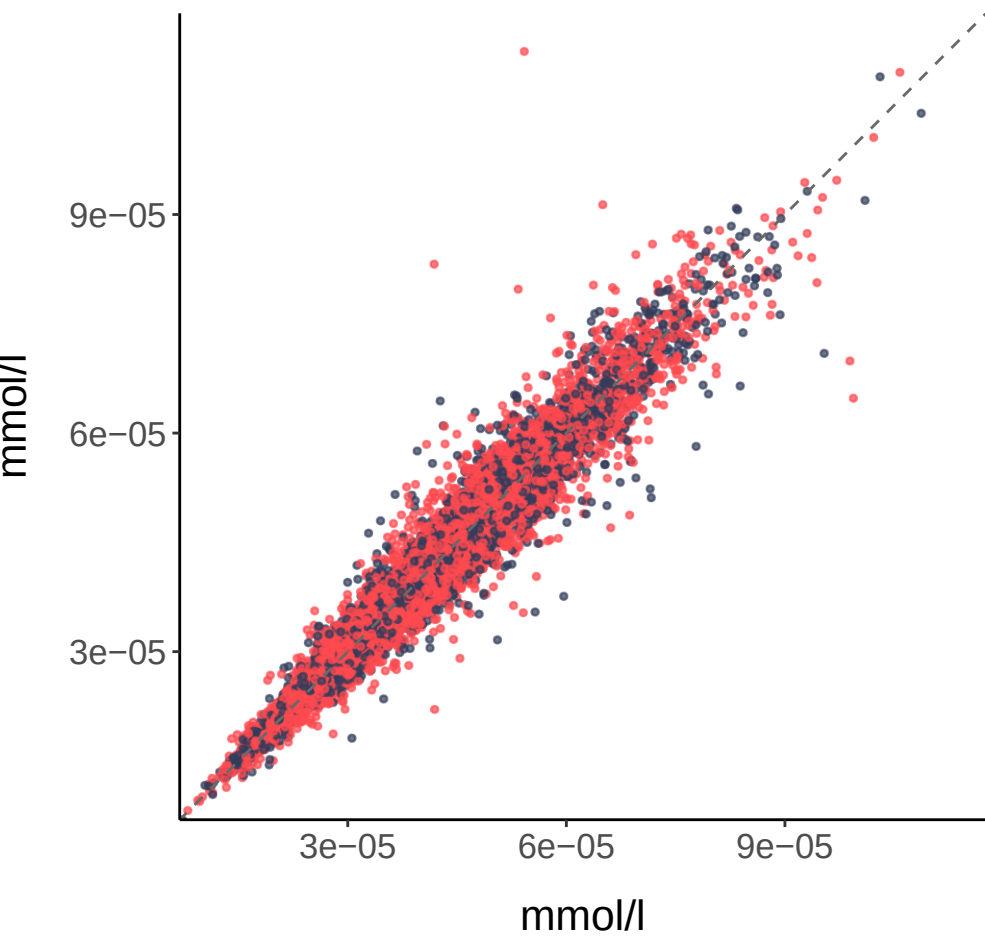
Small VLDL (average diameter 36.8 nm)

S_VLDL_P

CV: 3.72%, R²: 0.94

Different spectrometers

● FALSE ● TRUE

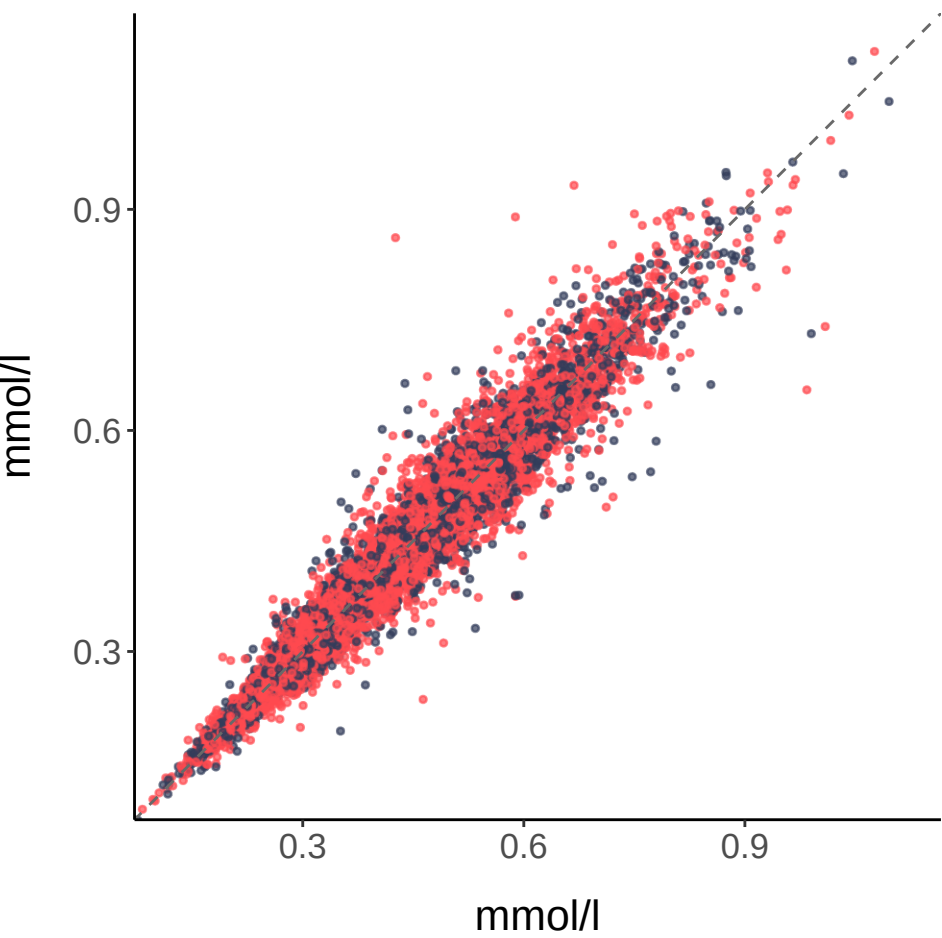


S_VLDL_L

CV: 3.69%, R²: 0.94

Different spectrometers

● FALSE ● TRUE

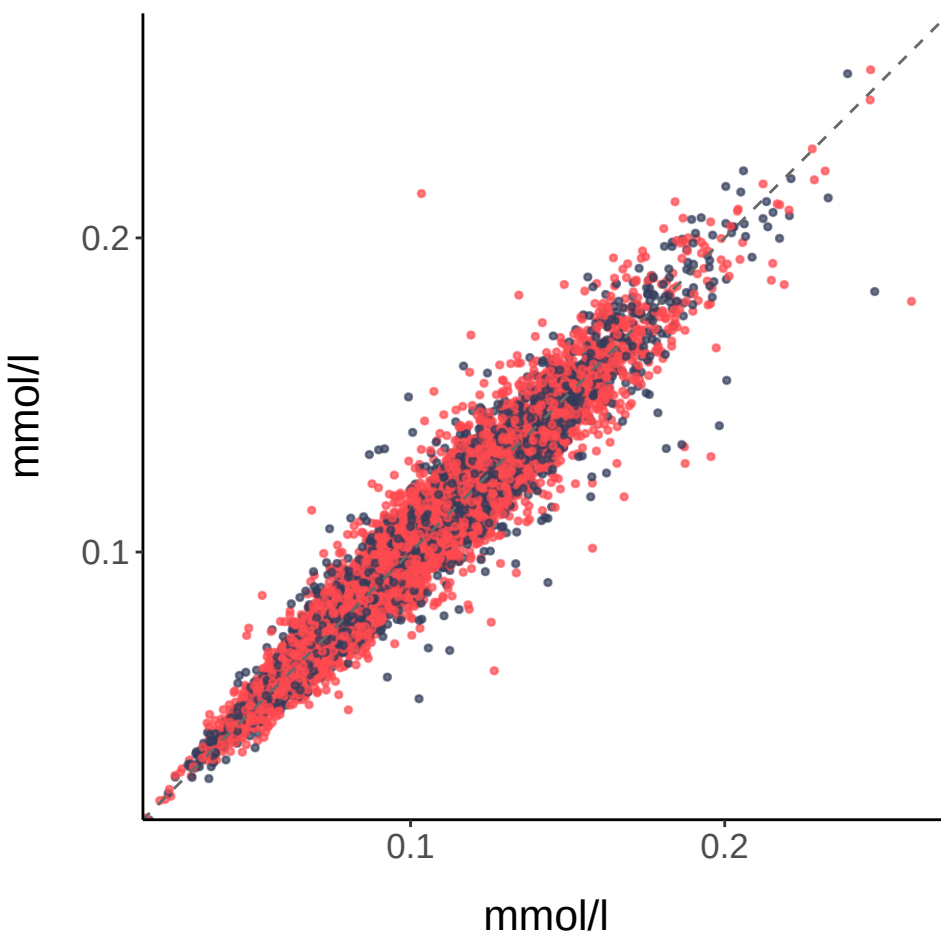


S_VLDL_PL

CV: 3.89%, R²: 0.94

Different spectrometers

● FALSE ● TRUE

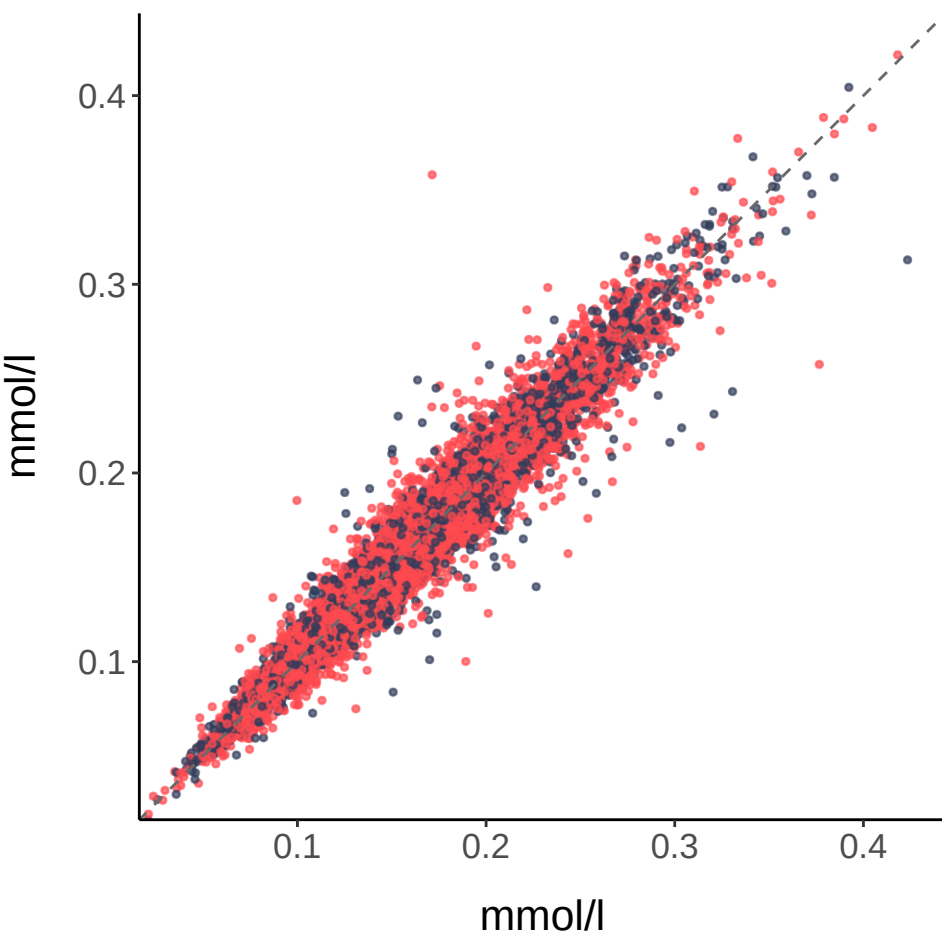


S_VLDL_C

CV: 3.86%, R²: 0.95

Different spectrometers

● FALSE ● TRUE

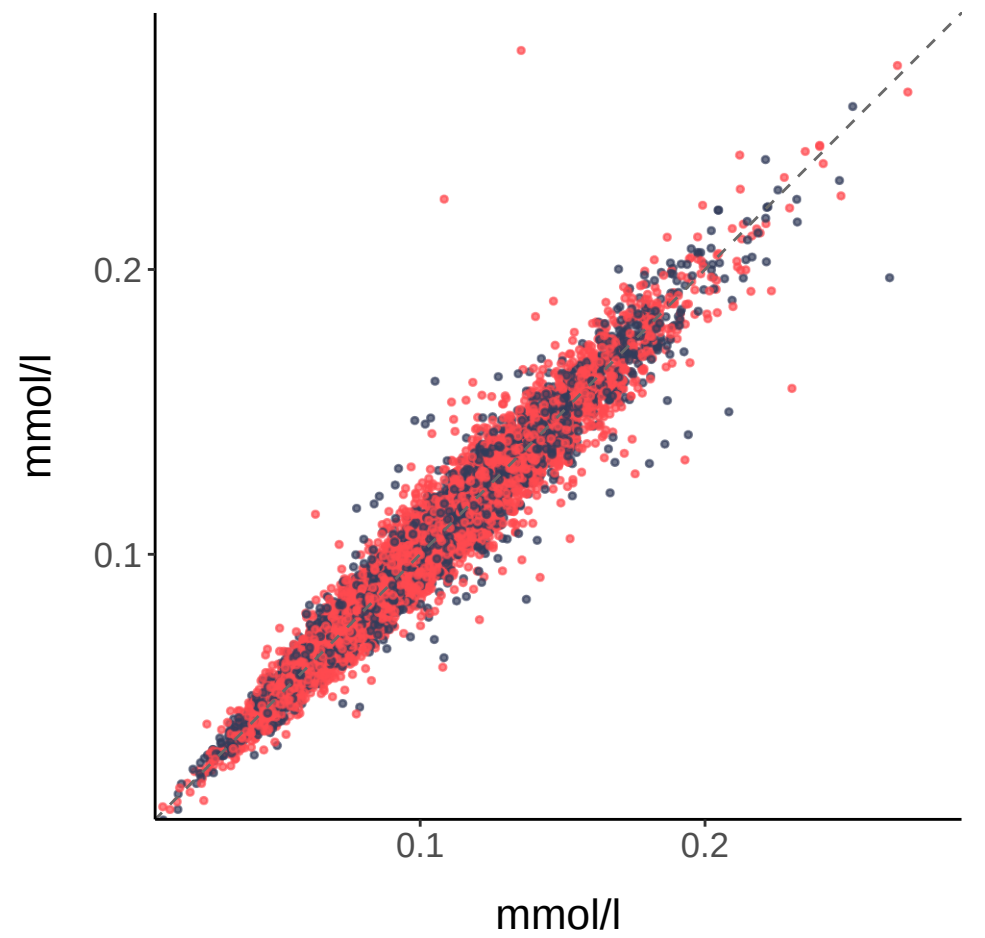


S_VLDL_CE

CV: 3.84%, R²: 0.95

Different spectrometers

● FALSE ● TRUE

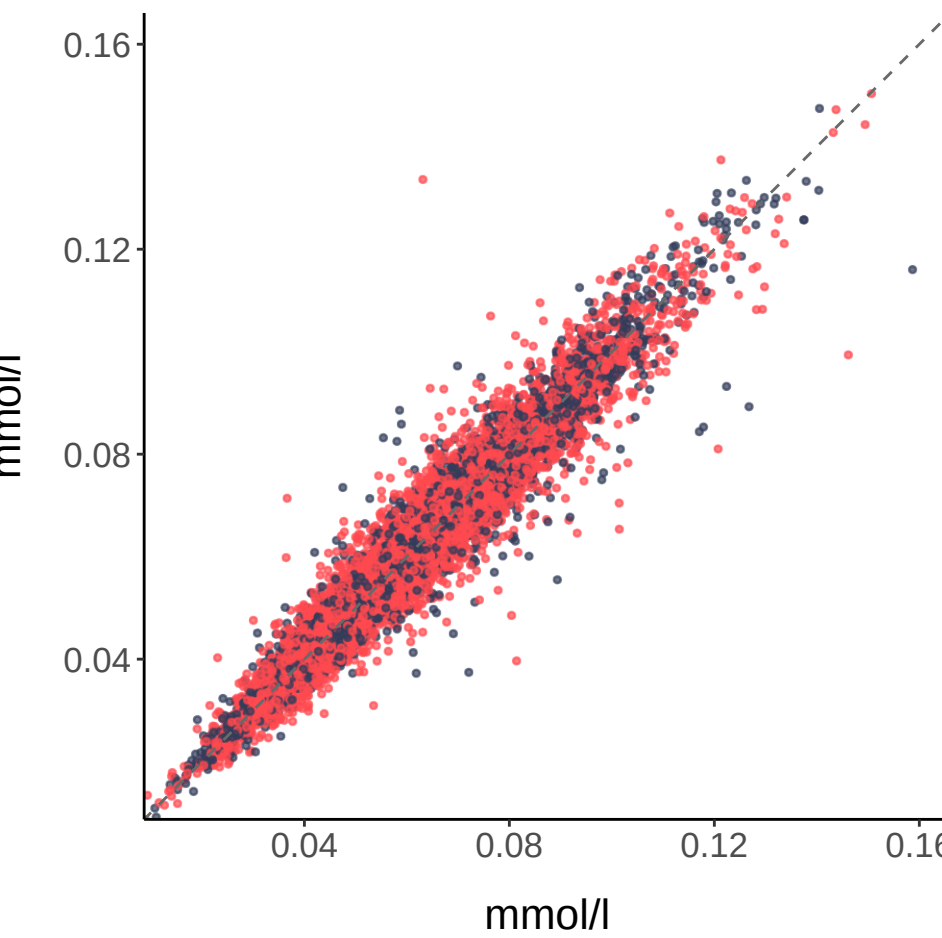


S_VLDL_FC

CV: 4.13%, R²: 0.94

Different spectrometers

● FALSE ● TRUE

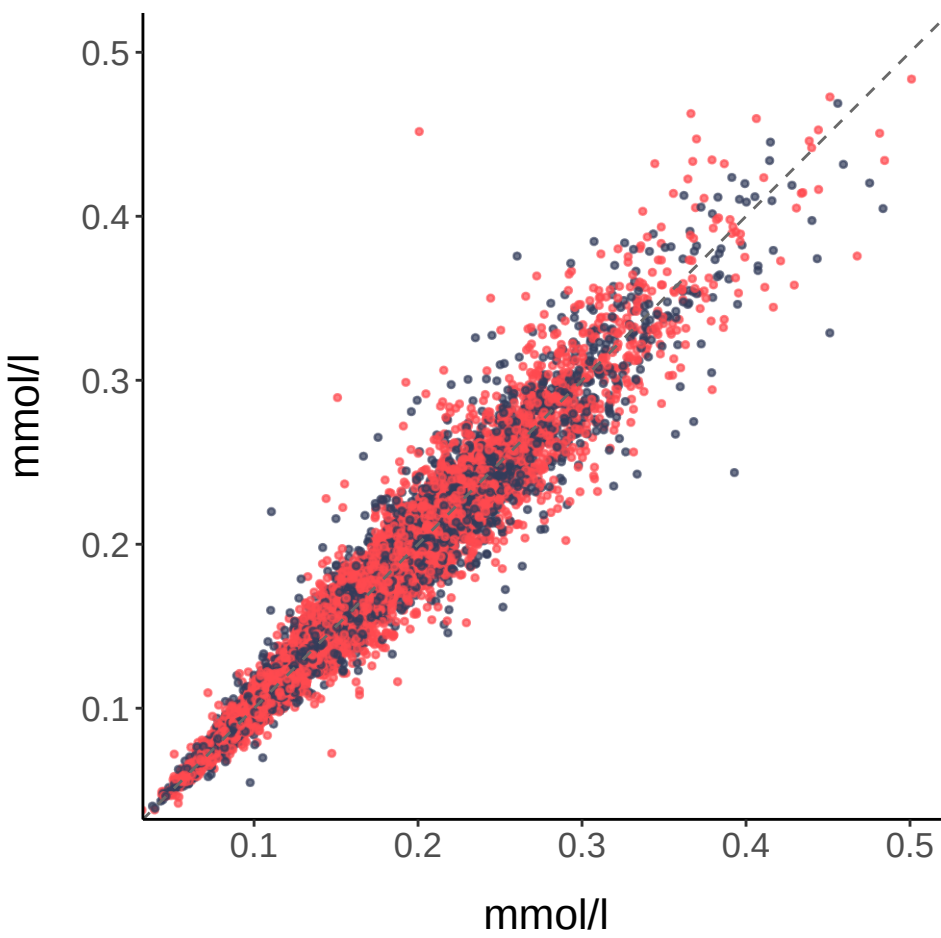


S_VLDL_TG

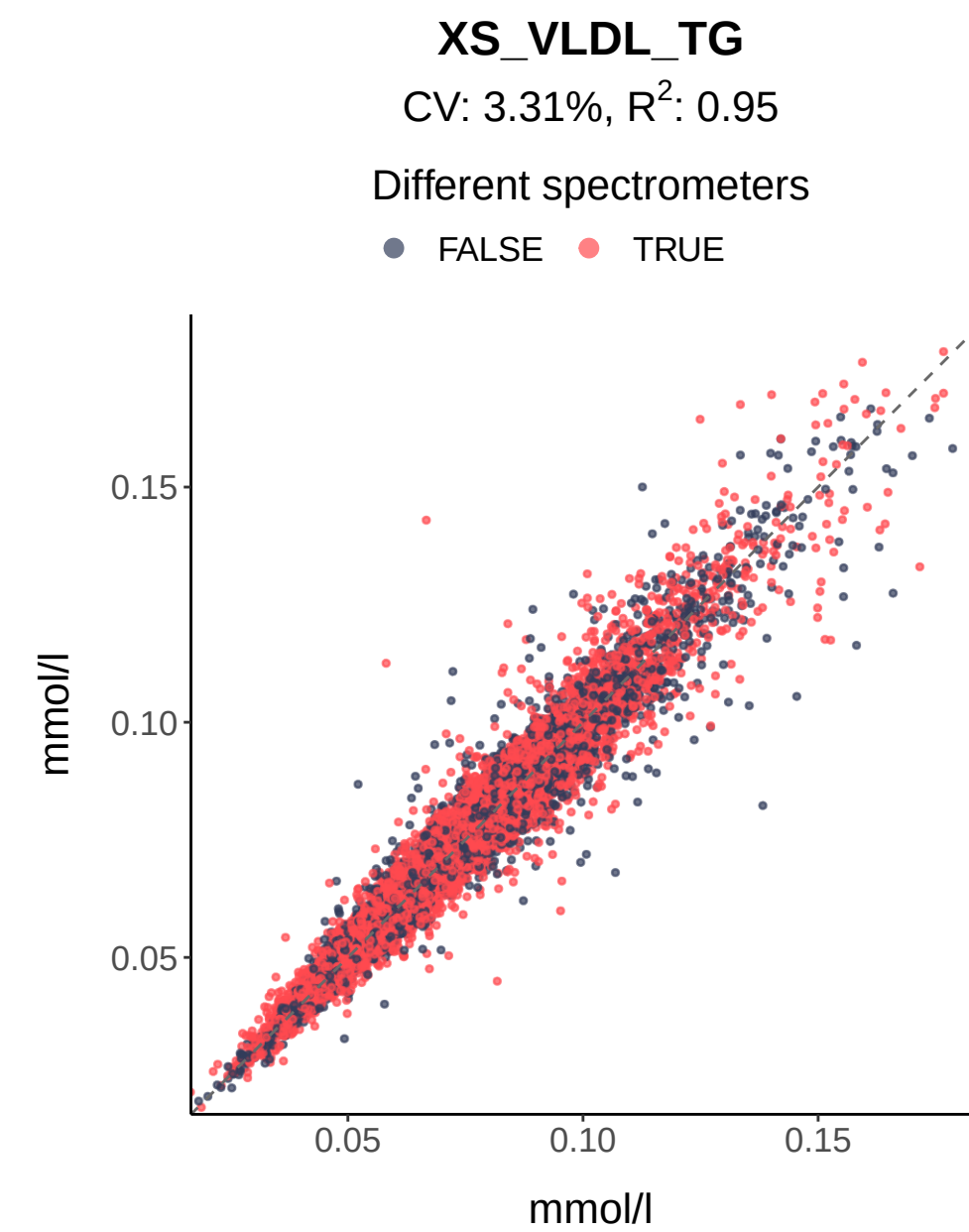
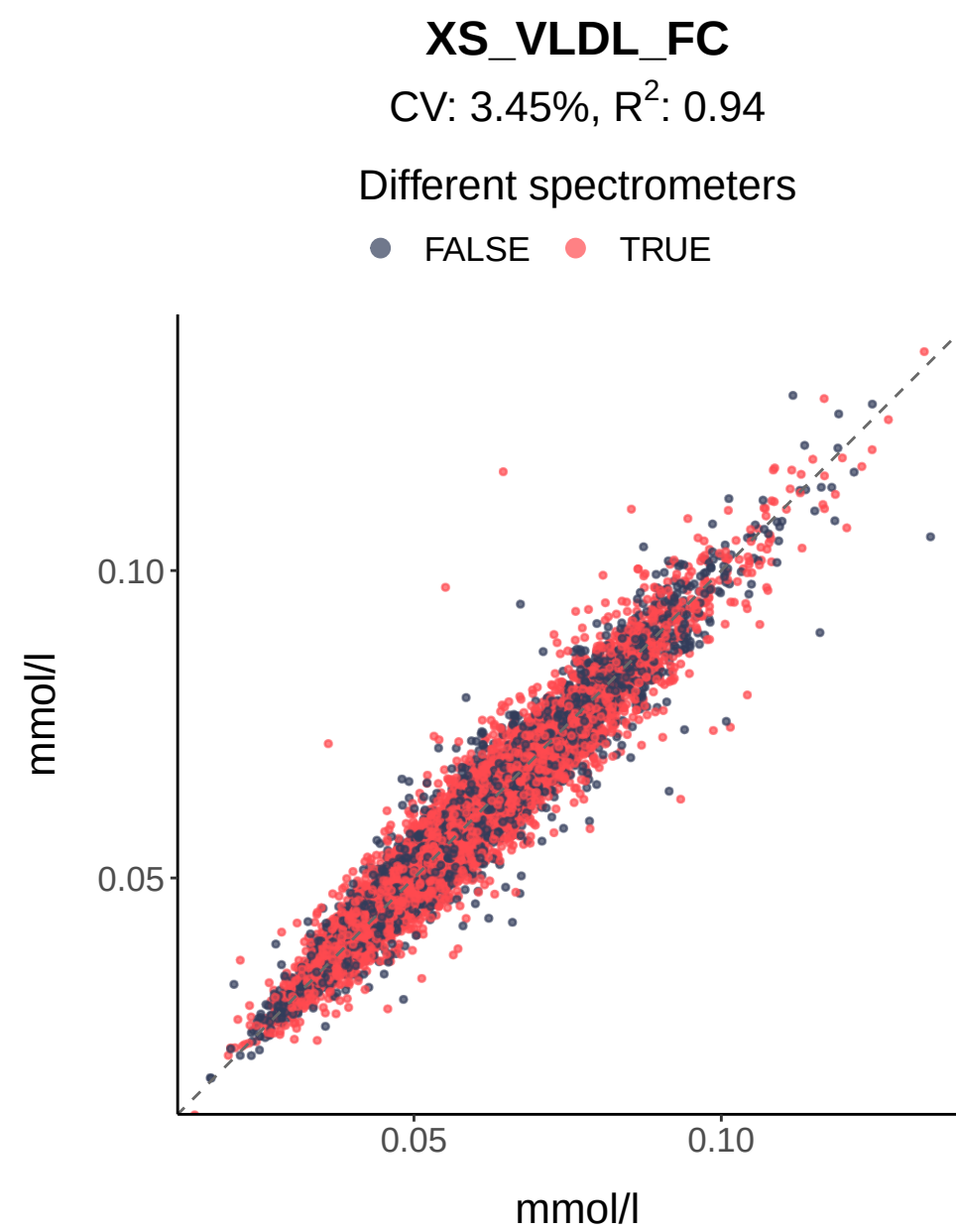
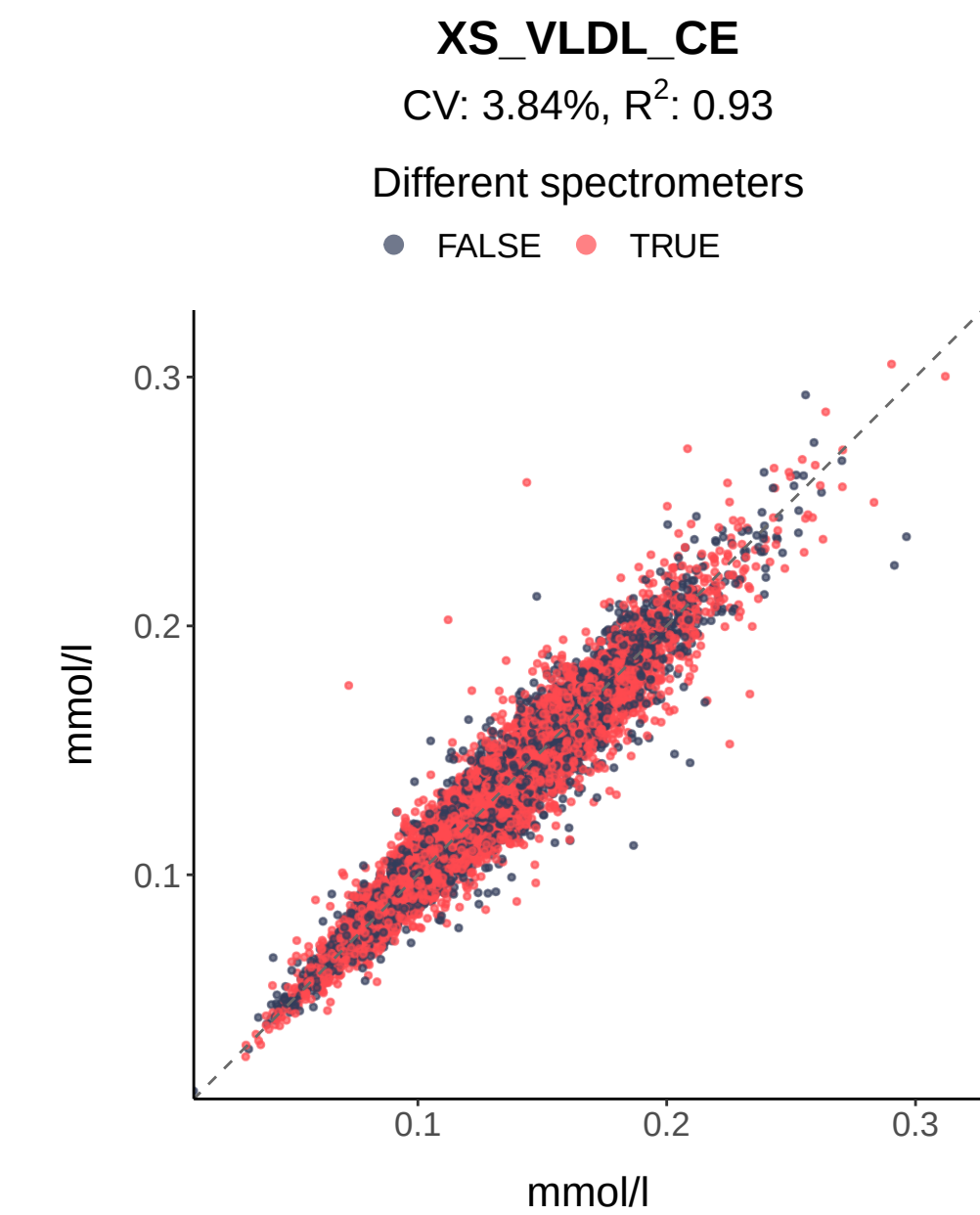
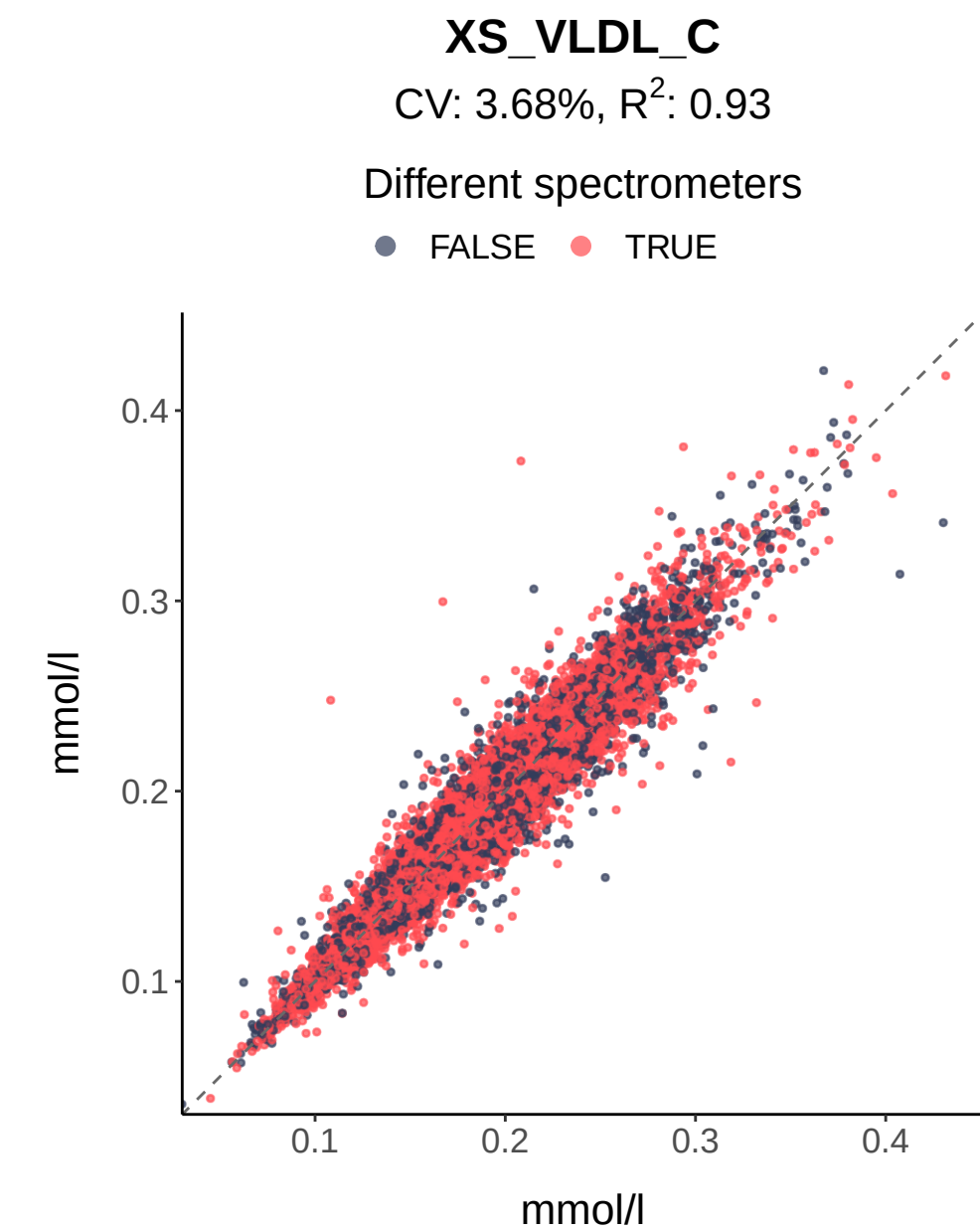
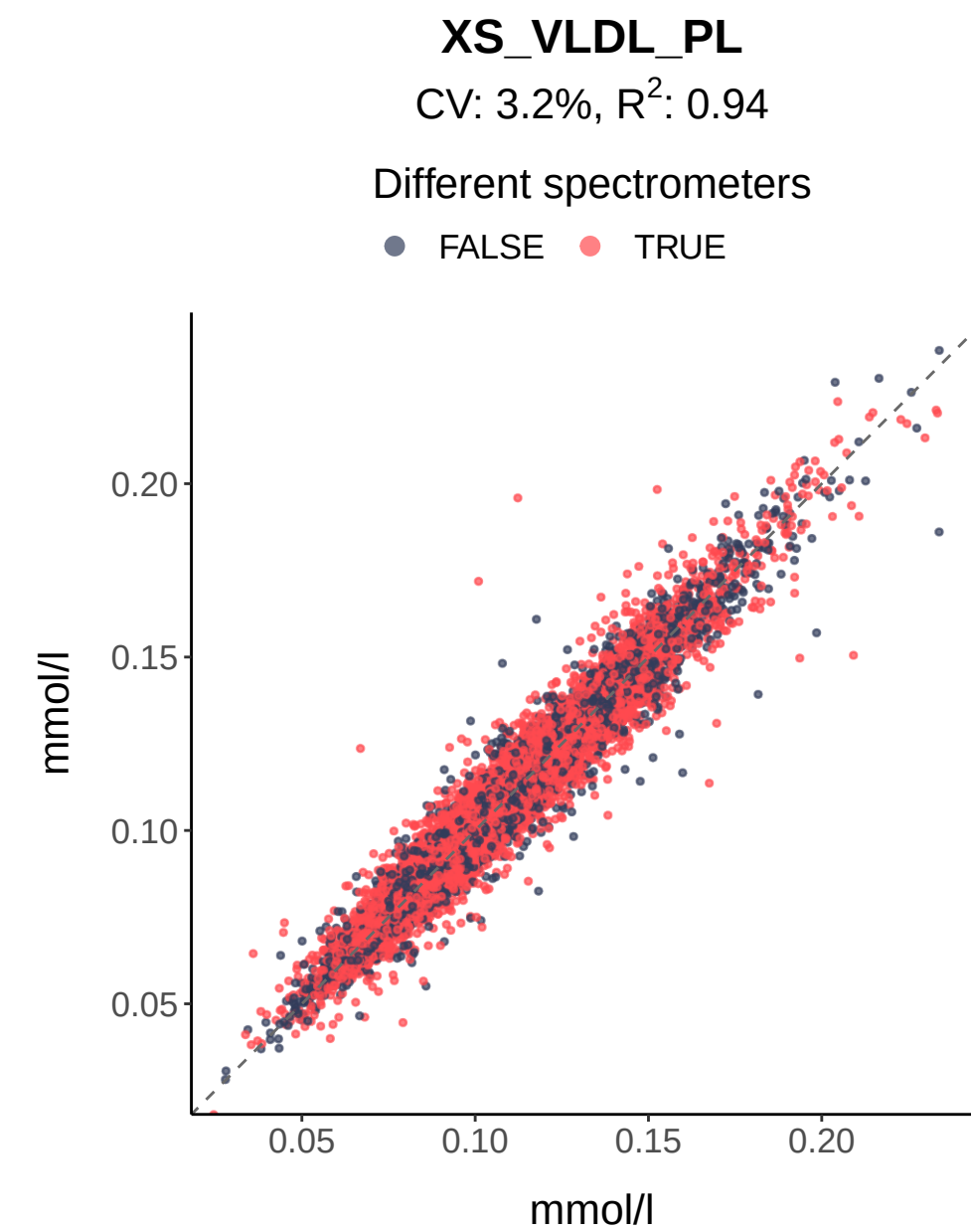
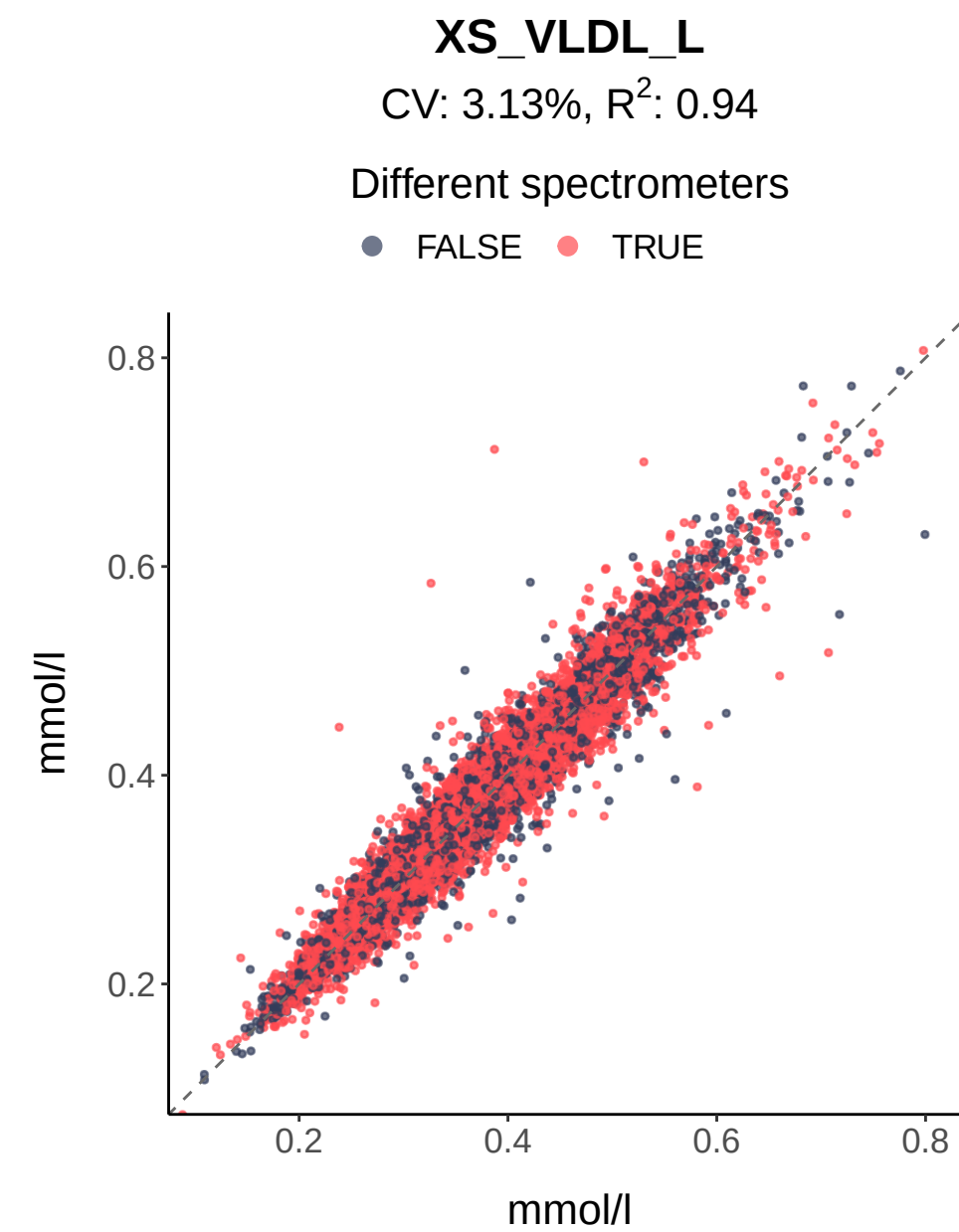
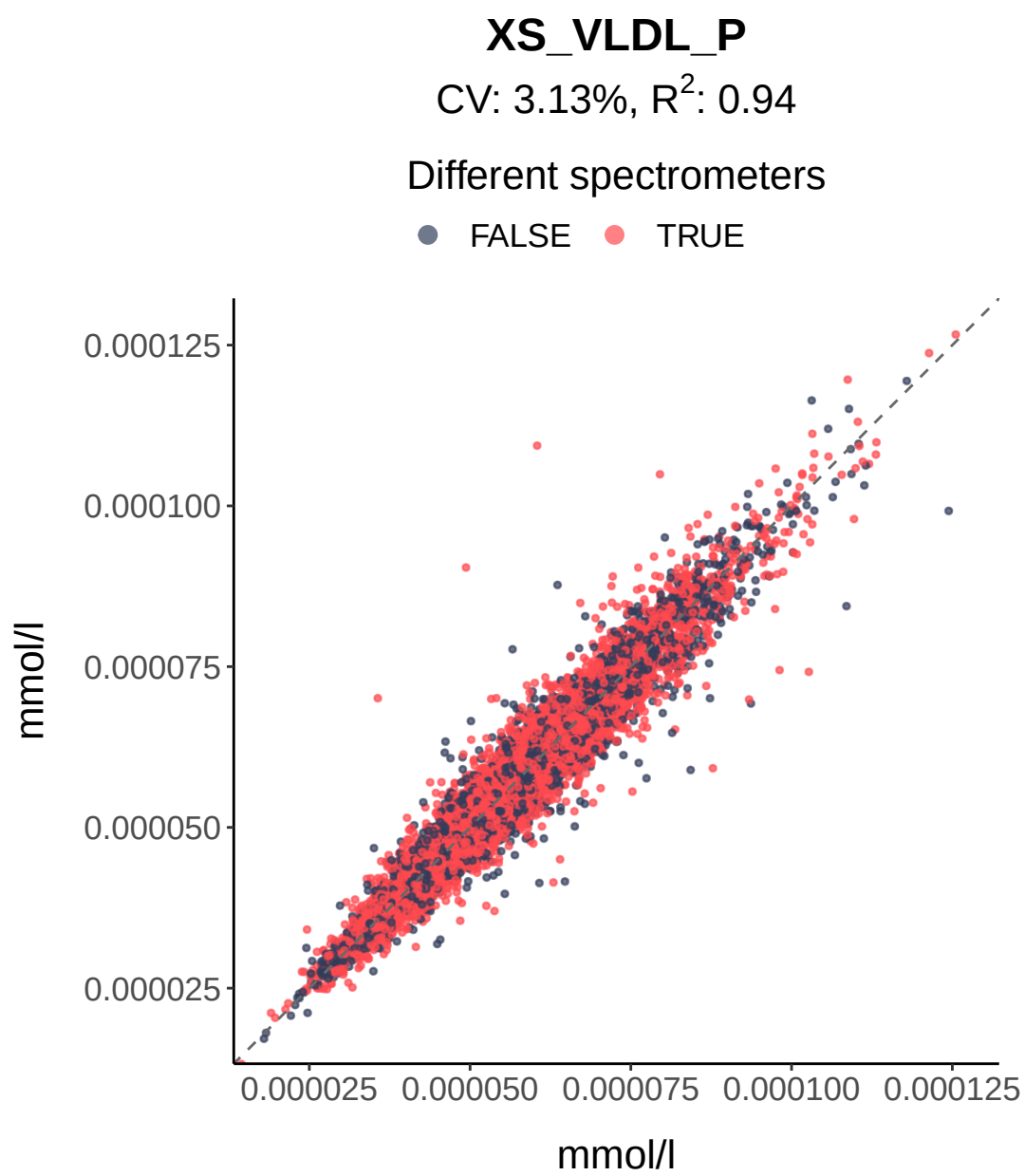
CV: 3.95%, R²: 0.95

Different spectrometers

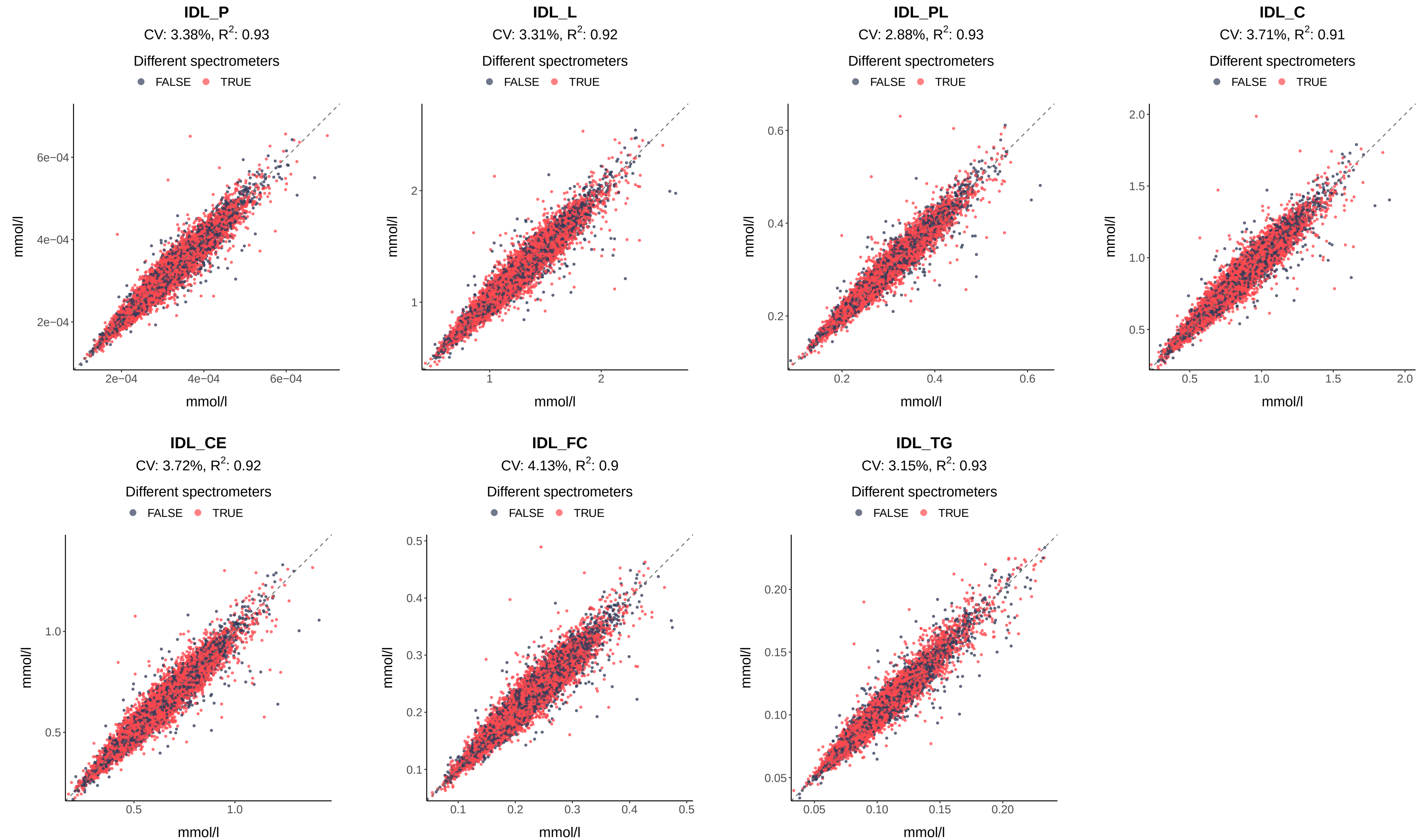
● FALSE ● TRUE



Very small VLDL (average diameter 31.3 nm)



IDL (average diameter 28.6 nm)



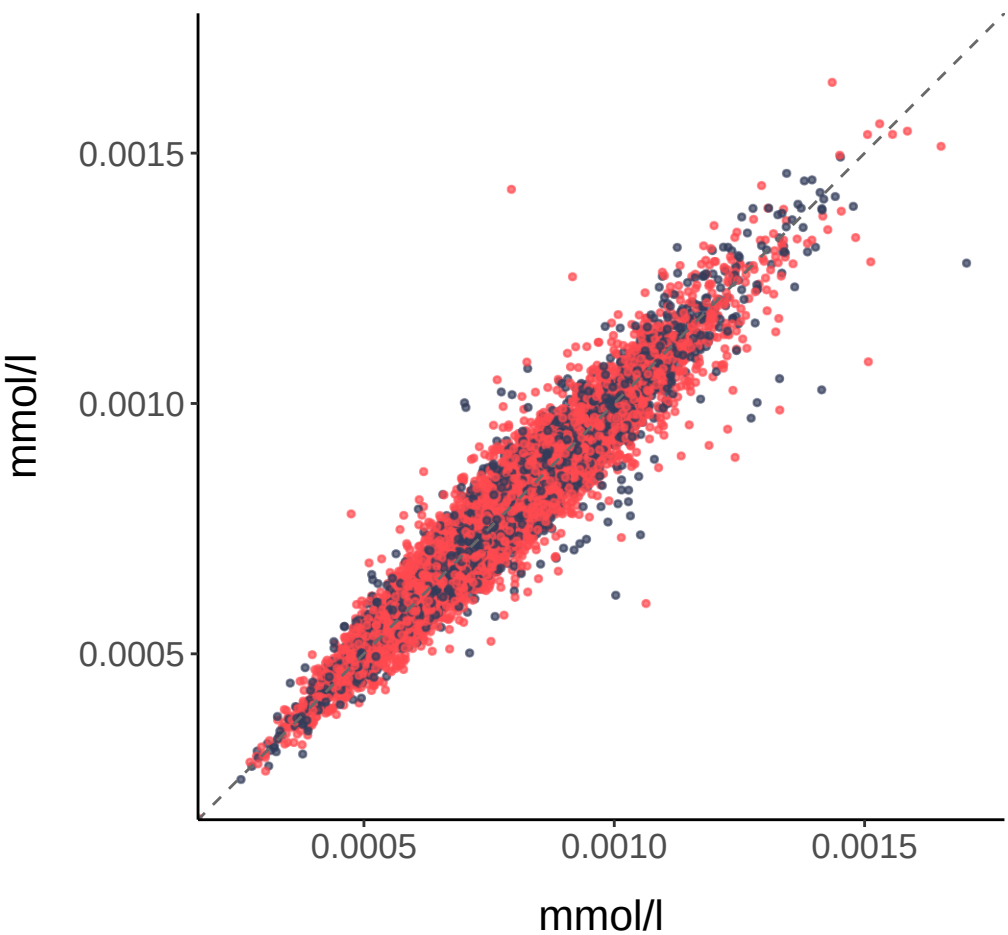
Large LDL (average diameter 25.5 nm)

L_LDL_P

CV: 3.23%, R²: 0.93

Different spectrometers

● FALSE ● TRUE

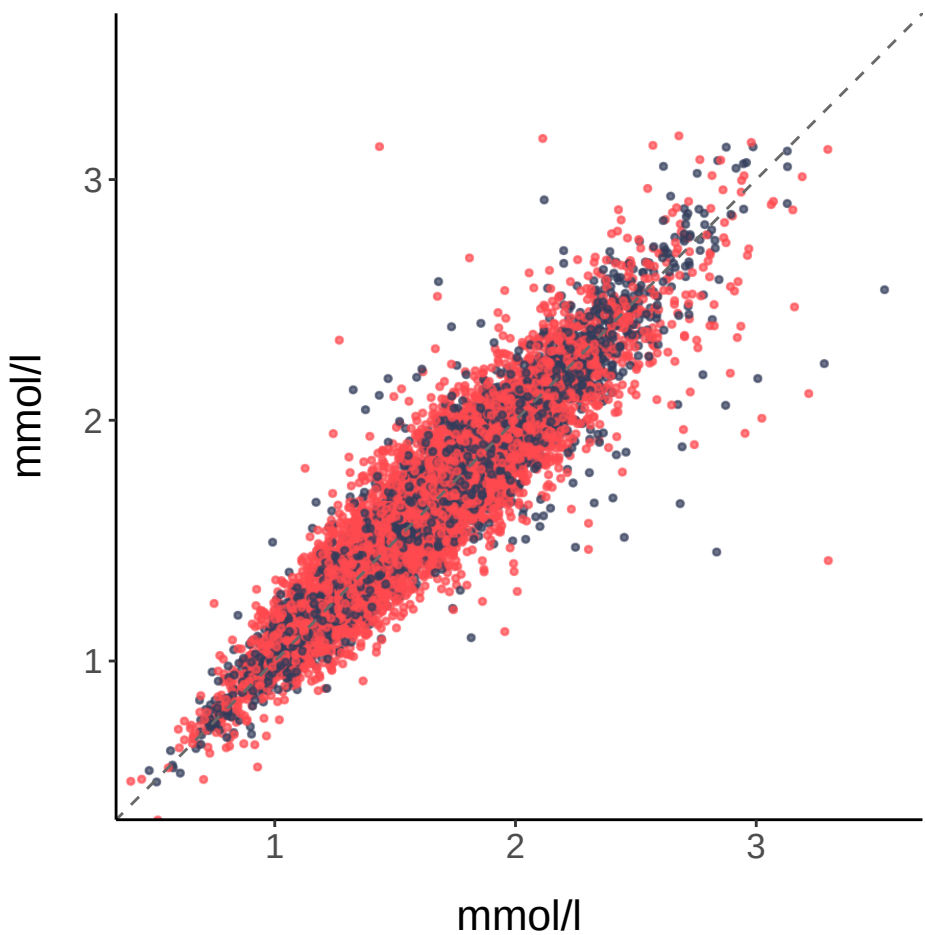


L_LDL_L

CV: 4.36%, R²: 0.87

Different spectrometers

● FALSE ● TRUE

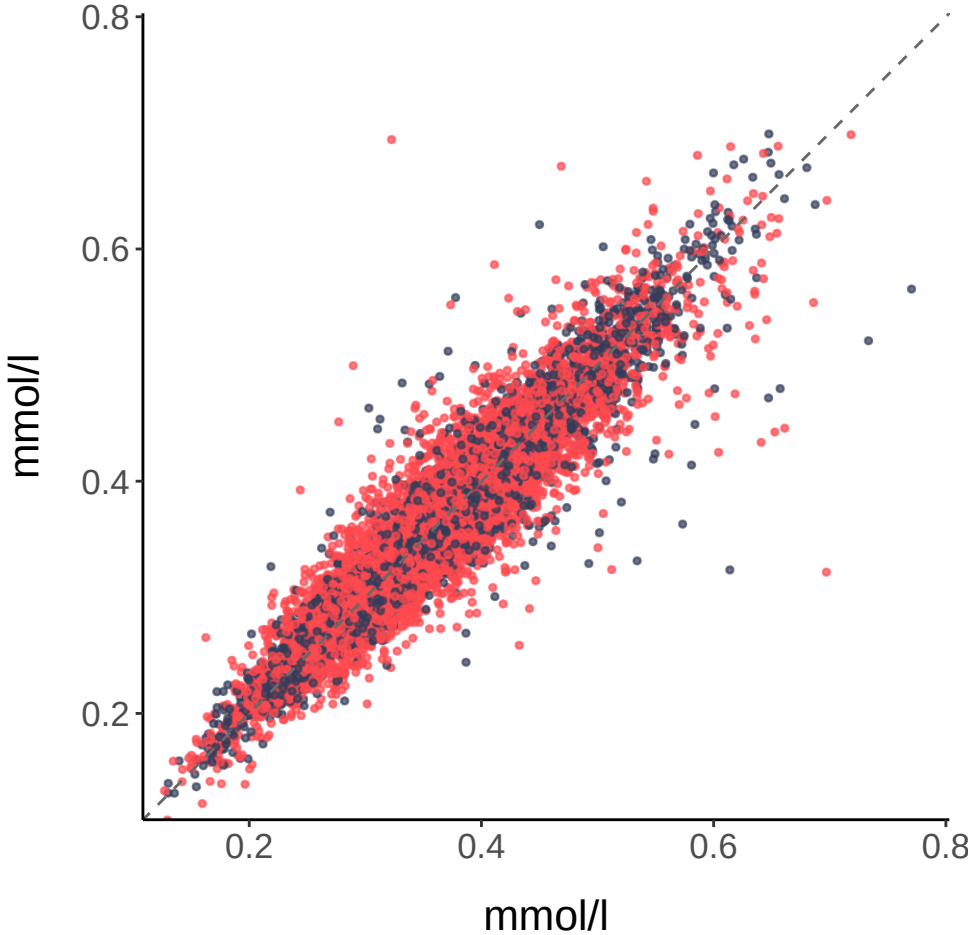


L_LDL_PL

CV: 4.04%, R²: 0.88

Different spectrometers

● FALSE ● TRUE

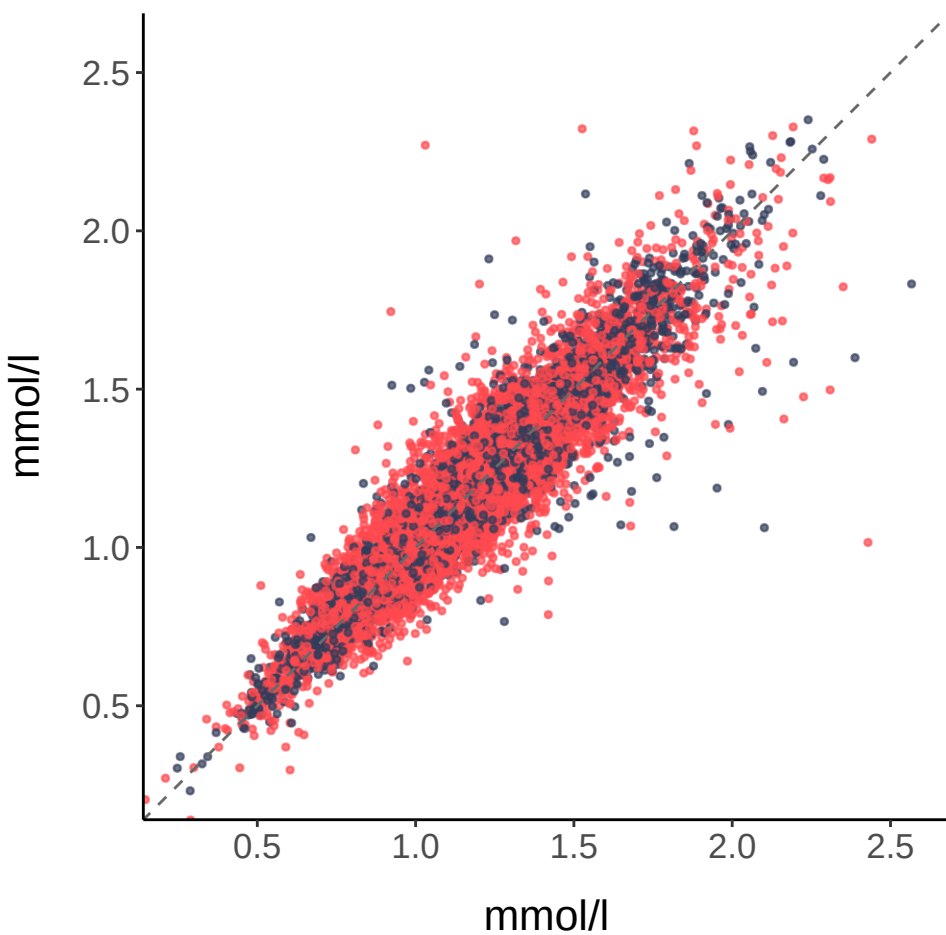


L_LDL_C

CV: 4.64%, R²: 0.87

Different spectrometers

● FALSE ● TRUE

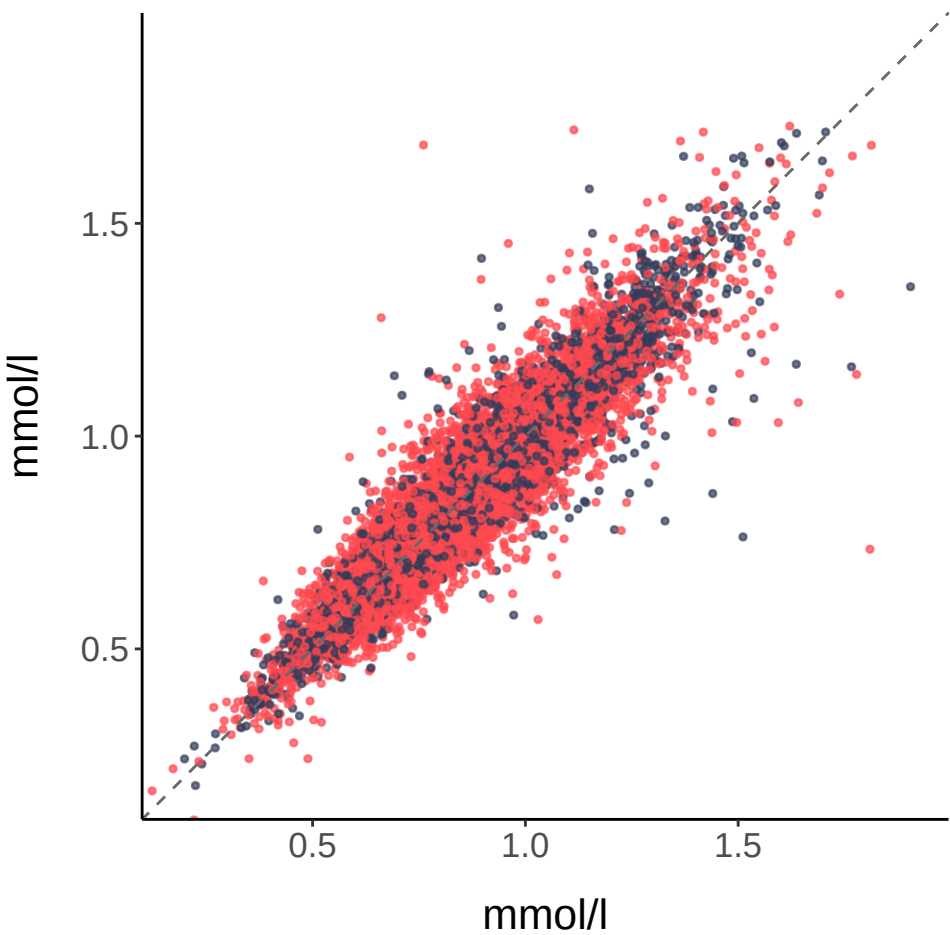


L_LDL_CE

CV: 4.76%, R²: 0.86

Different spectrometers

● FALSE ● TRUE

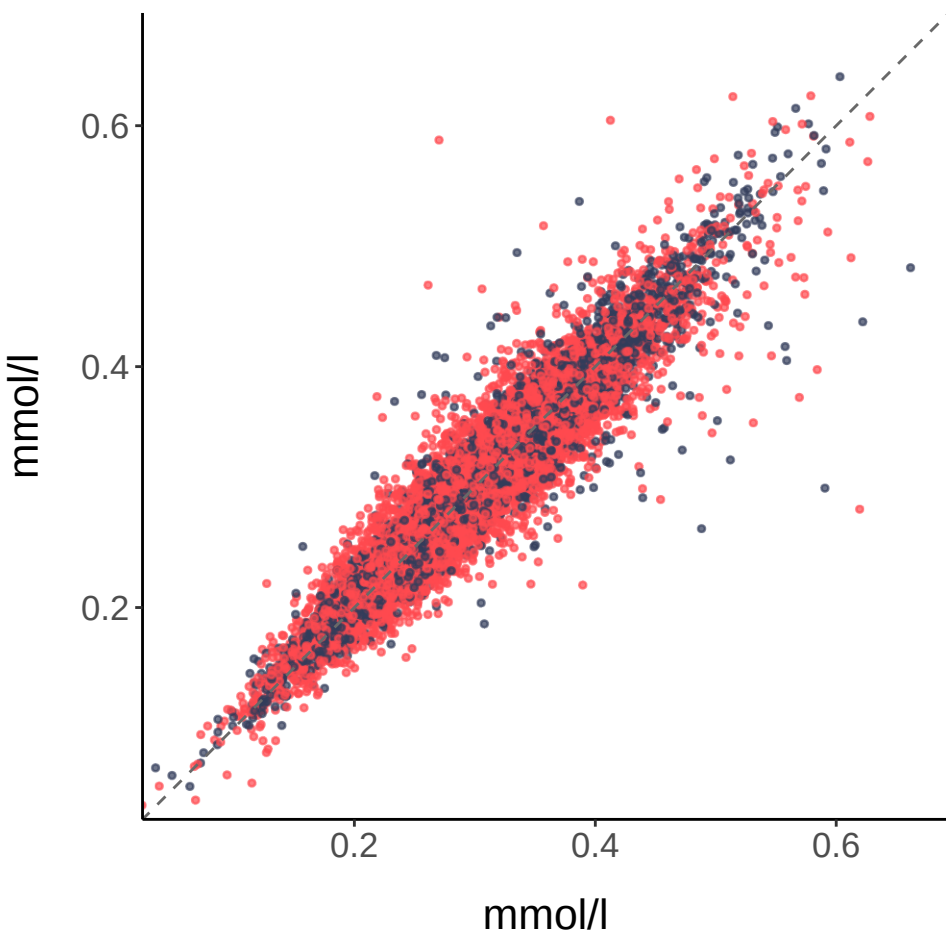


L_LDL_FC

CV: 4.46%, R²: 0.89

Different spectrometers

● FALSE ● TRUE

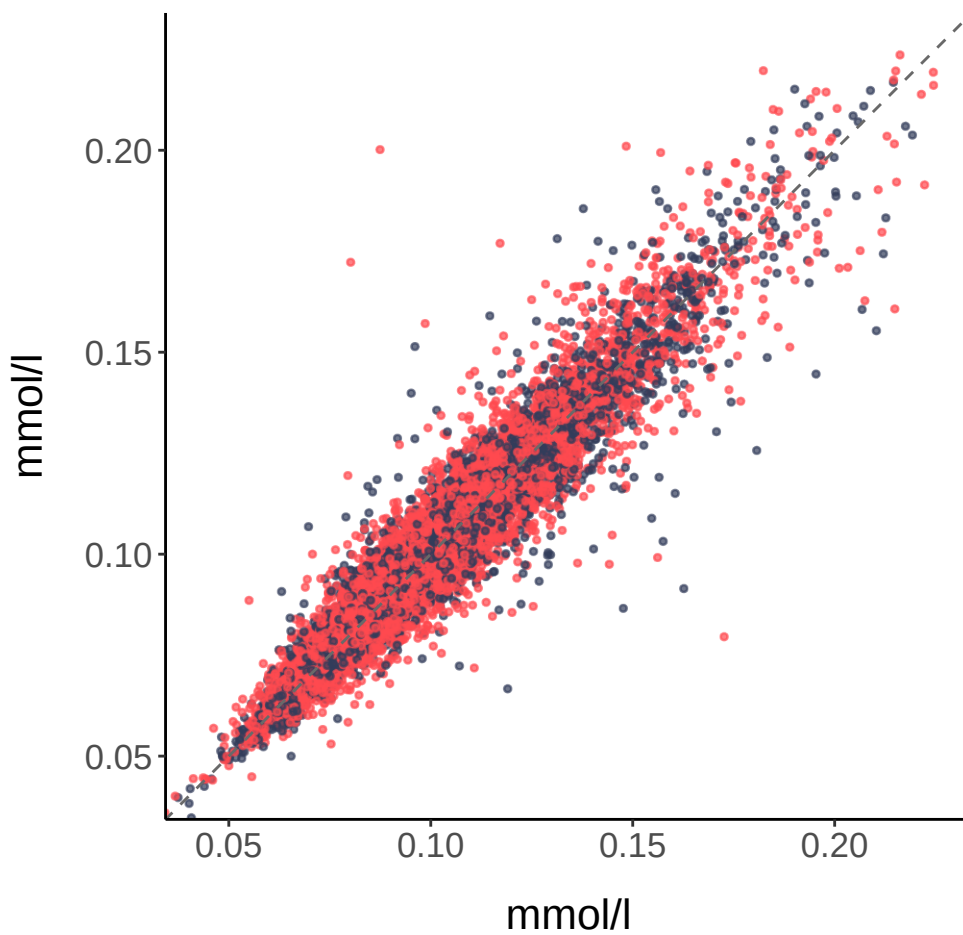


L_LDL_TG

CV: 3.73%, R²: 0.91

Different spectrometers

● FALSE ● TRUE



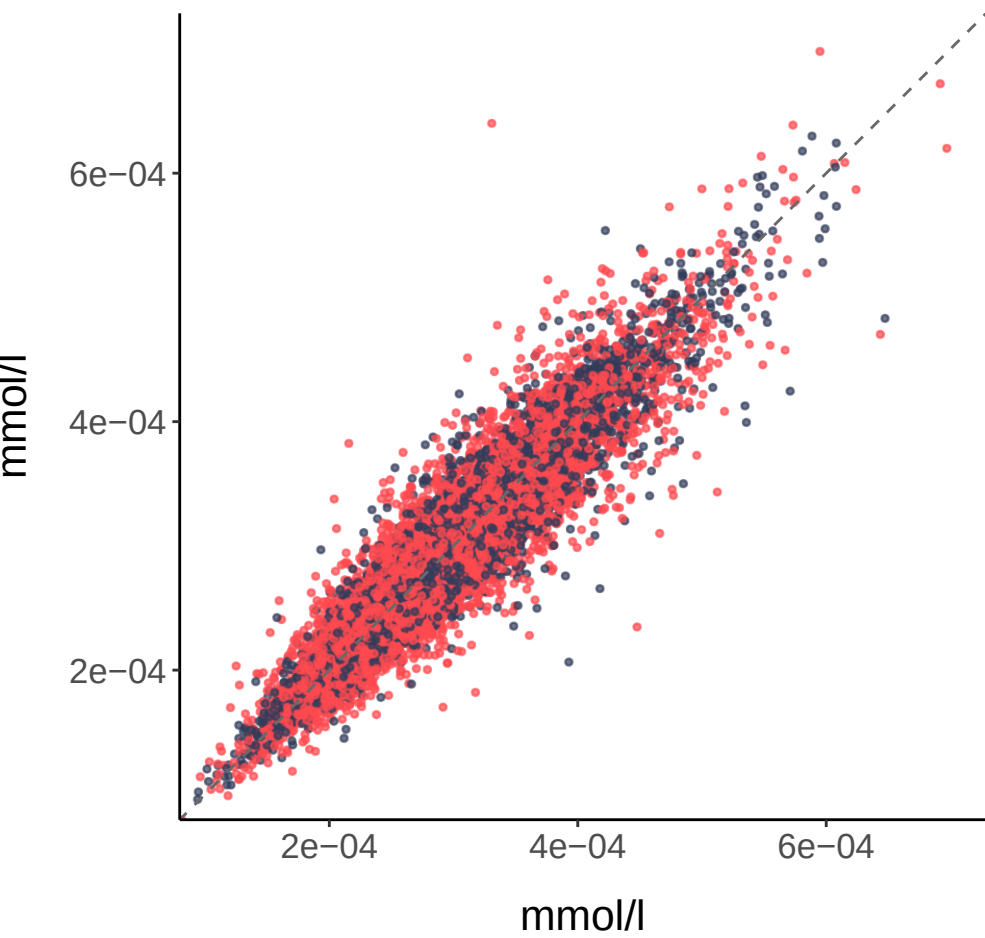
Medium LDL (average diameter 23 nm)

M_LDL_P

CV: 4.84%, R²: 0.87

Different spectrometers

● FALSE ● TRUE

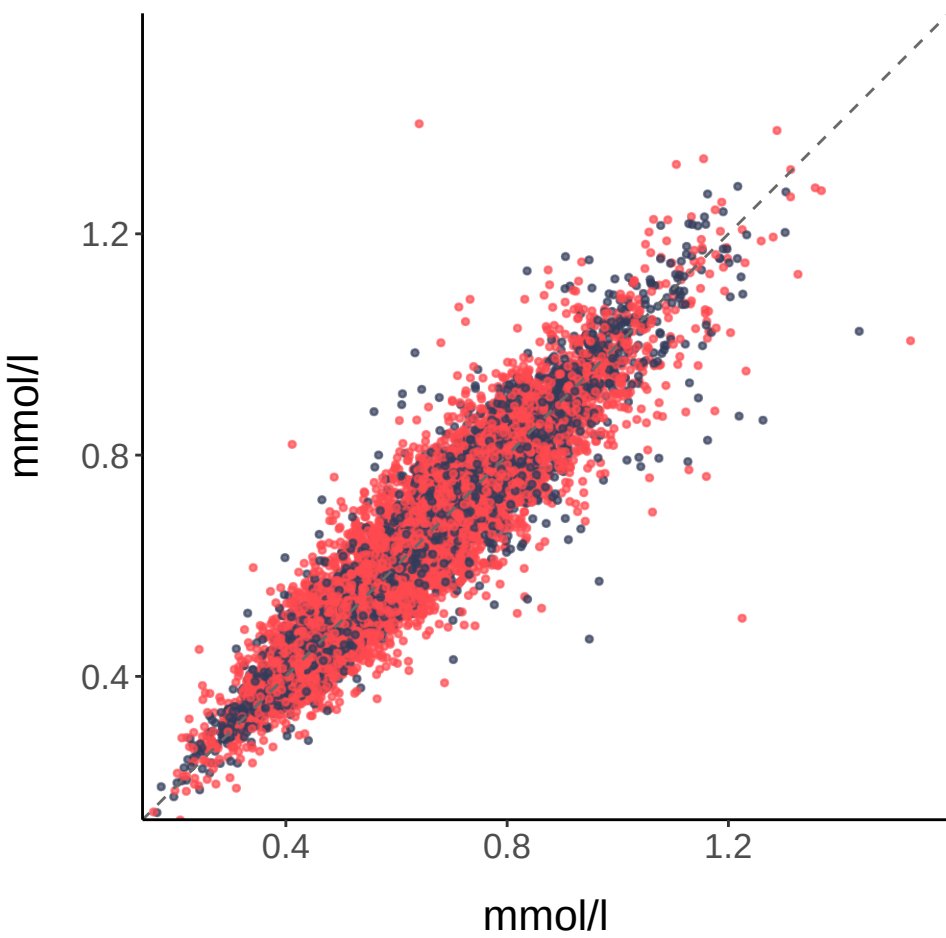


M_LDL_L

CV: 5%, R²: 0.87

Different spectrometers

● FALSE ● TRUE

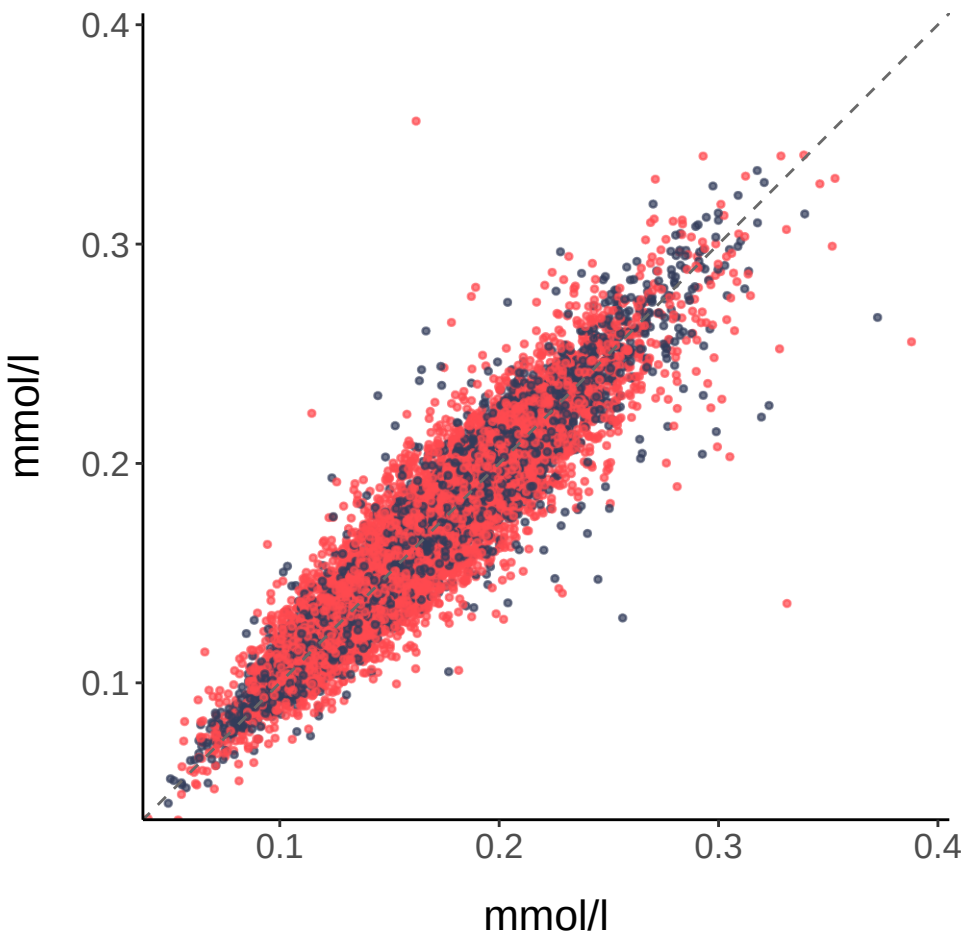


M_LDL_PL

CV: 4.9%, R²: 0.87

Different spectrometers

● FALSE ● TRUE

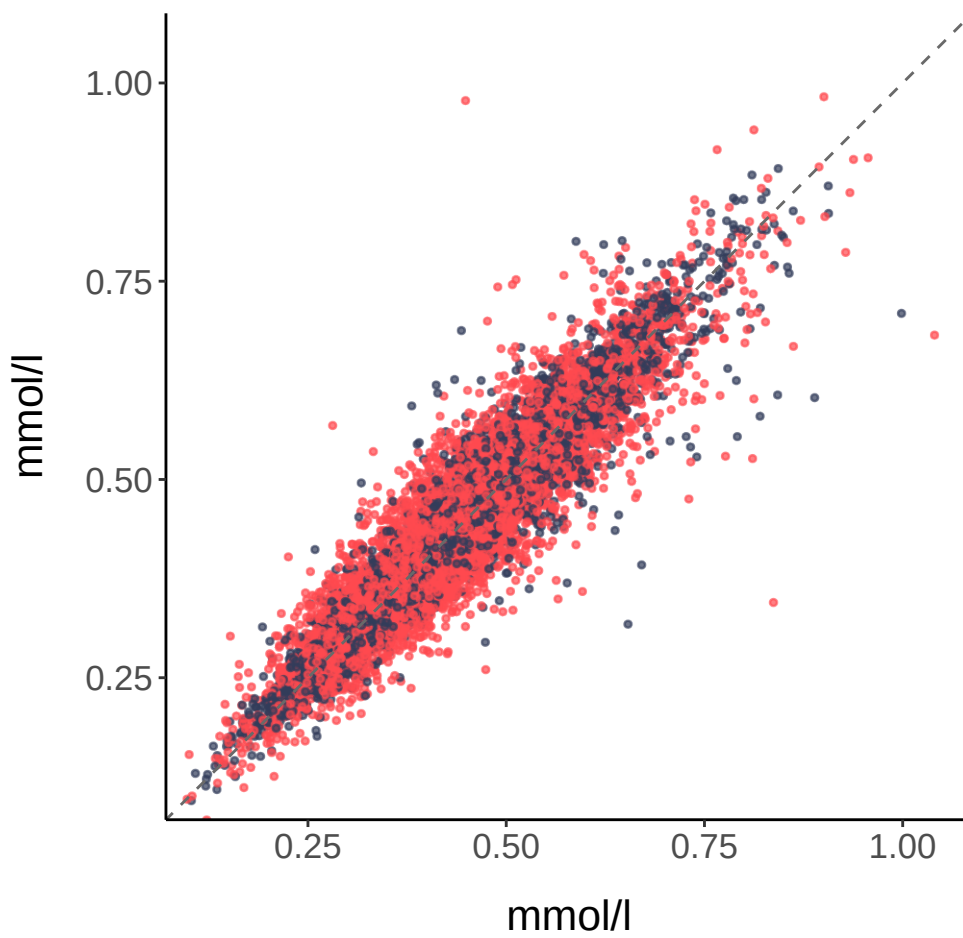


M_LDL_C

CV: 5.21%, R²: 0.87

Different spectrometers

● FALSE ● TRUE

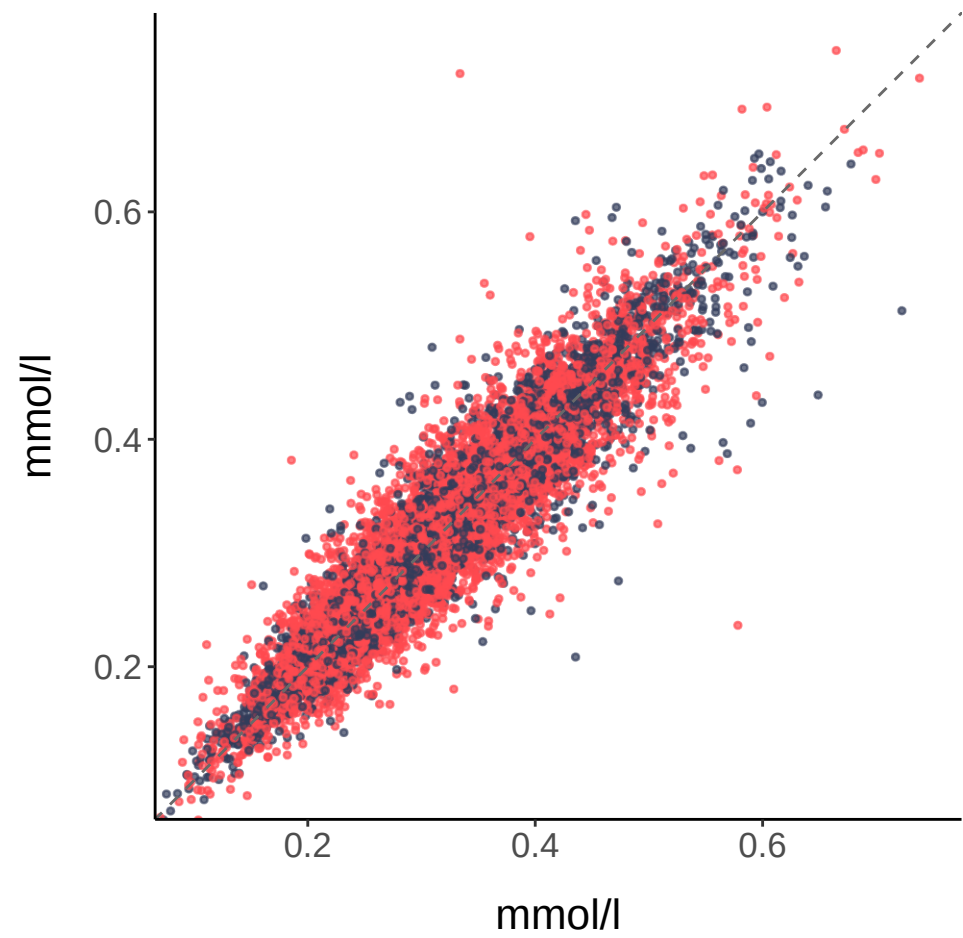


M_LDL_CE

CV: 5.3%, R²: 0.88

Different spectrometers

● FALSE ● TRUE

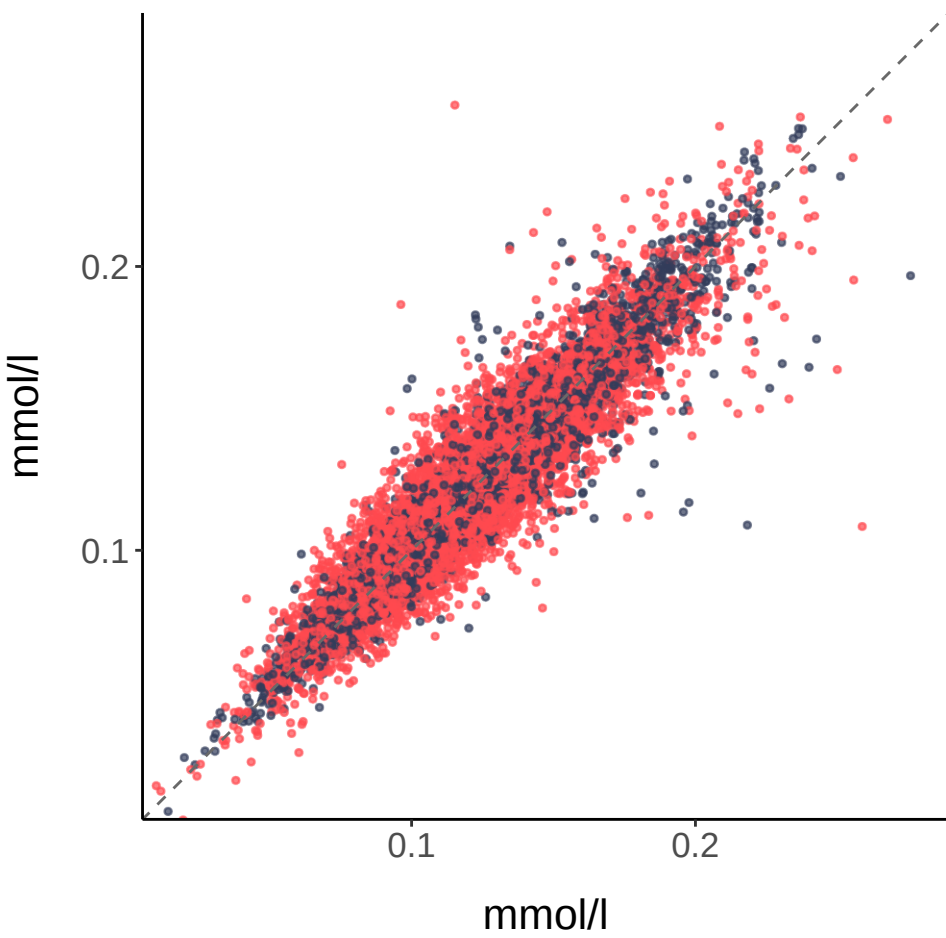


M_LDL_FC

CV: 5.24%, R²: 0.86

Different spectrometers

● FALSE ● TRUE

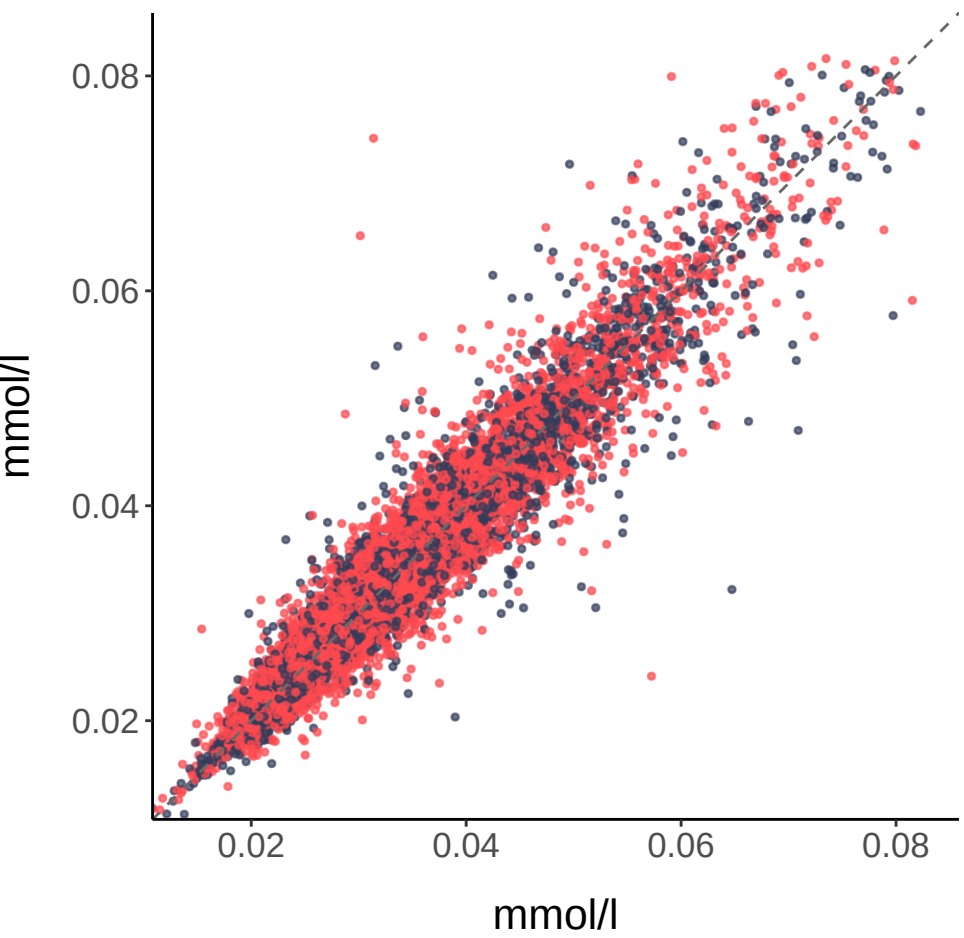


M_LDL_TG

CV: 4.24%, R²: 0.92

Different spectrometers

● FALSE ● TRUE



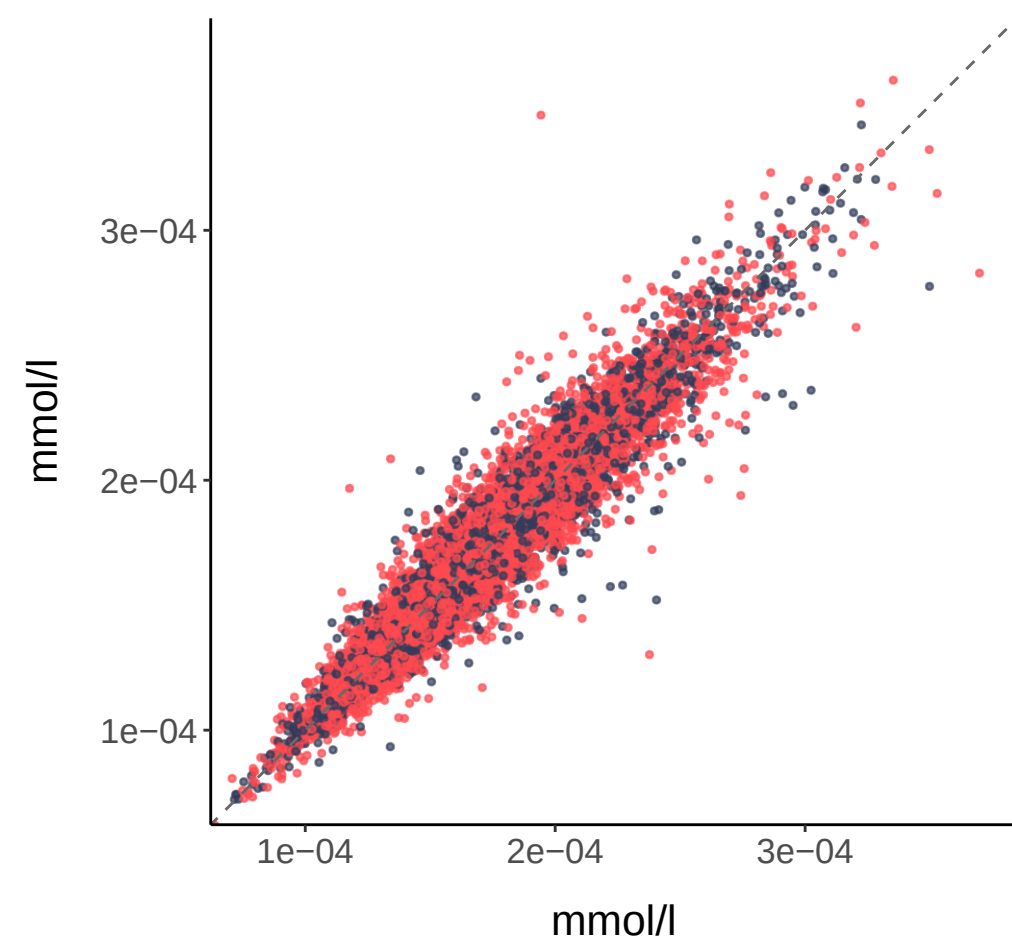
Small LDL (average diameter 18.7 nm)

S_LDL_P

CV: 3.24%, R^2 : 0.92

Different spectrometers

● FALSE ● TRUE

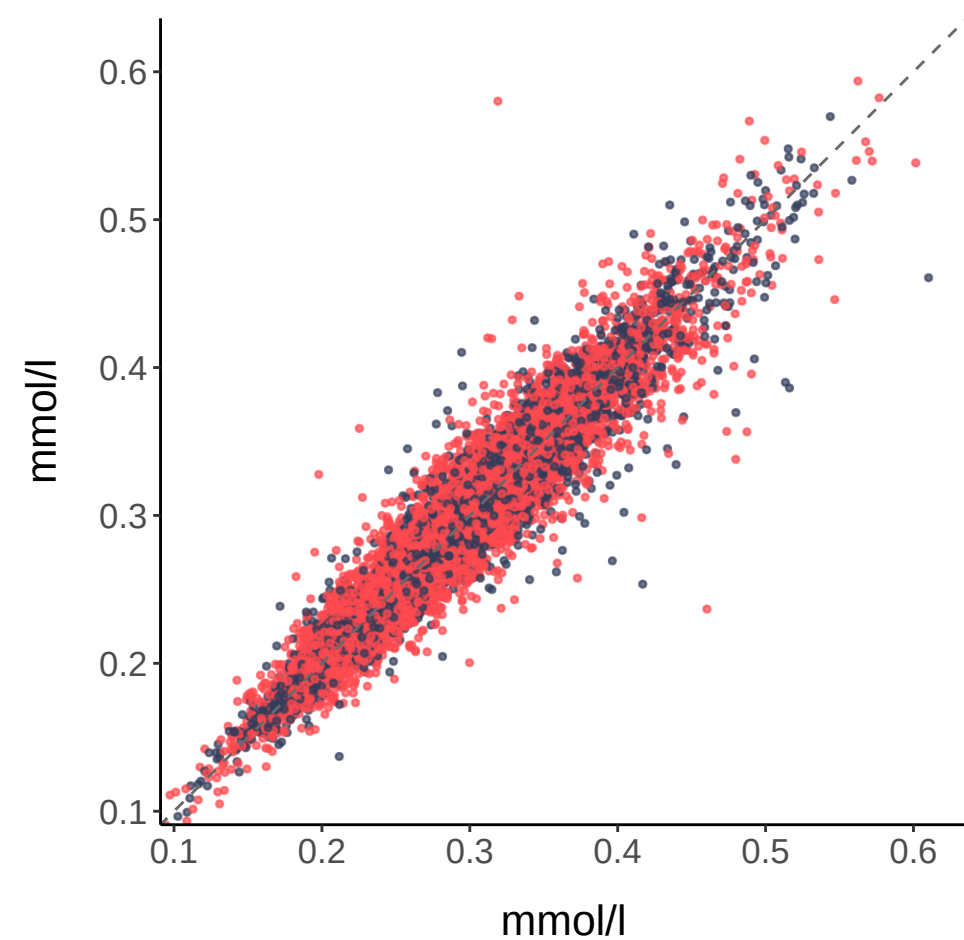


S_LDL_L

CV: 3.43%, R^2 : 0.91

Different spectrometers

● FALSE ● TRUE

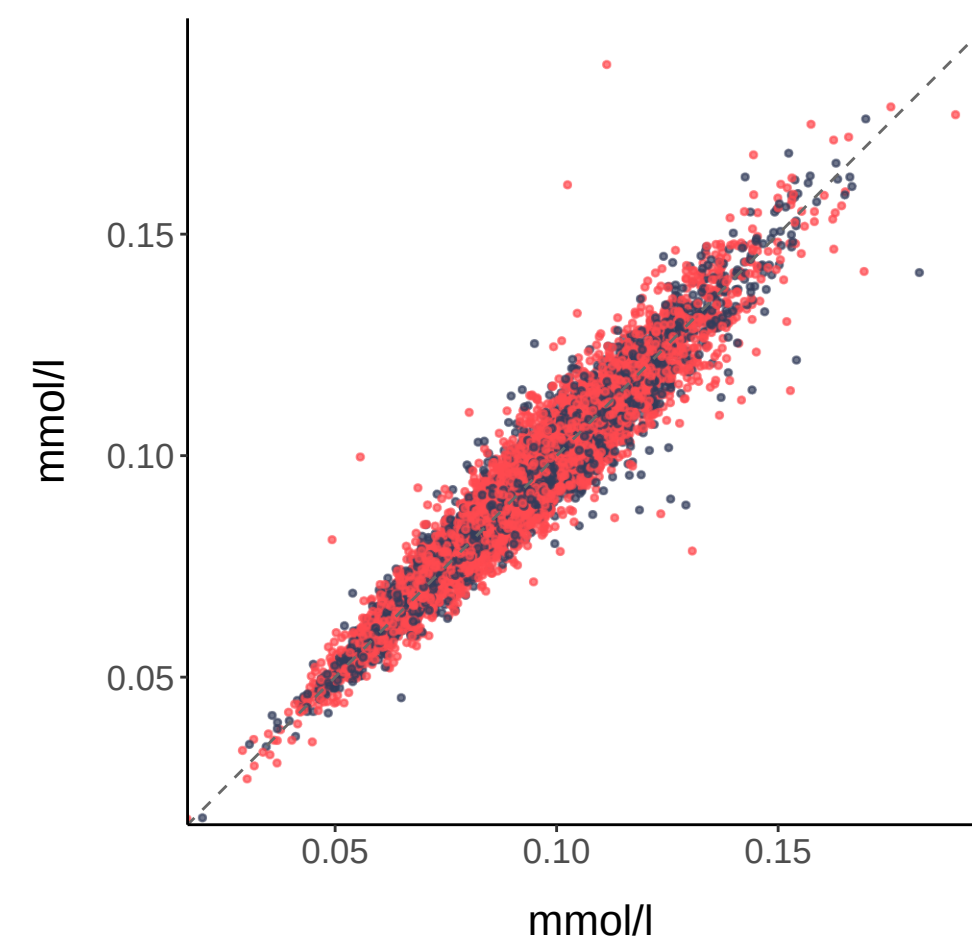


S_LDL_PL

CV: 2.77%, R^2 : 0.93

Different spectrometers

● FALSE ● TRUE

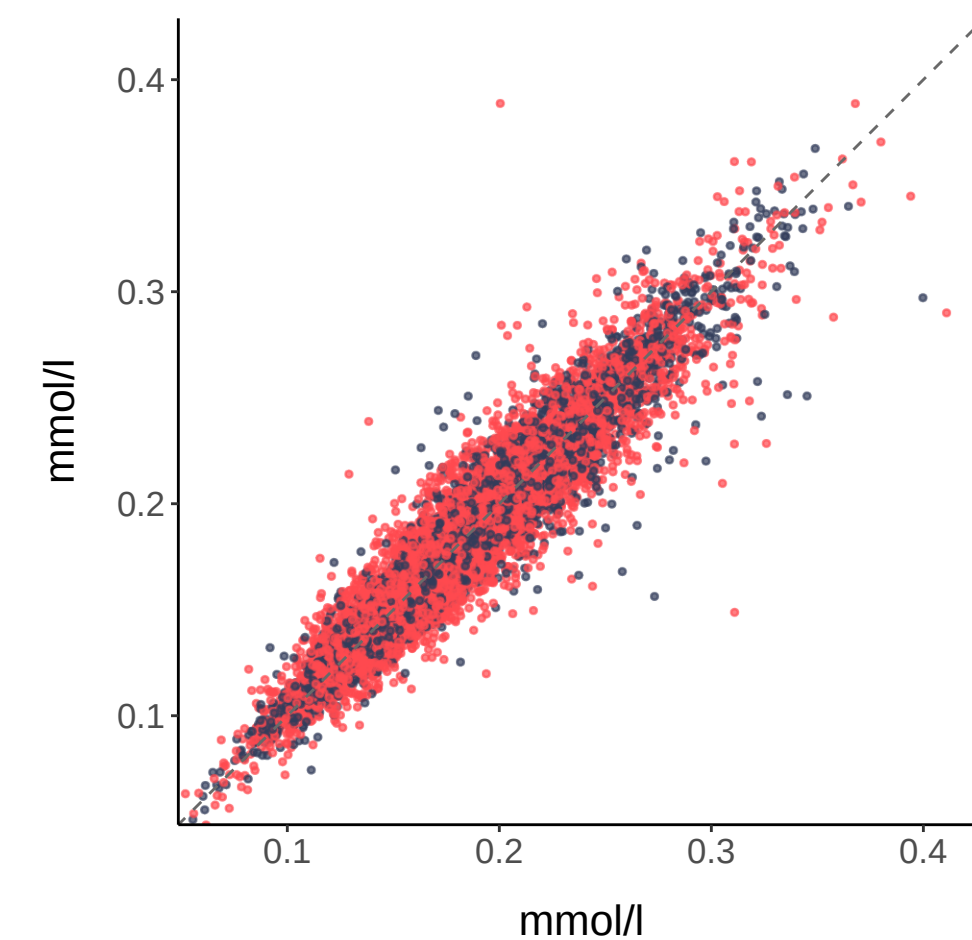


S_LDL_C

CV: 3.99%, R^2 : 0.9

Different spectrometers

● FALSE ● TRUE

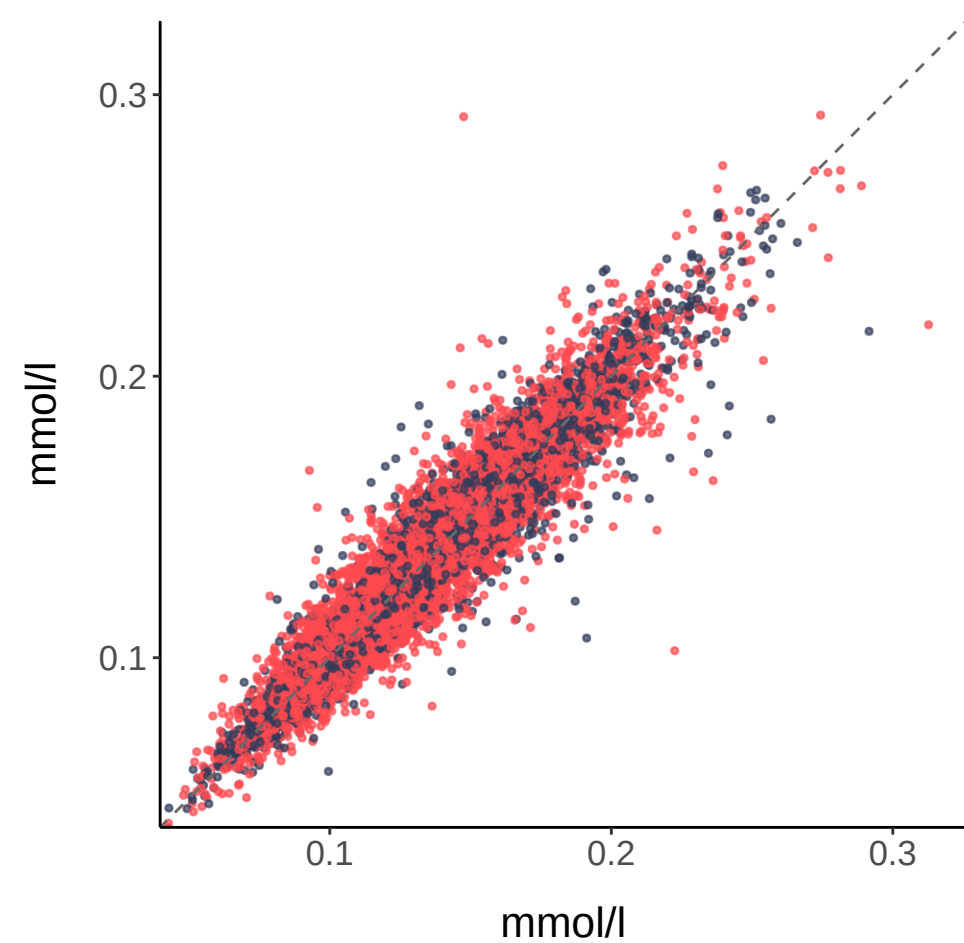


S_LDL_CE

CV: 4.08%, R^2 : 0.9

Different spectrometers

● FALSE ● TRUE

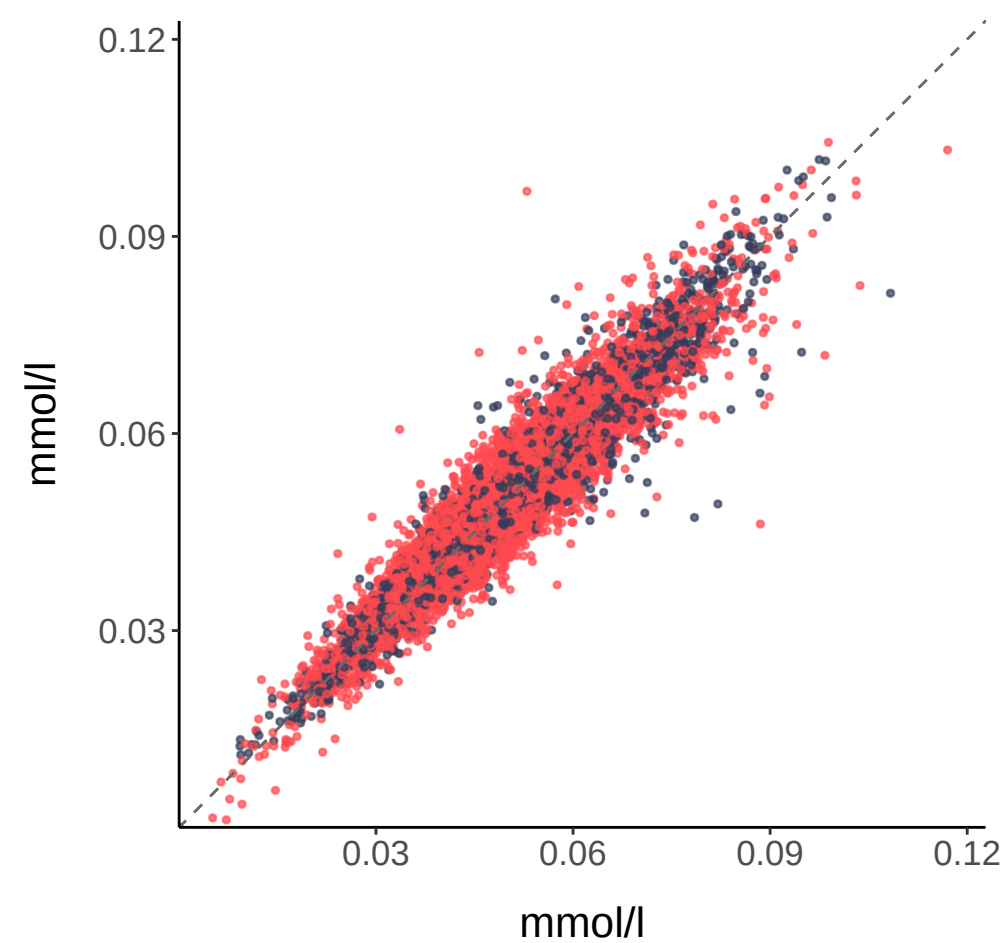


S_LDL_FC

CV: 4.15%, R^2 : 0.91

Different spectrometers

● FALSE ● TRUE

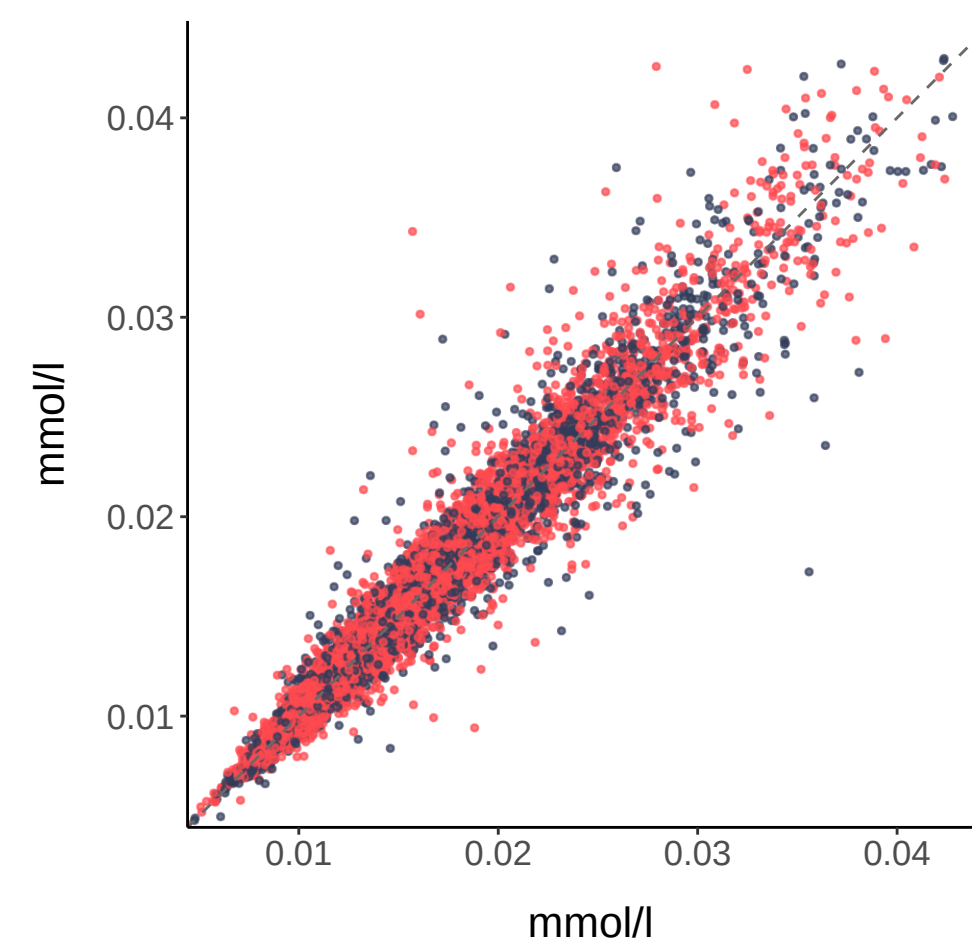


S_LDL_TG

CV: 3.5%, R^2 : 0.95

Different spectrometers

● FALSE ● TRUE



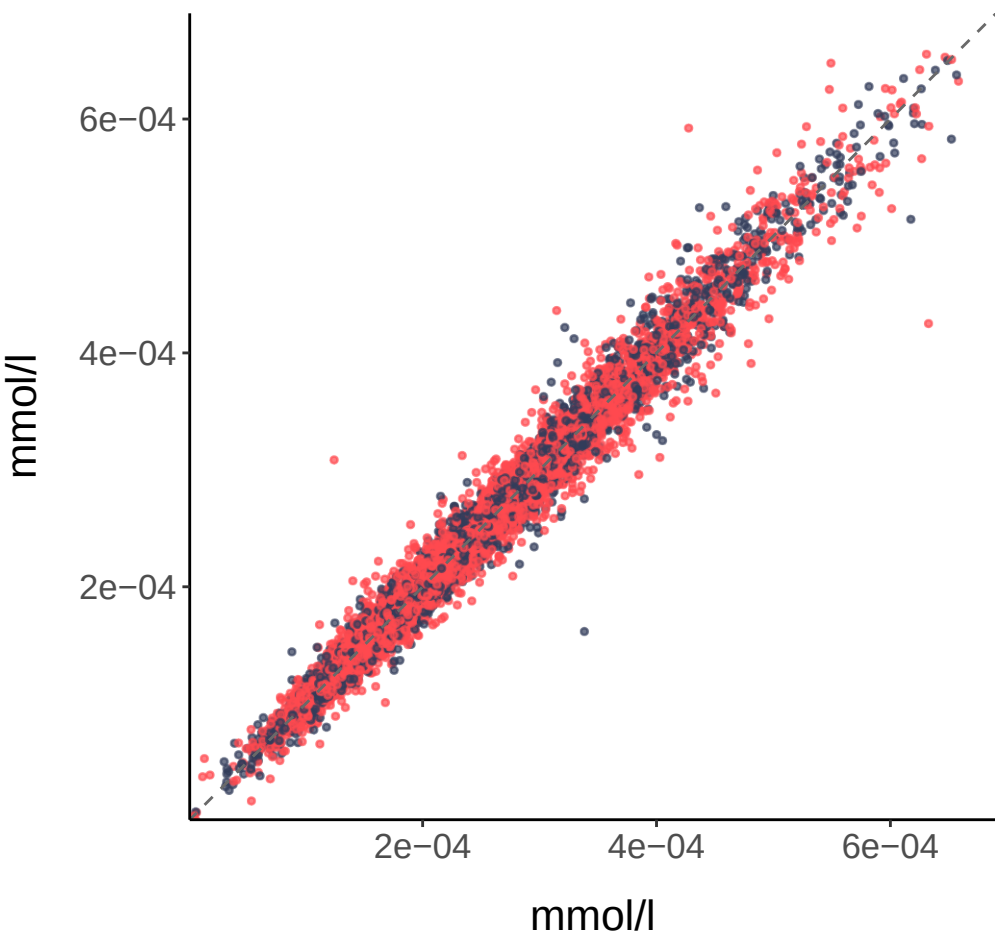
Very large HDL (average diameter 14.3 nm)

XL_HDL_P

CV: 3.27%, R²: 0.98

Different spectrometers

● FALSE ● TRUE

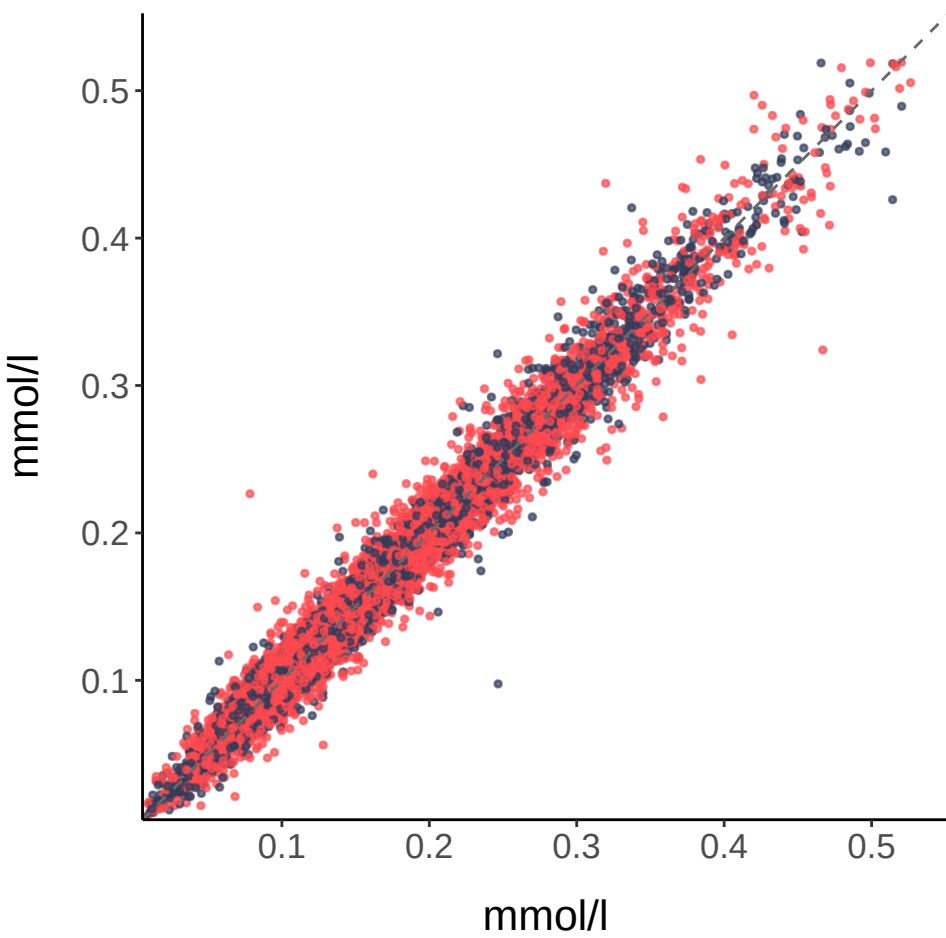


XL_HDL_L

CV: 4.78%, R²: 0.97

Different spectrometers

● FALSE ● TRUE

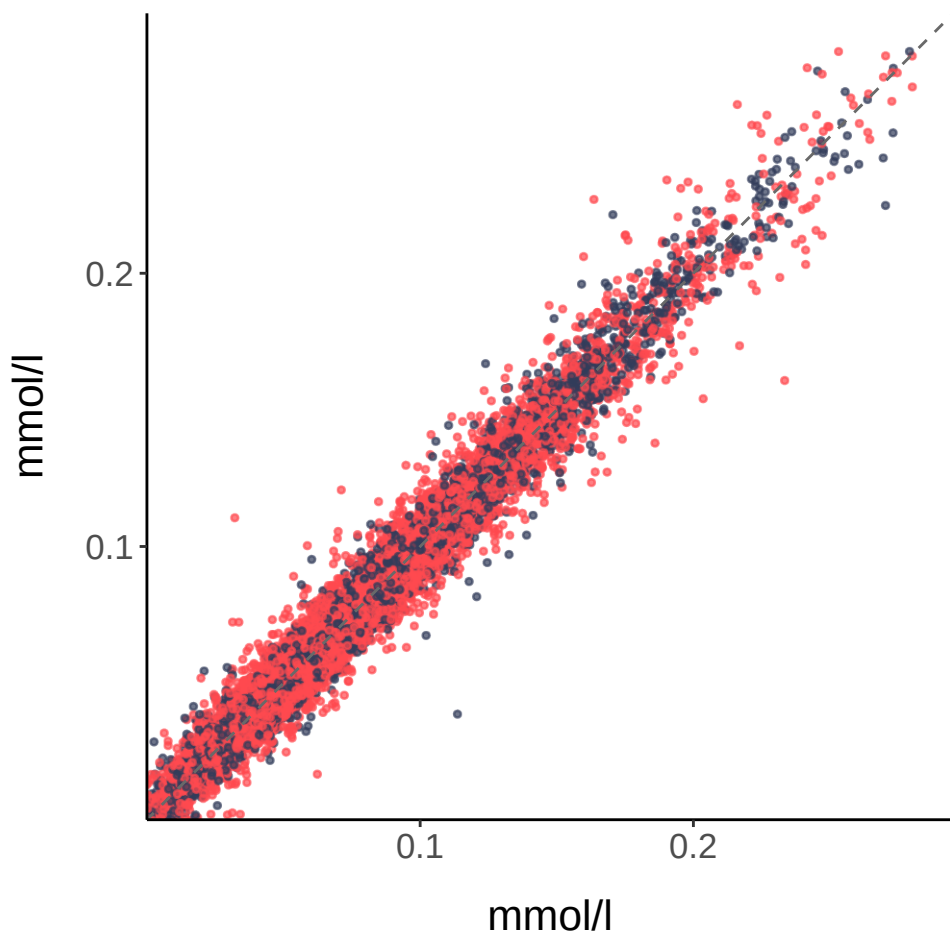


XL_HDL_PL

CV: 8.06%, R²: 0.97

Different spectrometers

● FALSE ● TRUE

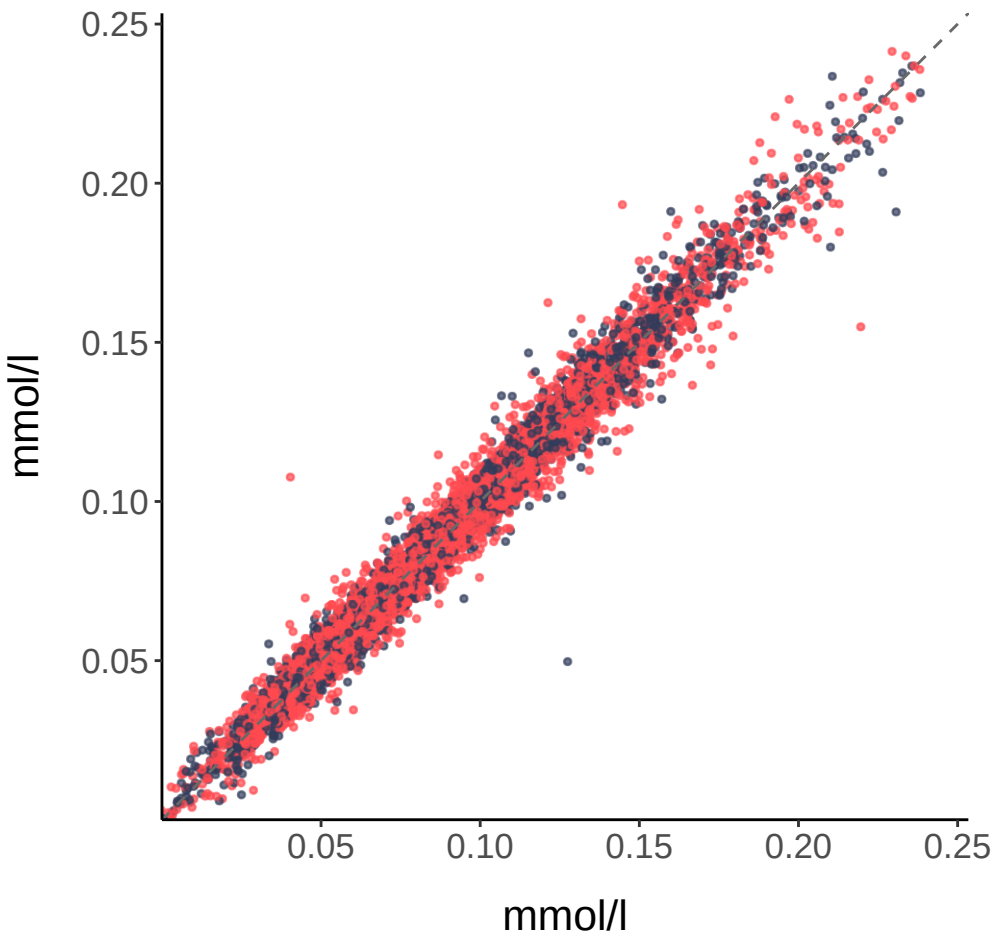


XL_HDL_C

CV: 3.69%, R²: 0.98

Different spectrometers

● FALSE ● TRUE

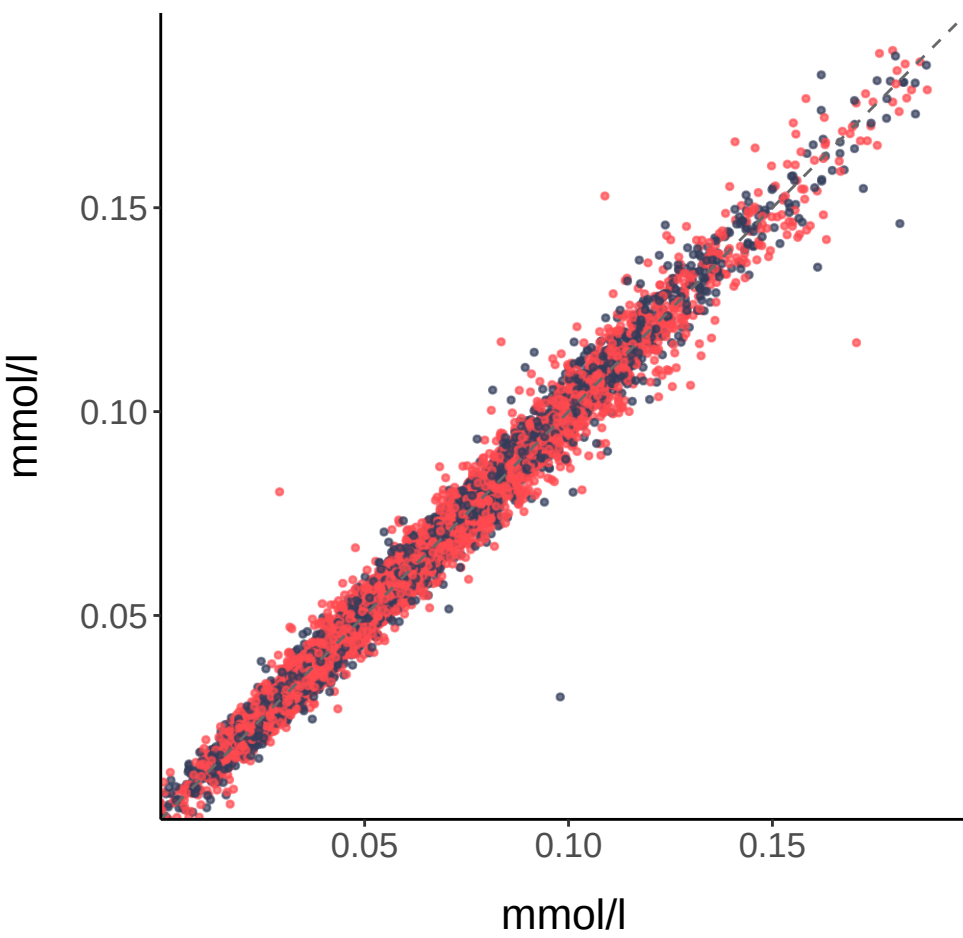


XL_HDL_CE

CV: 3.89%, R²: 0.98

Different spectrometers

● FALSE ● TRUE

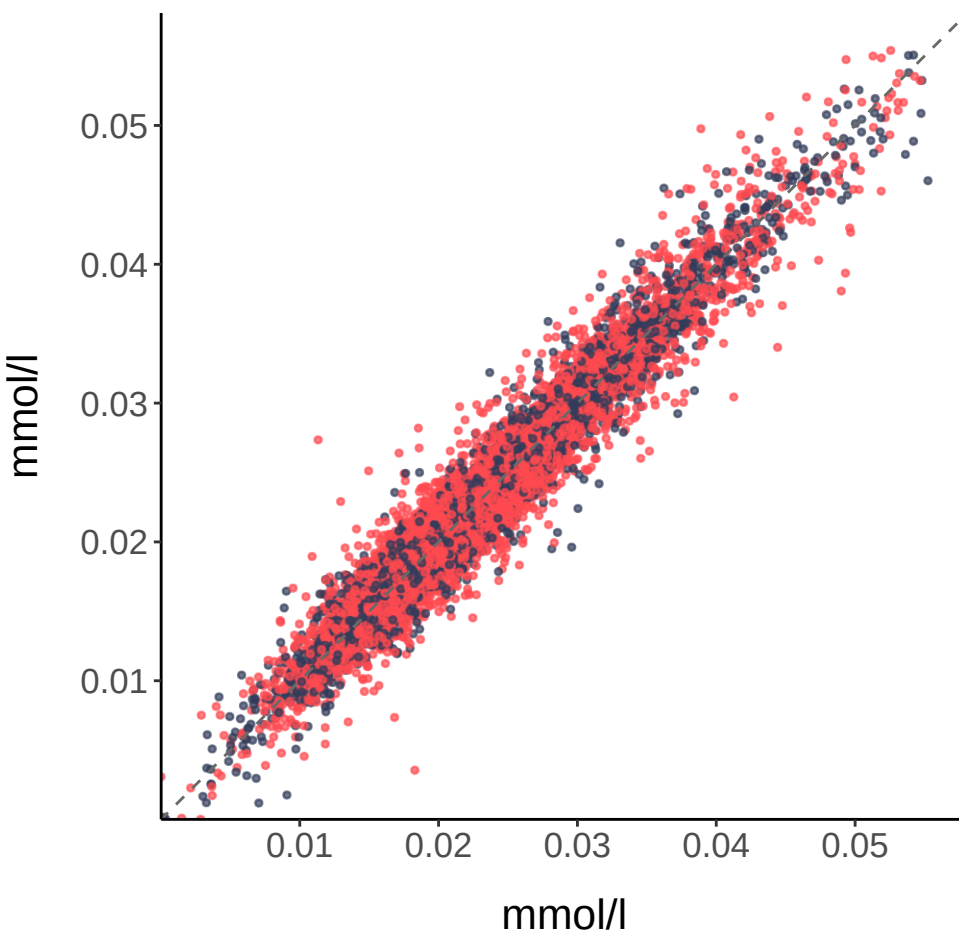


XL_HDL_FC

CV: 4.54%, R²: 0.94

Different spectrometers

● FALSE ● TRUE

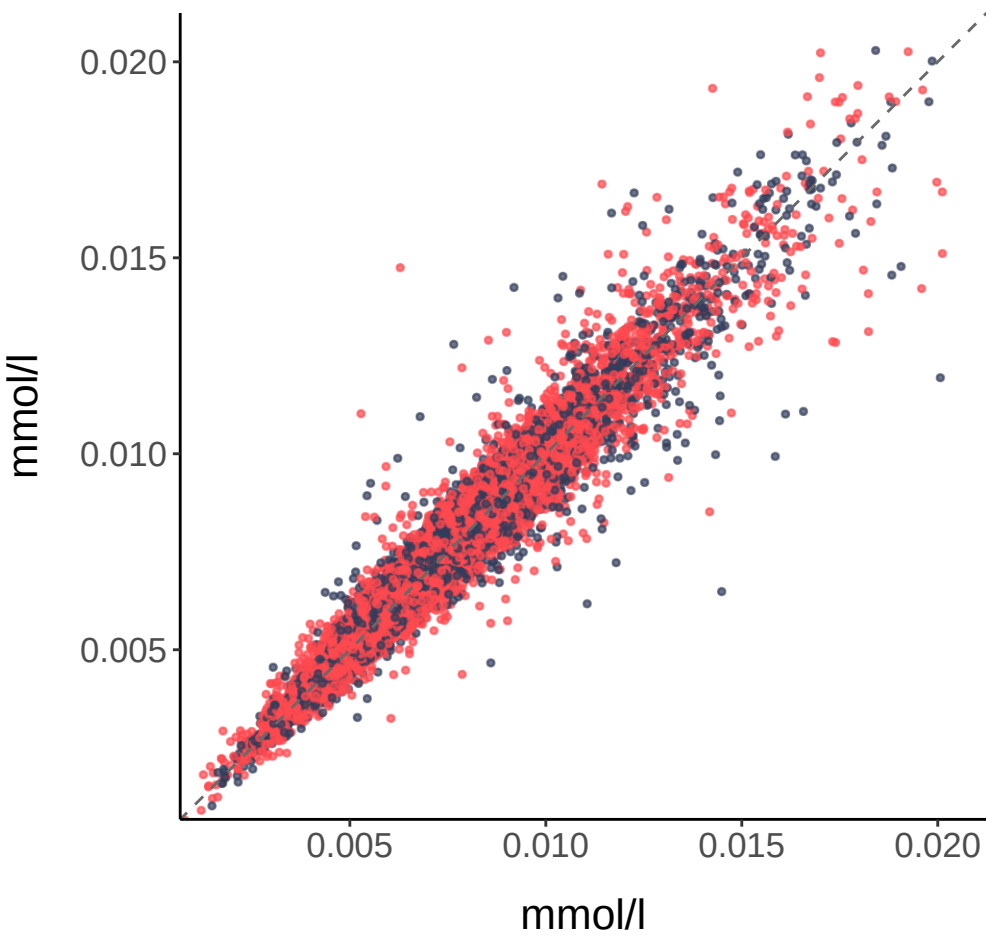


XL_HDL_TG

CV: 4.17%, R²: 0.94

Different spectrometers

● FALSE ● TRUE



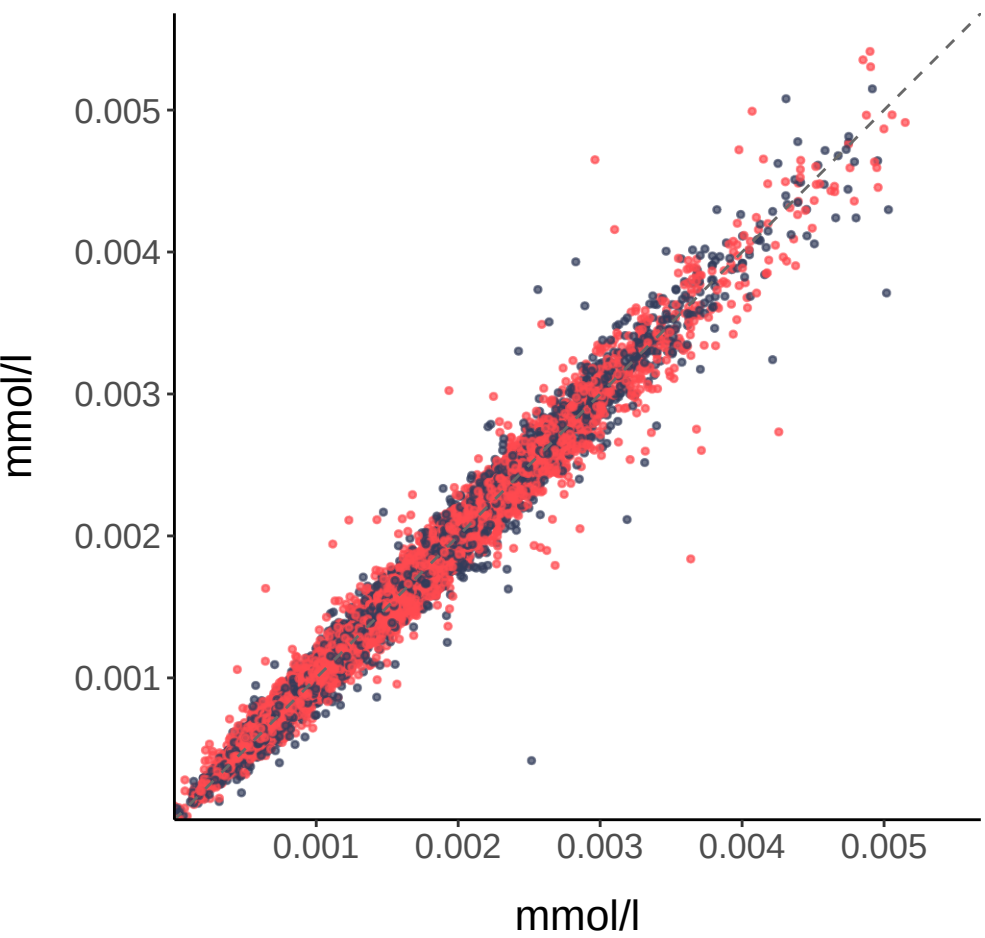
Large HDL (average diameter 12.1 nm)

L_HDL_P

CV: 4.22%, R²: 0.98

Different spectrometers

● FALSE ● TRUE

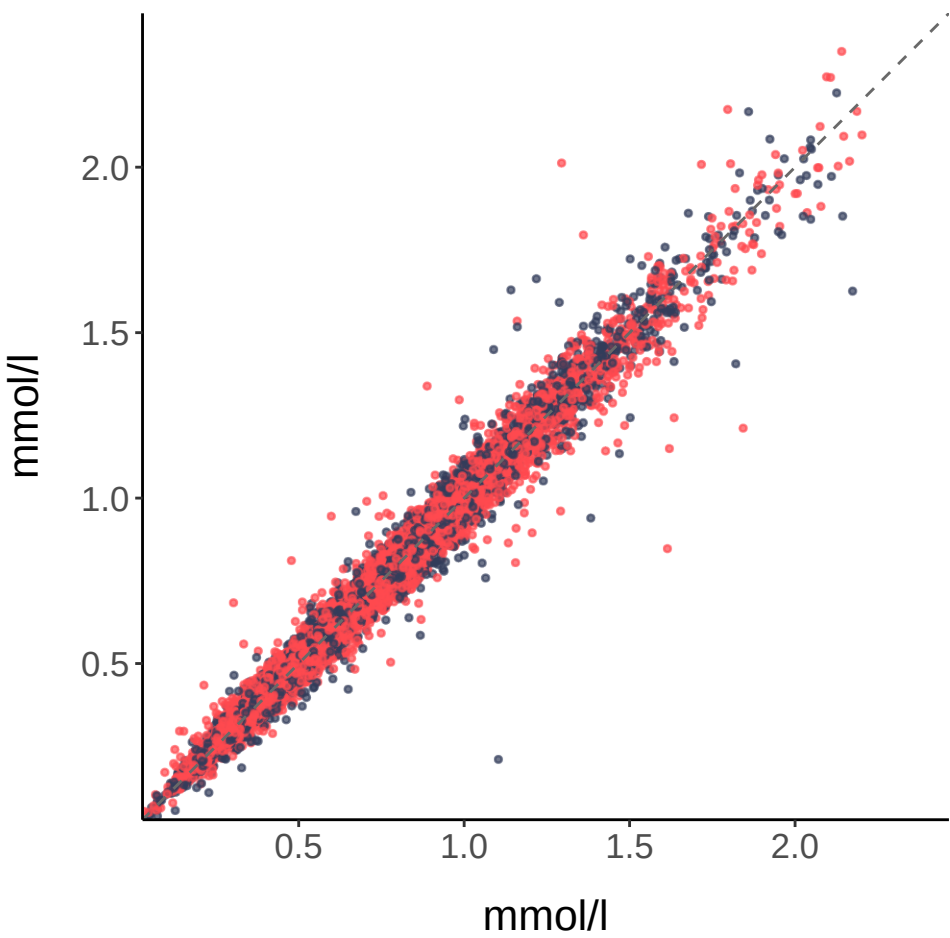


L_HDL_L

CV: 3.57%, R²: 0.98

Different spectrometers

● FALSE ● TRUE

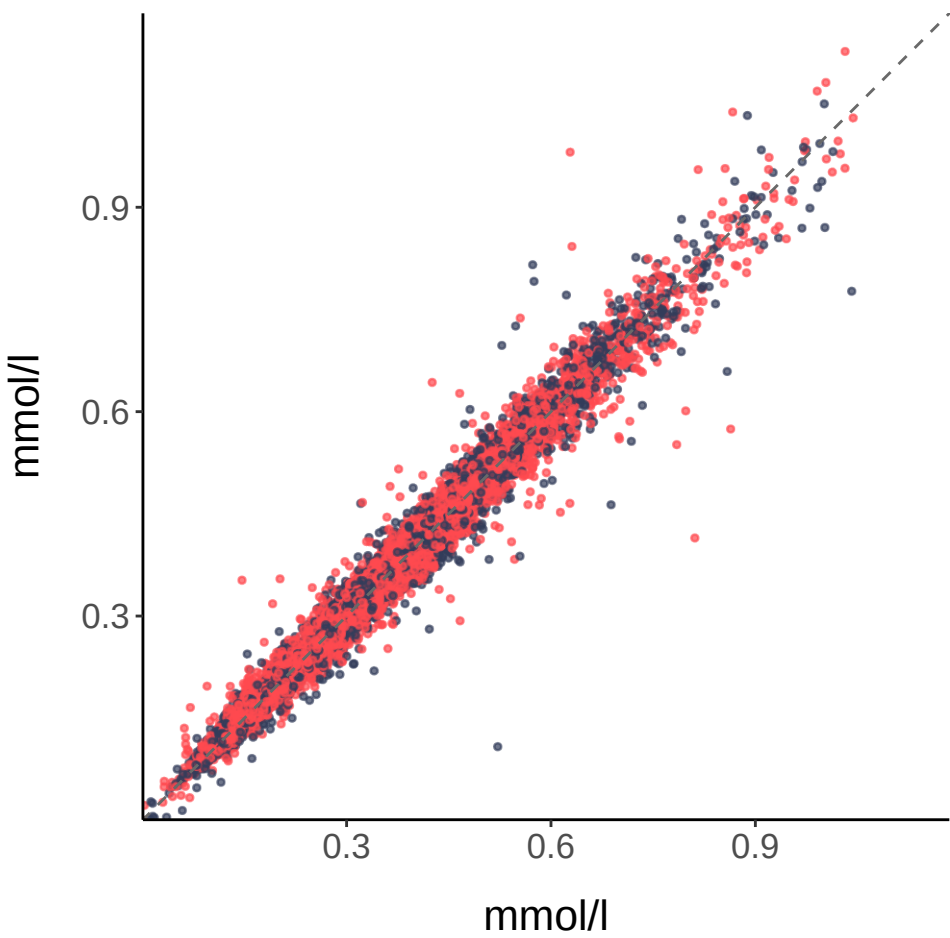


L_HDL_PL

CV: 3.64%, R²: 0.98

Different spectrometers

● FALSE ● TRUE

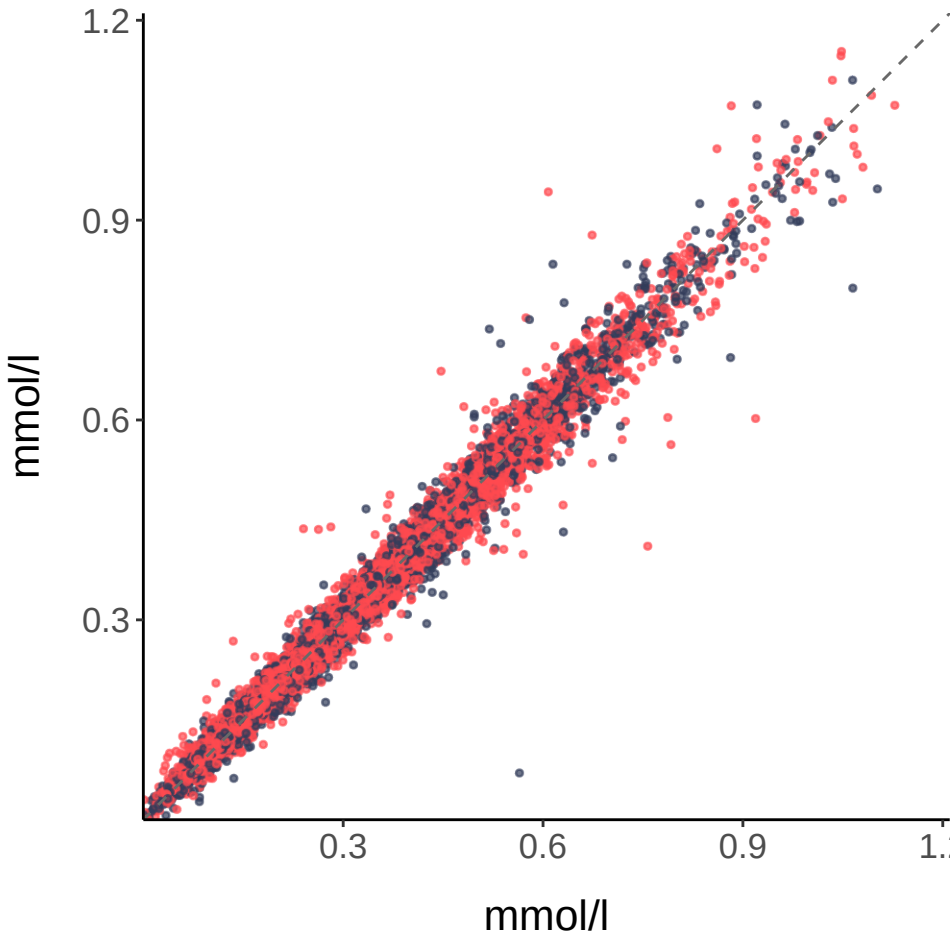


L_HDL_C

CV: 4.18%, R²: 0.98

Different spectrometers

● FALSE ● TRUE

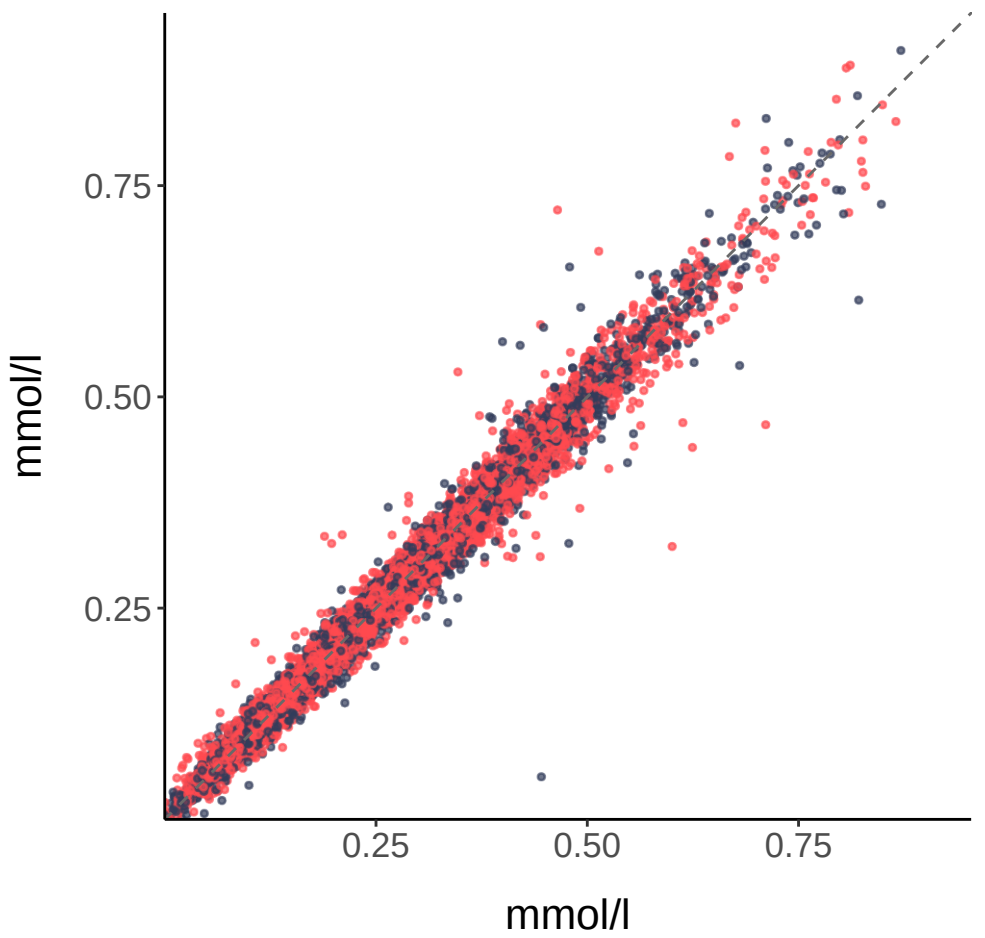


L_HDL_CE

CV: 4.3%, R²: 0.98

Different spectrometers

● FALSE ● TRUE

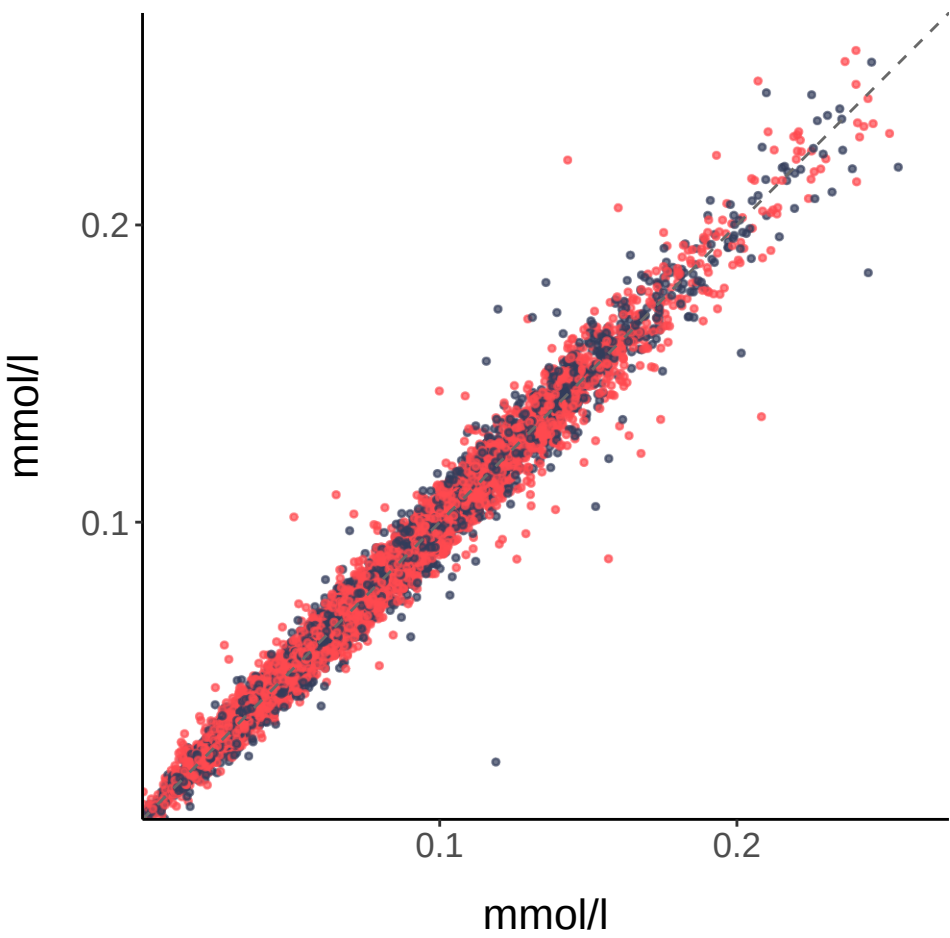


L_HDL_FC

CV: 4.31%, R²: 0.98

Different spectrometers

● FALSE ● TRUE

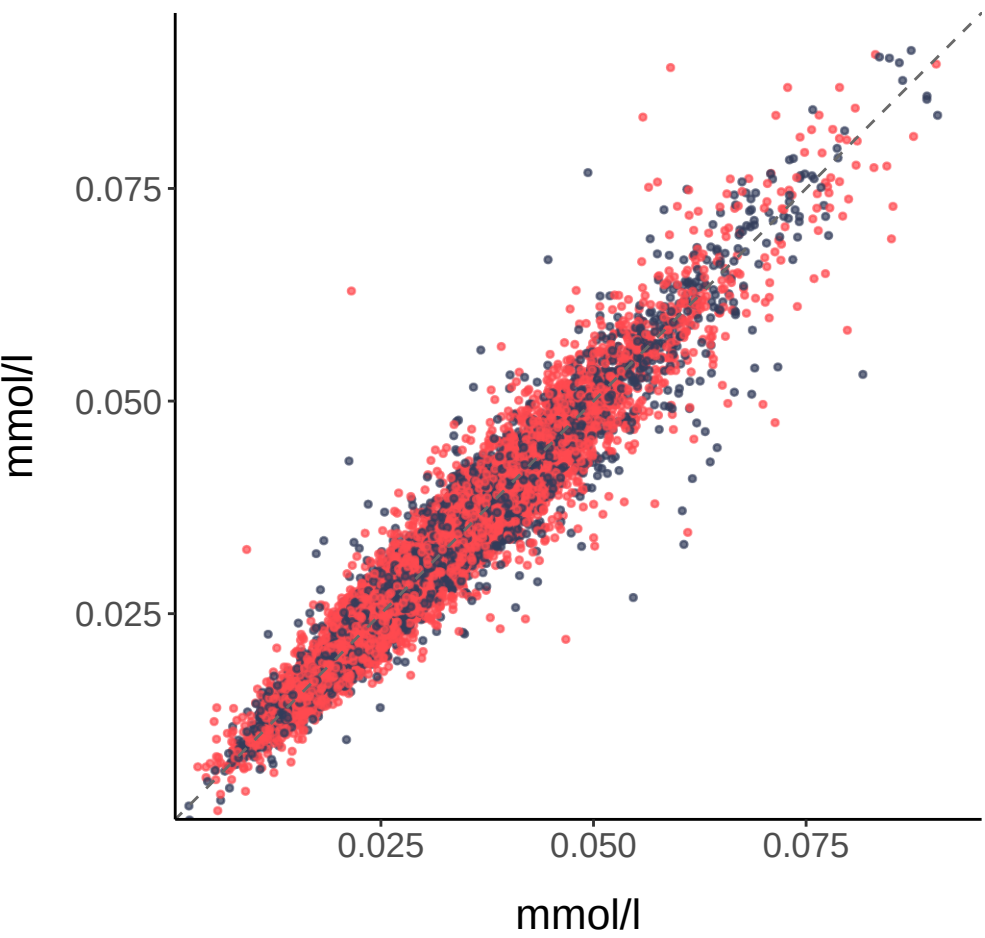


L_HDL_TG

CV: 5.2%, R²: 0.93

Different spectrometers

● FALSE ● TRUE



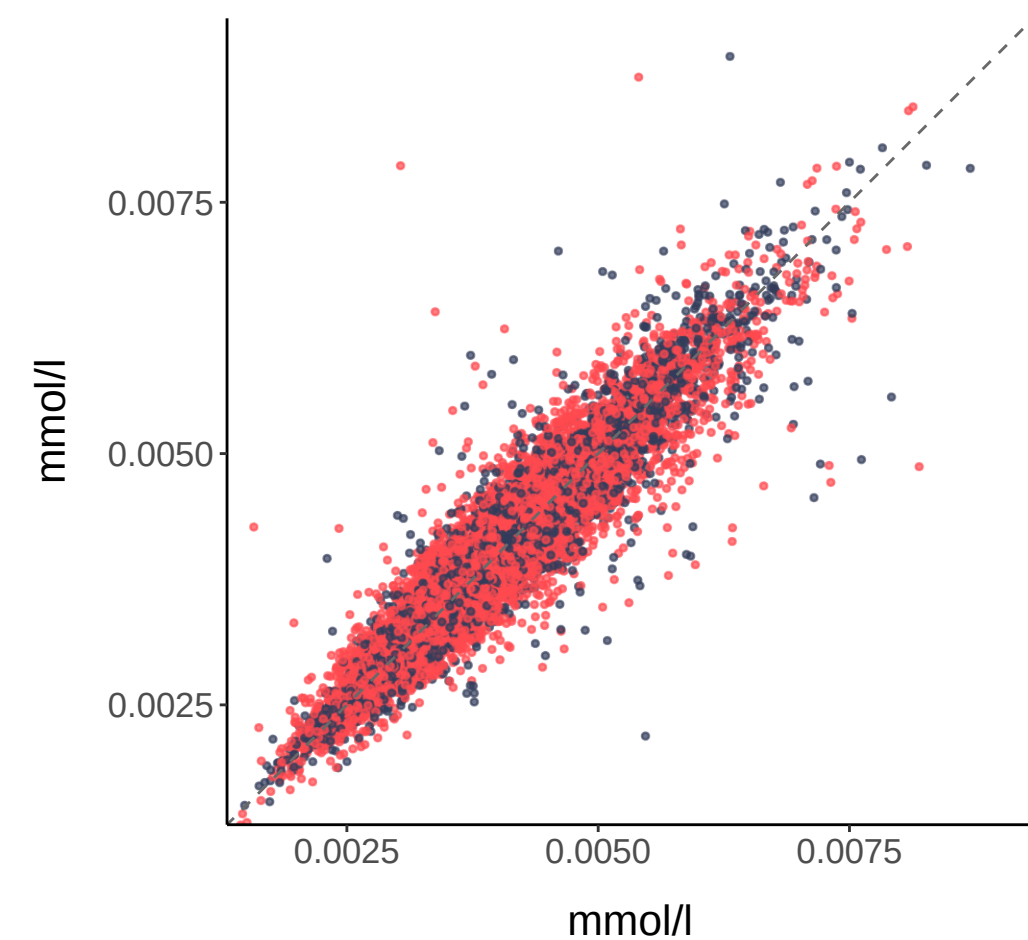
Medium HDL (average diameter 10.9 nm)

M_HDL_P

CV: 4.11%, R^2 : 0.88

Different spectrometers

● FALSE ● TRUE

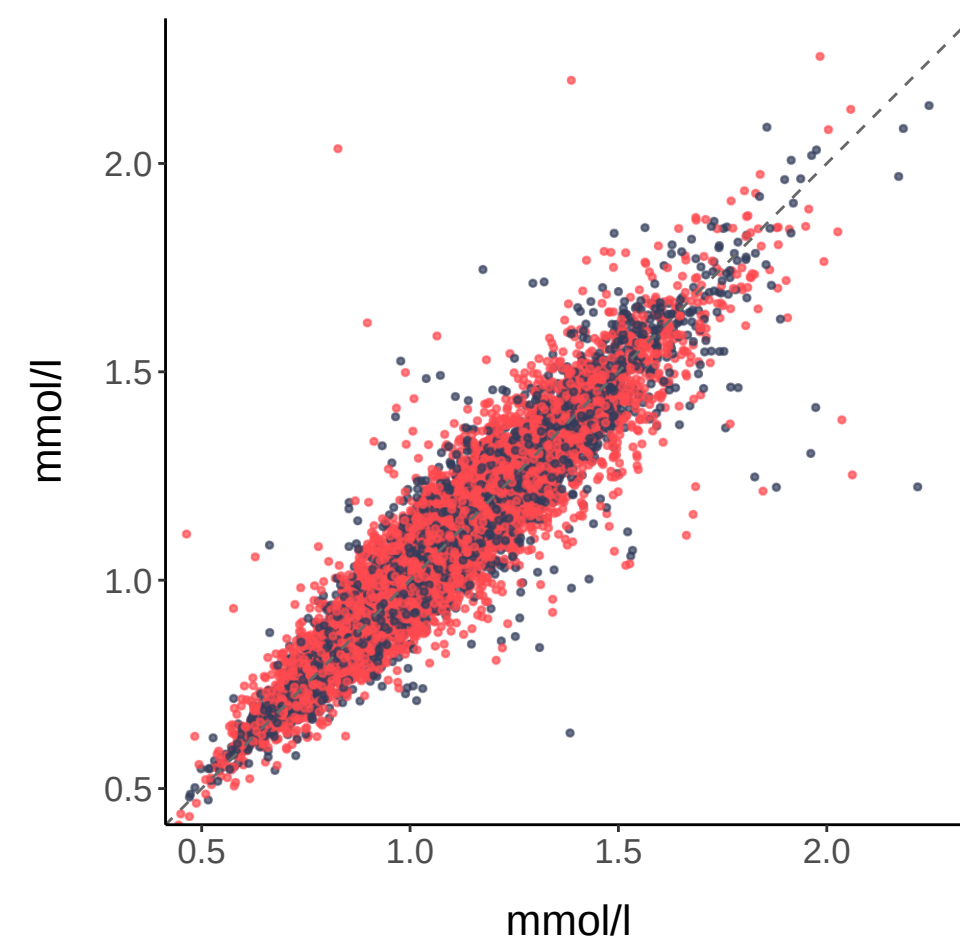


M_HDL_L

CV: 3.73%, R^2 : 0.88

Different spectrometers

● FALSE ● TRUE

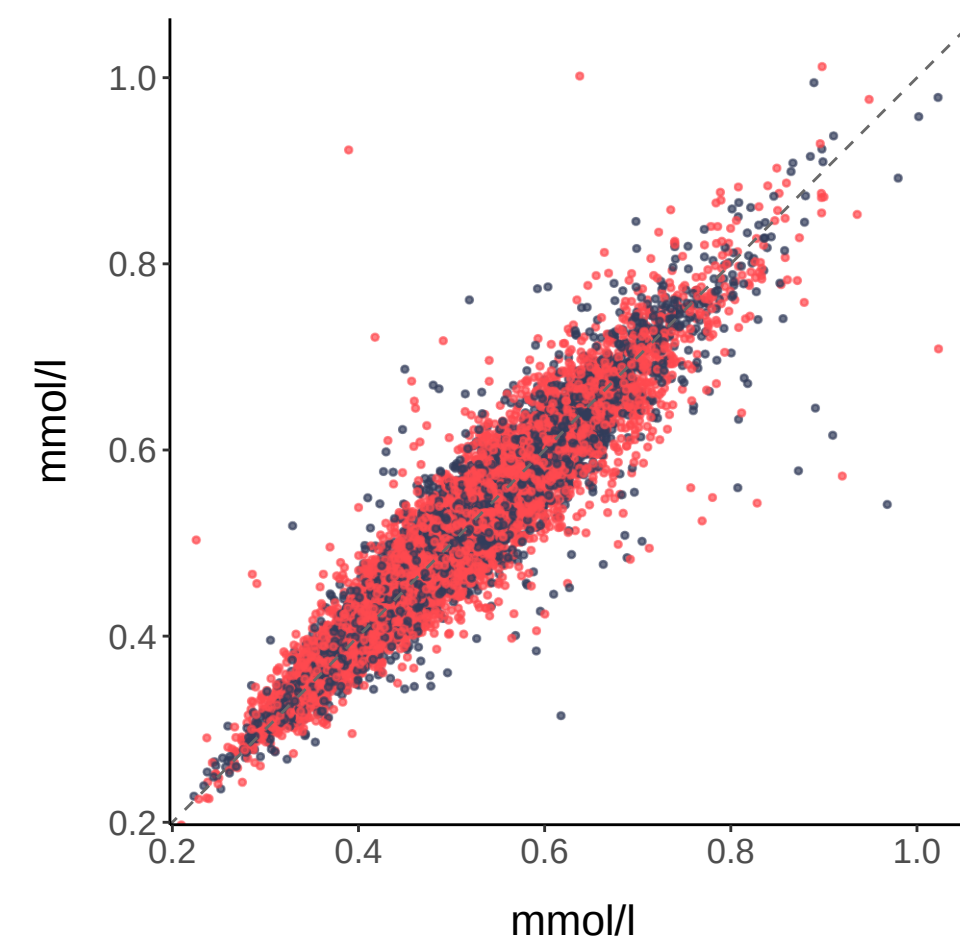


M_HDL_PL

CV: 3.41%, R^2 : 0.89

Different spectrometers

● FALSE ● TRUE

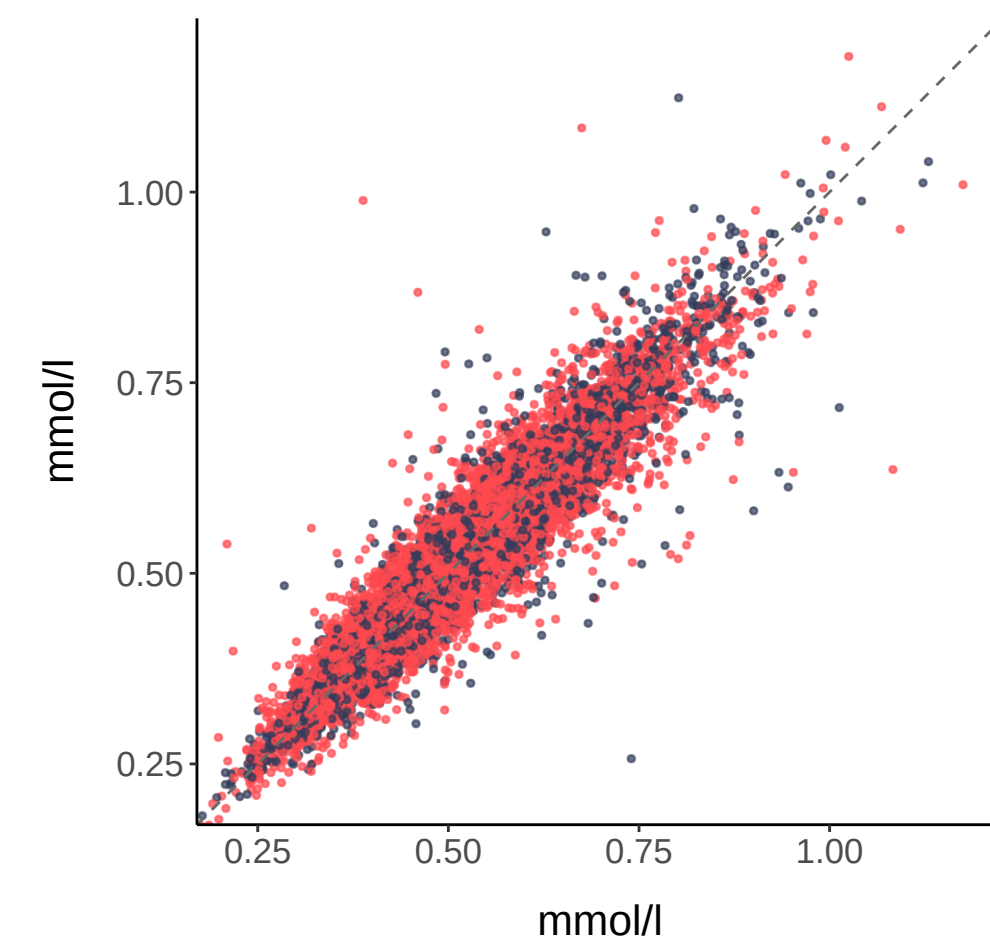


M_HDL_C

CV: 4.27%, R^2 : 0.88

Different spectrometers

● FALSE ● TRUE

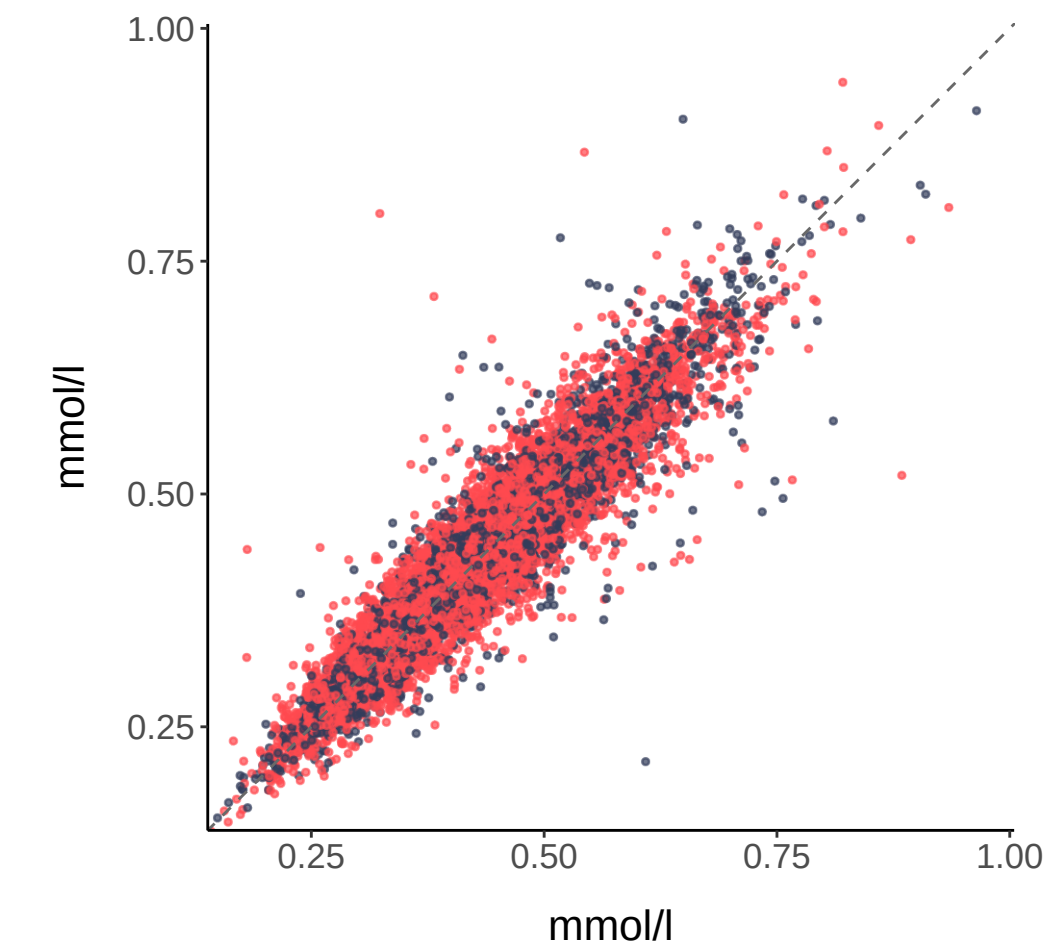


M_HDL_CE

CV: 4.19%, R^2 : 0.88

Different spectrometers

● FALSE ● TRUE

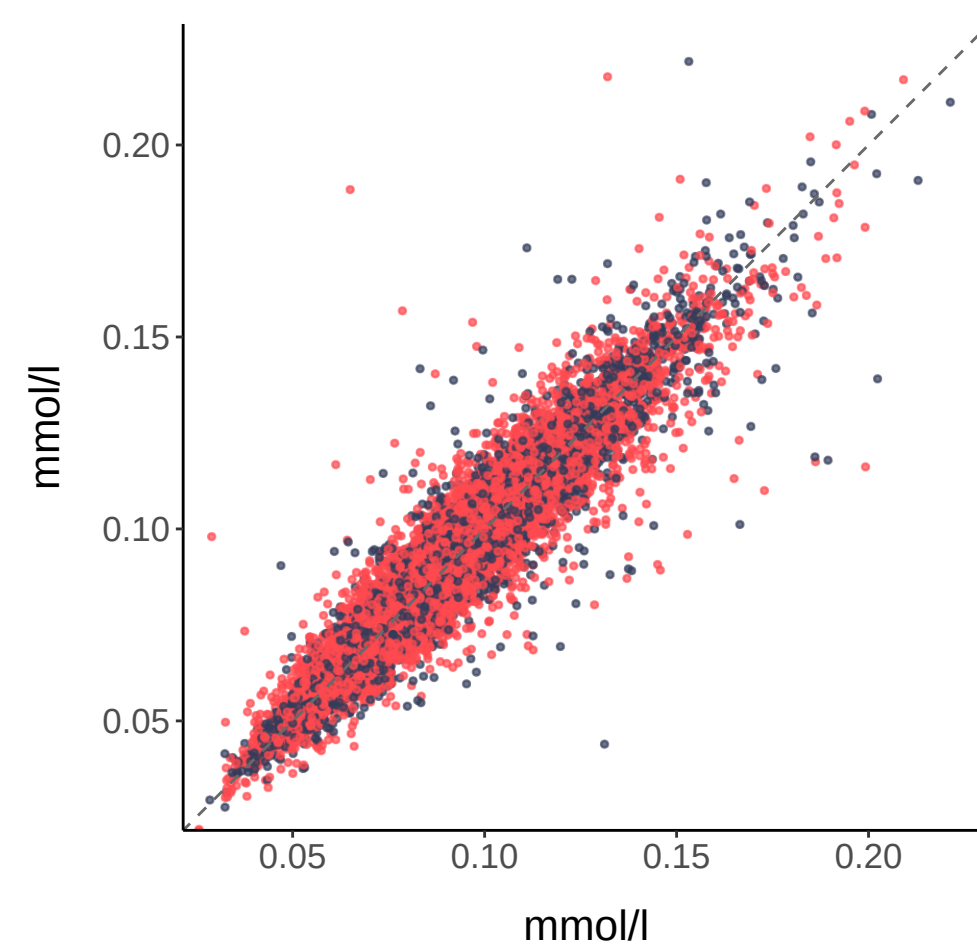


M_HDL_FC

CV: 4.72%, R^2 : 0.89

Different spectrometers

● FALSE ● TRUE

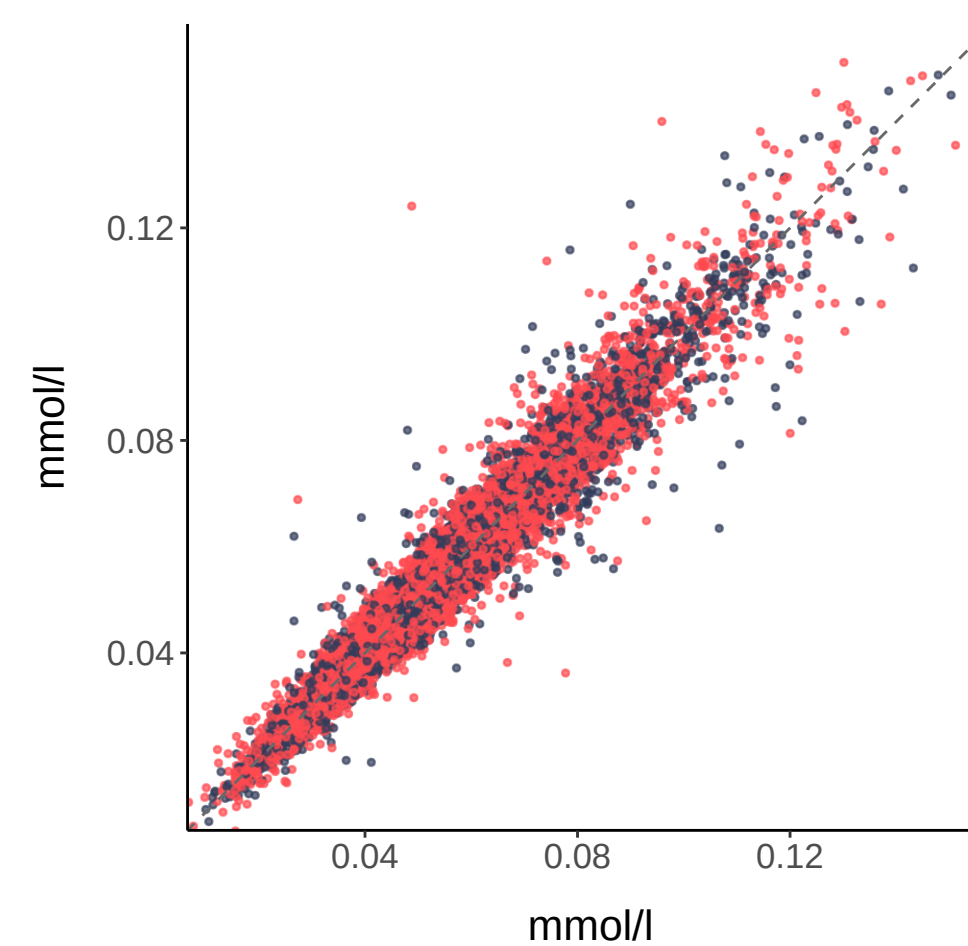


M_HDL_TG

CV: 4.17%, R^2 : 0.94

Different spectrometers

● FALSE ● TRUE



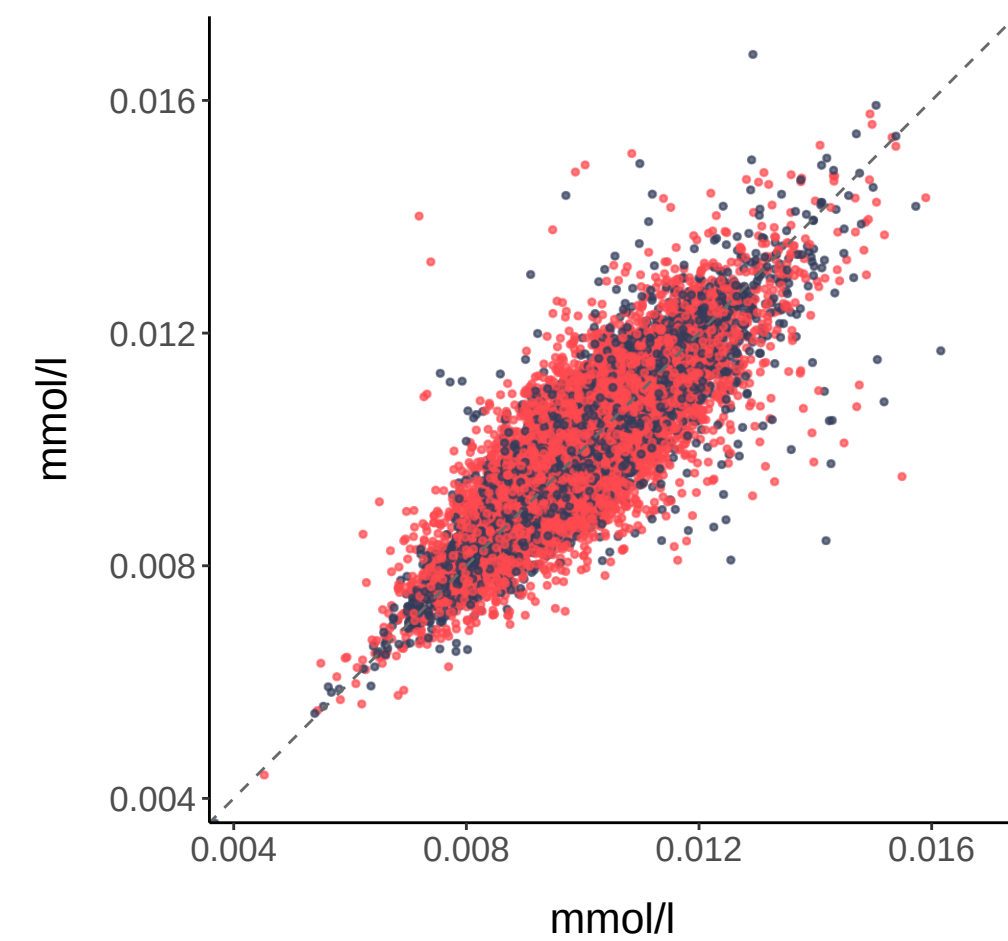
Small HDL (average diameter 8.7 nm)

S_HDL_P

CV: 3.75%, R^2 : 0.72

Different spectrometers

● FALSE ● TRUE

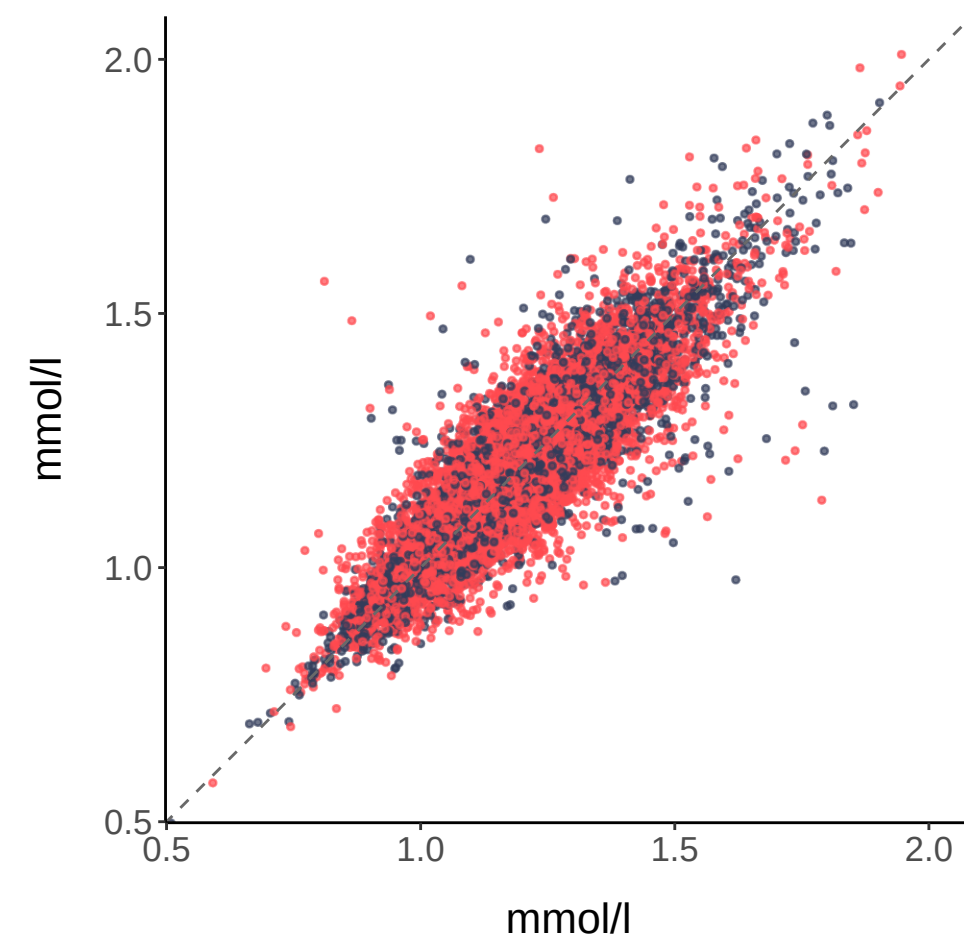


S_HDL_L

CV: 3.42%, R^2 : 0.77

Different spectrometers

● FALSE ● TRUE

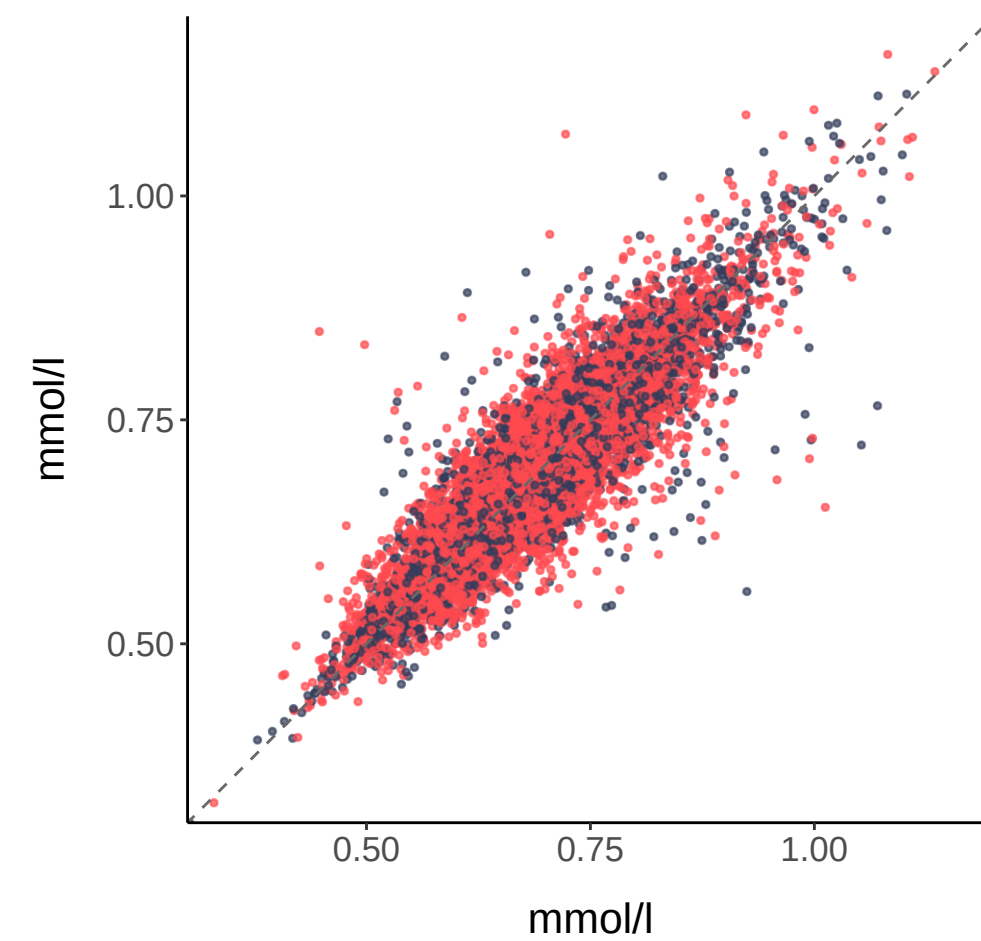


S_HDL_PL

CV: 3.19%, R^2 : 0.81

Different spectrometers

● FALSE ● TRUE

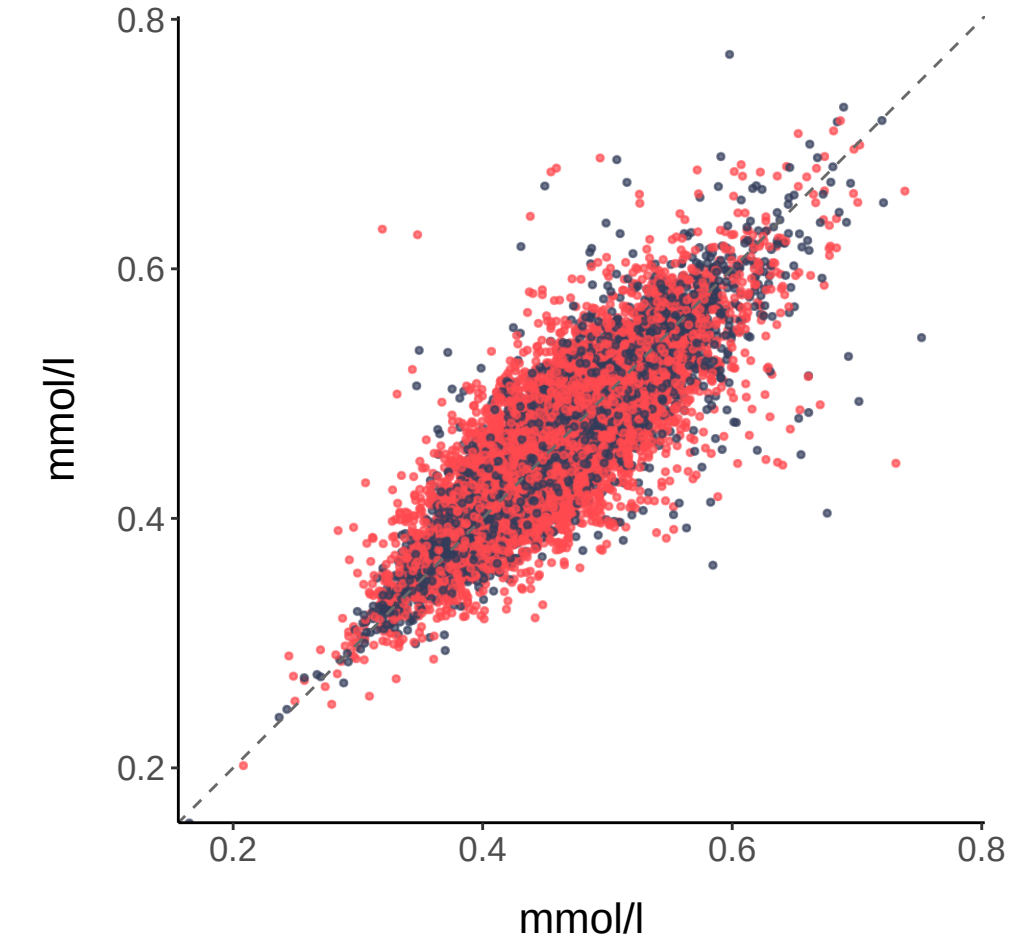


S_HDL_C

CV: 3.96%, R^2 : 0.7

Different spectrometers

● FALSE ● TRUE

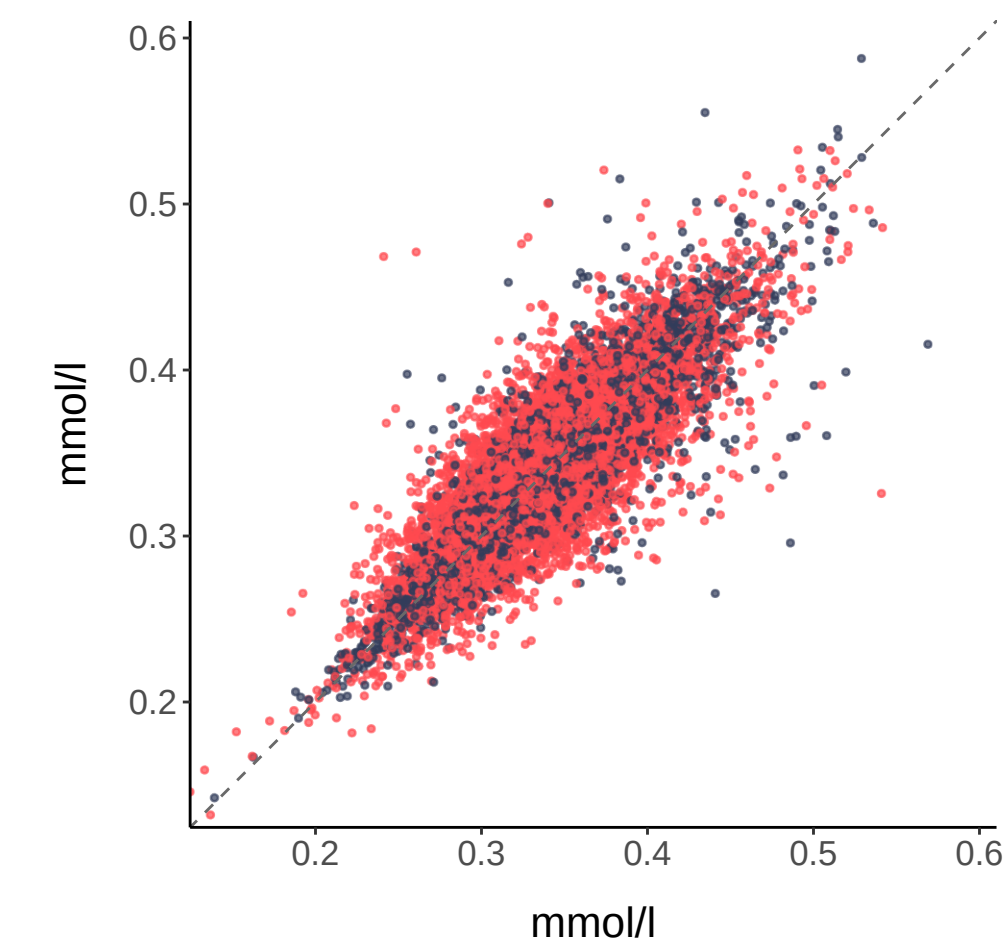


S_HDL_CE

CV: 4.03%, R^2 : 0.72

Different spectrometers

● FALSE ● TRUE

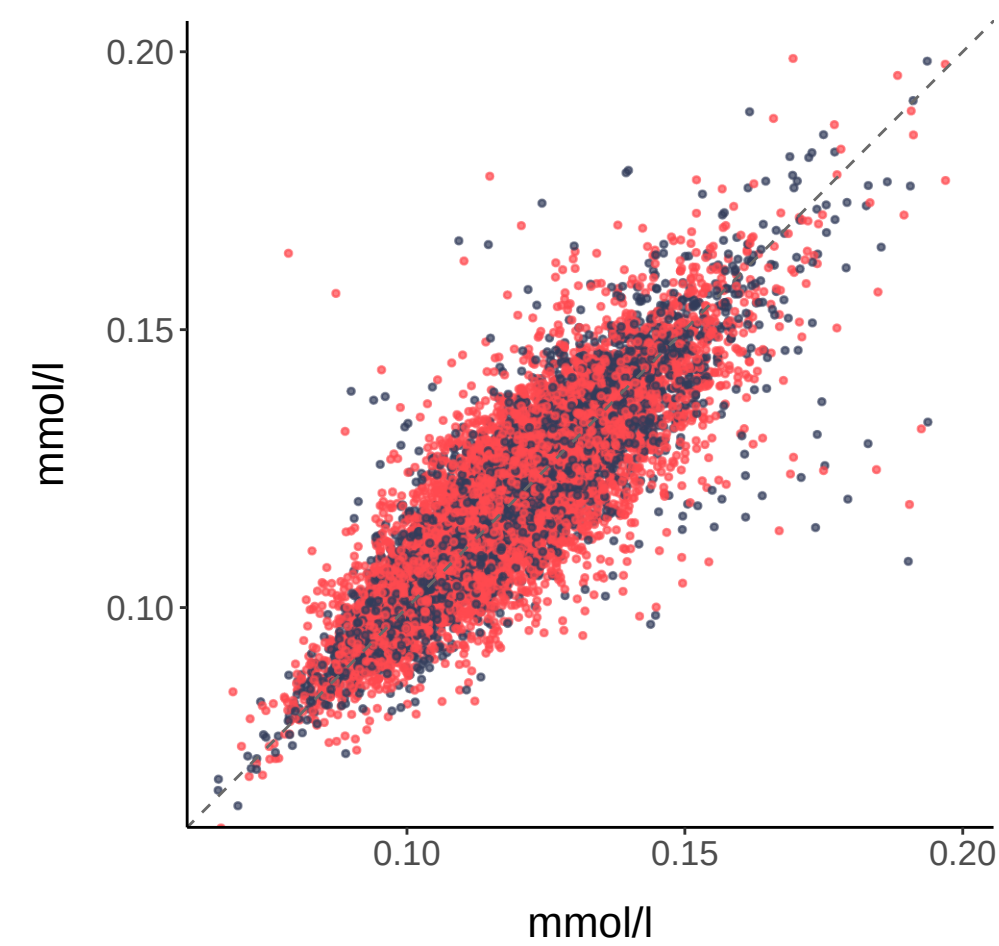


S_HDL_FC

CV: 3.85%, R^2 : 0.72

Different spectrometers

● FALSE ● TRUE

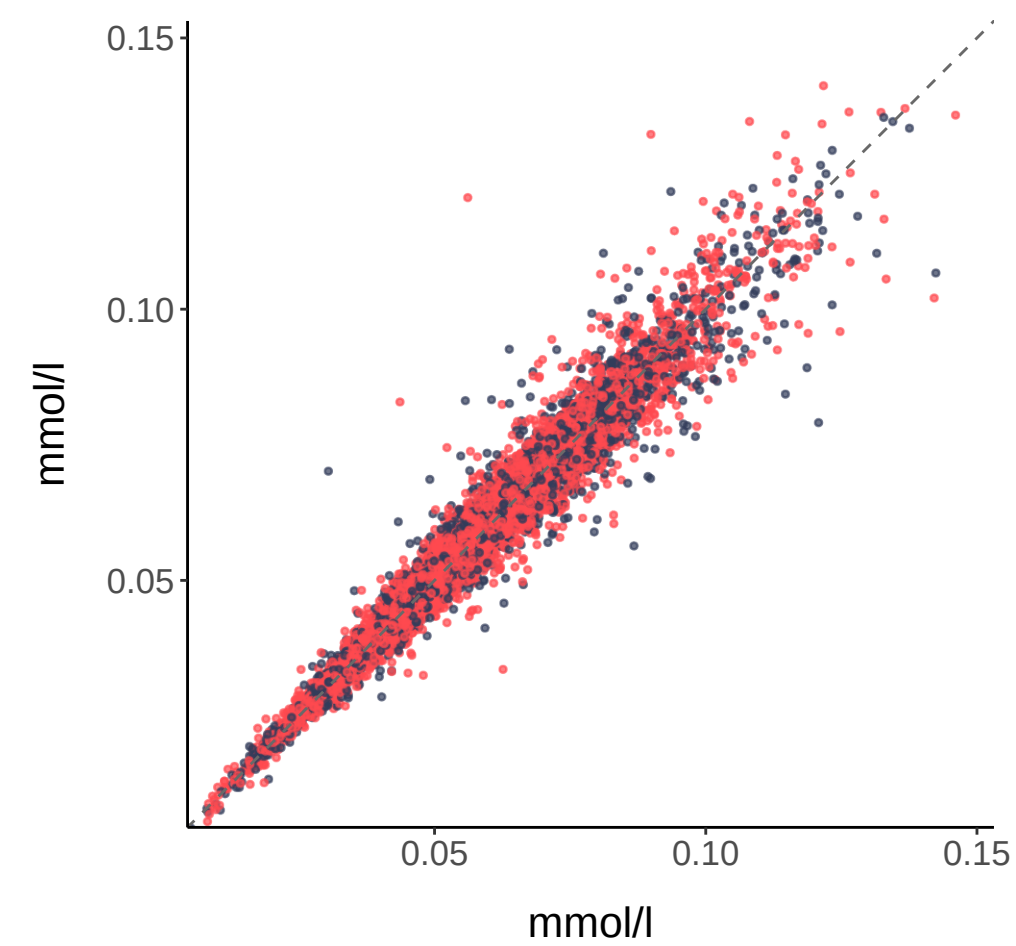


S_HDL_TG

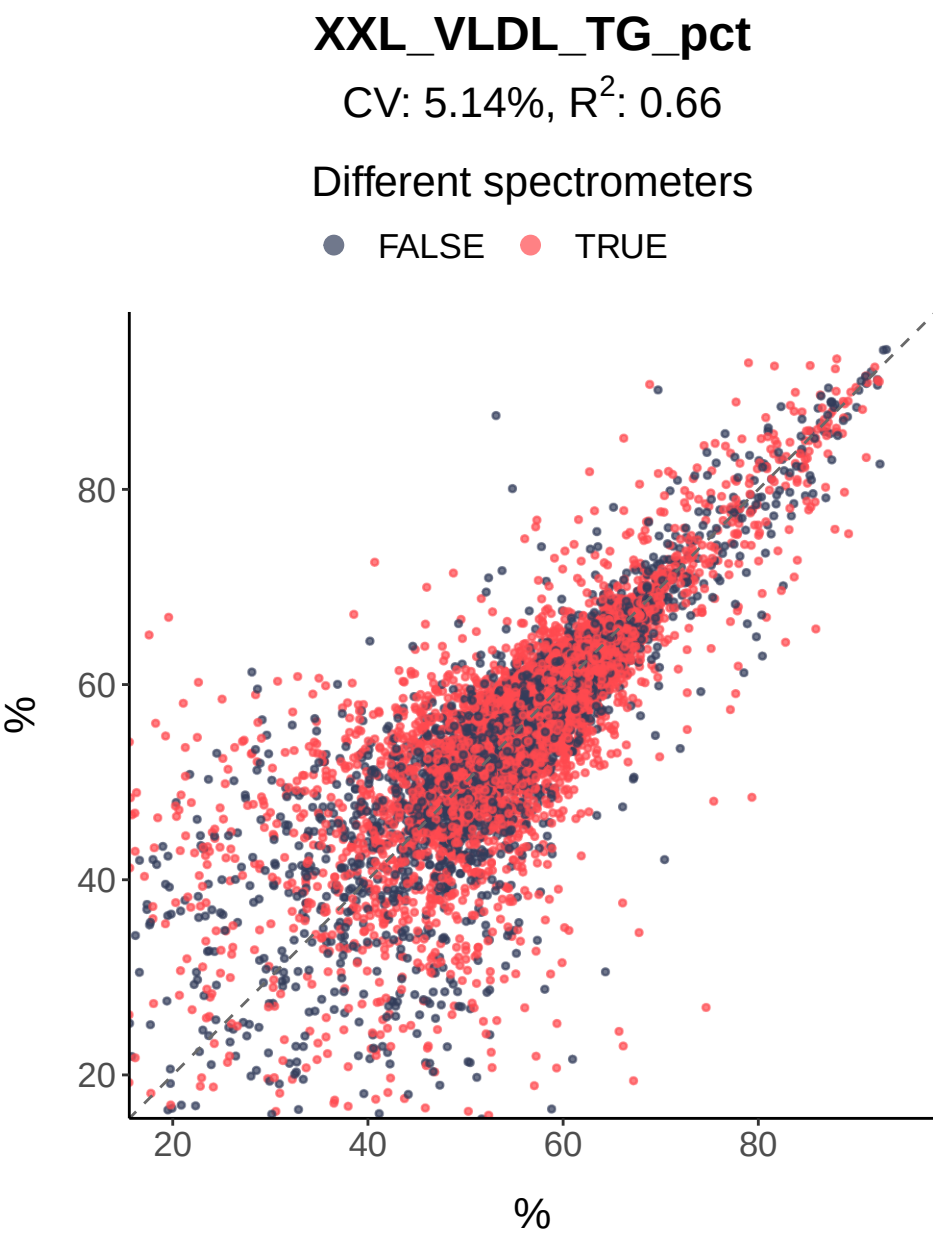
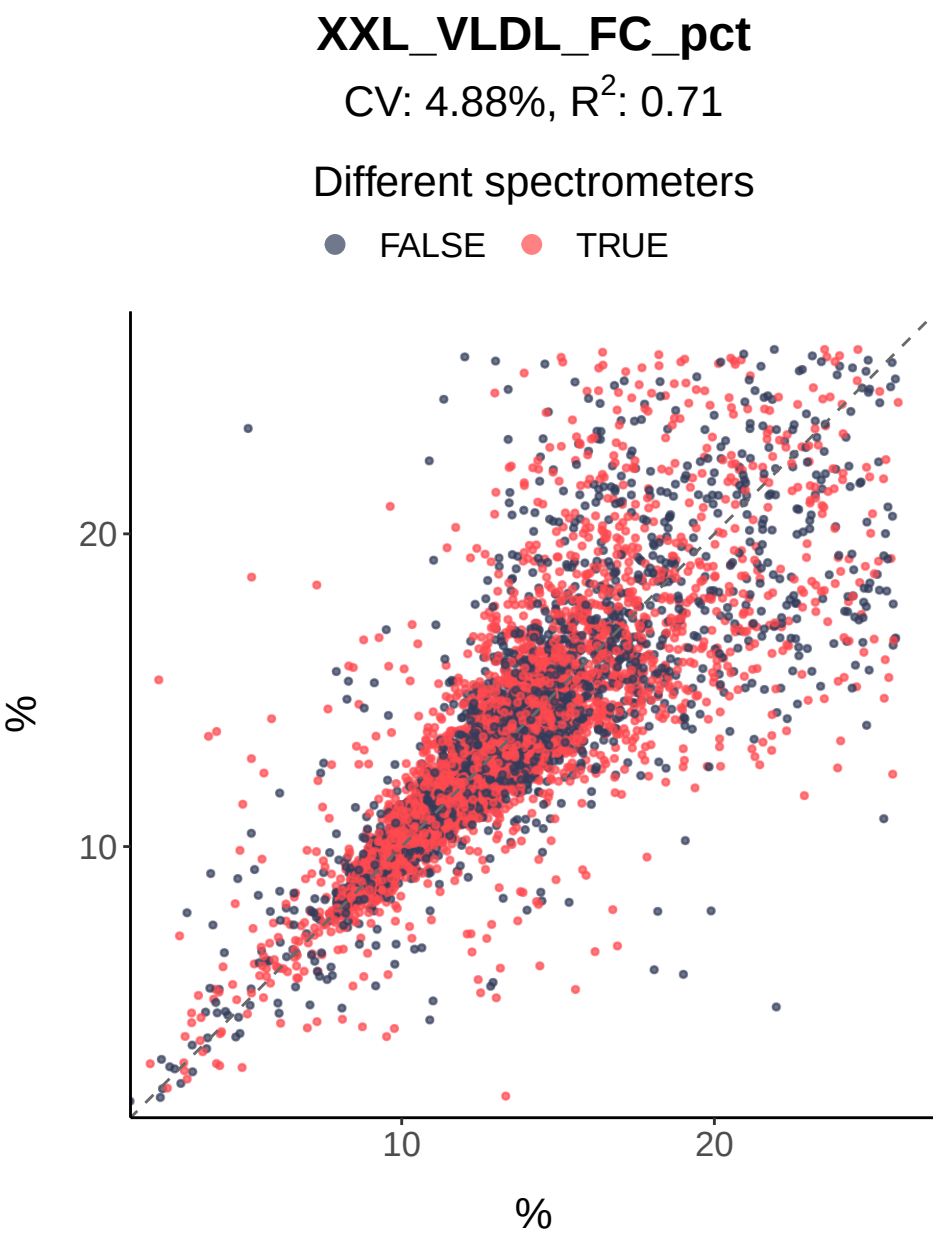
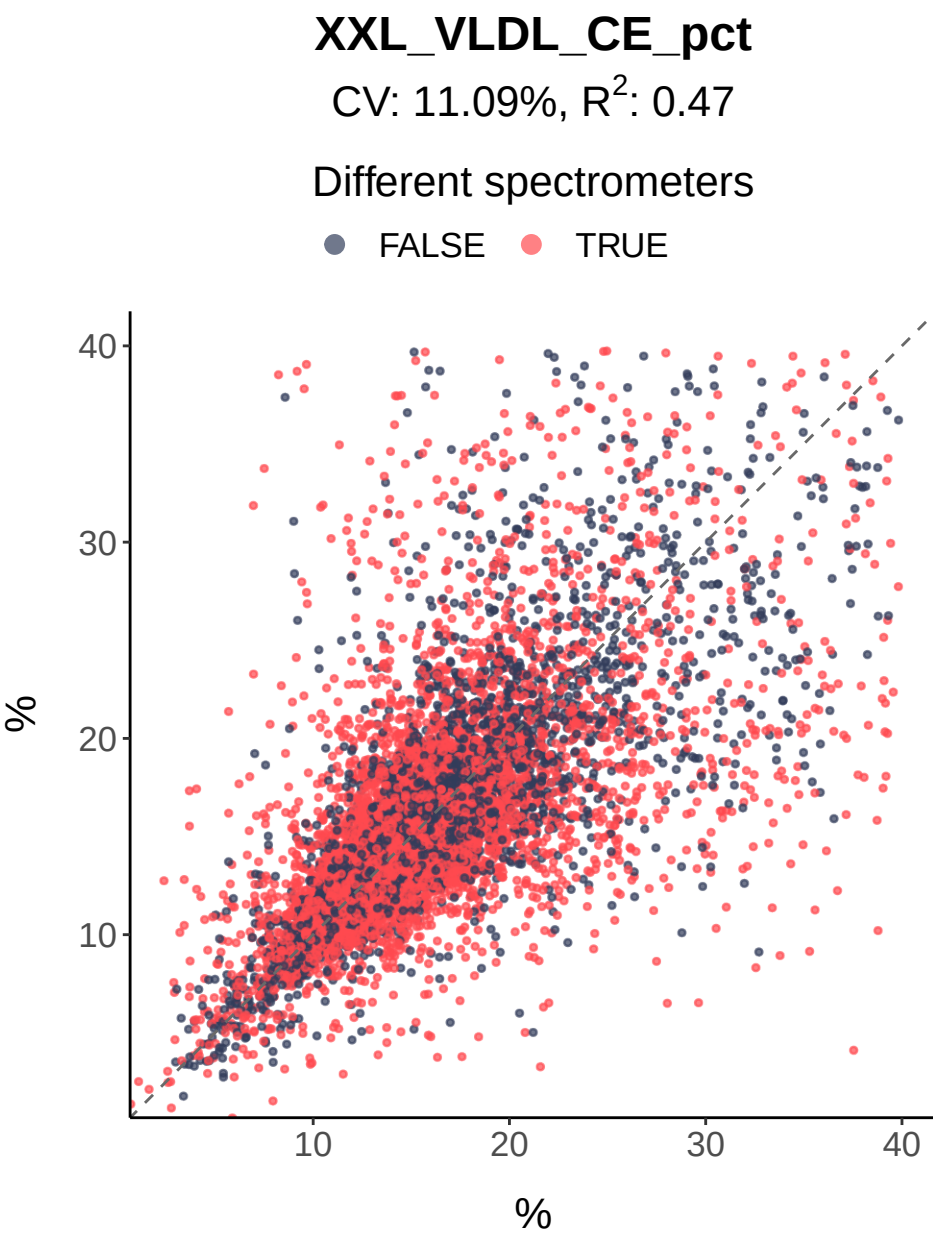
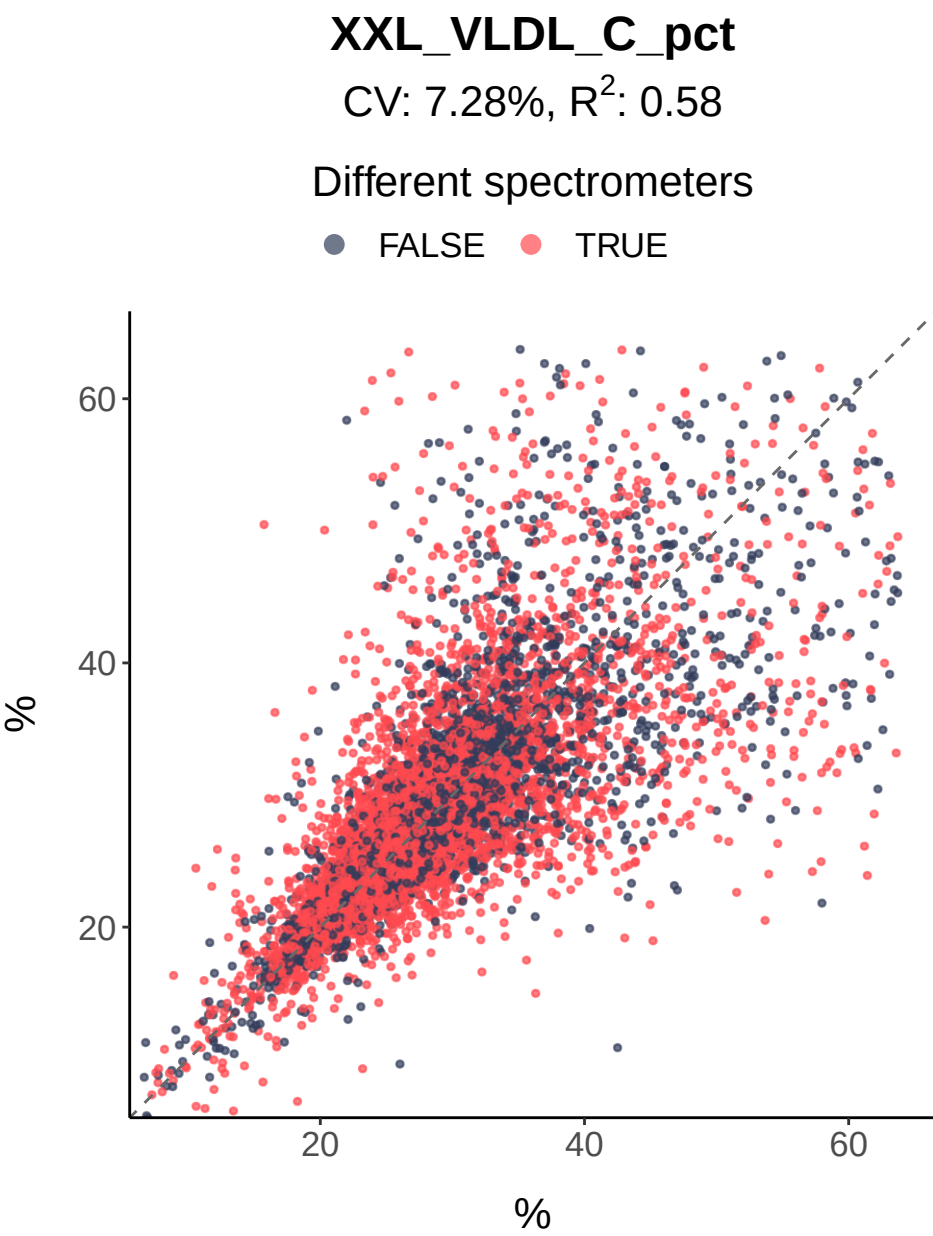
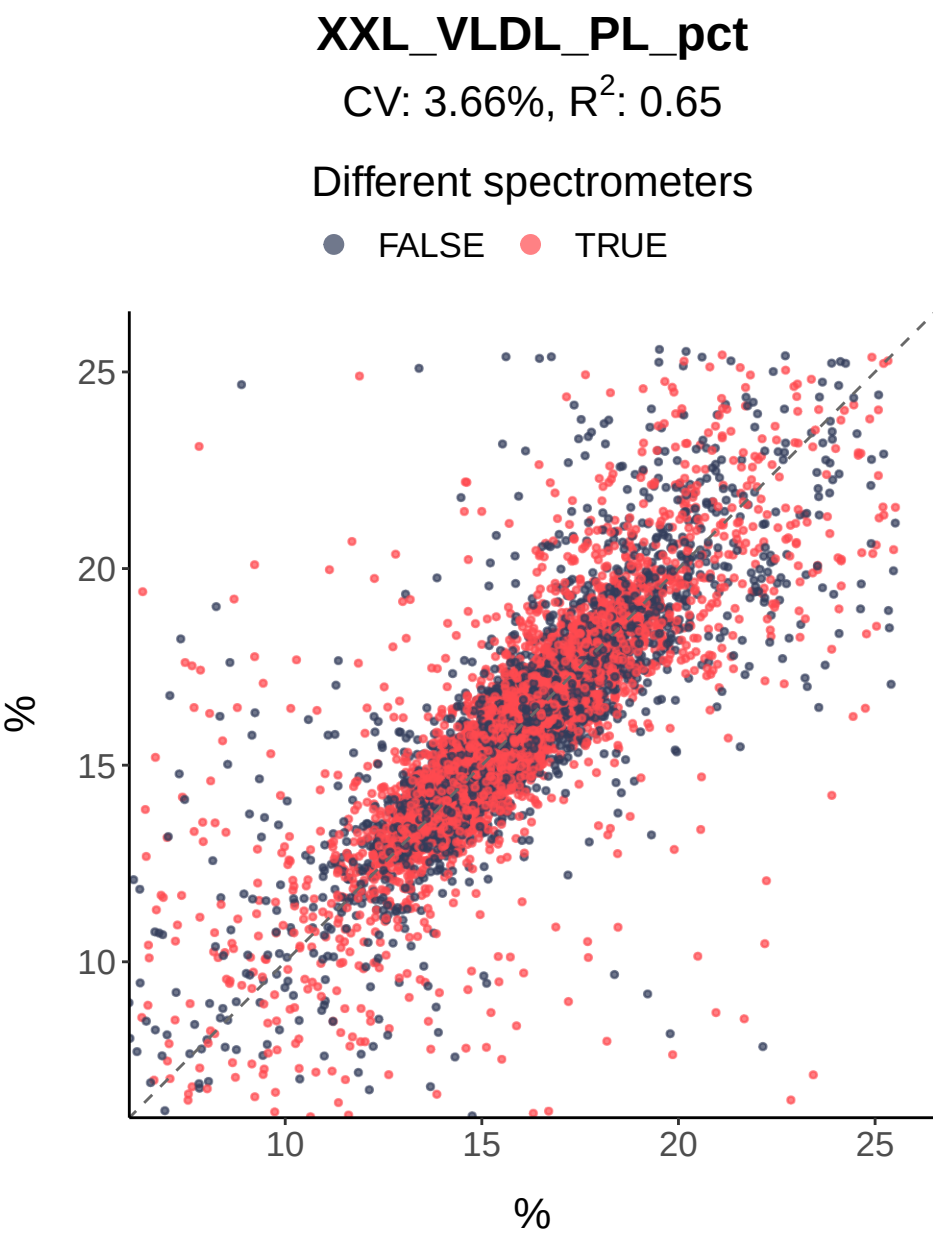
CV: 3.08%, R^2 : 0.96

Different spectrometers

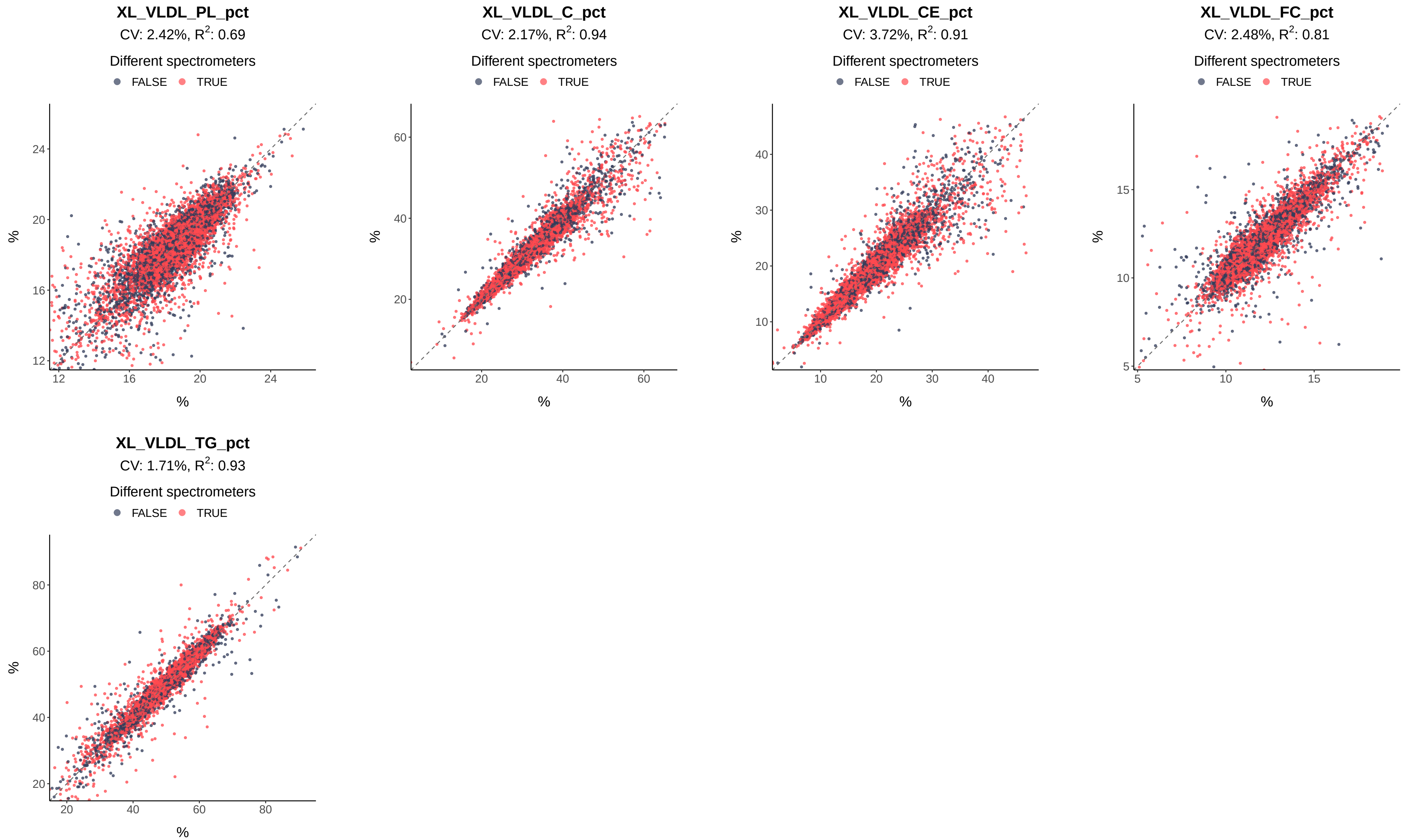
● FALSE ● TRUE



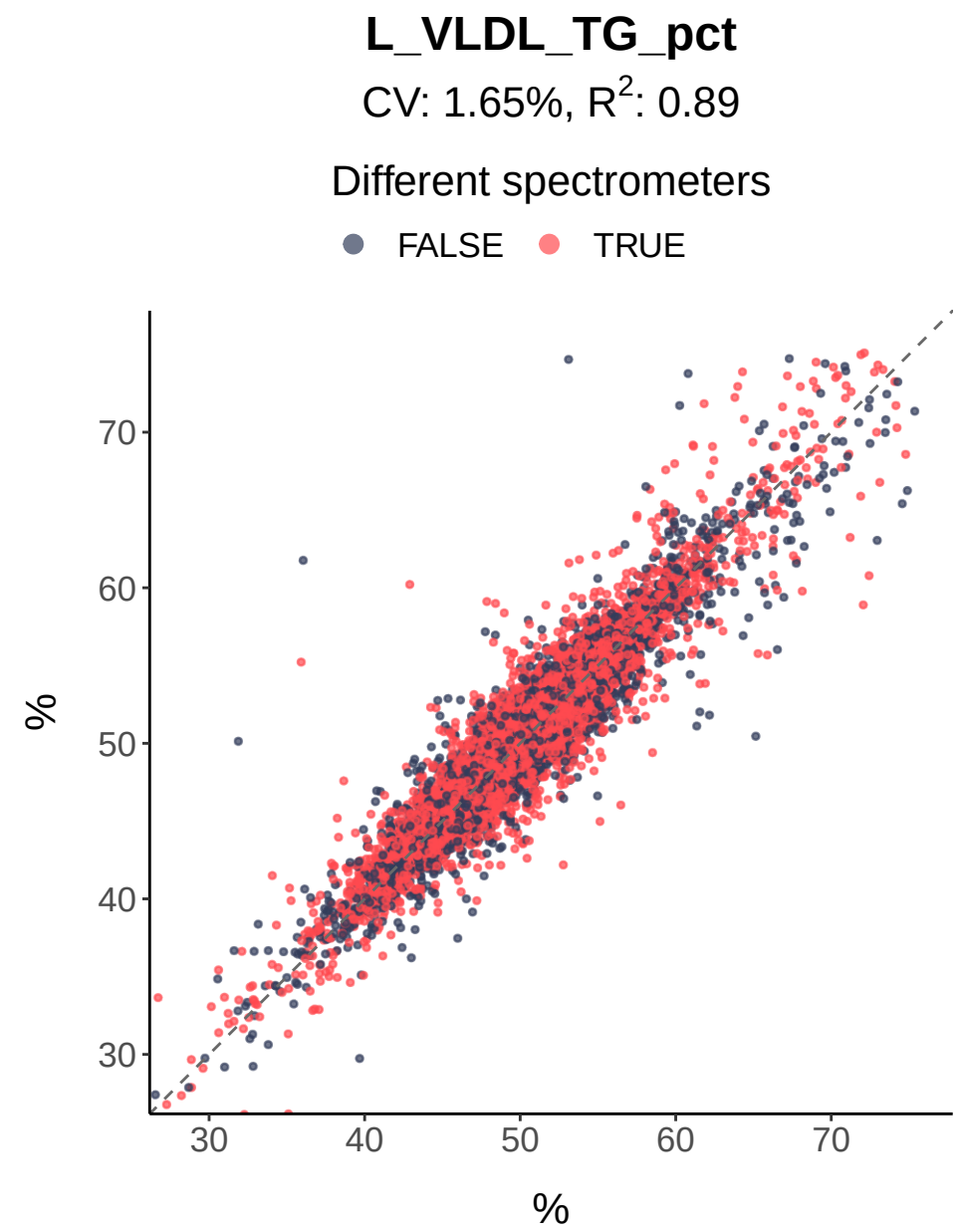
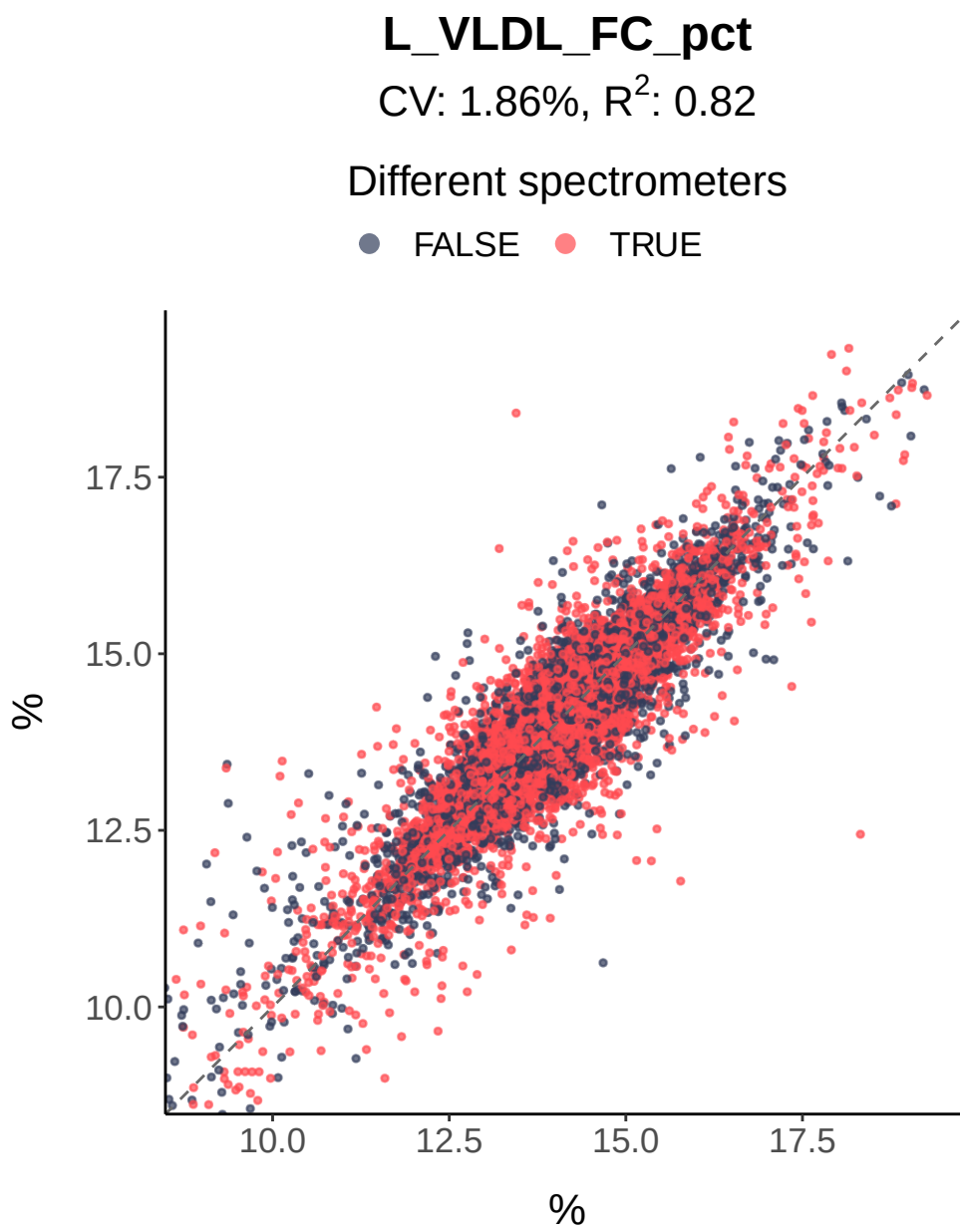
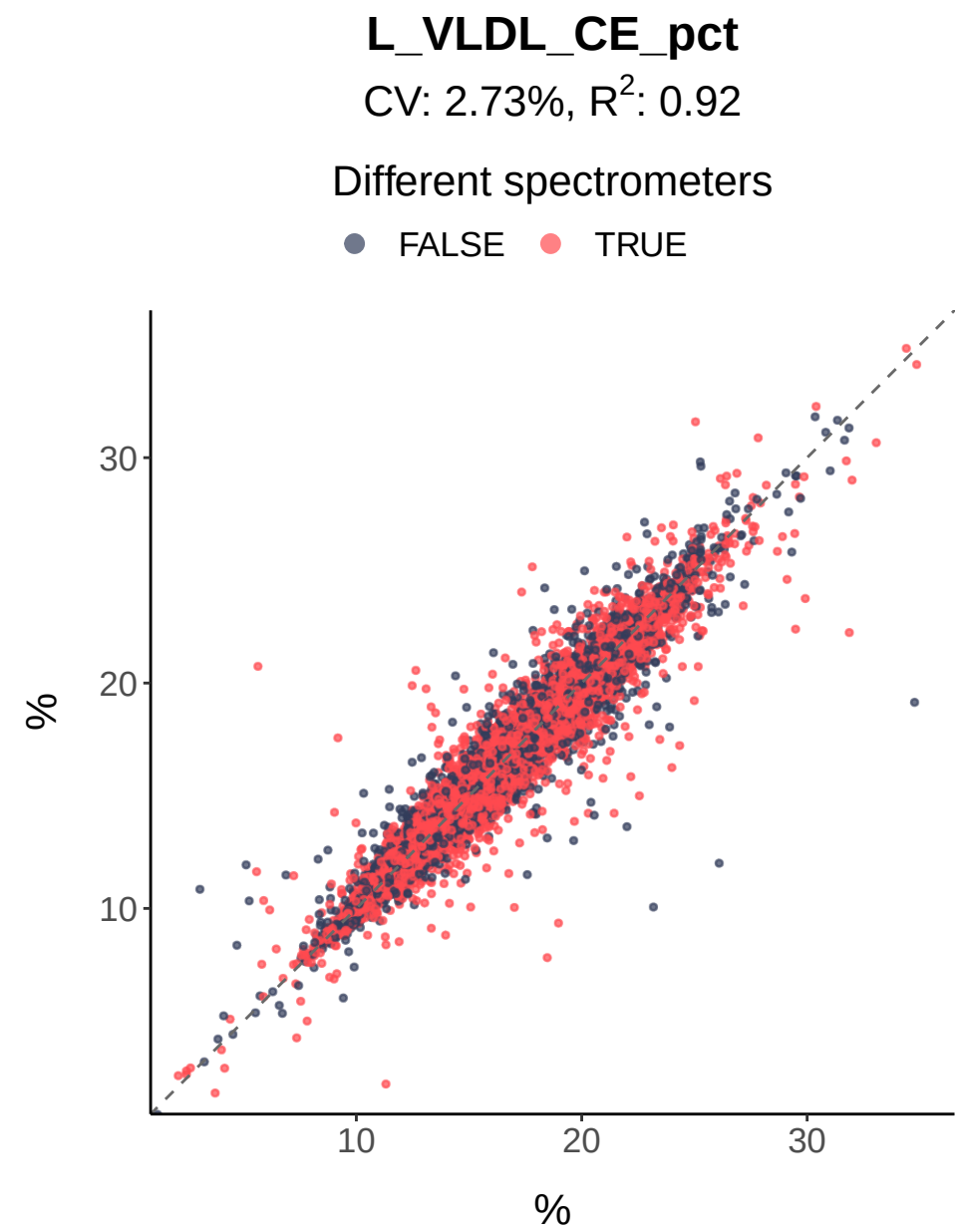
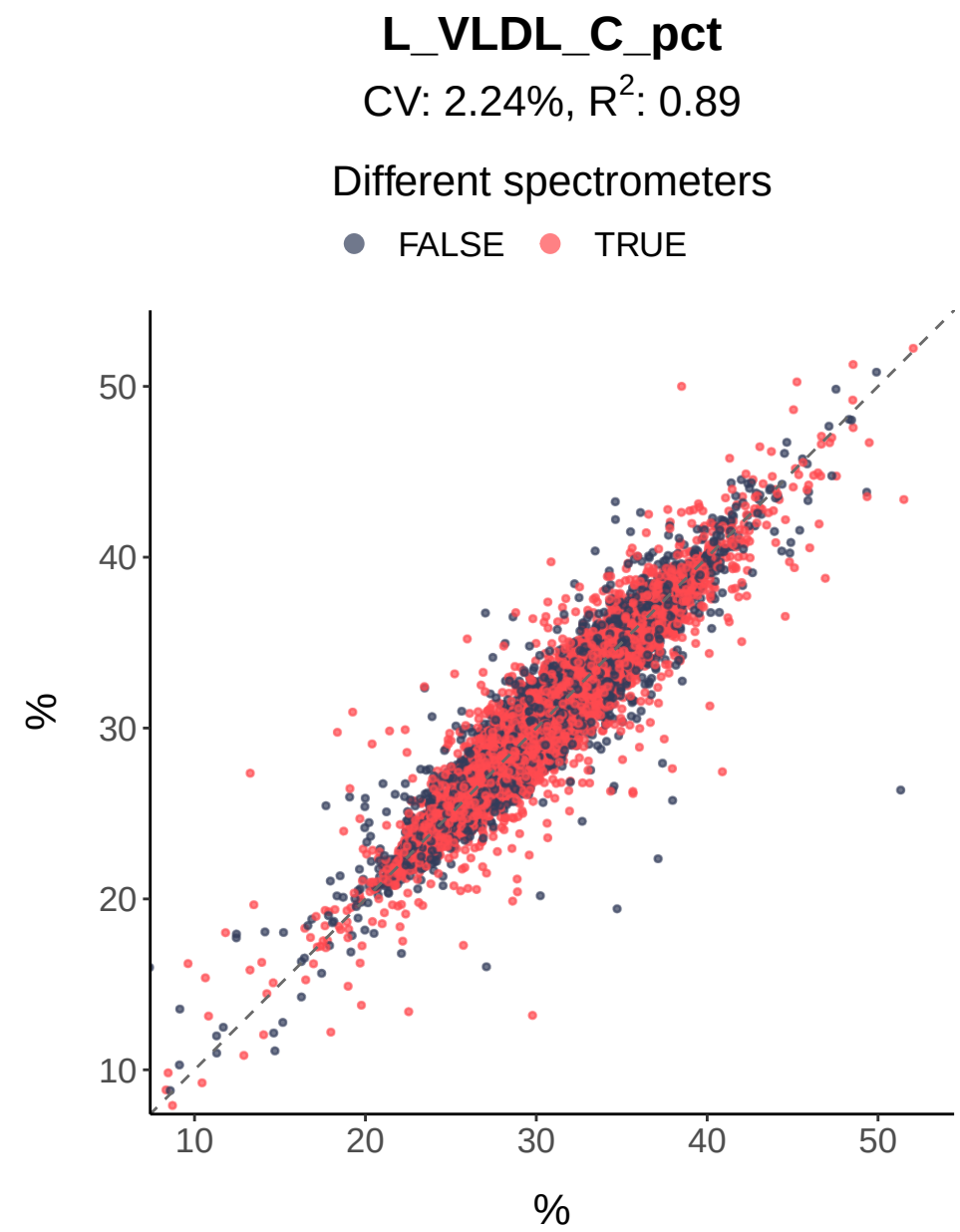
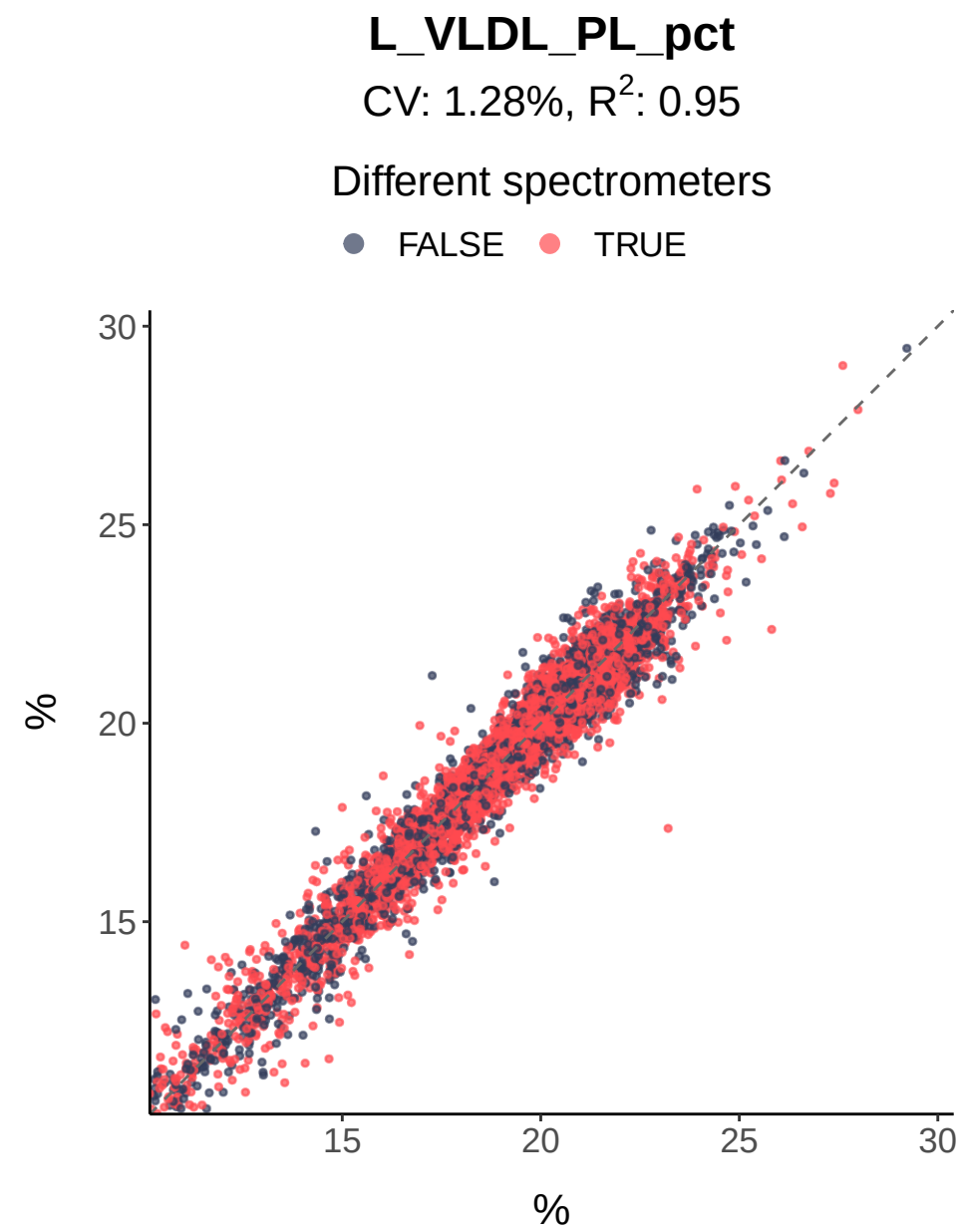
Chylomicrons and extremely large VLDL ratios



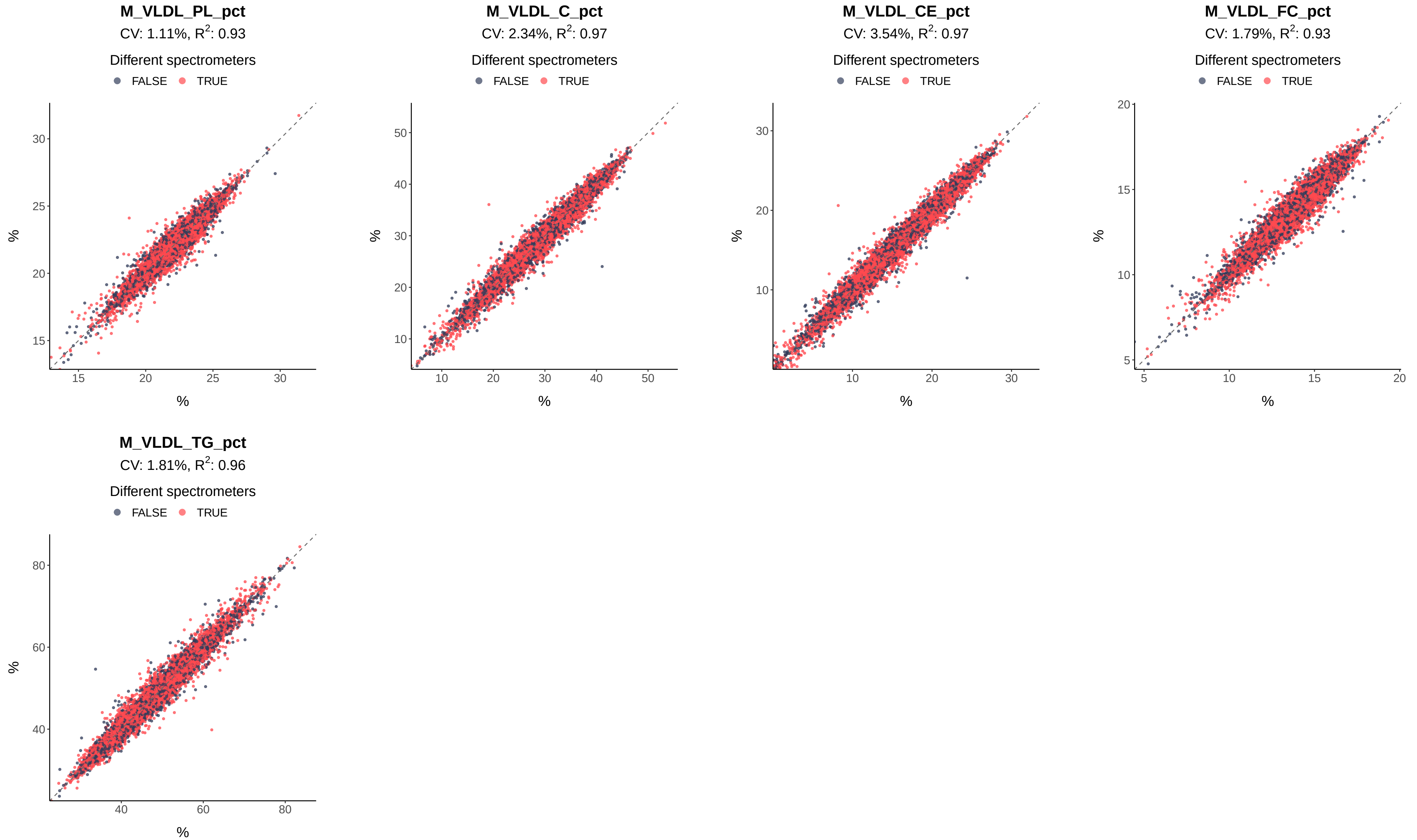
Very large VLDL ratios



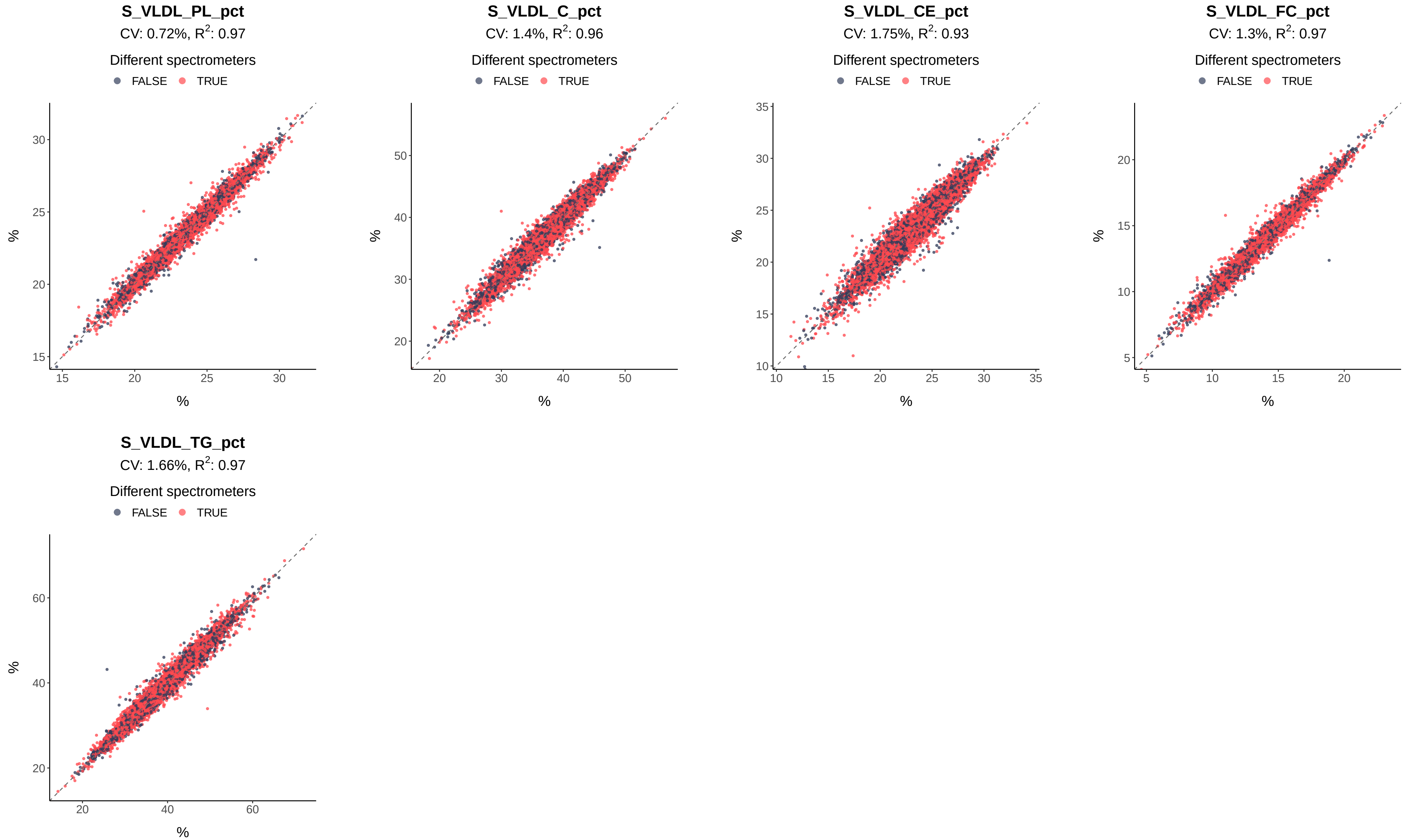
Large VLDL ratios



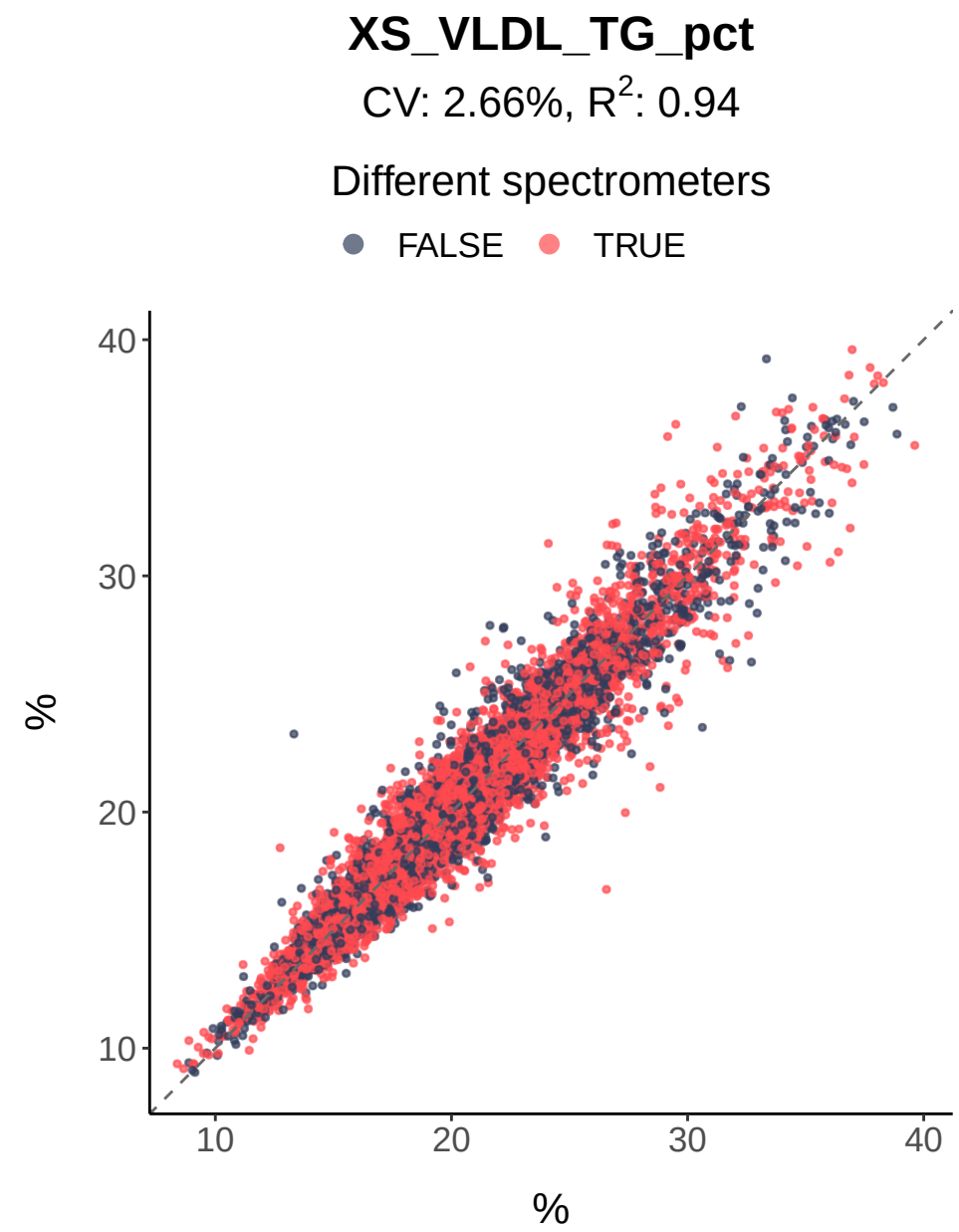
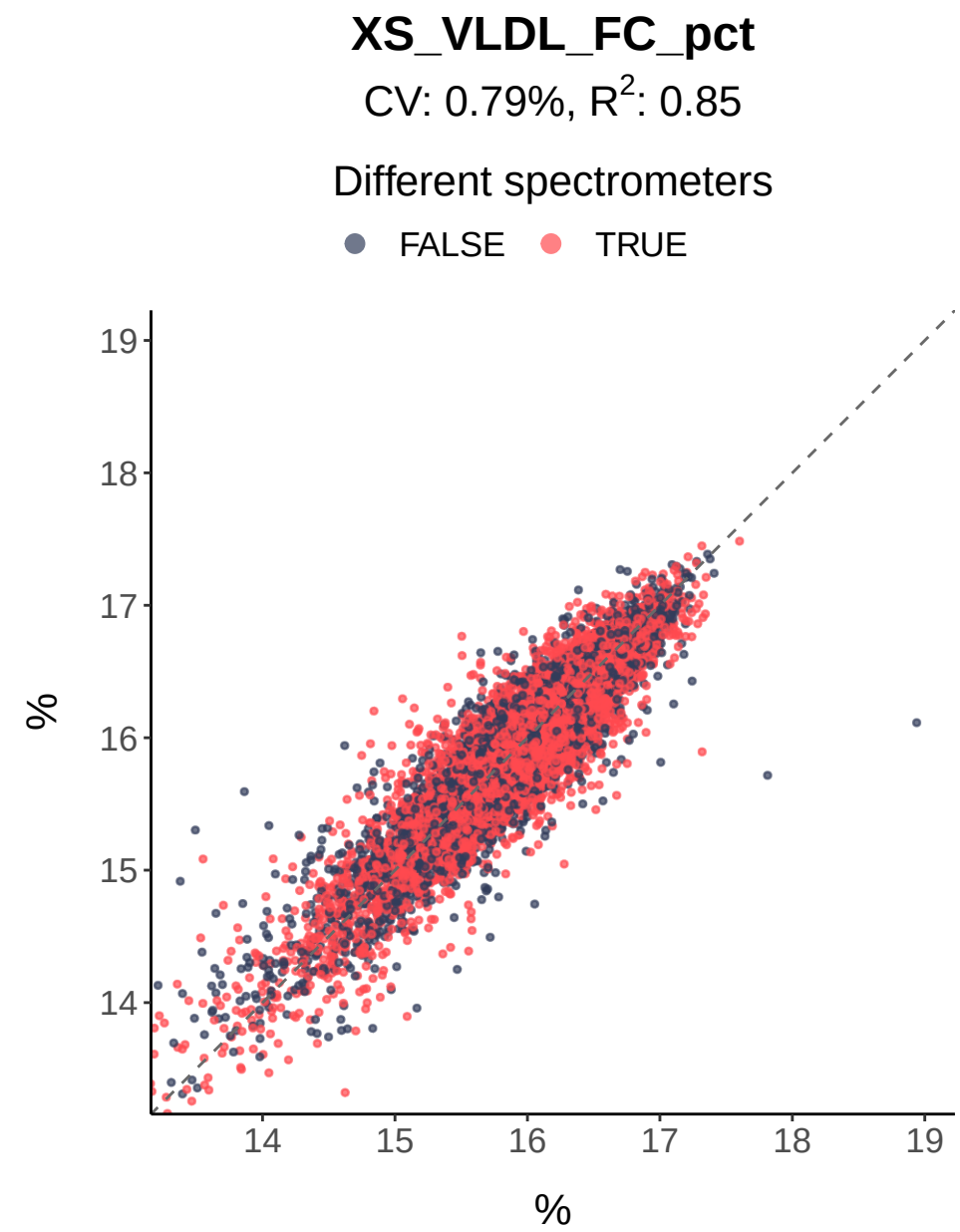
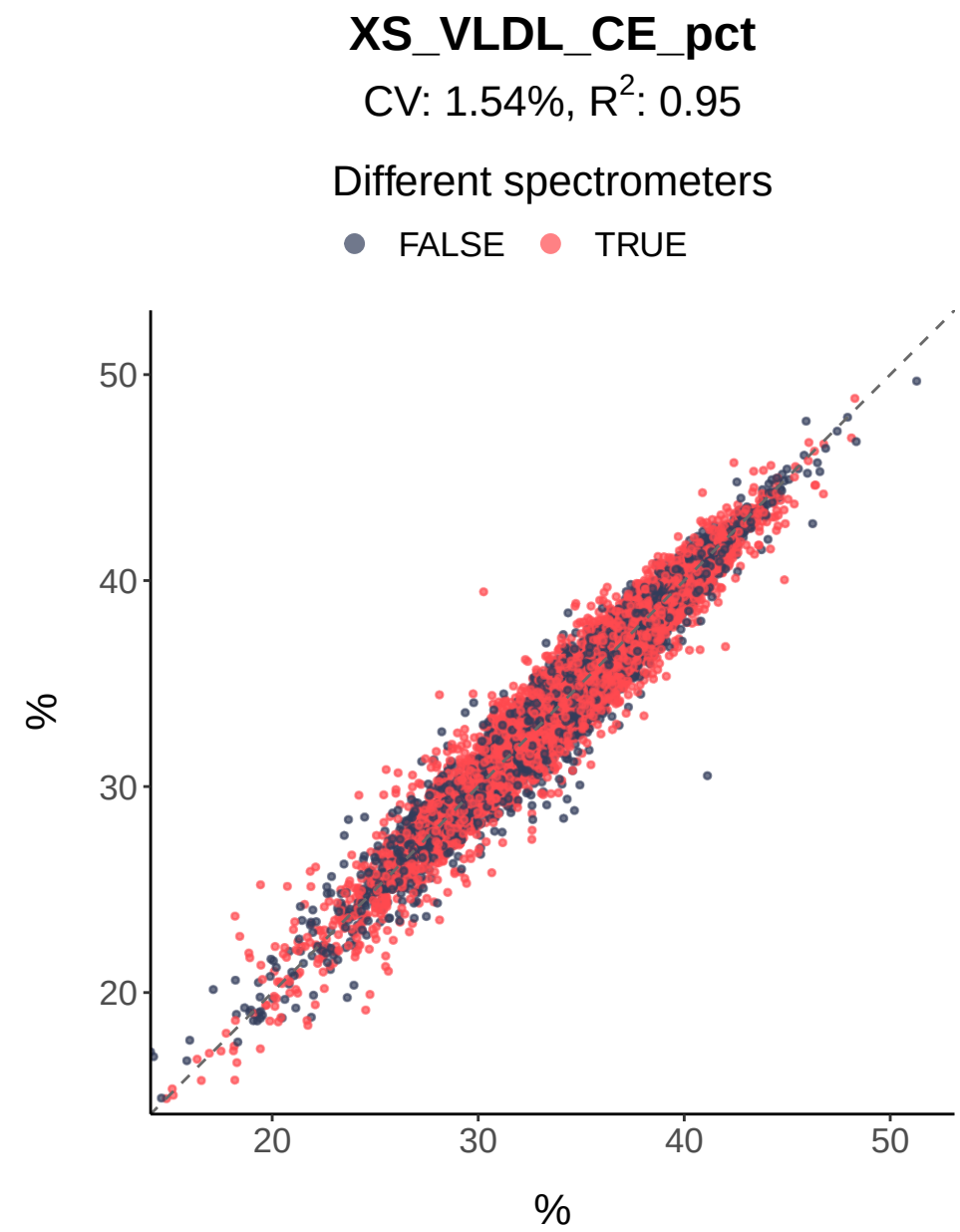
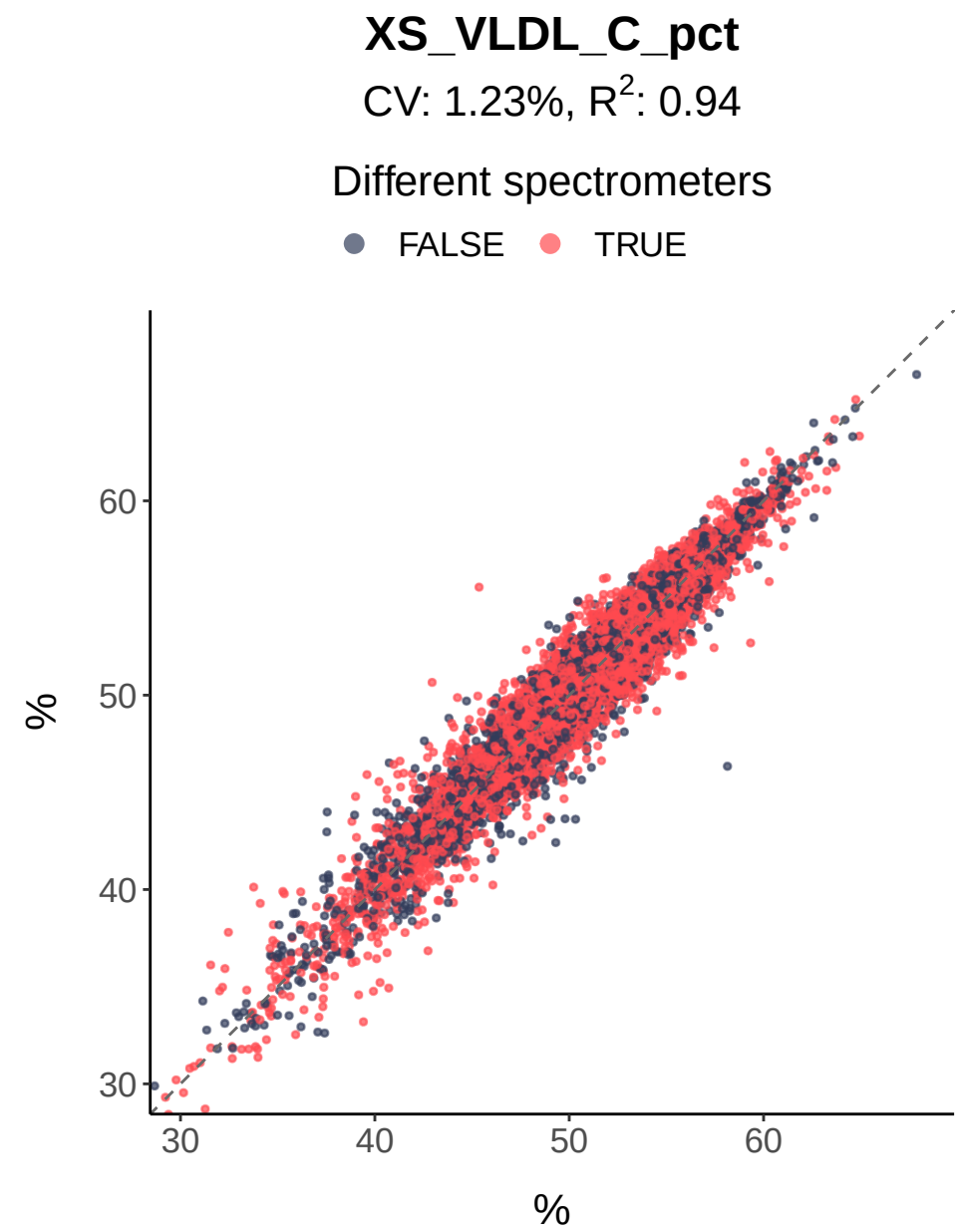
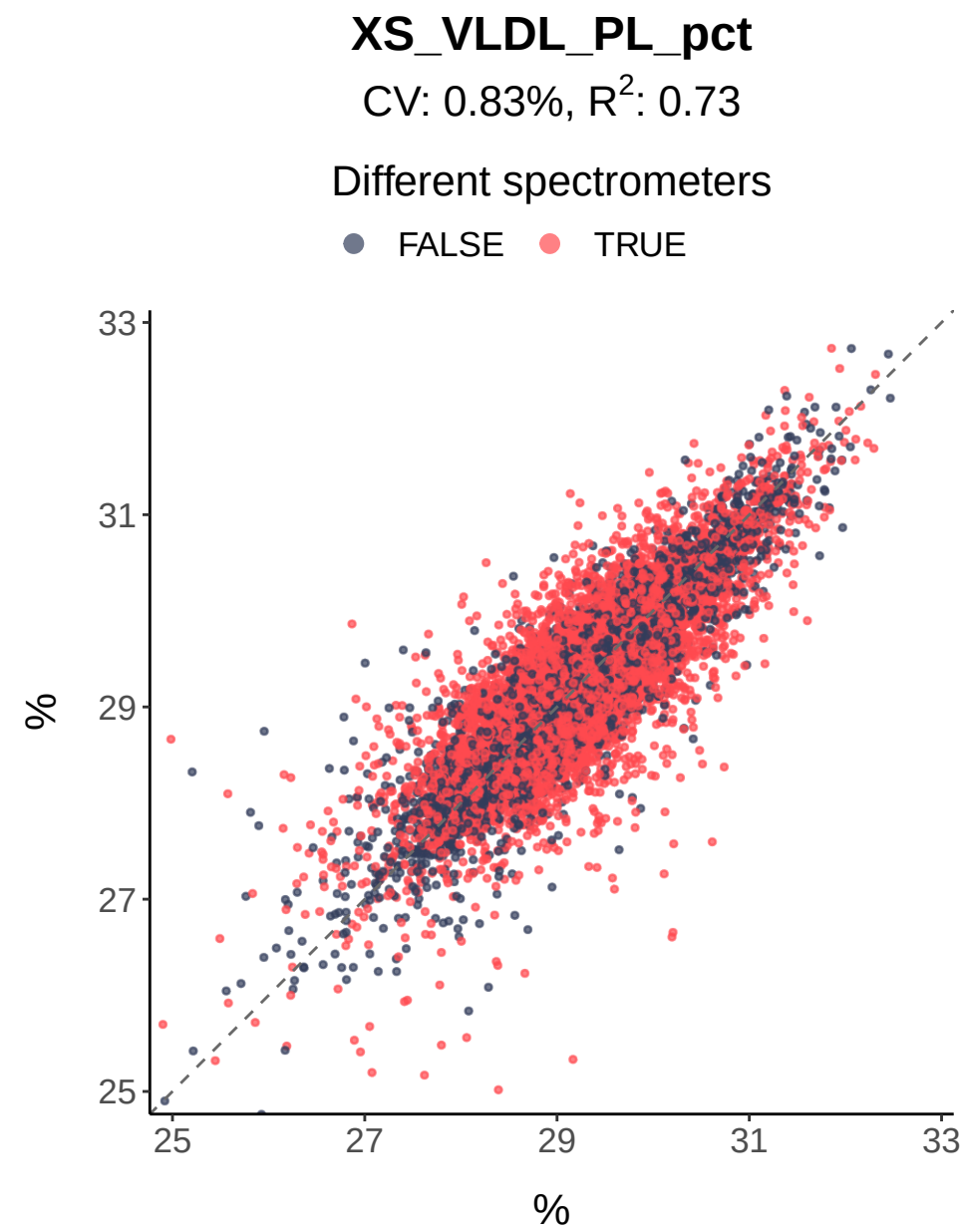
Medium VLDL ratios



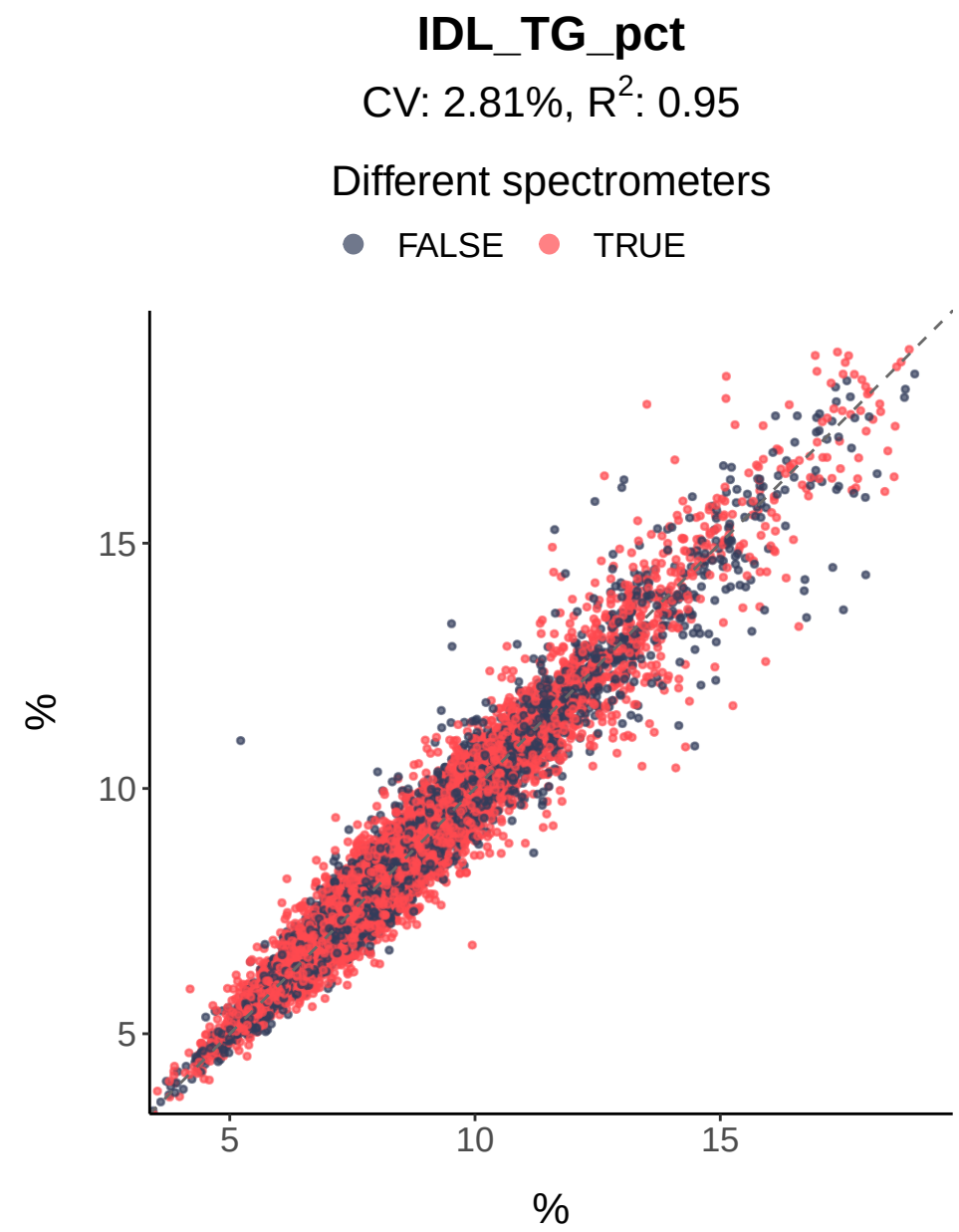
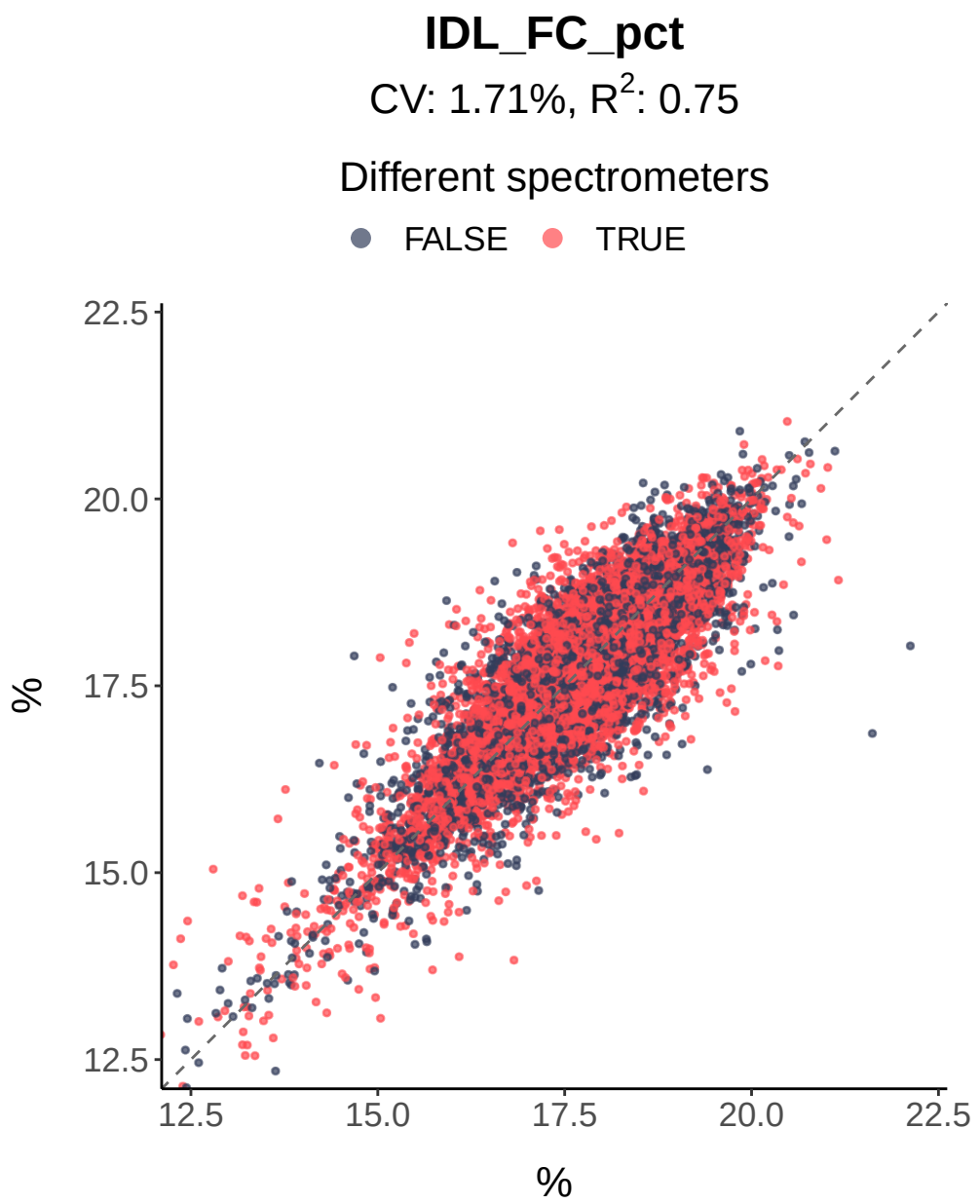
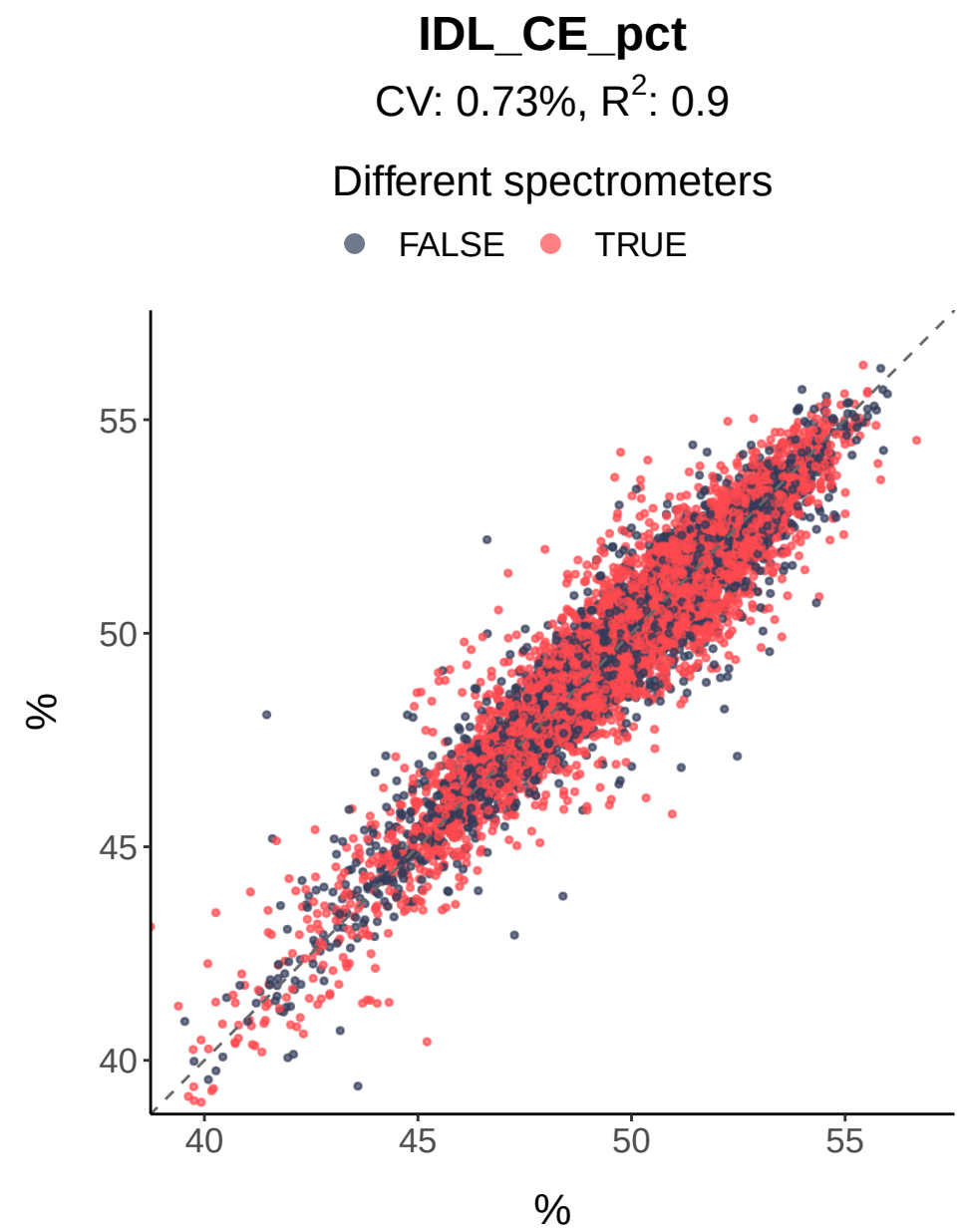
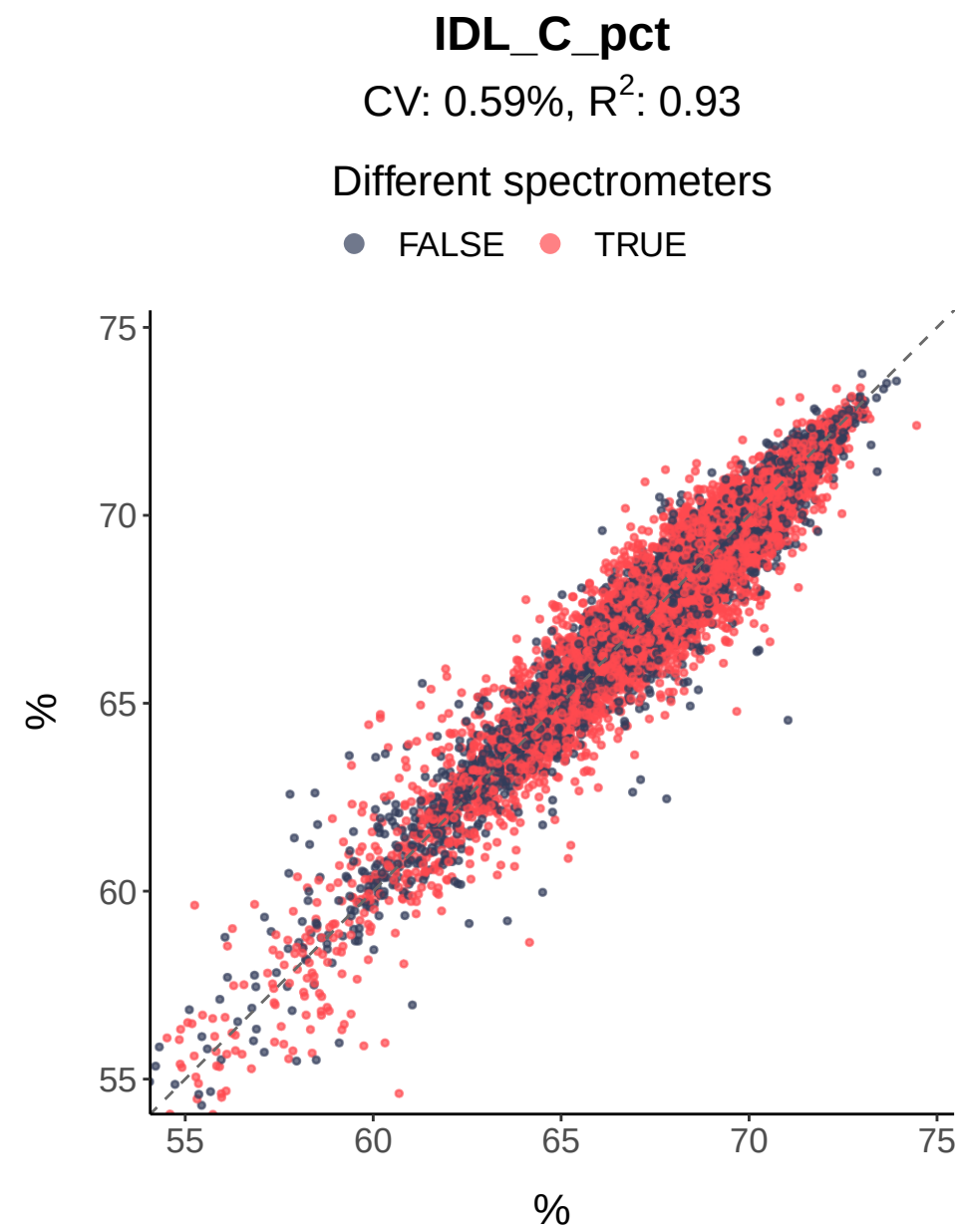
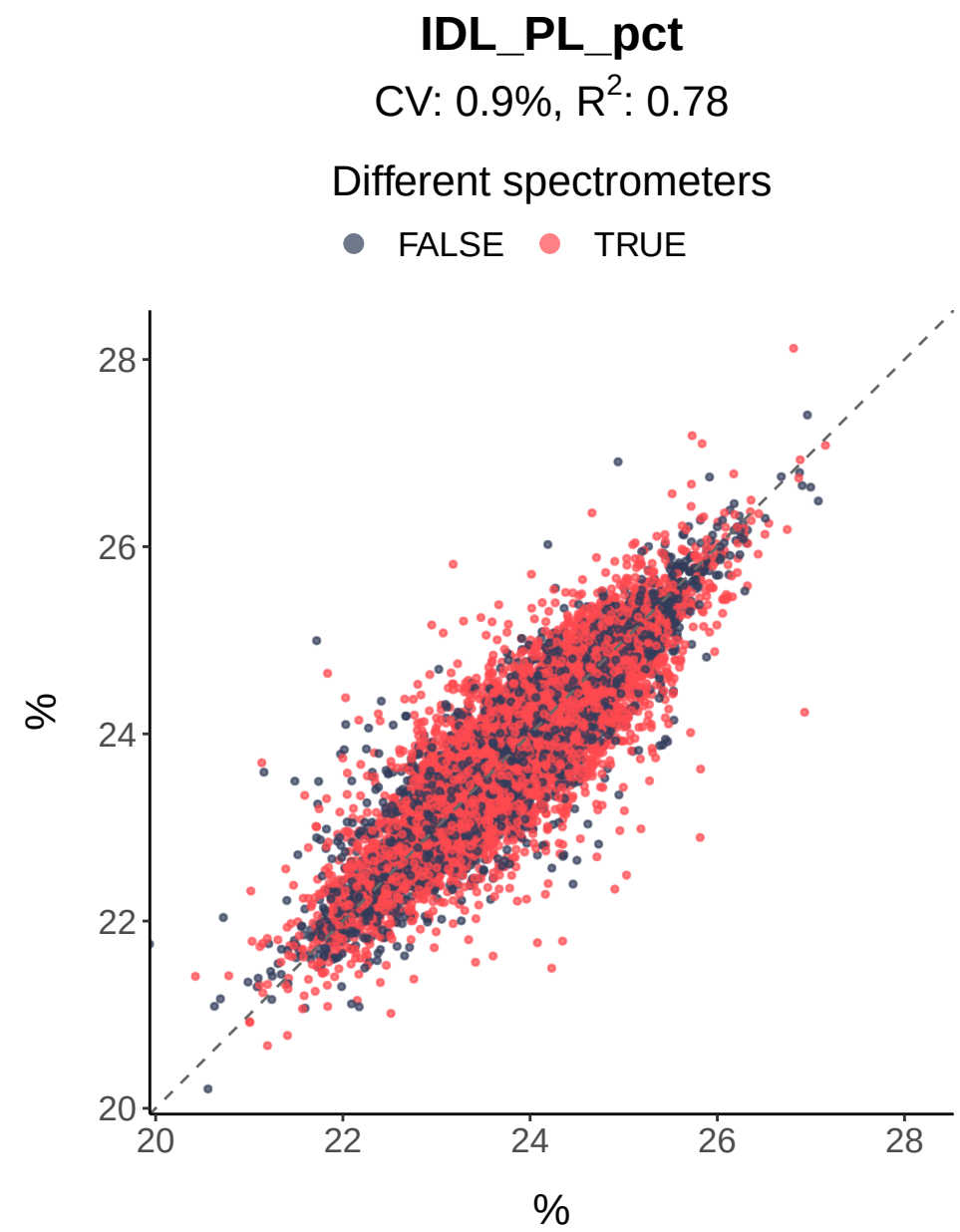
Small VLDL ratios



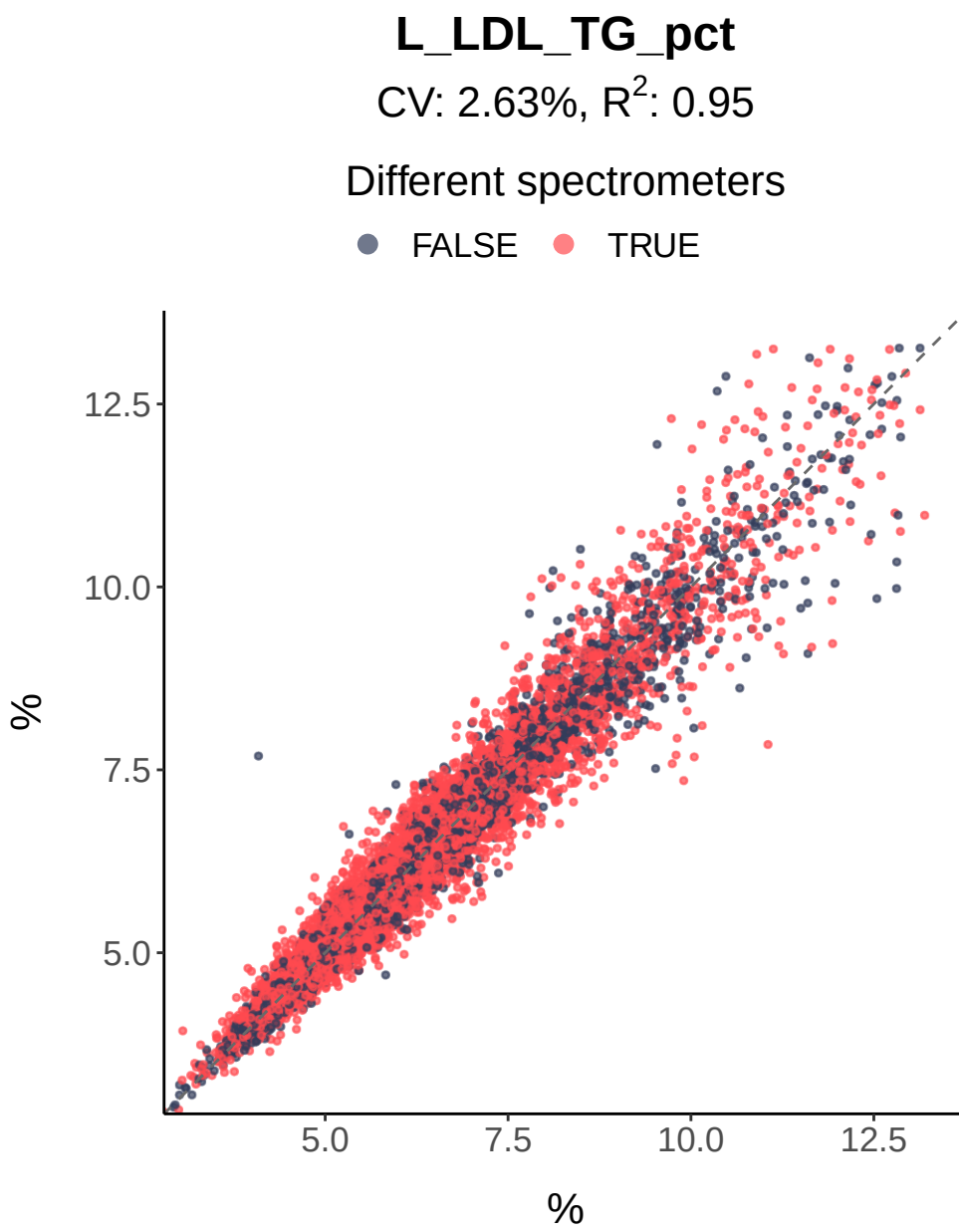
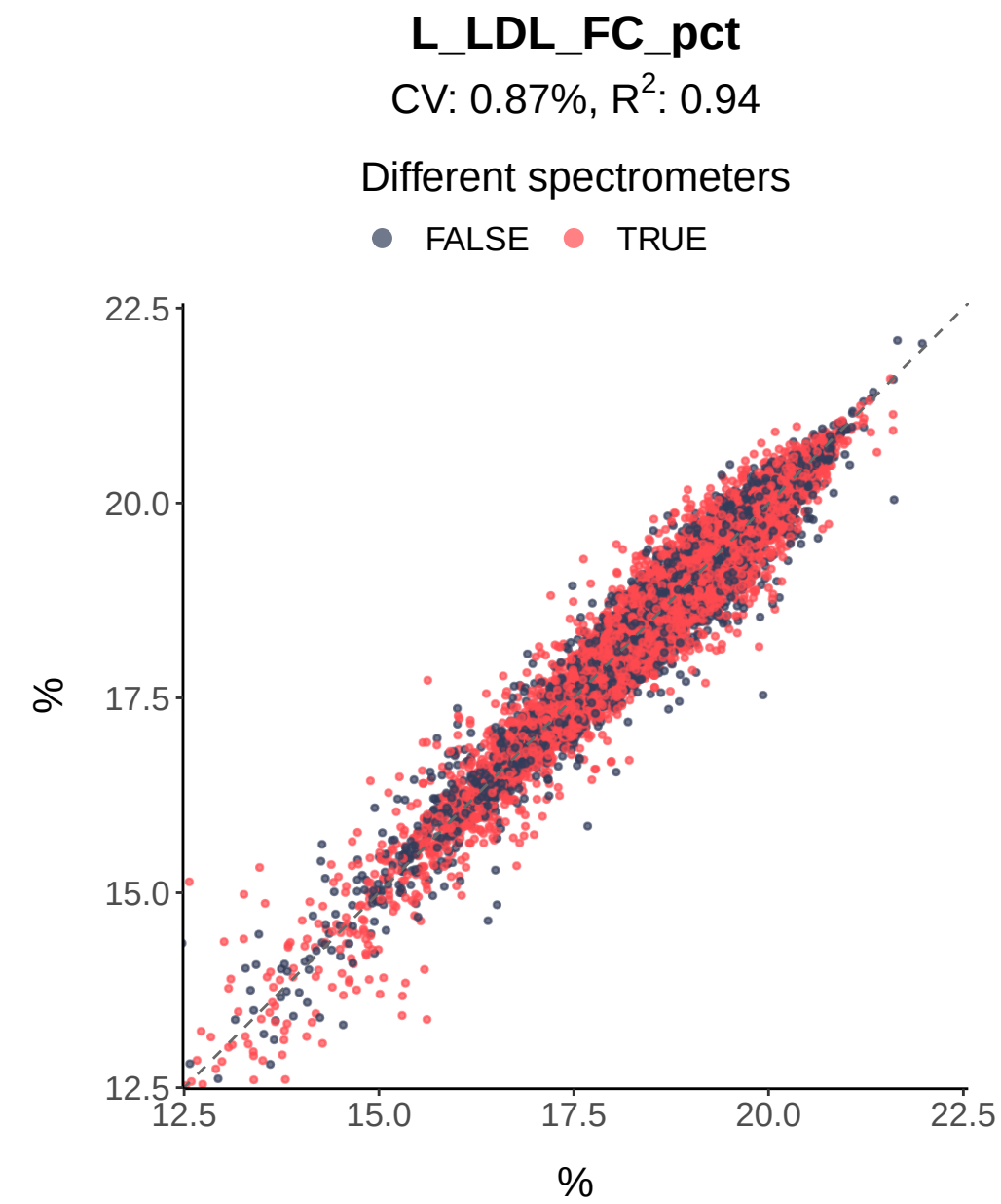
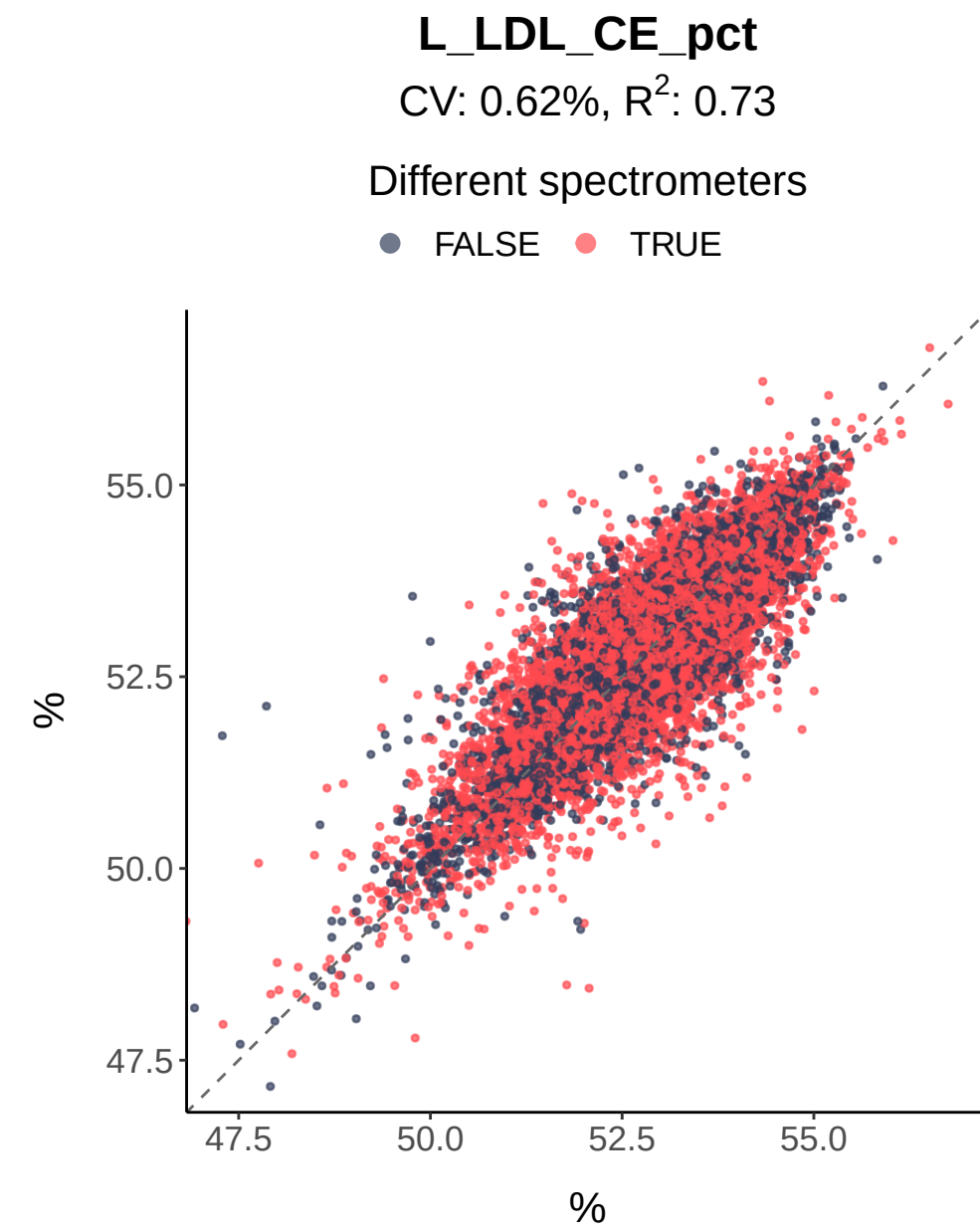
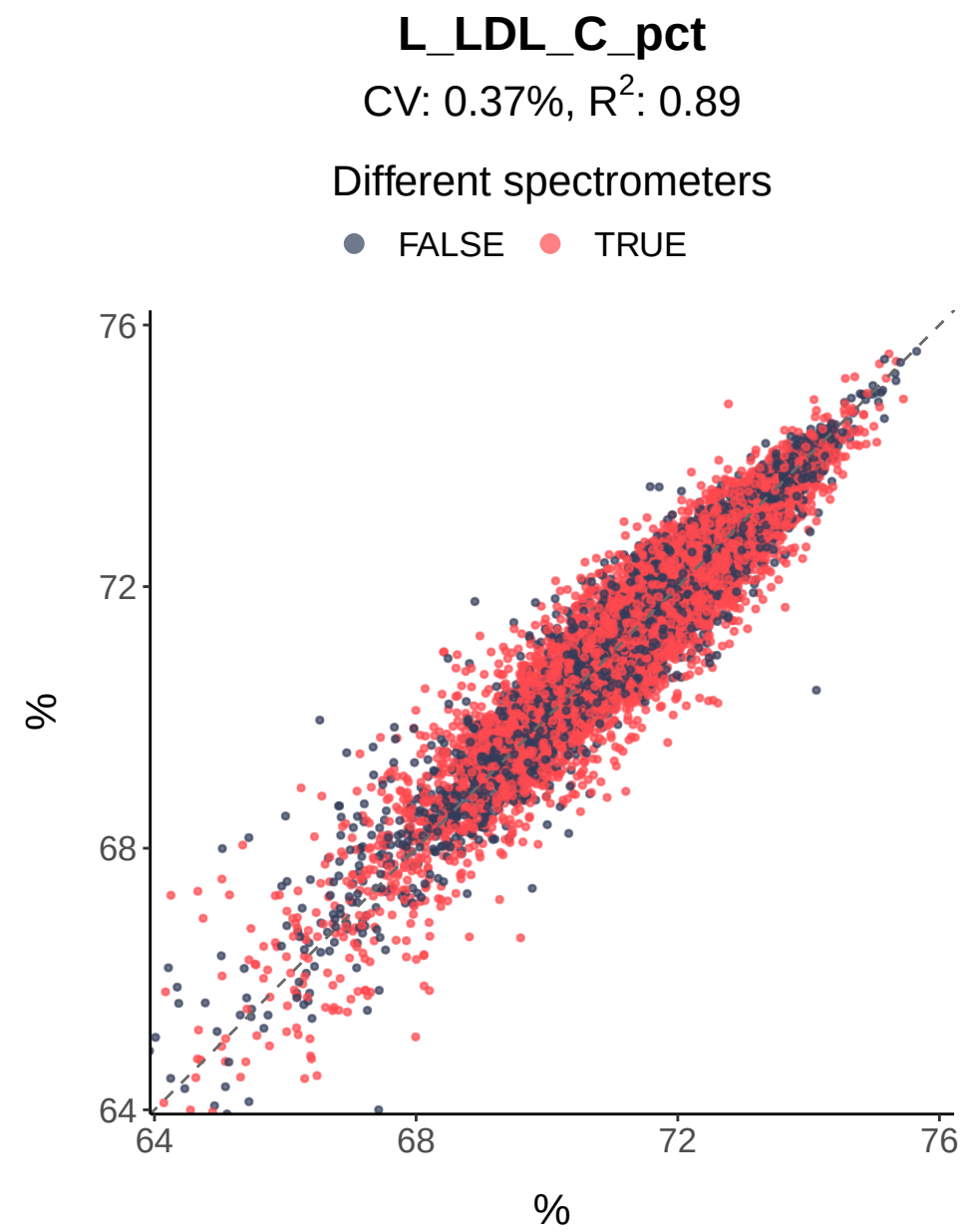
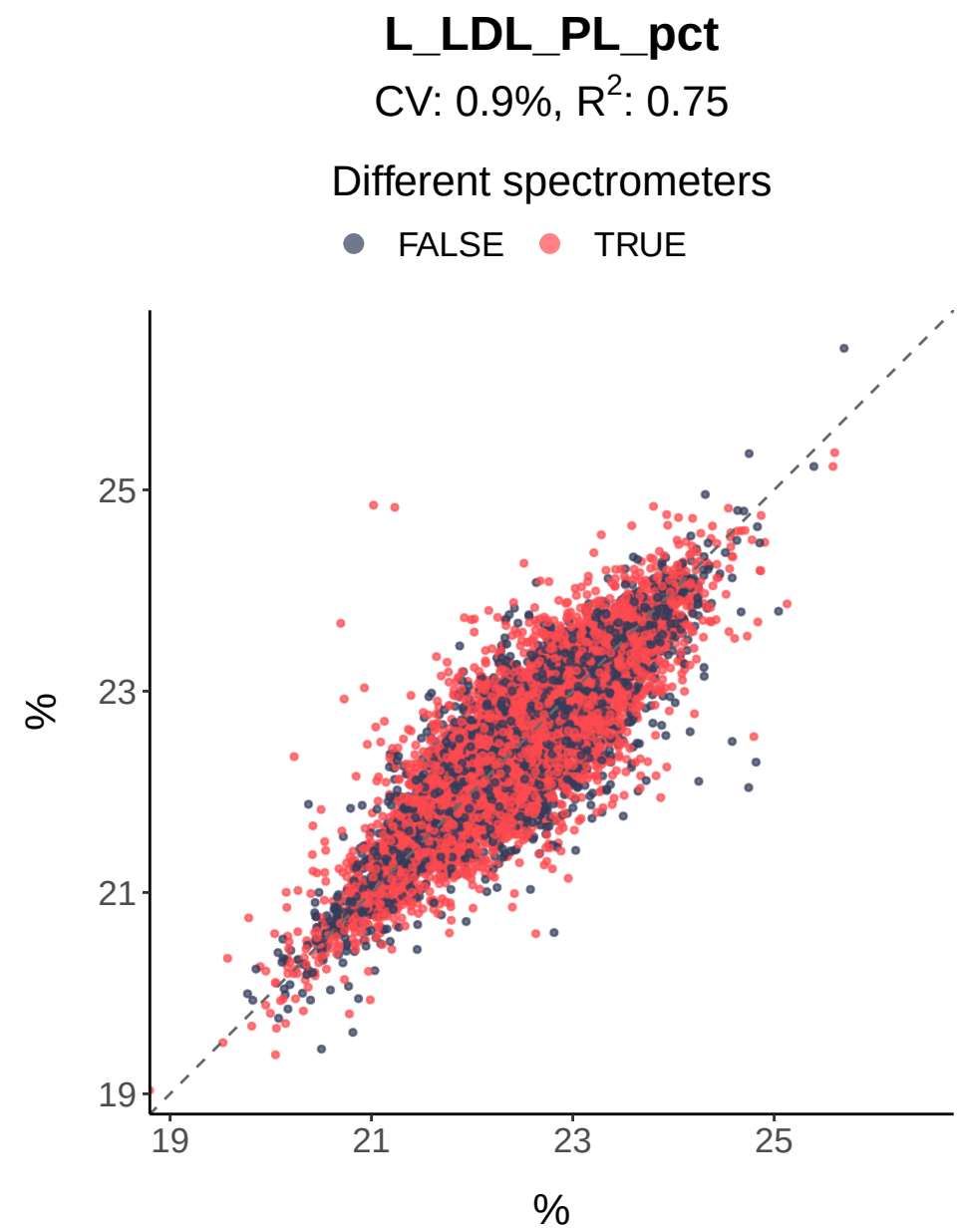
Very small VLDL ratios



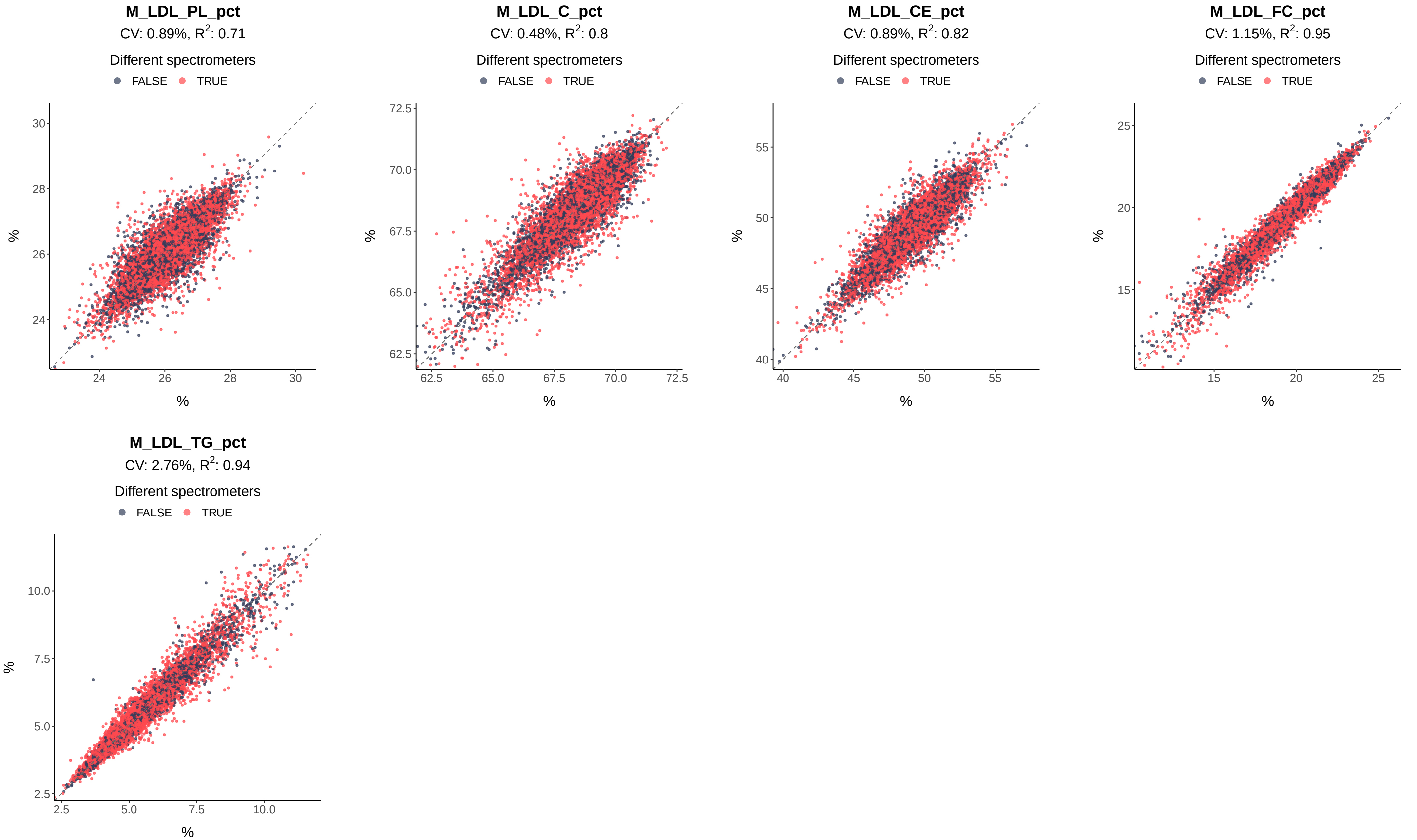
IDL ratios



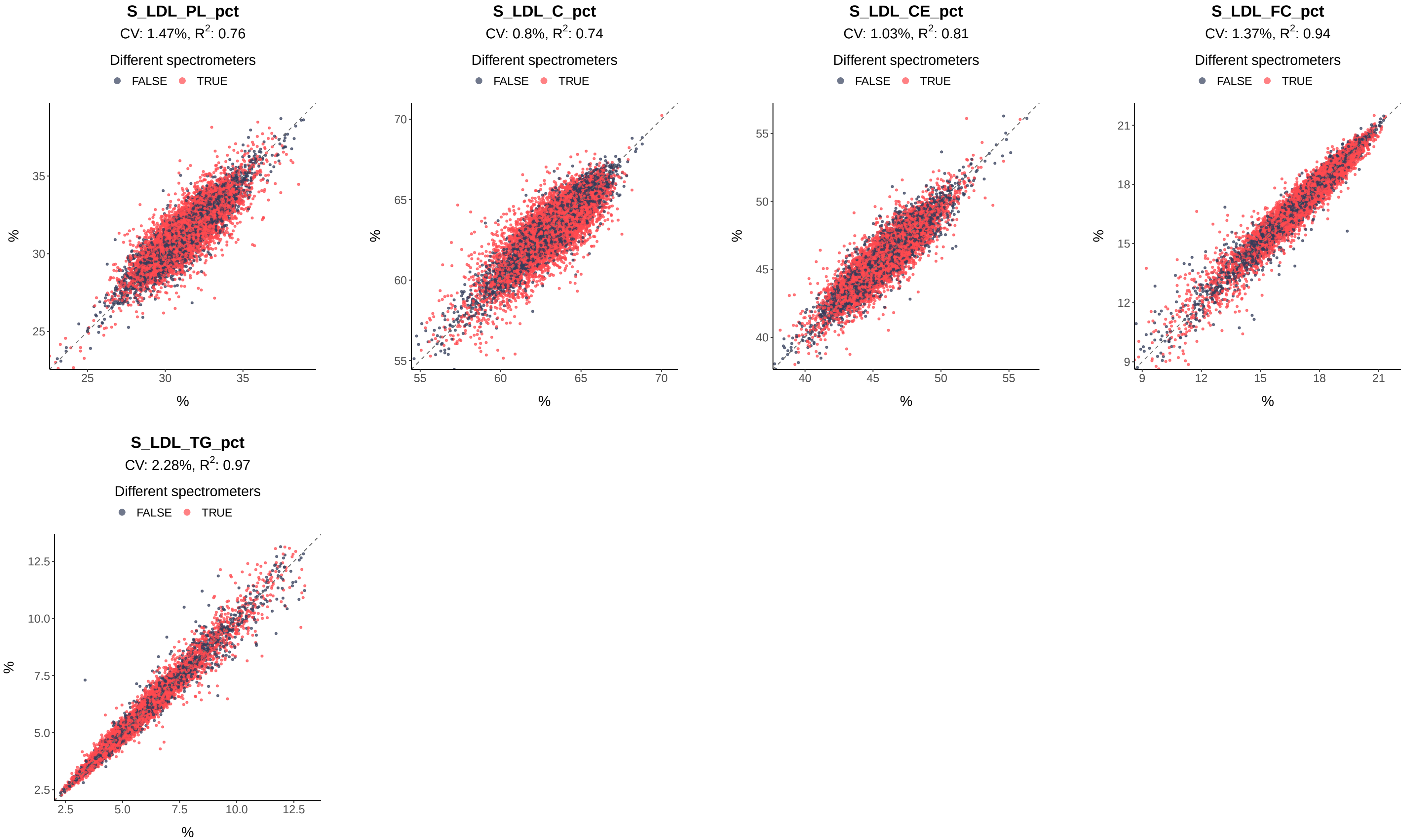
Large LDL ratios



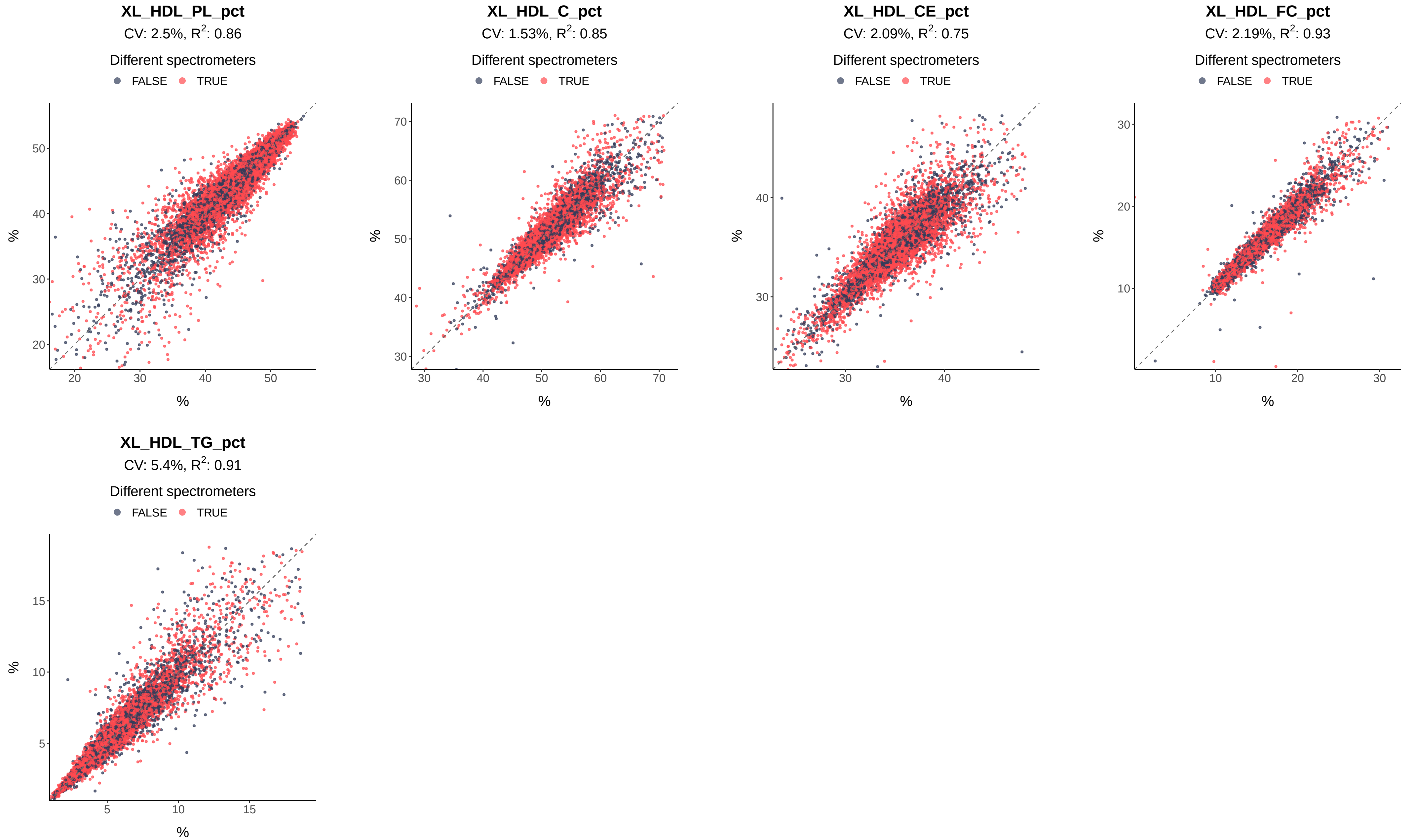
Medium LDL ratios



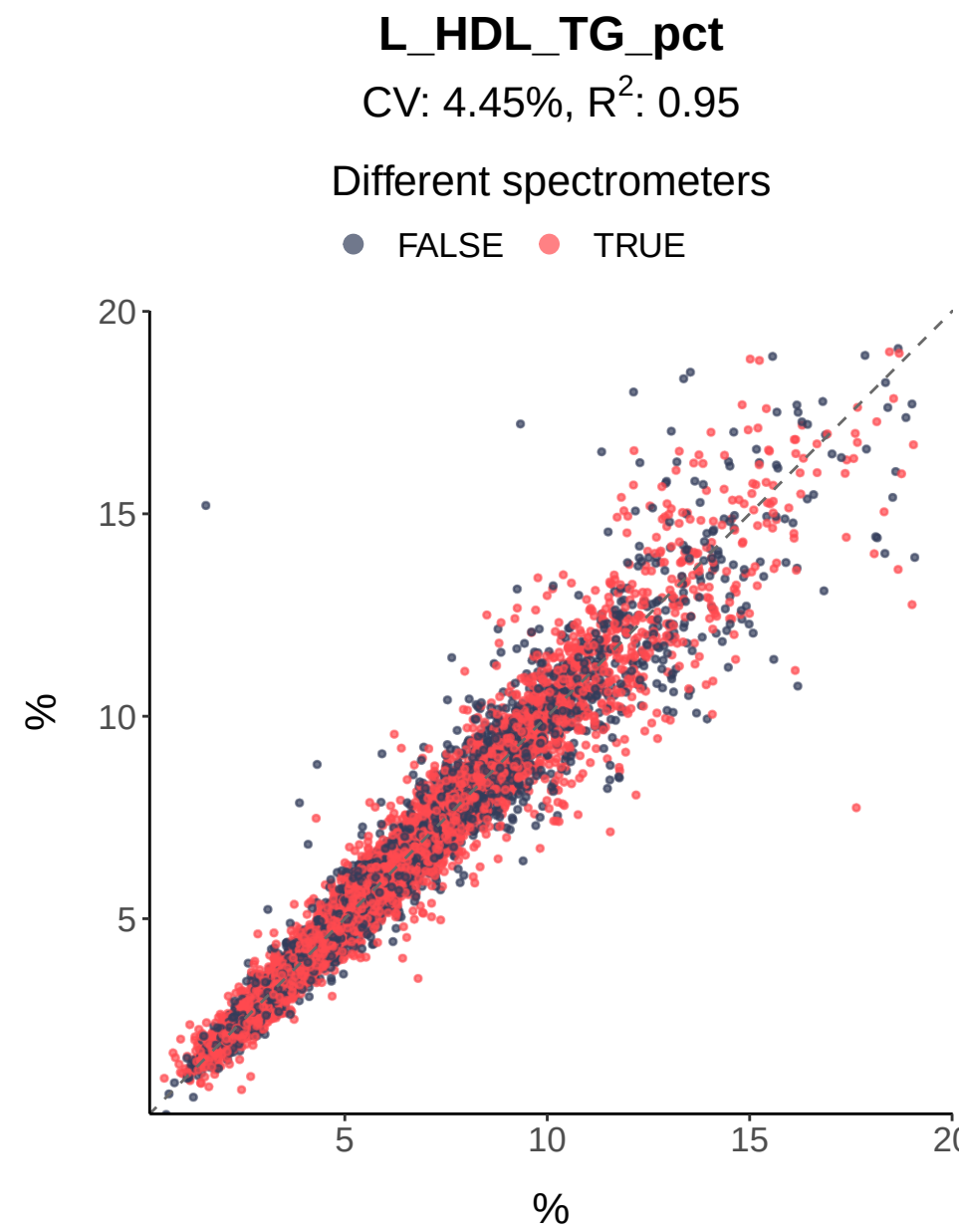
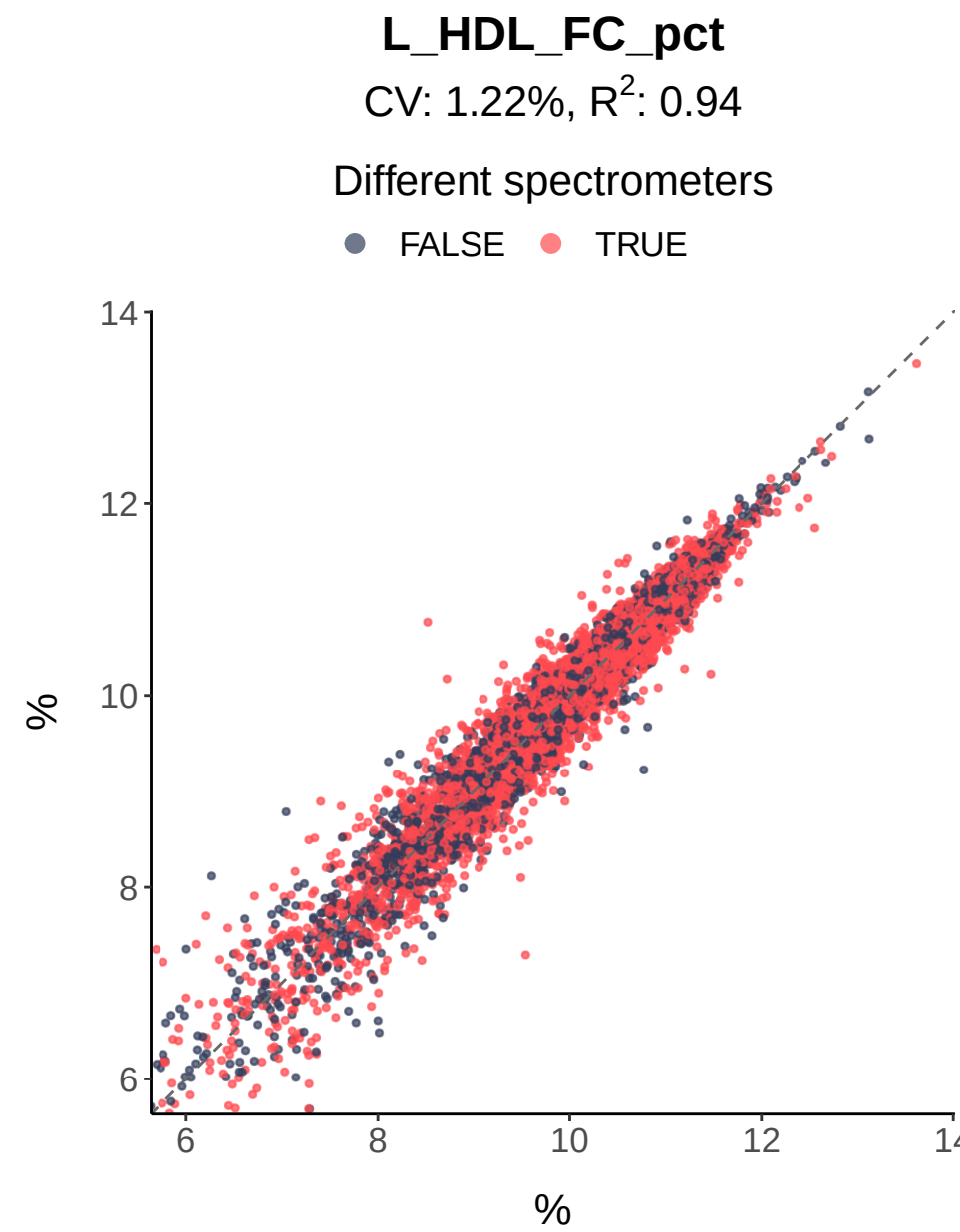
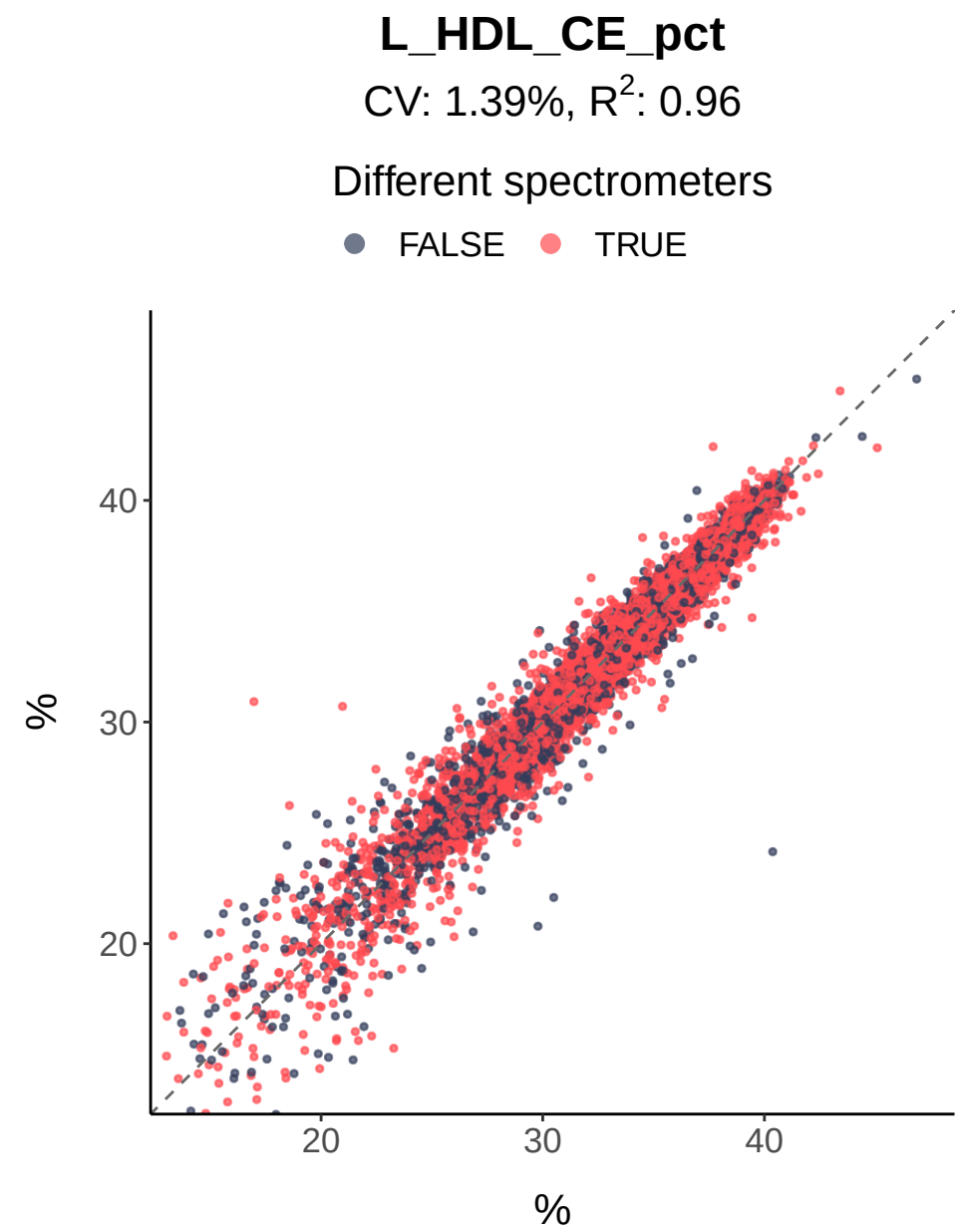
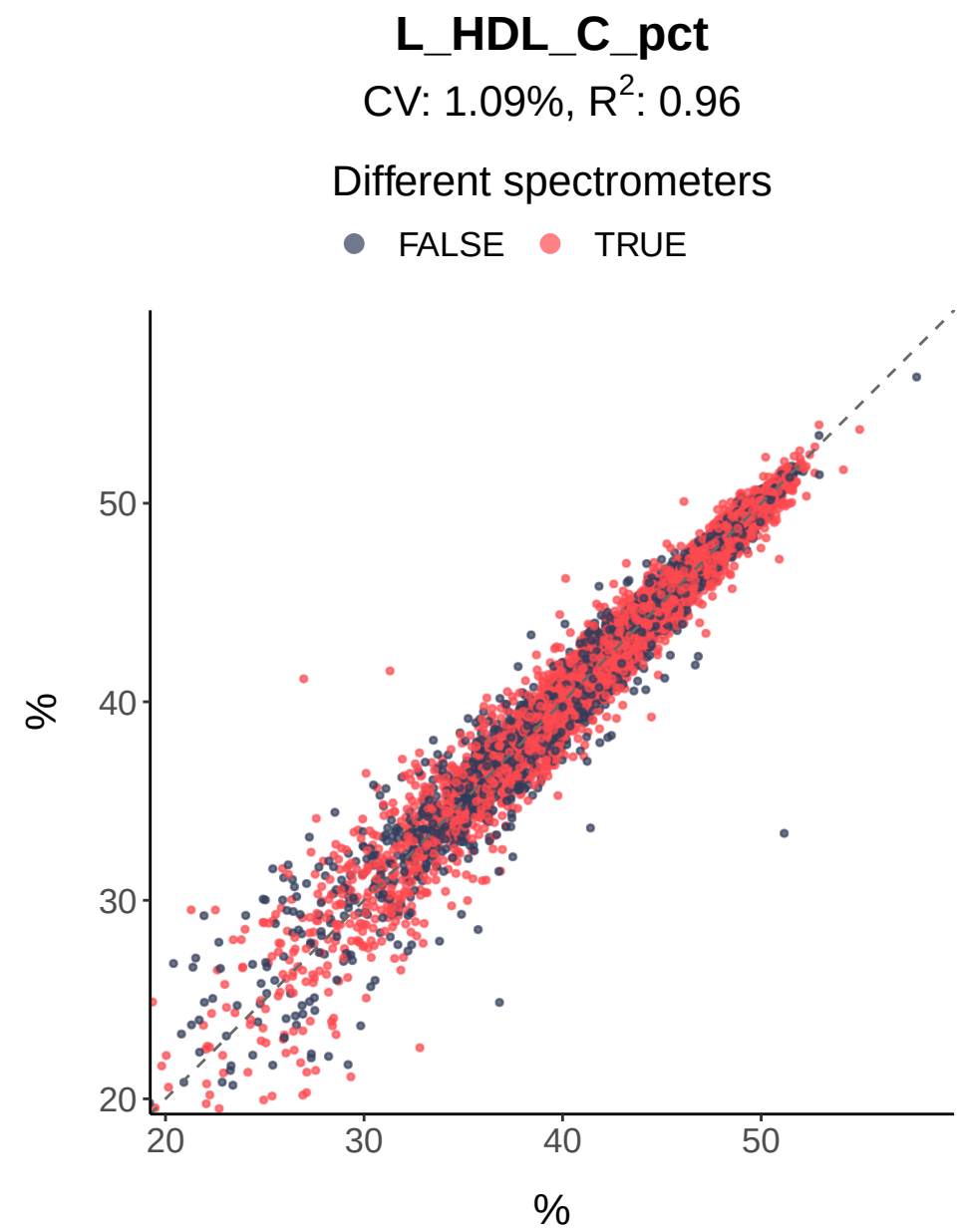
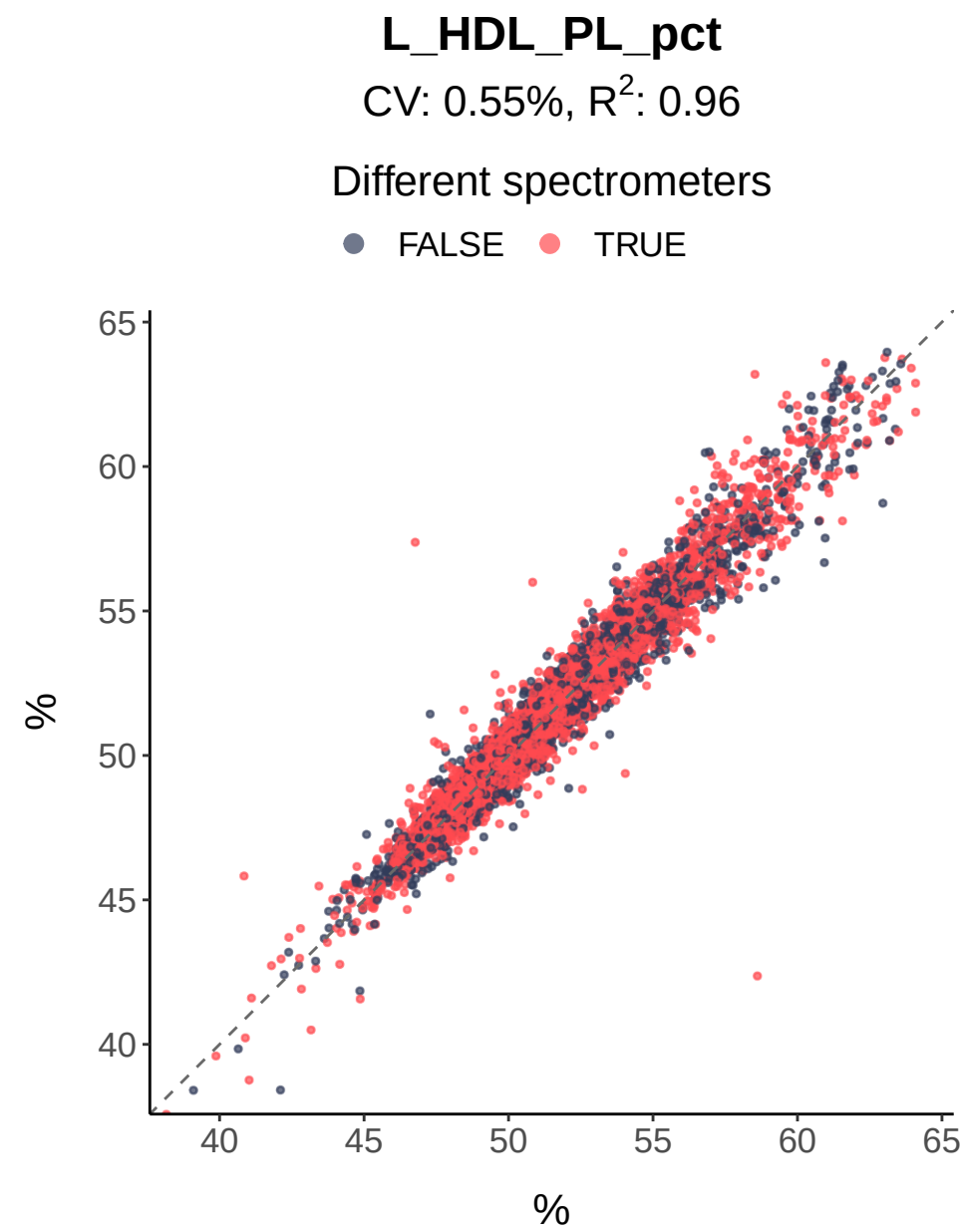
Small LDL ratios



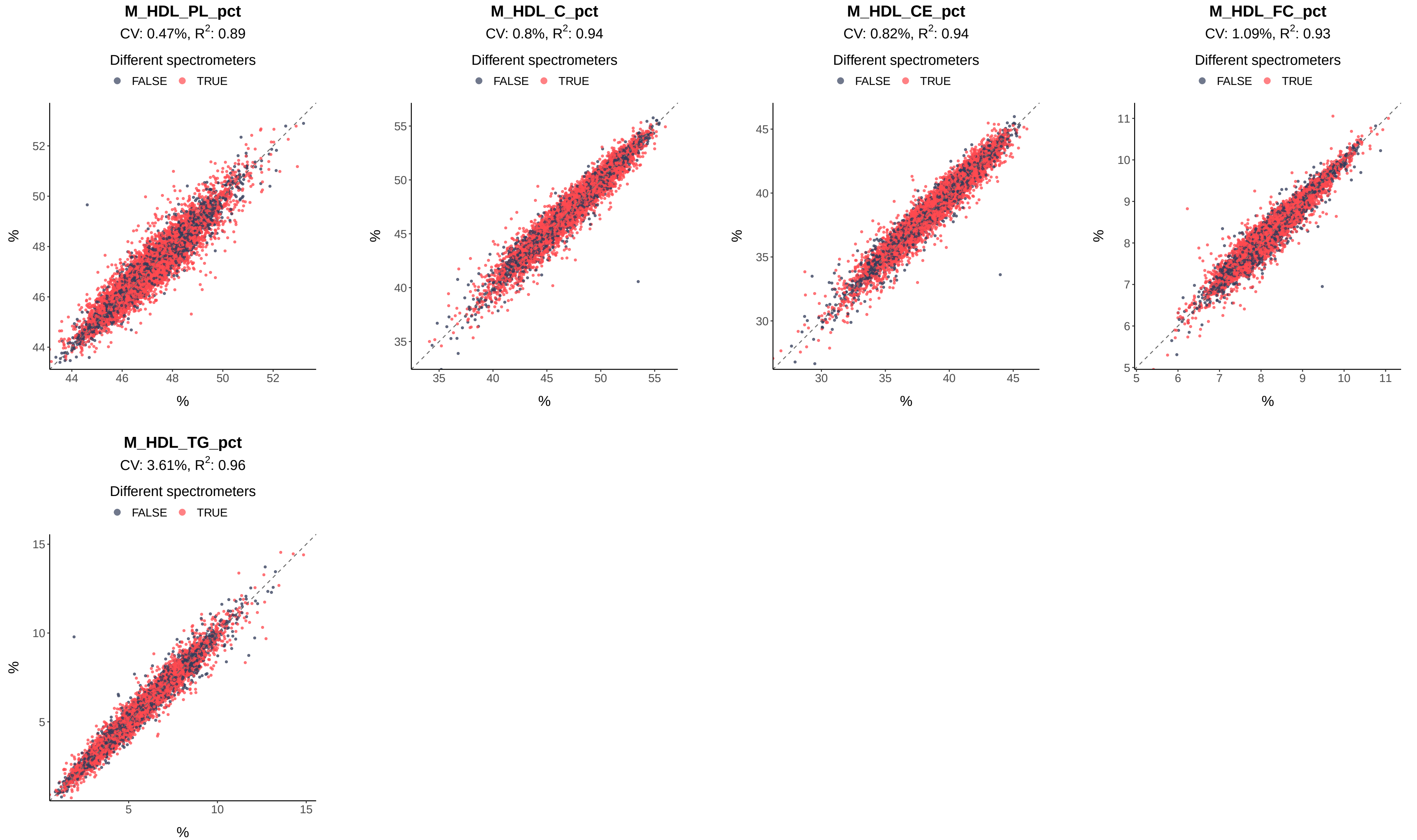
Very large HDL ratios



Large HDL ratios



Medium HDL ratios



Small HDL ratios

